Chapter 1: Live Data

Phase 1 'Live' Survey Data – Patients & Clinicians

NHS Wales Video Consultation Service Evaluation
December 2020

Owners, Authors & Referencing the Data

Owners:
This data is the ownership of Technology Enabled Care (TEC) Cymru and their funders the Welsh Government. The data was designed, collected, analysed & written up by the TEC Cymru in-house Research & Evaluation Team

Authors:

Gemma Johns, Sara Khalil, Mike Ogonovsky, Poppy Wright, Jessica Williams, Morgan Lees, Bethan Whistance & Professor Alka Ahuja

Reviewers:

Lynne Hockey, Kerrie Phipps; Dr Markus Hesseling and Dr Allan Wardhaugh

Referencing the Data:
When using the data as a source please reference the authors and owners of the data appropriately.

For example:

> e.g., Johns et al (Dec, 2020) Phase 1 Report. Chapter 1 Live Data - Patients & Clinicians. The NHS Wales Video Consulting Service, TEC Cymru. Cited at (add the website or other source and date retrieved)

Contact the Team:

If you have any questions regarding the data, its analysis or write-up please contact the Research Lead at Gemma.Johns3@wales.nhs.uk

If you have any clinical queries regarding this dataset, please contact the National Clinical Lead at Alka.Ahuja@wales.nhs.uk

If you have any queries regarding the NHS Video Consulting (VC) Programme, please contact the Programme Lead at Sara.Khalil@wales.nhs.uk

The NHS Wales Video Consulting Approach – All Wales Collaboration

The recognition and uptake of video consulting (VC) since the COVID-19 pandemic has increased significantly in NHS Wales, and has proved to be a success. The implementation of the NHS Video Consulting Service was rolled out by Technology Enabled Care Cymru (TEC) and local Health Boards/Trust, who worked together in adopting 'agile' principles. In partnership with the Welsh Government and NHS Wales Informatics Service employing this collaborative method to implementation, using a clinically driven and data informed approach has enabled a large-scale system-wide implementation at a pace not previously achieved.

This Welsh implementation has approached VC unlike any other country, as a venture requiring co-ordination and collaboration rather than direction, target-driven and traditional methodologies reflecting an emerging trend in improved systems management. The success of this newly established service is believed to be associated to the way Wales implemented VC. For example, TEC Cymru had already established a network through the technical and clinical leads in Wales enabling Health Boards to be 'ready to receive' the VC implementation. Building on their existing relationships, an agreed approach to implementation was adopted, involving local organisations making their own decisions about suitable services to engage, and to use their local knowledge and networks to determine a process and agreeing standards.

Unlike traditional methods of evaluation, which tends to be based upon pilot studies, with small and often highly selected samples, ultimately casting speculation on its use, benefits and challenges across varied specialities and circumstances, TEC Cymru were eager to fill this gap, and provide a national evidence-base, to put Wales on the map. The research and evaluation of the NHS Wales VC Service is now providing evidence of the success of this ongoing approach, and is currently being submitted to journals including the Lancet and BMJ.

This is an incredible achievement in such as short (and strange) time. Well done Wales, and thank you to all of those involved.

The TEC Cymru Team

Chapter 1: The 'Live' Survey Data

The Evaluation Phases

Using a robust mixed methodology of surveys and interviews with patients, families and professionals, the evaluation of the NHS Wales Video Consulting (VC) Service is divided into phases for all data design and collection, analysis, and dissemination purposes.

Phase 1: Survey data captures measures around the 'use and value' of VC for example, satisfaction, clinical suitability and acceptability. Data captured between March and August 2020. ***This chapter reports this dataset only.***

Phase 2: Survey data captures measures around 'benefits, challenges and sustainability' of VC. Data will be captured between September 2020 and February 2021.

Phase 1 & 2: Interviews are continuous across both phases and capturing measures of 'use and value' and 'benefits, challenges and sustainability' of VC, and therefore this data will be analysed and published at the end of Phase 2 (March 2021).

Phase 3: Ideally moving forward, TEC Cymru would like to capture measures around 'efficacy' and 'effectiveness' of VC. The measure of efficacy would be defined by the performance of VC. The measure of effectiveness would be defined as the performance of VC under 'real life' conditions. Both of which require intense monitoring under 'ideal' and 'controlled' conditions – which are currently out of reach (due to COVID restrictions), and therefore would be the ideal long-term evaluation plan.

Overview & Key Points of Chapter 1

This chapter provides the analysed data collected from the quantifiable (quantitative) and narrative (qualitative) aspects of the 'live' end of VC surveys completed by patients, families and clinicians during the Phase 1 (March-August 2020) evaluation of the NHS Wales Video Consulting Service using the Attend Anywhere platform.

This chapter is divided into different sections, to include:

- An 'All Wales' analysis and write up of the quantitative findings.
- Individual Health Board & Trust analysis (broken down to care sector categories) and write up of the quantitative findings and discussions.
- An 'All Wales' analysis and write up of the narrative findings (with specific Health Board, care sector and speciality specific quotes).
- Overall Travel Savings (presented in the format of a poster designed by a Duke of Edinburgh Bronze student).
- Discussion of Chapter
- Limitations, Recommendations & Next Steps

Key Points of Chapter

This report has revealed interesting findings and considerations regarding VC across different healthcare settings. These findings are discussed in detail within the chapter in terms of the analyses conducted and the themes that emerged.

The key points from the quantitative section:

- Overall, VC was rated highly and viewed positively by respondents.
- The majority of patients and clinicians stated that their VC prevented the need for a face-to-face (FTF) appointment.
- However, there were discrepancies between the responses of patients and clinicians, in that VC was perceived as more positive from the patients' perspective.
- This discrepancy tended to be largely associated to clinicians placing more emphasis on the technological problems and restraints compared to the

patients (this view is being supported by on-going interviews with clinicians saying they use the 'survey' to help TEC Cymru identify these problems).

The key points from the qualitative section:

- Overall, the qualitative analysis revealed very optimistic outcomes of VC.
- VC allowed patients and clinicians to exchange non-verbal information that would not have been possible through simple telephone calls.
- For patients, VC often exceeded their expectations.
- On multiple occasions, patients praised and expressed gratitude to the clinician for their continued healthcare.
- Patients gave positive responses for the visual and audio quality of the consultation, and that the platform was easy to set up.
- Patients gave positive responses on improved convenience in terms of not having to travel to and from appointments.
- Despite the differences seen between patients and clinicians in the quantitative section of this chapter, overall clinicians provided positive narrative feedback.
- Clinicians gave positive responses for how VC were successful when they acquired the adequate knowledge and resources.
- It was widely reported that the Attend Anywhere platform performed well, and VC was often able to enhance the communication that occurred between clinicians and their patients.
- The differences between respondents may have emerged due to the technological issues encountered during the process, with Primary Care clinicians in particular stating that visual quality was insufficient in preventing a FTF appointment, for example.
- Although there was a high number of respondents that stated VC diminished the need for FTF, this was not the case for all.

Quantitative Summary

Summary of the Data and Analysis

The data included in this chapter comprise of the 'live' end of video consultation (VC) surveys from Primary, Secondary, and Community Care, for both patients and clinicians using the Attend Anywhere platform. There were six types of surveys distributed, two separate surveys for patients and clinicians in Primary Care, and two separate surveys for Secondary and Community Care. There were also two surveys (patient and clinician again) for Out of Hours (OOH) and 111 services. In addition to this, there were also separate surveys designed for more sensitive care sectors such as Palliative Care and Intensive Care Units (this is analysed and written up separately – see chapter 4).

In total, for those included in this chapter, there was n = 10,401 responses across the entire Phase 1 data collection process, with n = 6090 clinician and n = 4311 patient responses. Unfortunately, as the questions were not forced choice, the number of responses for each question varied. The response numbers are denoted by 'n =' throughout the sections of this chapter.

At the point of analysis (end of August 2020), there had been 38,658 VCs in total, which resulted in a potential of 77,316 surveys going out to patients and clinicians. Therefore, the response rate for completed surveys was 13.4% (n = 10,401 total participants).

Common questions

Across the six different surveys included in this chapter, there were only two questions that were common. The first of these asked respondents to rate the quality of their VC on a 5-point Likert scale ranging from 1-star ('poor') to 5-stars ('excellent'). The second asked if the VC prevented a FTF appointment from happening, giving the response options of 'yes' and 'no'.

Patient questions

There were questions in the surveys distributed to patients that were unique. They were asked *if they had used VC before this appointment* ('yes' or 'no'); *how many times they had used VC* (if they responded 'yes', with the options 'once', 'twice', and 'three times' or more), and also if *they would use VC again after COVID-19* ('yes' or 'no'). They were also asked information regarding their demographics, stating their age group and gender.

Clinician questions

In addition to the unique patient questions, the clinicians were asked the *location they carried out the VC*, with the response options 'work' (clinical base), 'home', or 'other'. The Secondary and Community Care clinicians were also asked *what the activity of their appointment was*, giving 8 possible options to choose from. These were 'first appointment', 'follow-up', 'review', 'therapy', 'advice', 'discharge', 'feedback/outcomes', or 'other'.

Health Boards/Trust

All respondents were asked to state their Health Board. However, due to the free-text nature of the surveys, some chose not to respond, or their response was not made clear within the text data. There was a total of 7448 responses that stated what Health Boards the respondents were a part of, and the numbers of responses per Health Board are displayed in Table 1.

Table 1. The frequencies and distribution of respondents per Health Board/Trust.

Health Board/Trust	**Freq.**	**%**
Aneurin Bevan University Health Board (ABUHB)	2956	39.7
Betsi Cadwaladr University Health Board (BCUHB)	402	5.4
Cardiff & Vale University Health Board (CAVUHB)	1121	15.1
Cwm Taf Morgannwg University Health Board (CTMUHB)	523	7.0
Hywel Dda University Health Board (HDUHB)	663	8.9
Powys Teaching Health Board (PTHB)	211	2.8
Swansea Bay University Health Board (SBUHB)	1549	20.8
Velindre Cancer Centre Trust (VCC)	23	0.3
Total	7448	

Care Sectors

Responses came from one of three types of surveys, Primary Care, OOH/111, and Secondary and Community Care. There were 3081 responses from Primary Care, 6040 from Secondary Care, and 233 from Community Care. Some respondents did not state their specialty within the Secondary Care and Community Care survey, and thus were considered missing data, as they could not be identified as Secondary or Community Care.

Specialties

In the Secondary and Community Care survey, respondents were asked *to state their specialty of profession* (clinician) and patients were asked *what health care type, with which specialty their VC was with, and for what clinical reason did they require a VC*. These free-text responses were analysed and arranged in 86 different specialties and professions (see Table 2a and 2b). The different specialities were based on how they were originally captured in the Attend Anywhere categorisation tabs (at the time of analysis), and then sub-categorised (in Secondary Care only) by referring to the Health Education Improvement Wales (HEIW) specialities list.

Table 2a. The organisation three main categories and the specialties included and frequencies of each.

Care Sector	Freq.	Specialties Included
Primary Care	3081	General Practitioners (GPs), Urgent Primary Care & 111 and Out of Hours (OOHs)
Secondary Care	6040	This is split into three sub-categories (see Table 2b) - Mental Health & Psychiatry - Therapies (all AHPs excluding psychology and counselling) - Hospital & Other
Community Care	233	Children Centre/Services, Community Paediatrics, Community Child Health, Community Midwifery, Frailty, Health Visitor, School Nurse, Lymphedema, Respiratory and Social Worker.

Secondary Care was split into three sub-categories, depending on specialty, into Mental Health (MH) and Psychiatry; Therapies; and Hospital/Other for further analysis. The breakdown of specialties and their sub-categories is displayed in Table 2b. The decision for Psychology and Counselling, usually considered in Therapies (based on the AHP list), to be included in Mental Health/Psychiatry was made due to the free-text nature of the survey. Some respondents were not explicit in whether their profession/specialty was Psychology or Mental Health, and thus these were combined. Analyses were run, and there were minimal differences between the Psychology, Counselling, and Mental Health/Psychiatry, thus supporting this decision.

Analysis of the data

The data was analysed in terms of distributions of responses, as well as differences that exists between specific groups of respondents (for instance, patients and clinicians). Tests of differences were conducted in order to compare groups on the quality ratings they gave VC, which are clearly highlighted in the text.

The quality ratings measured in the current surveys were measured ordinally, meaning that set responses were given for respondents to select (either 5-excellent, 4-very good, 3-good, 2-okay, or 1-poor). Mann-Whitney U tests were carried out where there were only two groups being compared (U-statistics),

and where there were more than two groups, a Kruskal-Wallis was used (H-statistics). These tests of differences are used to see whether there are any notable or "significant" statistical differences between the groups being compared, that is, whether scores in one group are higher or lower than the other group. If these tests are significant (p-values), this means that the groups 'statistically' differ from one another.

However, it is important that these tests are interpreted with caution in the current findings, as large differences in group numbers can skew the results and cause even the smallest differences to appear significant. Group sizes are clearly identified by "n =".

Please note: A glossary of all statistical terms used in this chapter can be found in Appendix 1.

Table 2b. The organisation of the sub-categories of Secondary Care, the specialties included and frequencies of each.

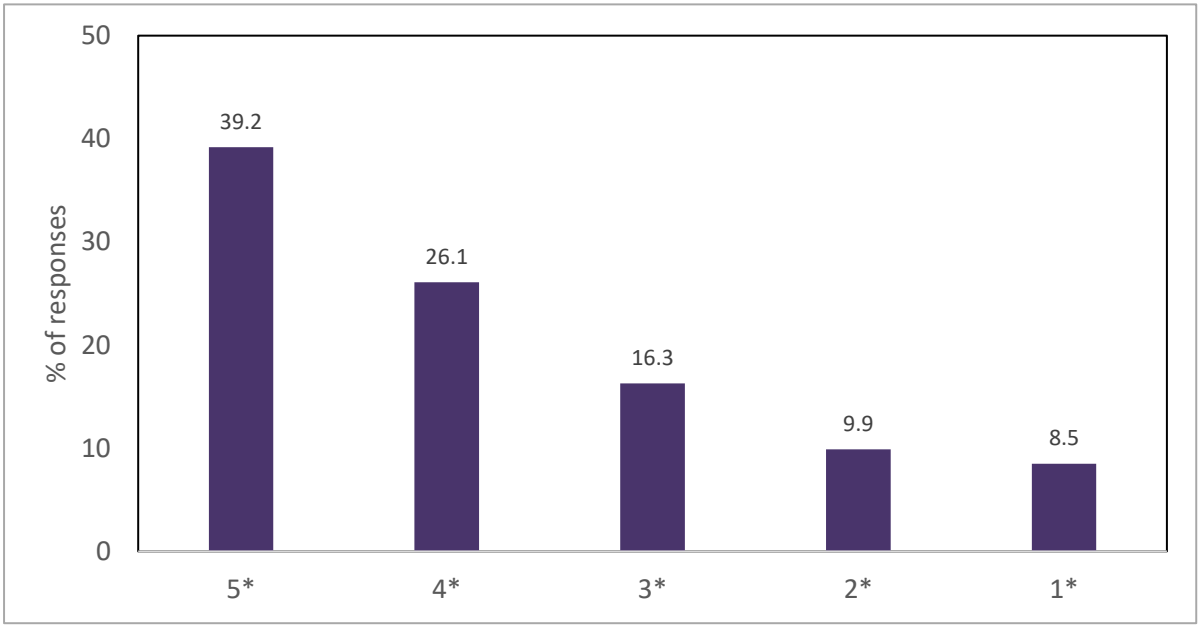
Sub-Category of Secondary Care	Freq.	Specialties Included
Mental Health /Psychiatry	1028	Psychiatry and Mental Health, Counselling, Psychology.
Therapies	3104	Art therapy, chiropody/podiatry, dietician/dietetics, music therapy, occupational therapy, physiotherapy, prosthetist/orthotist, speech and language therapy.
Hospital/Other	1908	Academic medicine, acute medicine, anaesthetics, audiovestibular medicine/audiology, cardiology, cardiothoracic surgery, clinical genetics, chronic pain, clinical oncology, dermatology, diabetes & endocrinology, gastroenterology, general internal medicine, genitourinary medicine, geriatric medicine, haematology, infectious diseases, intensive care medicine, medical oncology, neurology, neurosurgery, obstetrics/gynaecology, oncology, ophthalmology, oral and maxillo facial, orthodontics, paediatrics/child health, palliative medicine, plastic surgery, prehospital emergency medicine, radiology, rehabilitation, renal medicine, restorative dentistry, rheumatology, social care, surgery, trauma/orthopaedics, urology, midwifery, osteopath,

All Wales Findings

Quality Rating and Prevention of Face-To-Face (FTF)

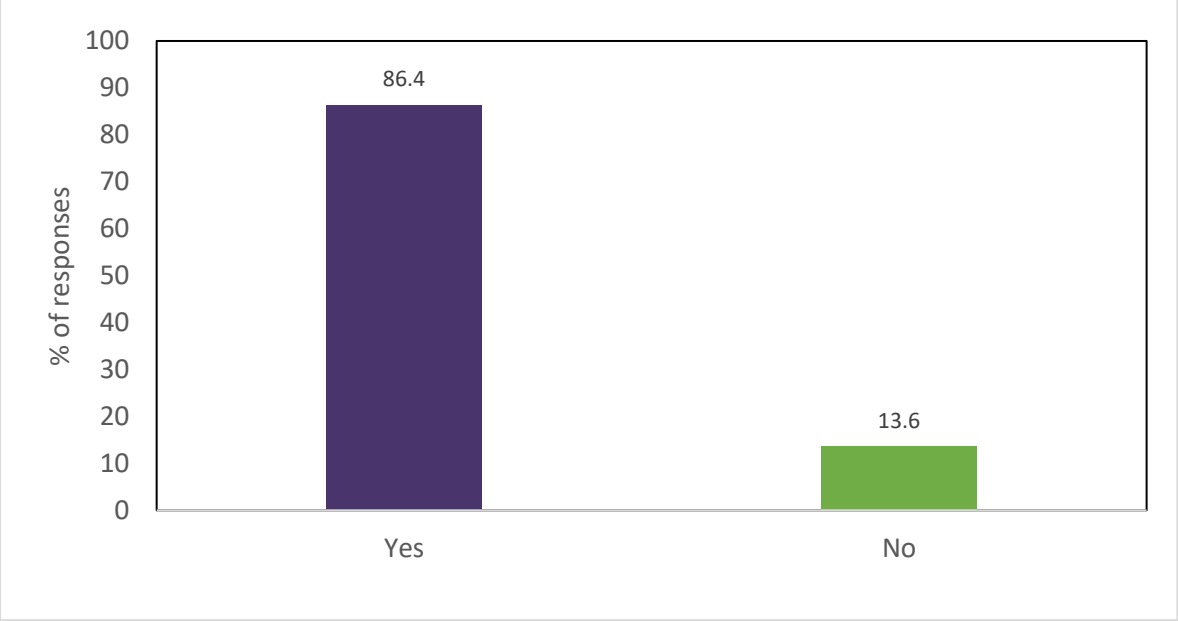
Overall, VC was rated positively by respondents, with 82% reported VC being 'excellent' (5-stars), 'very good' (4-stars), or 'good' (3-stars). This suggests that VC was seen as being a positive experience to those taking part. The distributions of responses are displayed in Figure 1. In addition, FTF was seen to be prevented in 86.4% of VCs, which means that there was no need for a FTF appointment between clinician and patient in these cases. This is displayed in Figure 2.

Figure 1. The distributions of responses for VC quality rating across all respondents (N = 10233).



Note: 5 stars (excellent); 4 stars (very good); 3 stars (good); 2 stars (okay); 1 star (poor)

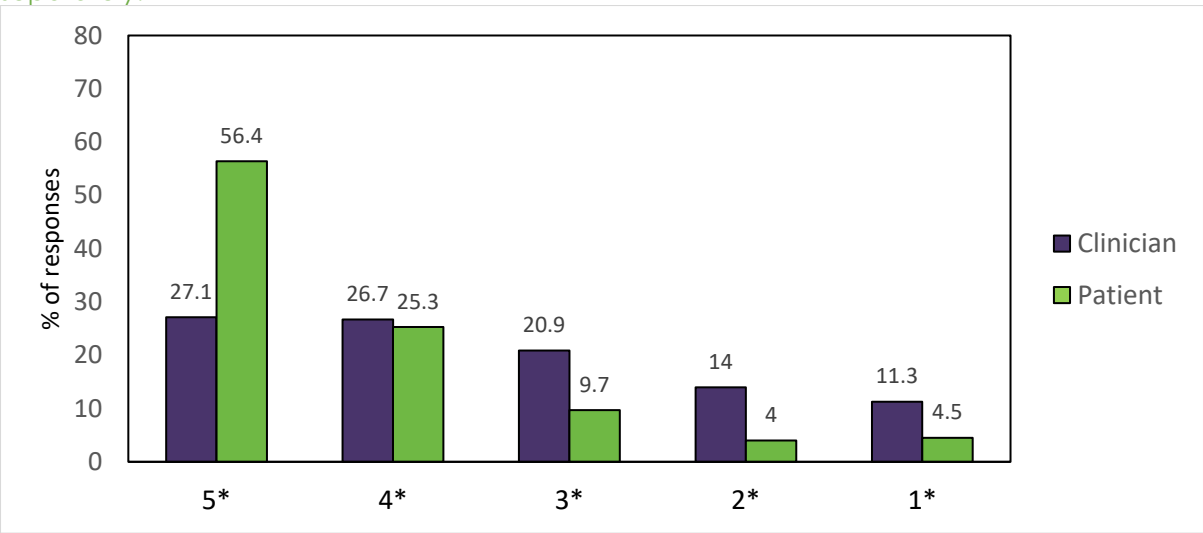
Figure 2. The distribution of responses for the prevention of FTF across all respondents (N = 9135).



Patient versus Clinician

An analysis was conducted to test the differences between patients and clinicians on the ratings they gave to VC. There was a significant difference between patients and clinicians on how they rated VC, revealed by a Mann-Whitney U test of difference, $U = 8037718.5$, $p < .001$. Patients rated VC more positively than clinicians, and this difference in score distribution is presented in Figure 3.

Figure 3. The distributions of responses for the quality of VC for clinicians and patients separately.



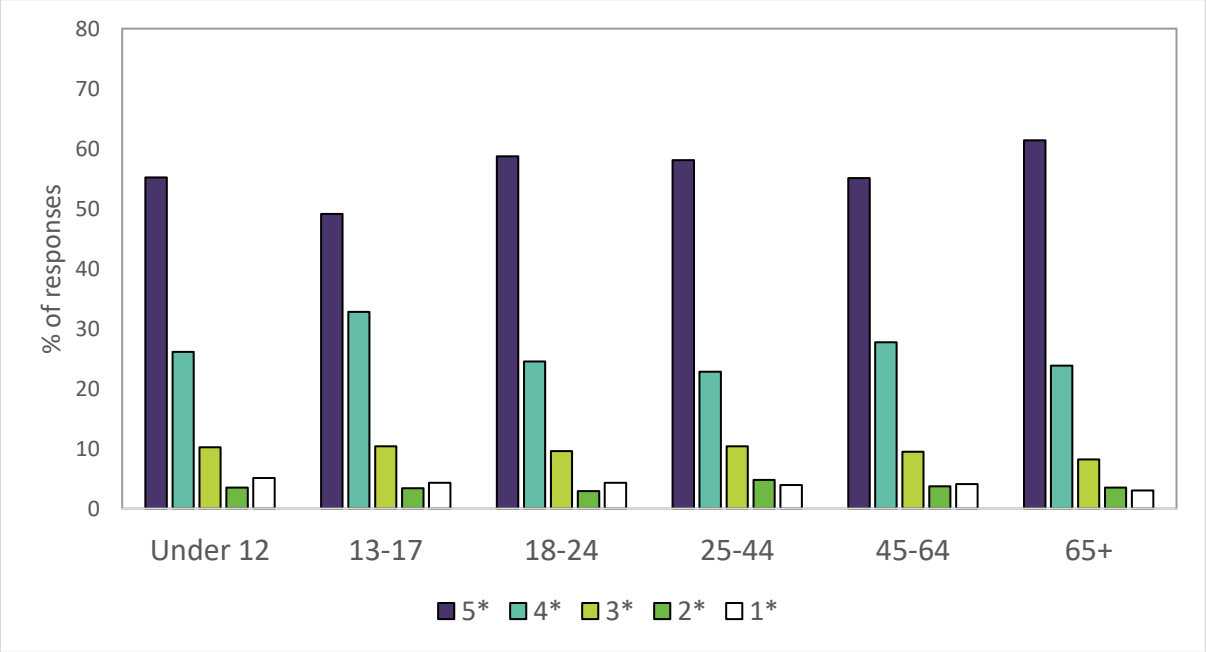
Demographics of the patients

Table 3 displays the demographics of the patients, including their age group and gender. Figure 4 and Figure 5 display the distributions of responses for the quality ratings given, organised by patient demographics.

Table 3. Demographic information of the patients.

Age	**%**	**n**	**Gender**	**%**	**n**
Under 12	10.7	437	Male	37.0	1526
13-17	8.0	329	Female	62.2	2565
18-24	5.1	209	PNTS/Other	0.9	36
25-44	29.1	1190			
45-64	29.4	1206			
65+	17.7	725			
Total Responses		4096	**Total Responses**		4127

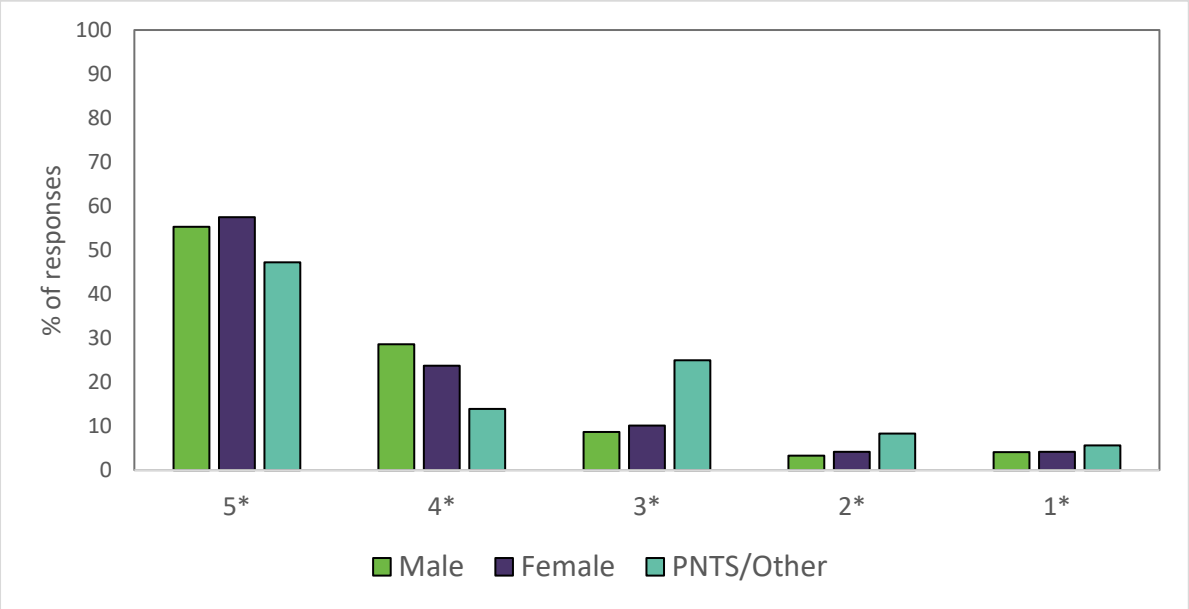
Figure 4. The distributions of quality ratings per age group.



An analysis was conducted to test the differences between the age groups and the quality ratings for VC. A Kruskal-Wallis revealed a significant difference between the age groups, H = 13.60, df = 5, p = .018. In particular, 61.4% of

patients who were 65+ rated VC 5* ('excellent'), whereas only 49.1% of those who were 13-17 gave a 5* rating ('excellent').

Figure 5. Distributions of quality ratings per gender.



Due to the small number of respondents who stated prefer not to say (PNTS) or other (n = 36), a comparison between only males (n = 1497) and females (n = 2502) was conducted on their quality ratings. This revealed no significant differences between the genders, U = 67537, p > .05, suggesting that males and females both rated VC similarly.

Patient usage of VC

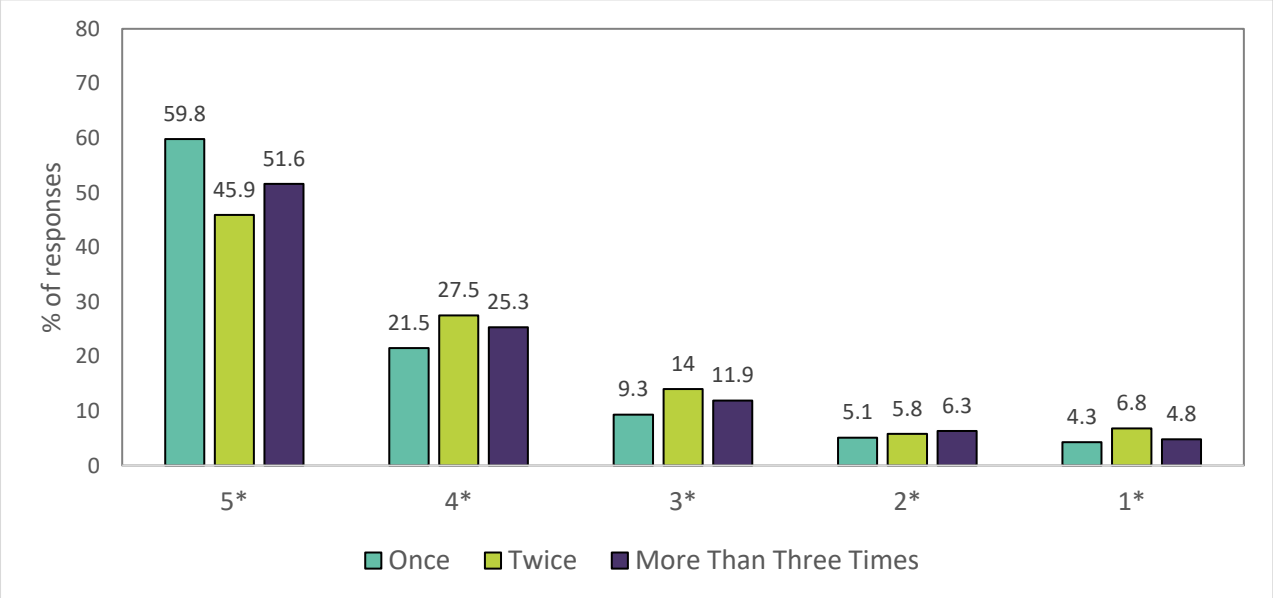
Only 28.7% of patients stated they had used VC before their appointment, with 39.6% of these stating they had used it once before, 20.7% twice before, and 39.8% three times or more. A total of 92.7% of the 3101 patients stated they would be happy to use VC again or after COVID-19 had passed. This suggests that a preference to use VC wouldn't necessarily be impacted on the number of times VC is used.

Interestingly, there were differences between those who had used VC before and those who had not on the quality they rated VC, U = 922693, p < .001. This analysis suggests that those who had not used VC before their appointment

rated VC more positively than those who had. However, there were vast differences in group sizes, with 2228 stating they had not used VC and only 898 stating they had. In order to further explore this, an additional comparison was carried out between those who had used VC once before, twice before, and more than three times. The difference between these respondents was significant, $H = 11.28$, $df = 2$, $p = .004$. Figure 6 displays the distributions of ratings across these groups. These findings suggest that those who use VC more often view it more negatively than those who may not have used it before or have used it less frequently. Nevertheless, this more negative rating doesn't seem to impact on all respondents who rate a preference to use VC again. Therefore, we may assume that patients rate their experiences differently after their first time (which may mirror a similar reason for why clinicians rate lower). This requires more understanding and future exploration.

Furthermore, differences were also revealed between those who would use VC again and those who would not ($U = 198966.0$, $p < .001$), such that those who would not use it again rate VC significantly more negative. In addition to this, those who would not use VC again also reported FTF being prevented less (only prevented 69.2% of the time) than those who would use it again (89.8%).

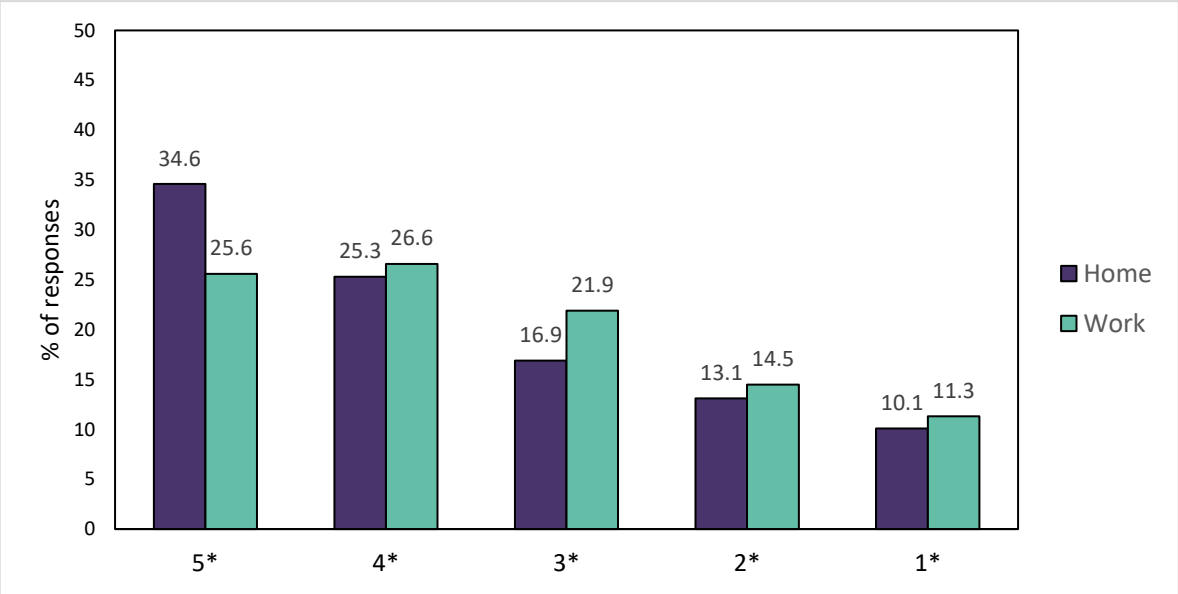
Figure 6. Distributions of responses of quality rating based on how many times the respondents used VC.



Clinician work location

Overall, 79.9% of clinicians stated they carried out the VC from their clinical base or setting (i.e., workplace), and 20.0% carried it out from their home (0.1% stated other). A Mann-Whitney U also revealed a significant difference between those working from home (n = 1100) and those working from their clinical base (n = 4376) on the quality ratings they gave VC, U = 2173171, p < .001, with those at 'work' rating VC more negatively. Other was excluded due to the very small group size (n = 5). Figure 7 displays the distributions of these scores. FTF was prevented 85.3% of the time for those working from 'home' (n = 1007) and 85.8% of the time those working from their 'work' setting (n = 3948). There were only 5 respondents who stated 'other', and thus FTF prevention was only 40% for these clinicians.

Figure 7. Distribution of quality rating scores according to work location.



Care Sector Findings

This section will consider the data separately for Primary Care, Secondary Care, and Community Care.

Quality rating and prevention of Face-To-Face (FTF)

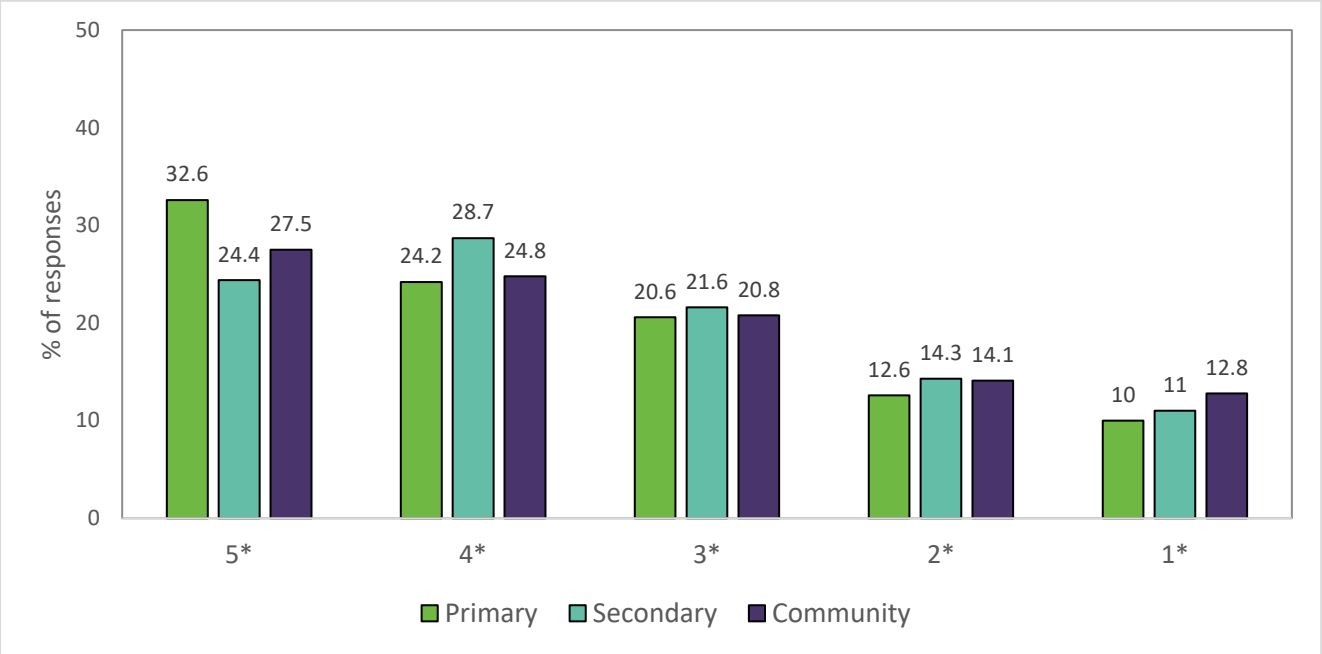
The ratings that respondents gave VC seemed to be consistent across the three care sectors, as well as the prevention of FTF, shown in Table 4.

Table 4. The distributions of responses for VC quality and the prevention of FTF in each care sector, as well as the means and medians of VC quality.

VC Quality %	**Primary**		**Secondary**		**Community**	
5*	42.3		38.5		40.4	
4*	24.2		27.4		23.5	
3*	16.6		16.2		17.0	
2*	9.0		9.9		10.0	
1*	7.9		7.9		9.1	
Mean	3.8		3.8		3.8	
Median	4.0		4.0		4.0	
Freq.	3048		5929		230	
	Prevented FTF?					
	Yes	**No**	**Yes**	**No**	**Yes**	**No**
%	86.7	13.3	87.2	12.8	87.2	12.8
Freq.	2324		5022		226	

The data was explored to test whether there were any differences between the care sectors when considering clinicians and patients separately. The data was split, so that clinicians and patients could be explored separately. Analyses were run to test the differences between the care sectors on the quality rating they gave VC. For clinicians alone, there was a significant difference between the care sectors revealed by a Kruskal-Wallis, $H = 22.07$, $df = 2$, $p < .001$. In particular, Primary Care clinicians seemed to rate VC more positively than Secondary Care clinicians (Figure 8). However, there was no significant differences between the care sectors when considering patients alone, $H = 3.35$, $df = 2$, $p > .05$.

Figure 8. The distributions of clinicians' VC quality responses for each care sector.



Patient versus Clinician

Analyses were once again conducted to test the differences between patients and clinicians on the VC quality rating they gave, but in each care sector separately. This was done to see whether the differences were only evident in certain care sectors. However, differences between clinicians and patients were revealed in all three care sectors. The test statistics and group sizes are displayed in Table 5. This suggests that the difference between respondents (patients and clinicians) lies in all care sectors and does not depend on which care sector the patient is receiving care from or what care sector the clinician is part of.

Table 5. The U statistics of the Mann-Whitney U tests of differences between patient and clinicians on the quality they rated VC, as well as the group sizes of patients and clinicians in each care sector. Significance is marked with *.

	U	**Patient Freq.**	**Clinician Freq.**
Primary	714521.0***	1109	1939
Secondary	2599631***	2592	3337
Community	3343***	81	149

*** $p < .001$.

Demographics within care sectors

The demographics of patients are displayed in Tables 6 and Table 7.

Table 6. Ages of patients in each care sector.

Care Sector	Age Group						
	<12	13-17	18-24	25-44	45-64	65*	Freq.
Primary	16.6	15.2	3.7	9.6	29.0	25.8	1017
Secondary	8.8	5.7	5.3	34.8	30.1	15.4	2639
Community	16.7	8.3	3.6	40.5	20.2	10.7	84

Table 7. Patient gender in each care sector.

Care Sector	Gender			
	Male	Female	PNTS/Other	Freq.
Primary	39.1	59.9	1.0	1028
Secondary	36.4	62.7	0.9	2594
Community	31.6	65.8	2.6	76

Patient VC usage by care

The highest proportion of responses for using VC previously was in Primary Care, that is, 81.8% of patients who were receiving a VC in Primary Care stated they had used it before, compared with only 68.0% in Secondary Care, and 71.0% in Community Care. However, the patients in Secondary Care who stated they had used VC previously had used it more, with 42.5% of these stating they had used it three or more times, compared with 20.9% in Primary, and 40.0% in Community. Responses to using VC again were fairly similar, however, there was a higher percentage of responses for 'yes' in Community Care (95.7%, n = 69), followed by Secondary Care (92.4%, n = 2315), and then Primary Care (90.6%, n = 361).

Clinician work location by care

The majority of respondents in Primary Care were working from their clinical base or 'work' setting (91.4%), and this compares with 75.6% in Secondary Care, and only 43.4% in Community Care. This data is summarised in Table 8.

Table 8. Distribution (percentage) of respondents working from home or work per care sector.

	Care Sector %		
	Primary	**Secondary**	**Community**
Work Location			
Home	8.4	24.4	43.4
Work	91.4	75.6	56.6
Other	0.2	0.0	0.0
Total N	1749	3238	143

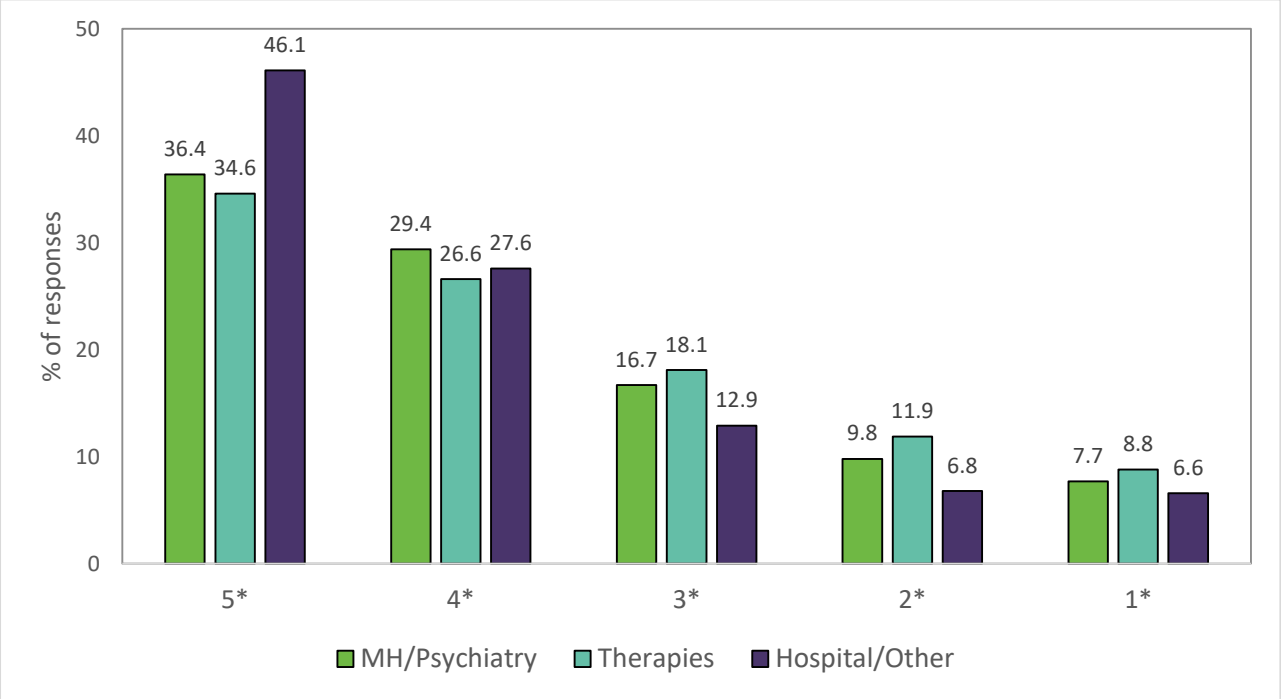
Secondary Care Findings

This section will consider the findings for the Secondary Care sub-categories, which are Mental Health/Psychiatry, Therapies, and Hospital/Other, as well as the unique question to the Secondary and Community Care survey regarding appointment type.

Quality Rating

The quality ratings given in each Secondary Care sub-category (Mental Health/Psychiatry n = 1019, Therapies n = 3045, and Hospital/Other = 1865) were also analysed. A Kruskal-Wallis once again revealed significant differences between the Secondary Care sub-categories and their ratings of VC, $H = 88.52$, $df = 2$, $p < .001$. In particular, it seemed that Hospital/Other rated VC as more positive than Mental Health/Psychiatry and Therapies. This distribution is displayed in Figure 9.

Figure 9. The distributions of scores for quality ratings across the sub-categories of Secondary Care.



Prevention of Face-To-Face (FTF)

The prevention of FTF consultations was similar across the Secondary Care sub-categories. In particular, it was prevented 87.7% of the time for Mental Health/Psychiatry (n = 977), 86.8% for Therapies (n = 2939), and 87.5% for Hospital/Other (n = 1844).

Demographics of patients in Secondary Care sub-categories

The demographics of patients within each Secondary Care sub-category are displayed in Tables 9 and 10

Table 9. Ages of patients in each Secondary Care sub-category.

Care Sector	**Age Group**						
	<12	13-17	18-24	25-44	45-64	65+	Freq.
Mental Health/Psychiatry	4.2	12.7	5.8	40.4	31.4	5.5	379
Therapies	12.4	2.6	4.5	34.8	32.2	13.6	1076
Hospital/Other	6.9	6.3	5.8	33.0	27.8	20.2	1184

Table 10. Patient genders in each Secondary Care sub-category.

Care Sector	**Gender**			
	Male	Female	PNTS/Other	Freq.
Mental Health/Psychiatry	37.3	61.3	1.3	375
Therapies	37.4	61.8	0.8	1043
Hospital/Other	35.3	63.9	0.9	1176

Video Consulting (VC) Usage by Secondary Care

The responses to using VC before, how many times the respondents had used it, and if they would use it again are displayed in Table 11, 12, and 13. Mental Health/Psychiatry had the highest percentage of 'yes' responses to using VC before compared with Therapies and Hospital/Other, and also this sub-category's respondents report having used VC more times than the other sub-categories. Therapies and Hospital/Other were very similar in the responses given. Furthermore, the responses to using VC again seemed to remain consistent across the sub-categories, as shown in Table 13.

Table 11. Distribution of responses to using VC before per Secondary Care sub-category.

	Used VC Before?		
	Yes	**No**	Freq.
Mental Health/Psychiatry	52.8	47.5	343
Therapies	36.2	63.8	936
Hospital/Other	22.1	77.8	1110

Table 12. Distribution of responses to how many times the respondent had used VC before per Secondary Care sub-category.

	How Many Times?			
	Once	**Twice**	**More than Three**	Freq.
Mental Health/Psychiatry	23.3	18.9	57.8	180
Therapies	38.9	23.7	37.4	337
Hospital/Other	40.0	21.6	38.4	245

Table 13. Distribution of responses to using VC again or after COVID-19 has passed per Secondary Care sub-category.

	Use VC Again/After?		
	Yes	**No**	Freq.
Mental Health/Psychiatry	93.2	6.8	336
Therapies	93.4	6.6	905
Hospital/Other	93.6	6.4	1074

Work location by Secondary Care sub-categories

Mental Health/Psychiatry had the highest proportion of clinicians that were working from home (52.8%), followed by Hospital/Other (20.5%), and then Therapies (16.7%).

Type of appointment

As stated previously, the question that asked the activity of the appointment was unique to the Secondary and Community Care clinician survey, and thus the following data does not include Primary Care. Table 14 shows the number of respondents carrying out each type of appointment. Specifically, follow-up appointments were the most common, whereas discharge were the least common.

Table 14. The frequencies and percentage of responses per appointment types.

	%	***Freq***
Appointment Type		
Advice	4.8	62
Discharge	0.3	4
Feedback/Outcomes	0.8	11
First Appointment	23.2	303
Follow-up	38.2	498
Review	8.4	109
Therapy	19.8	258
Other	4.6	60

In terms of VC quality ratings, feedback/outcomes had the highest proportion of 5* responses, however there were only 11 respondents for this type of

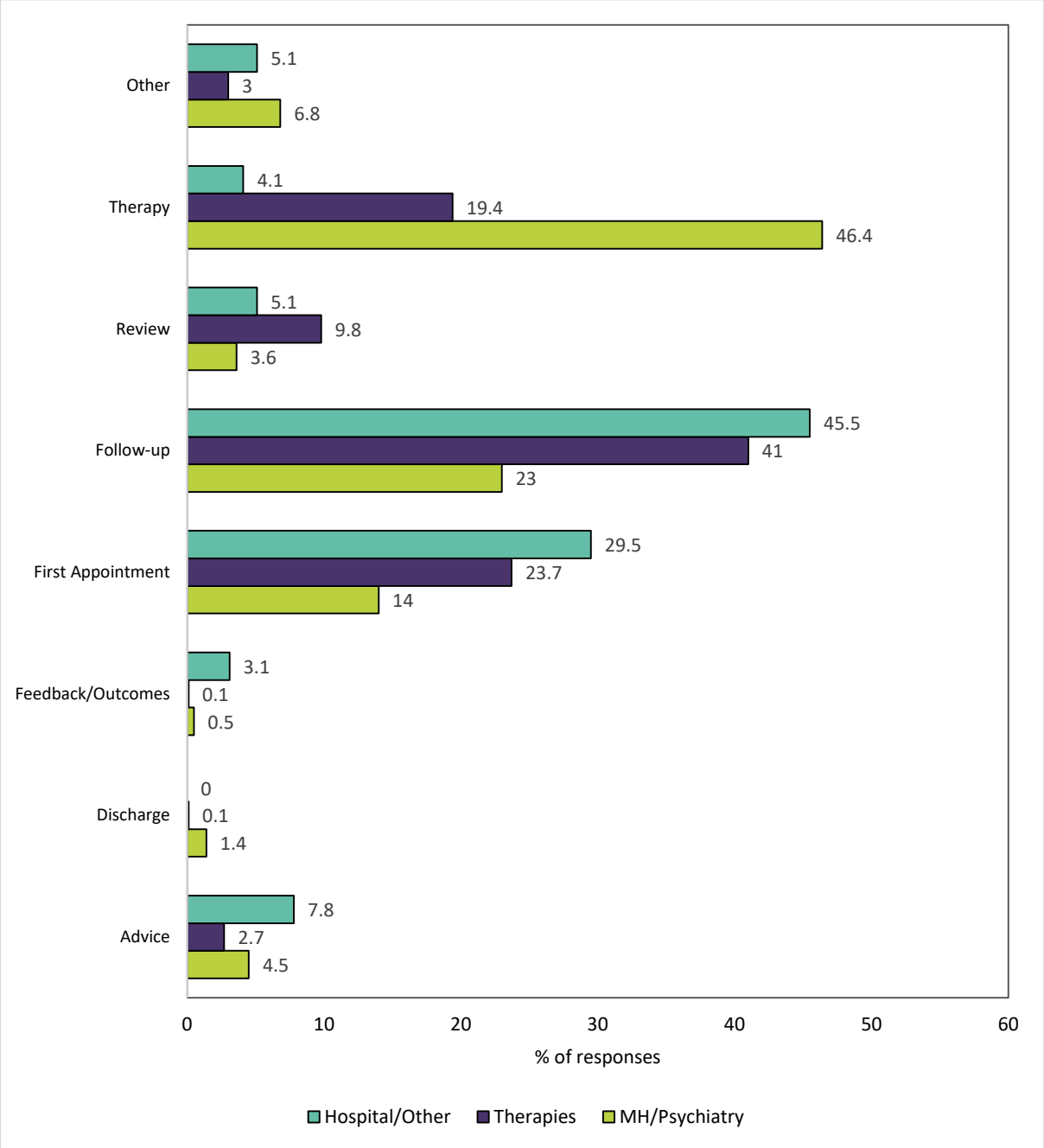
appointment. All appointment types seemed comparable in quality rating, and no large differences emerged. In addition, the prevention of FTF was similar across the types of appointment, with 'other' displaying the smallest percentage of FTF prevention. The quality rating and prevention of FTF data is displayed in Table
15.

Additionally, the Secondary Care sub-categories were analysed for the type of appointments clinicians were conducting using VC. Figure 10 displays these distributions, with follow-up appointments being the most common across Therapies and Hospital/Other sub-categories, and therapy being the most common for Mental Health/Psychiatry.

Quality Rating %	**Advice**	**Discharge**	**Feedback/ Outcomes**	**First Appointment**	**Follow-up**	**Review**	**Therapy**	**Other**
5*	29.5	25.0	54.4	22.3	25.0	22.2	31.1	23.3
4*	32.8	0.0	9.1	30.0	31.0	16.7	25.7	36.7
3*	13.1	50.0	9.1	22.7	20.4	27.8	19.5	21.7
2*	8.2	25.0	18.2	13.3	13.3	25.0	12.5	10.0
1*	16.4	0.0	9.1	11.7	10.3	8.3	11.3	8.3
Freq.	61	4	11	300	496	108	257	60
Prevented FTF? %								
Yes	95.1	100.0	90.9	80.8	86.8	88.8	93.0	70.0
No	4.9	0.0	9.1	19.2	13.2	11.2	7.0	30.0
Freq.	61	4	11	292	468	107	242	5

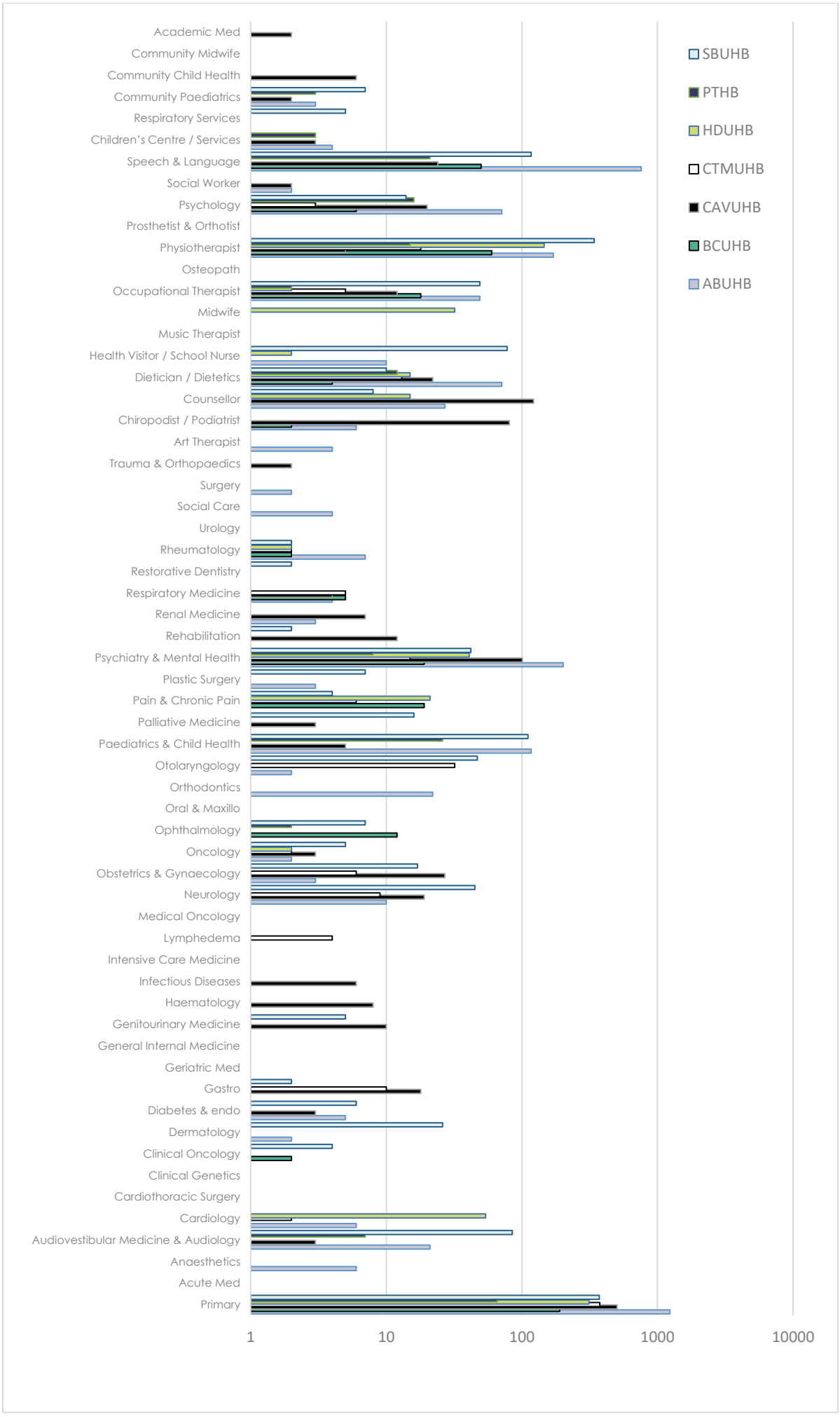
Table 15. The distributions of quality ratings (percentages) & prevention of FTF per appointment type.

Figure 10. The proportion of appointment types carried out in each Secondary Care sub-category.



On the following page, Figure 11 shows all specialities across all Health Boards who completed the surveys and provided the data for this chapter.

Figure 11: All specialities across all Health Boards who completed the surveys (see below)


Academic Med
Community Midwife
Community Child Health
Community Paediatrics
Respiratory Services
Children's Centre / Services
Speech & Language
Social Worker
Psychology
Prosthetist & Orthotist
Physiotherapist
Osteopath
Occupational Therapist
Midwife
Music Therapist
Health Visitor / School Nurse
Dietician / Dietetics
Counsellor
Chiropodist / Podiatrist
Art Therapist
Trauma & Orthopaedics
Surgery
Social Care
Urology
Rheumatology
Restorative Dentistry
Respiratory Medicine
Renal Medicine
Rehabilitation
Psychiatry & Mental Health
Plastic Surgery
Pain & Chronic Pain
Palliative Medicine
Paediatrics & Child Health
Otolaryngology
Orthodontics
Oral & Maxillo
Ophthalmology
Oncology
Obstetrics & Gynaecology
Neurology
Medical Oncology
Lymphedema
Intensive Care Medicine
Infectious Diseases
Haematology
Genitourinary Medicine
General Internal Medicine
Geriatric Med
Gastro
Diabetes & endo
Dermatology
Clinical Oncology
Clinical Genetics
Cardiothoracic Surgery
Cardiology
Audiovestibular Medicine & Audiology
Anaesthetics
Acute Med
Primary
SBUHB
PTHB
HDUHB
CTMUHB
CAVUHB
BCUHB
ABUHB
1
10
100
1000
10000

Health Board(s) & Trust Specific Data

Aneurin Bevan University Health Board (ABUHB)

Sample Total

There was a total of 2956 responses in ABUHB, with 2201 clinicians and 755 patients.

Quality rating and prevention of Face-To-Face (F2F)

Overall, 76.4% of the respondents in ABUHB rated VC 'excellent', 'very good', or 'good', and VC was given a 5-star ('excellent') rating by 35.8% of respondents. FTF was also prevented 85.2% of the time. These responses are displayed in Figure 12 and Figure 13.

Figure 12. The overall proportion of quality ratings in ABUHB (n = 2929).

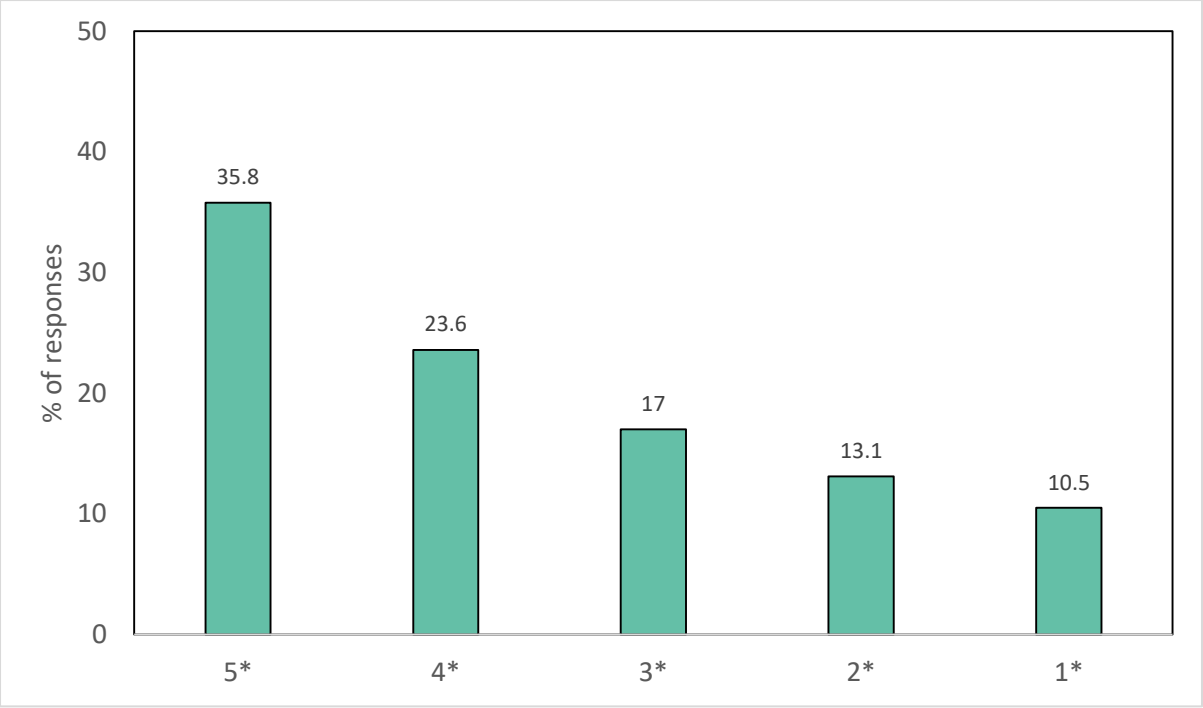
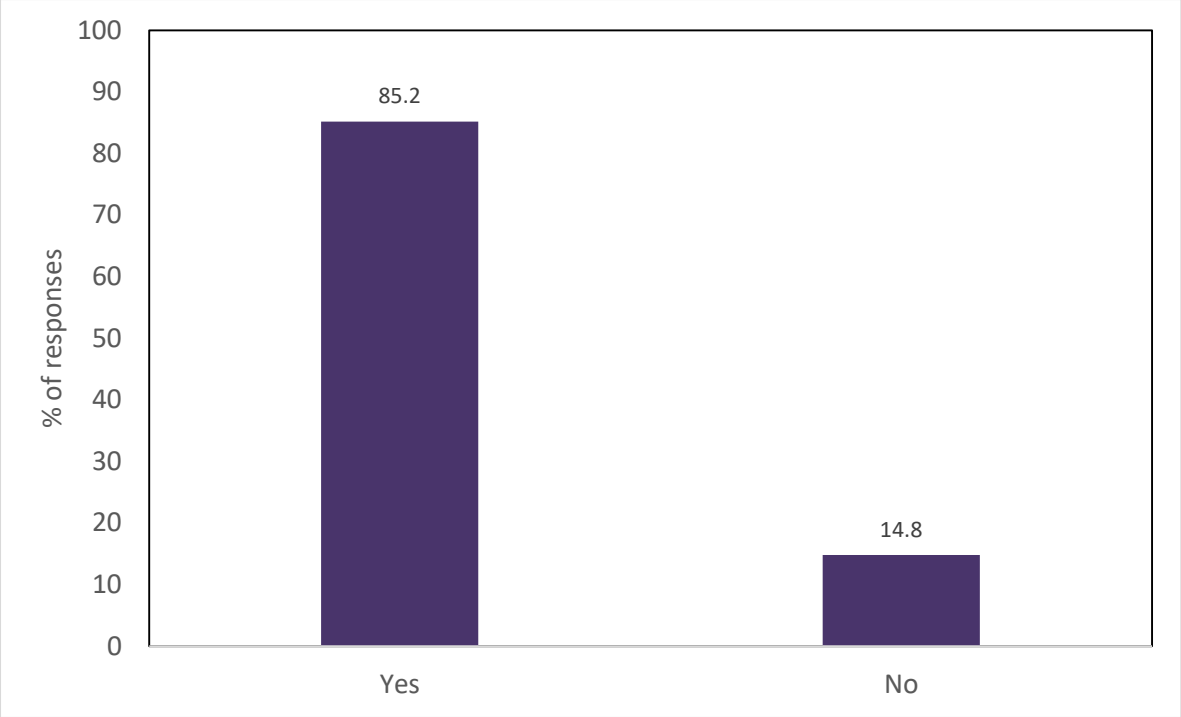


Figure 13. The overall prevention of FTF in ABUHB (n = 2377).



Patient versus clinician

A Mann-Whitney U analysis was conducted to test the difference between the quality ratings given by patients and clinicians. They were revealed to differ significantly from one another, $U = 498230$, $p < .001$, demonstrating that patients rated VC more positively than clinicians in ABUHB.

Demographics of patients

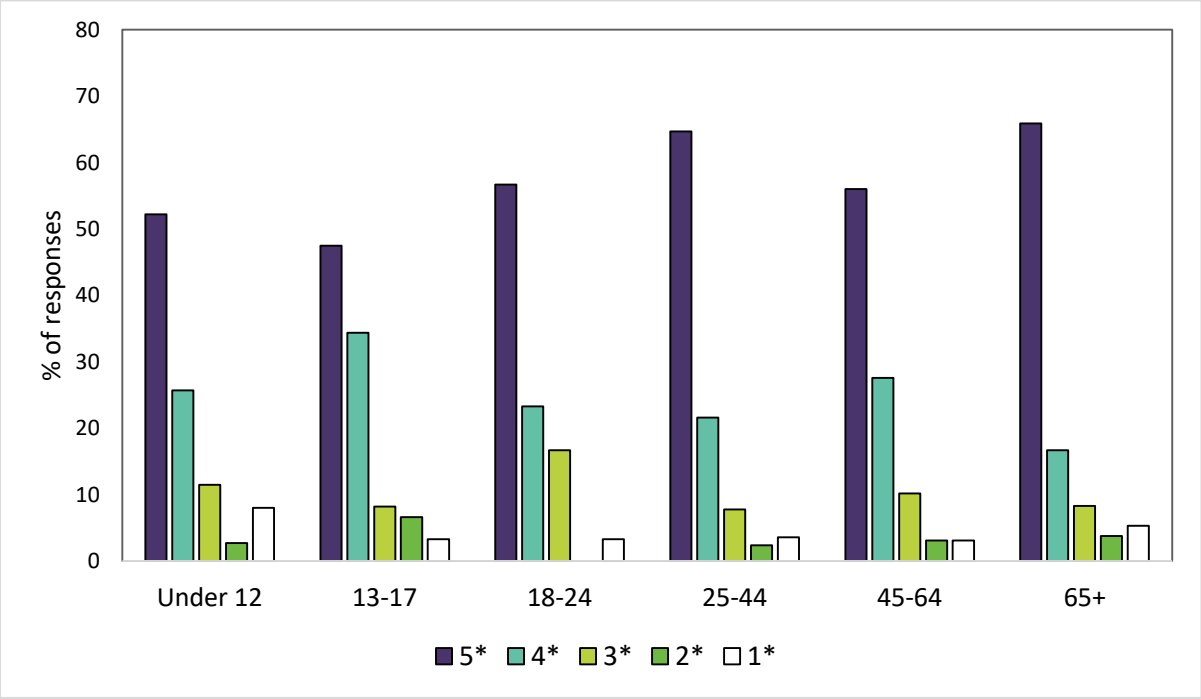
Table 16 displays the age groups and genders of the patients within ABUHB. The majority of respondents (64.9%) were female, and between the ages of 45-64 (30.8%).

Table 16. The frequencies and percentages of each patient age group and gender.

Age	%	Freq.	Gender	%	Freq.
Under 12	15.4	114	Male	34.6	259
13-17	8.2	61	Female	64.9	486
18-24	4.1	30	PNTS/Other	0.5	4
25-44	23.1	171			
45-64	30.8	228			
65+	18.4	136			
Total Responses		740	Total Responses		749

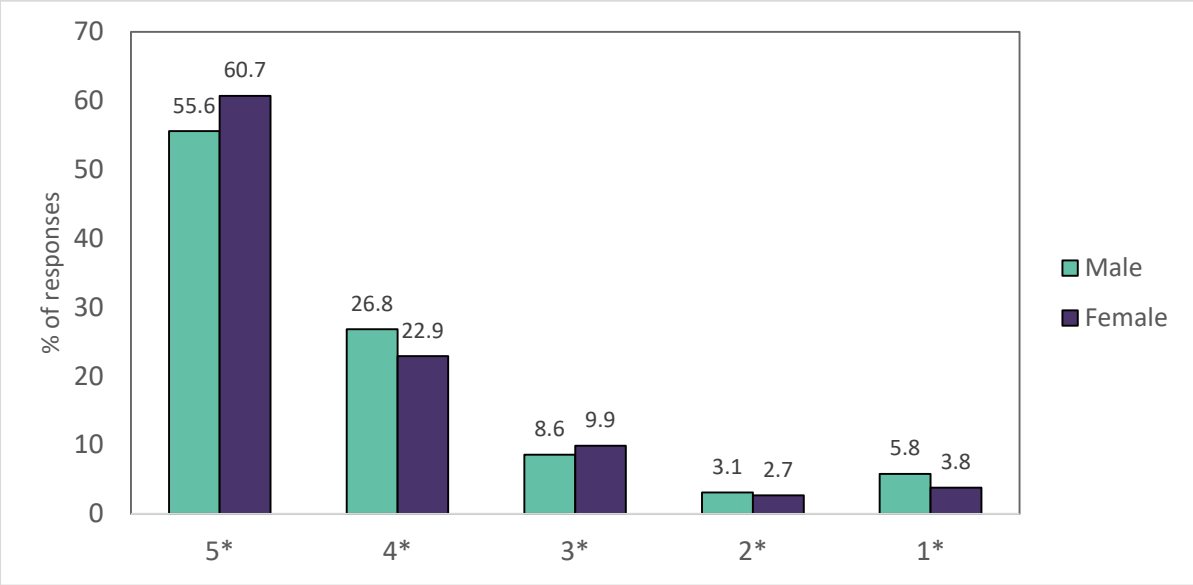
The data was analysed to test whether there were any differences between the age groups on the VC quality ratings. A Kruskal-Wallis revealed no significant difference between the age groups ($H = 9.25$, $df = 5$ $p > .05$), suggesting that the age groups were similar in the ratings they gave to their VC (Figure 14).

Figure 14. The distributions of quality rating scores per age group.



In addition to this, an analysis was also conducted to test the differences between males (n = 257) and females (n = 476) on their quality ratings. PNTS/Other was excluded due to the low group size (n = 4). There was no difference between the genders, U = 58077, p > .05 (Figure 15).

Figure 15. The distribution of quality rating scores for males and females.



Patient usage of VC

Overall, 30% of respondents (total n = 424) reported using VC previously. These responses were analysed in terms of quality ratings, comparing those who responded 'yes' to using VC (n = 124) and those who responded 'no' to using VC (n = 292). Interestingly, there was a significant difference between these respondents, U = 15268.0, p < .01, with those who had used it before rating VC more negatively than those who had not.

Figure 16 displays the distributions of responses across these respondents. The prevention of FTF in these individuals' appointments were also explored to see whether this was the reason for lower ratings. These were similar, with FTF being prevented for 89.8% of respondents who had used VC before, and 87.1% for those who had not.

Of those who had previously used VC, 37.6% of respondents had used it once before, 14.6% twice, and 47.8% three times or more. To further analyse the differences between individuals who had used VC before, a Kruskal-Wallis was conducted to test the differences between those who had used VC once (n = 67), twice (n = 25), and three times or more (n = 84). This difference between groups was not significant, $H = 2.84$, $df = 2$, $p > .05$, such that there were no differences between the number of times using VC. However, there was a trend for individuals to rate VC more negatively the more they had used it (Figure 17).

Respondents were also asked whether or not they would use VC again or after COVID-19 had passed. 96.3% stated that they would use it again, with the total number of responses for this question being 428.

Figure 16. The distribution of quality rating responses for respondents who had used VC before (yes) and those who had not (no).

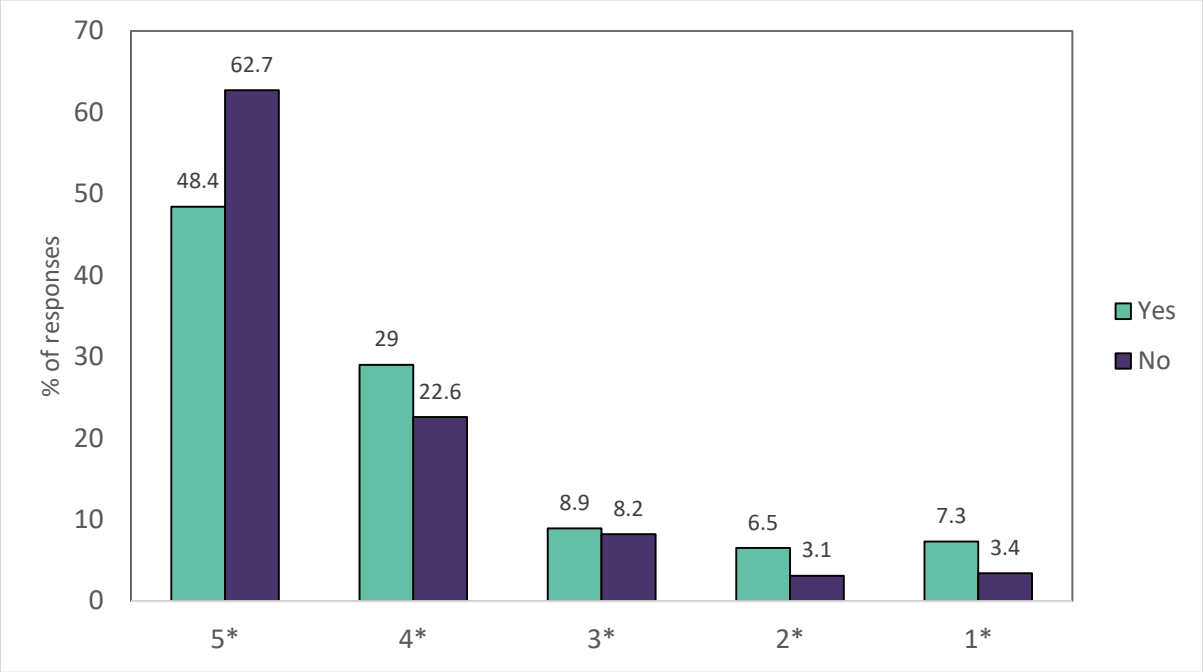
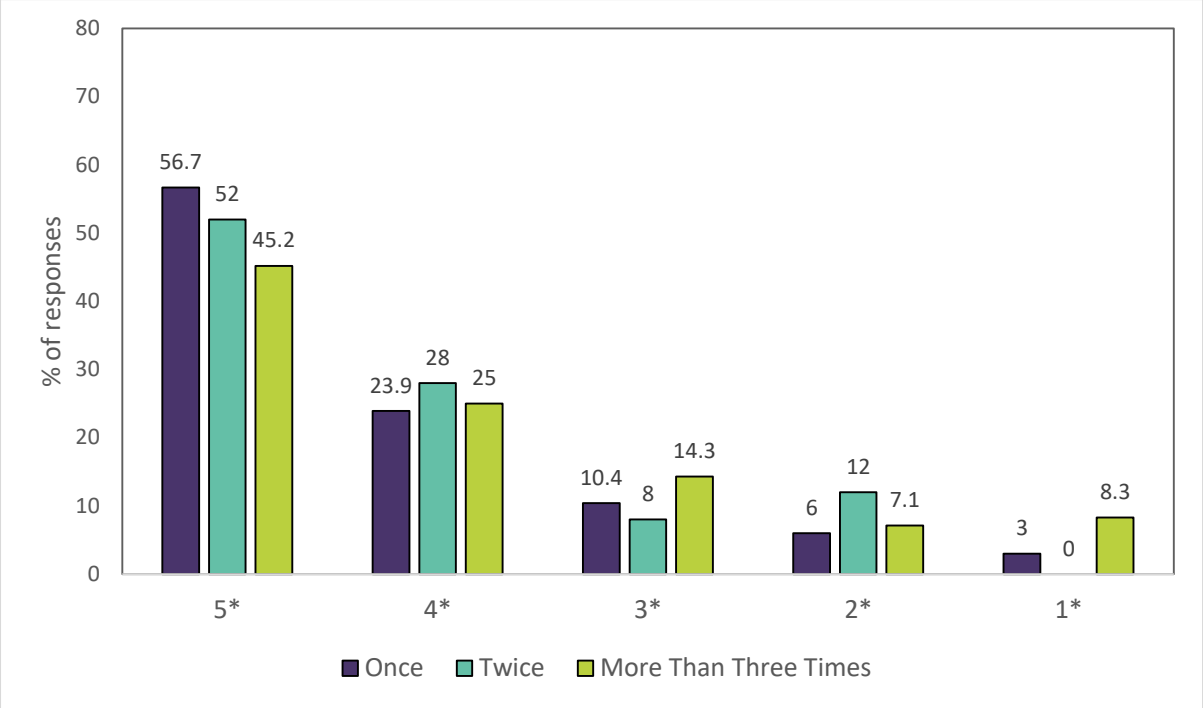


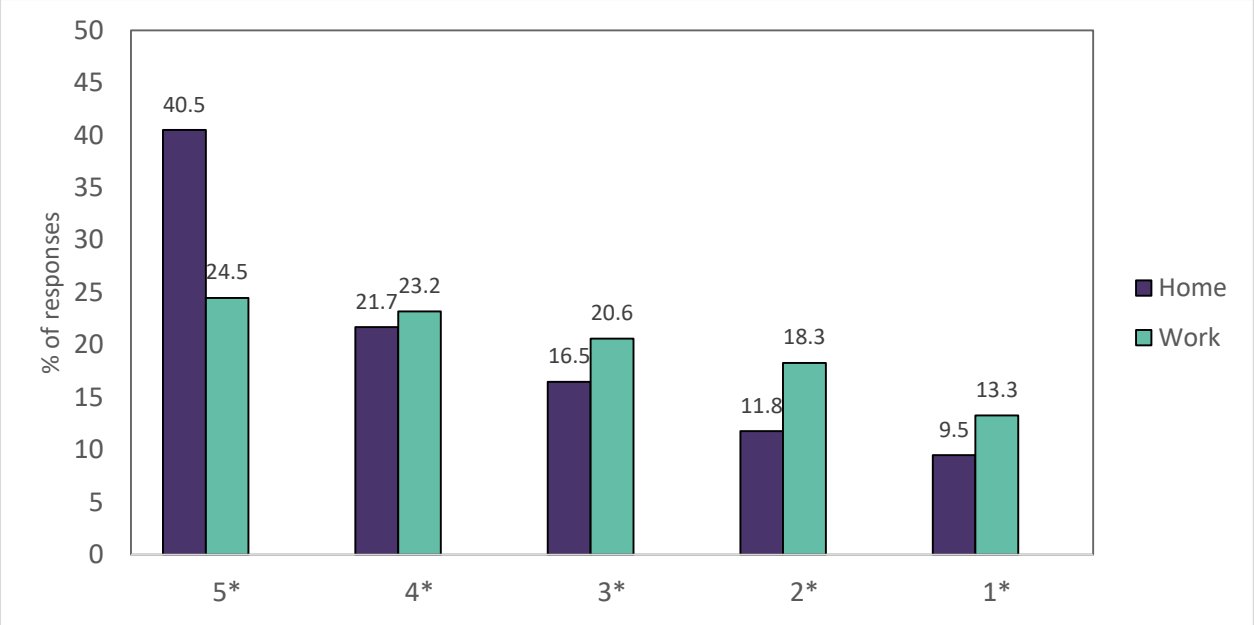
Figure 17. The distribution of quality rating responses for respondents who had used VC once, twice, and three times or more previously.



Clinician work location

The percentage of clinicians that were working from home in ABUHB was 20.0%, with 79.9% working from their clinical base (work location) (0.1% stated 'other'). An analysis tested the difference between those working from home (n = 474) and their work (n = 1603), 'other' was excluded because of the small group size (n = 5). This revealed a difference between the two groups on the quality rating they gave VC, U = 306539.0, p < .001. suggesting that those working from home rated VC more positively than those working from their work location (Figure 18). The prevention of FTF was similar in both groups, with 85.5% prevention with those working from home (n = 420), and 85.3% for those at work (n = 1239).

Figure 18. The distributions of quality ratings for clinicians working from home and their work.



Care Sector Split & Findings

This section will consider the findings from the individual care sectors, which are Primary, Secondary, and Community Care.

Quality rating and prevention of FTF

Secondary Care and Community Care seemed to rate VC as more negative compared with Primary Care, as shown by Table 17. In addition, FTF prevention was similar in both Primary and Secondary Care, but was lower in Community Care, with only 76.5% of respondents stating that FTF was prevented. However, the group size for Community Care was fairly low (n = 19), which could have possibly skewed the results as being more negative.

Table 17. The distributions and descriptive statistics of responses for VC quality ratings and the prevention of FTF in each care sector.

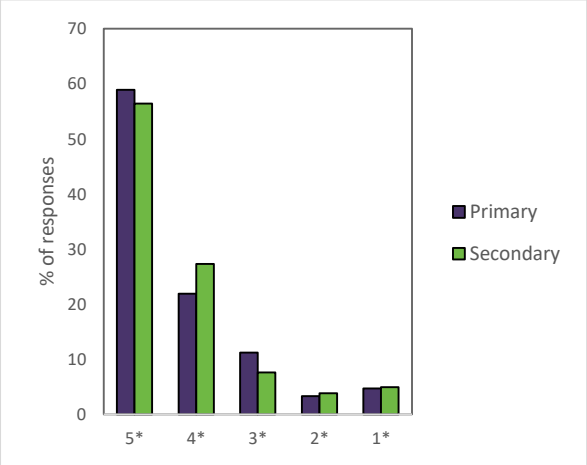
VC Quality %	Primary		Secondary		Community	
5*	44.3		29.4		21.1	
4*	20.6		25.5		26.3	
3*	13.9		19.2		21.1	
2*	13.0		13.1		21.1	
1*	8.1		12.6		10.5	
Mean	3.8		3.5		3.3	
Median	4.0		4.0		3.0	
Freq.	1220		1578		19	
	Prevented FTF?					
	Yes	**No**	**Yes**	**No**	**Yes**	**No**
%	85.9	14.1	84.9	15.1	76.5	23.5
Freq.	1235		1468		19	

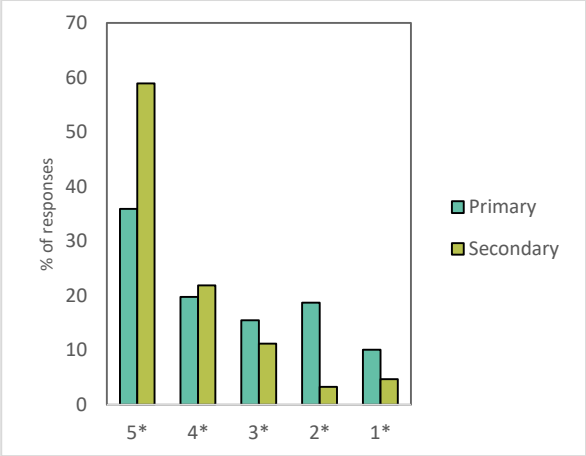
The data was explored for any differences between Primary and Secondary Care on the ratings they gave VC. Community Care was excluded from the current analysis due to the small group size. A Mann-Whitney U test revealed significant differences between the two care sectors, U = 817027.5, with Primary Care rating VC more positively than Secondary Care (when combined with patient and clinician data).

Furthermore, the data was also analysed for clinicians and patients separately to test the differences between the two care sectors. For clinicians alone, there was a significant difference between Primary and Secondary on the ratings they gave VC, U = 456436.5, $p < .001$. However, there were no significant differences between these ratings for patients across both care sectors, U = 58445.5, $p > .05$. This suggests that patients in Primary and Secondary Care rate VC similarly (Figure 19), but clinicians do not (Figure 20). Specifically, Primary Care clinicians rated VC more negatively (when split between patient and clinician data). This suggests that the difference between the two care sectors noted above lies with the clinicians' perceptions of VC, and not the patients.

There is a very clear difference when the data is split between patients and clinicians, rather than combined.

Figure 19 (left) and Figure 20 (right) display the differences in distributions between Primary and Secondary Care for patients (left) and clinicians (right).





Patient versus Clinician

Analyses were once again conducted to test the differences between patients and clinicians on their quality ratings in each care sector separately. There were significant differences between patient and clinicians' ratings in each individual care sector, and these statistics are displayed in Table 18. This suggests that there are differences between these respondents in each type of care setting.

Table 18. The U statistics of the Mann-Whitney U tests of differences between patient and clinicians' quality ratings, as well as group sizes, in each care sector. Significance is marked with *.

	U	Patient n	Clinician n
Primary	120430.0***	448	772
Secondary	100486.0***	264	1314
Community	6.0*	3	16

*** p < .001

* p < .05.

Demographics of patients

The demographics of patients in each care sector are displayed in Table 19.

Table 19. The percentage of patients per age group and gender for each of the care sectors.

	Care Sector		
Age Group %	**Primary**	**Secondary**	**Community**
Under 12	18.6	9.6	33.3
13-17	9.1	7.0	33.3
18-24	3.6	4.4	33.3
25-44	11.8	39.3	0.0
45-64	32.9	28.9	0.0
65+	24.0	10.7	0.0
Freq.	441	270	3
Gender %			
Male	36.6	31.5	0.0
Female	62.7	68.1	100.0
PNTS/Other	0.7	0.4	0.0
Freq.	445	273	3

Patient usage of VC

100% of respondents in Primary Care stated having not used VC before their consultation (n = 120), as well as in Community Care (n = 3). This compares with 55.7% of responses in Secondary Care (n = 273) that stated not using it previously. Also, 60.5% of respondents in Secondary Care reported using VC more than three times (the total responses for this question was n = 119). Considering whether respondents would use VC again, 92.3% responded 'yes' in Primary Care (n = 130), 98.9% in Secondary Care (n = 267), and 100% in Community Care (n = 3).

Clinician work location by care sector

The majority of Primary Care clinicians were working from their 'work' location (85.7%), compared with 73.7% of Secondary Care clinicians, and only 28.6% in Community Care. This data is summarised in Table 20.

Table 20. The percentage of respondents working from home/work per care sector.

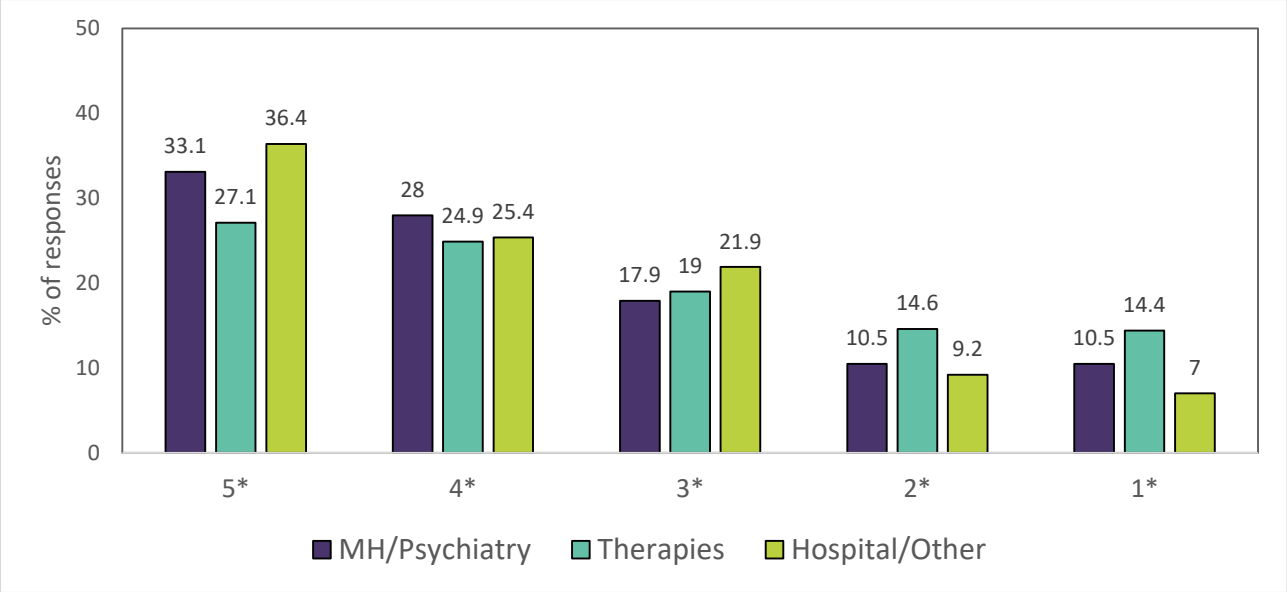
	Care Sector %		
	Primary	**Secondary**	**Community**
Work Location			
Home	14.3	26.3	71.4
Work	85.7	73.7	28.6
Other	0.0	0.0	0.0
Freq.	693	1301	14

Secondary Care Findings

Quality rating and FTF prevention

The quality ratings in each Secondary Care sub-category were analysed for any differences between them (Mental Health/Psychiatry n = 296, Therapies n = 1054, Hospital/Other n = 228). A Kruskal-Wallis revealed significant differences between the Secondary Care sectors for the ratings they gave VC, $H = 19.54$, $df = 2$, $p < .001$. Particularly, Therapies seemed to rate VC as more negative than Mental Health/Psychiatry and Hospital/Other, and this is demonstrated in Figure 21. FTF was prevented similarly in Therapies (86.0%, n = 1054) and Hospital/Other (86.4%, n = 220), but was lower in Mental Health/Psychiatry (80.1%, n = 282).

Figure 21. The distributions of scores for quality ratings across the sub-categories of Secondary Care.



Demographics of patients

Patient demographics, including age group and gender, in each of the Secondary Care sub-categories are displayed in Table 21.

VC Usage by Secondary Care

The responses to using VC before, how many times, and if respondents would use it again are displayed in Table 22. Mental Health/Psychiatry had the largest number of responses for using VC before, with 68.9% responding 'yes', followed by Hospital/Other, and then Therapies. Also, Mental Health/Psychiatry had the highest percentage of respondents who had used it more than three times prior to their consultation.

Table 21. The percentage of patients in each age group and gender per Secondary sub-category.

	Secondary Sub-category		
Age Group %	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Under 12	6.7	13.4	4.8
13-17	8.9	3.5	12.0
18-24	4.4	4.9	3.6
25-44	48.9	36.6	38.6
45-64	31.1	27.5	30.1
65+	0.0	14.1	10.8
Freq.	45	142	83
Gender %			
Male	33.3	32.4	28.9
Female	66.7	67.6	69.9
PNTS/Other	0.0	0.0	1.2
Freq.	45	145	83

Table 22. The distribution of responses to using VC before, how many times, and if respondents would use it again per Secondary Care sector.

	Care Sector %		
Used VC Before?	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Yes	68.9	37.9	42.2
No	31.1	62.1	57.8
Freq.	45	145	83
How Many Times?			
Once	13.3	22.2	37.1
Twice	10.0	20.4	11.4
Three or more	76.7	57.4	37.1
Freq.	30	54	35
Use Again/After?			
Yes	97.8	98.6	98.8
No	2.2	1.4	1.2
Freq.	45	142	81

Clinician work location by Secondary Care sub-categories

Hospital/Other had the highest proportion of clinicians working from home (47.5%, n responses = 158), followed closely by Mental Health/Psychiatry (46.6%, n responses = 247), and then Therapies (17.0%, n responses = 896).

Type of appointment

This question was unique to the Secondary and Community Care clinician surveys only, and thus the following data does not include Primary Care.

Table 23 displays the number of respondents carrying out each type of appointment. Specifically, follow-up appointments were the most common, whereas feedback/outcomes were the least common. Table 24 also displays the type of appointments being conducted by work location of the clinician.

Table 23. The frequencies and percentage of appointment types.

	Percentage	Frequency
Appointment Type		
Advice	3.9	16
Discharge	0.5	2
Feedback/Outcomes	0.2	1
First Appointment	13.3	55
Follow-up	41.5	172
Review	10.4	43
Therapy	36.3	109
Other	3.9	16

Table 24. The proportion of appointments being carried out at work and at home.

	Work Location		
	Home	Work	Frequency
Appointment Type			
Advice	6.3	93.8	16
Discharge	50.0	50.0	2
Feedback/Outcomes	0.0	0.0	0.0
First Appointment	16.4	83.6	55
Follow-up	10.2	89.8	166
Review	2.3	97.7	43
Therapy	22.4	77.6	107
Other	26.7	73.3	15

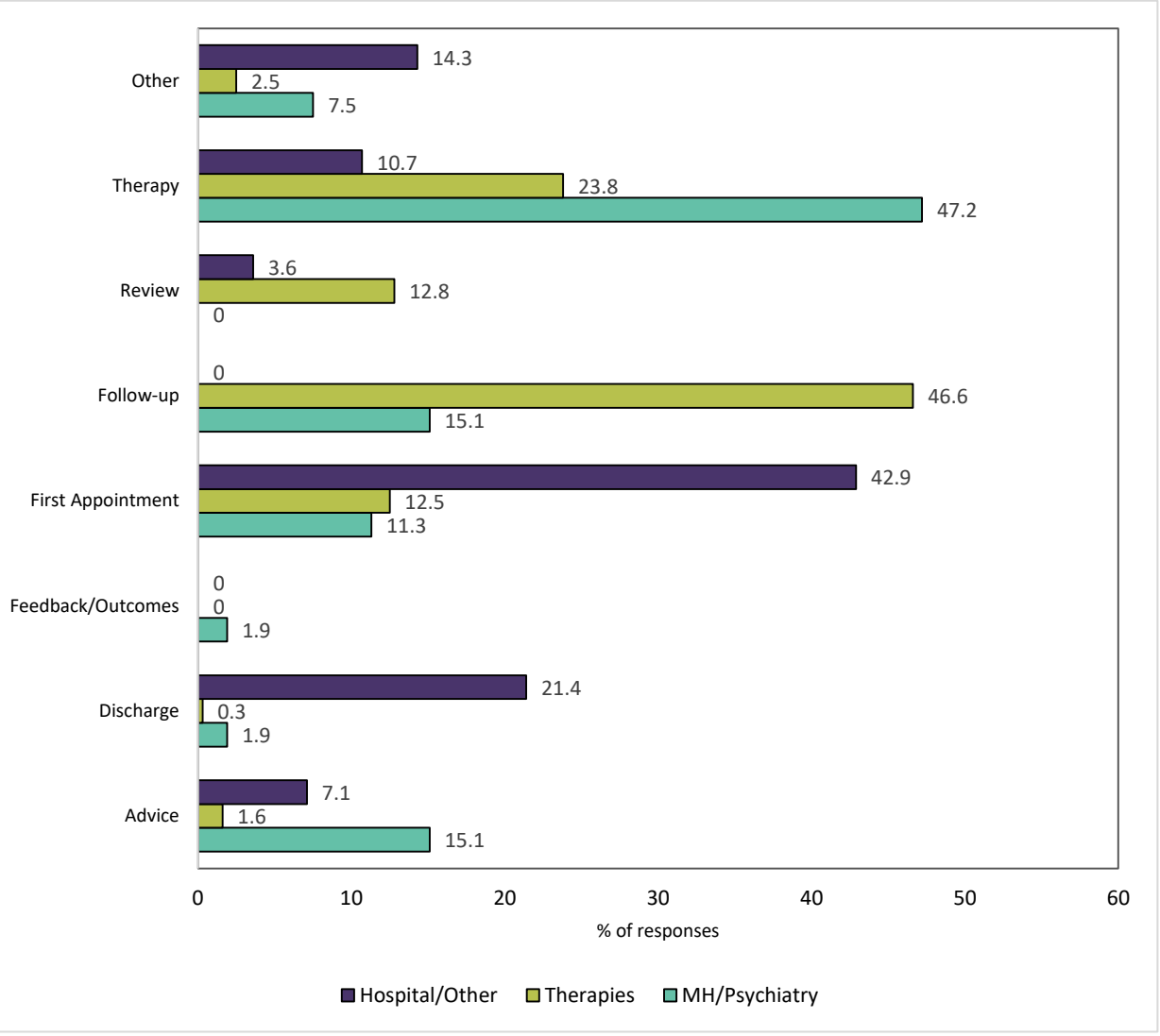
Considering VC quality ratings, review appointments had the highest frequency of 5* ratings where group sizes were greater than 5. However, all appointment types seemed similar in the ratings for VC quality. In addition, the prevention of FTF was also similar across these appointments. This is displayed in Table 25.

Table 25. The distributions of quality rating scores and the prevention of FTF across the different appointment types.

Quality Rating %	Advice	Discharge	Feedback/ Outcomes	First Appointment	Follow-up	Review	Therapy	Other
5*	25.0	0.0	100.0	21.8	20.5	25.6	23.9	18.8
4*	31.3	0.0	0.0	29.1	26.9	20.9	24.8	31.3
3*	18.8	50.0	0.0	23.6	22.8	25.6	22.9	18.8
2*	12.5	50.0	0.0	16.4	15.8	16.3	12.8	12.5
1*	12.5	0.0	0.0	9.1	14.0	11.6	15.6	18.8
Freq.	16	2	1	55	171	43	109	16
Prevented FTF? %								
Yes	87.5	100.0	/	86.8	81.6	88.1	91.9	92.3
No	12.5	0.0	/	13.2	18.4	11.9	8.1	7.7
Freq.	16	2	/	53	158	42	99	99

In addition, the Secondary Care sub-categories were analysed for the type of appointments that clinicians were conducting using VC. Figure 22 displays these distributions, with therapy appointments being most common for Mental Health/Psychiatry, follow-up for Therapies, and first appointment for Hospital/Other.

Figure 22. The proportion of appointment types carried out in each Secondary sub-category.



Discussion of ABUHB

The analysis of the data for ABUHB suggests that clinicians and patients, overall, rate VC positively and it is beneficial in prevention of FTF appointments. However, it was clear that Primary Care respondents viewed VC more negatively than Secondary Care, with significant differences between the ratings they gave the quality of VC, although the prevention of FTF was similar in the two. Additionally, it was evident that patients viewed VC as more positive than clinicians, in all care sectors and overall, only a very small proportion of patients stated that they would not use VC again or after COVID-19 had passed. This suggests that VC is accepted as positive and/or beneficial by patients, and that this is possibly a good replacement for FTF where

appropriate. Interestingly, for patients, those who had used VC more often rated it more negatively than those who had used it less, perhaps suggesting there is something novel about VC that causes patients to view it as more positive.

Considering Secondary Care, the most common appointment types being conducted via VC was follow-up appointments, with feedback/outcomes being the least common. In terms of Secondary Care's subcategories (Mental Health/Psychiatry, Therapies, and Hospital/Other), Therapies tended to rate VC as more negative than the other sub-categories, although the prevention of FTF was similar across all three. Therapies also had the lowest proportion of clinicians working from home, whereas this was highest in Hospital/Other.

In general, ABUHB were positive in rating VC, and the prevention of FTF was high. Although Primary and Secondary Care exhibited differences in their ratings, they were both positive overall. Additionally, patients viewed VC as more positive than clinicians, suggesting that the experiences with VC differ between the two types of respondents, resulting in differing opinions.

Betsi Cadwaladr University Health Board (BCUHB)

Sample Total

There was a total of 402 responses in BCUHB, including 285 clinicians and 117 patients.

Quality rating and prevention of FTF

Overall, 83.9% of the respondents in BCUHB rated VC 'excellent' (5-stars), 'very good' (4-stars), or 'good' (3-stars), with 39.1% giving VC 5-stars in particular. FTF was also prevented 89.6% of the time. These responses are displayed in Figure 23 and Figure 24.

Figure 23. The overall proportion of quality ratings in BCUHB (n = 399).

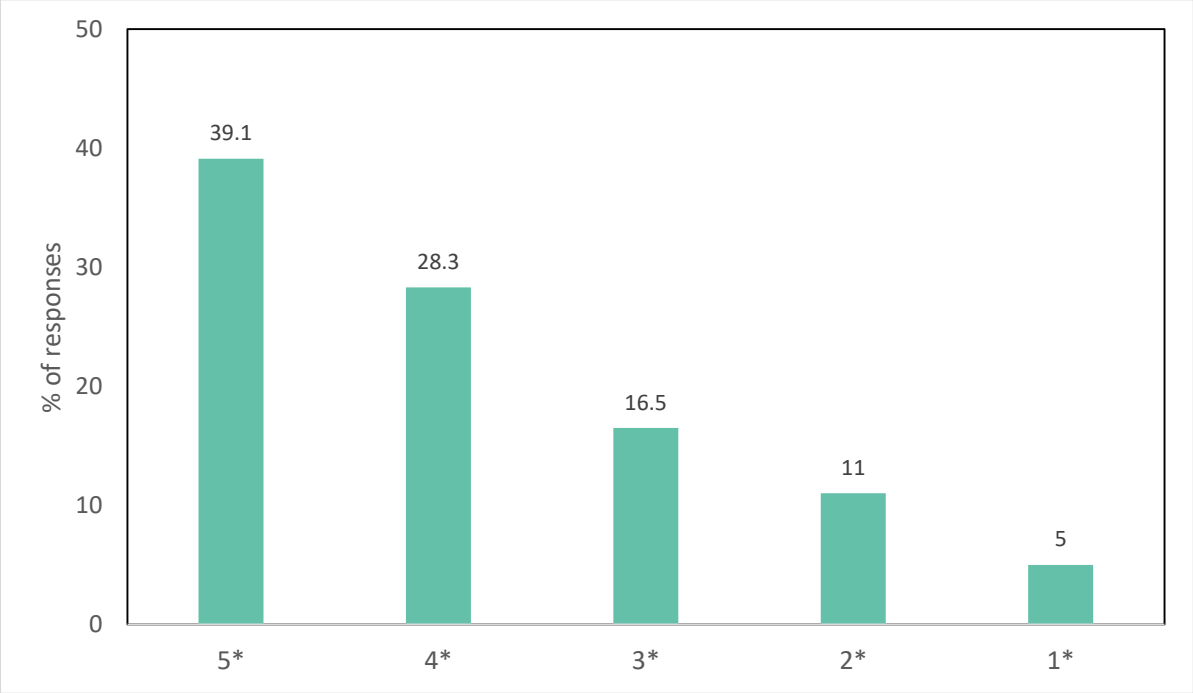
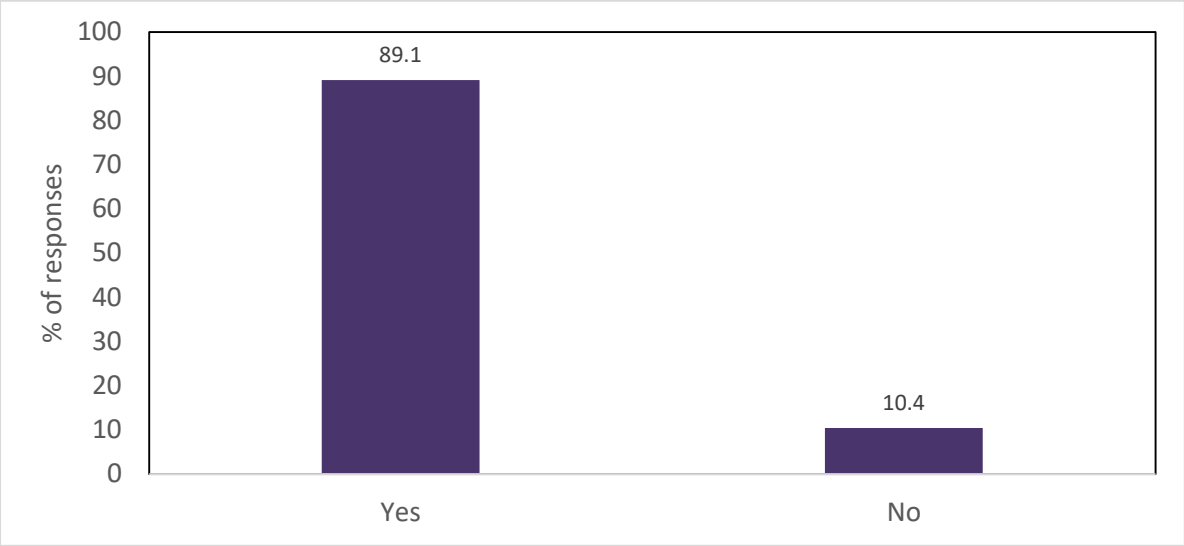


Figure 24. The overall prevention of FTF in BCUHB (n = 365).



Patient versus clinician

A Mann-Whitney U test analysis was conducted to test the difference between the quality ratings given by patients and clinicians. These were revealed to be different from one another, $U = 10081.5$, $p < .001$. Patients rated VC more positively than clinicians.

Demographics of patients

Table 26 displays the age groups and genders of the patients within BCUHB. The majority of respondents were between the ages 25-44 and were female.

Table 26. The frequencies and percentages of each patient age group and gender.

Age	**%**	**n**	**Gender**	**%**	**n**
Under 12	10.4	12	Male	36.8	43
13-17	18.3	21	Female	63.2	74
18-24	0.0	0	PNTS/Other	0.0	0
25-44	28.7	33			
45-64	22.6	26			
65+	20.0	23			
Total Responses		115	Total Responses		117

A Kruskal-Wallis test was conducted in order to test the differences between the age groups on quality ratings given. There were no responses for ages 18-

24. This analysis was non-significant, H = 4.25, df = 4, p > .05, meaning that the age groups rated VC similarly in BCUHB (Figure 25).

In addition to this, differences were tested between males (n = 42) and females (n = 74) on their quality ratings. There were no differences between males and females (Figure 26), revealed by a Mann-Whitney U test, U = 1365.0, p > .05.

Figure 25. The distributions of quality ratings per age group.

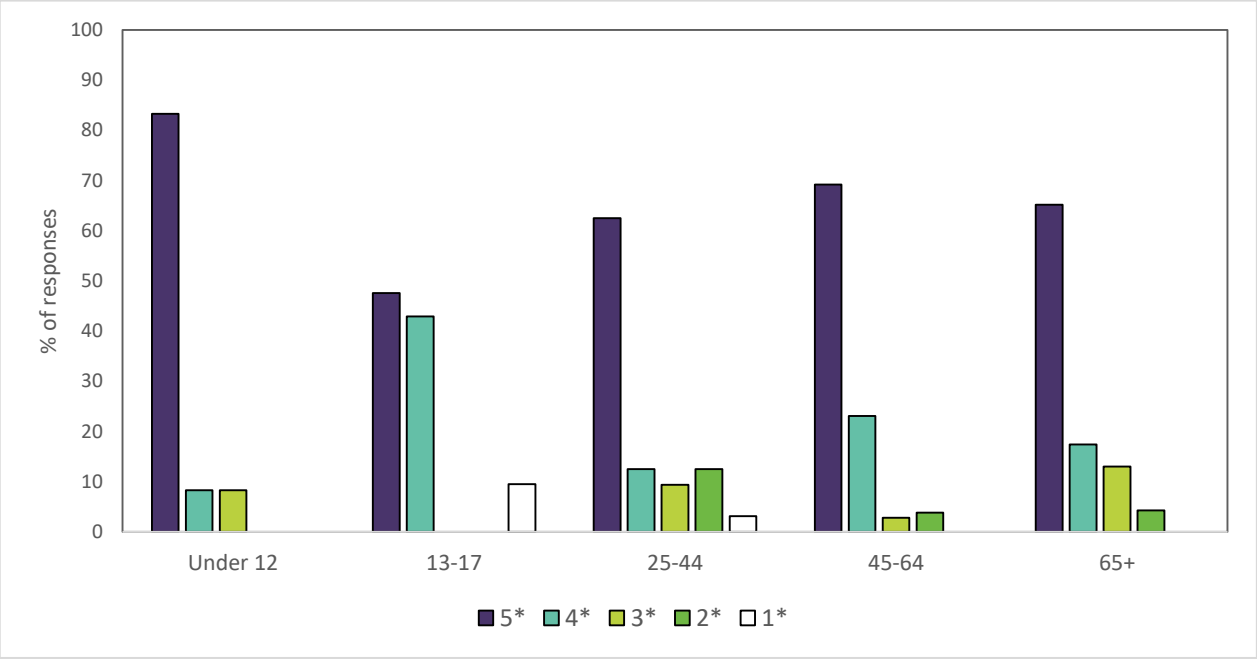
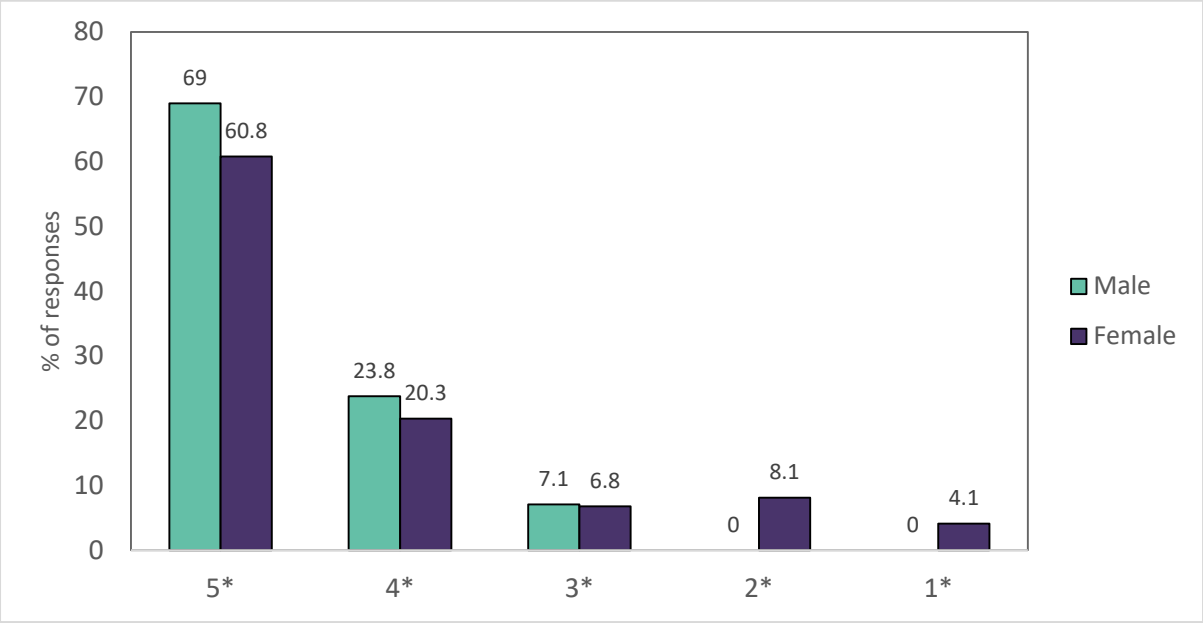


Figure 26. The distribution of quality rating scores for males and females.

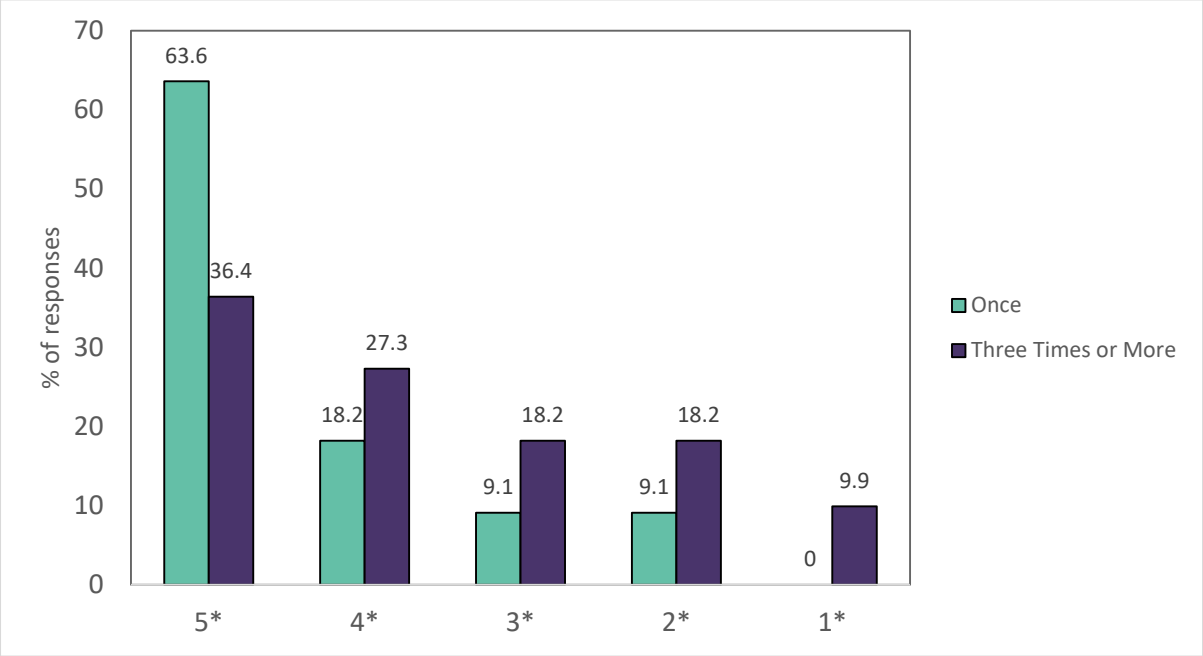


Patient usage of VC

Overall, 26.5% of respondents reported using VC prior to their consultation. These responses were analysed. In particular, those who responded 'yes' to using VC (n = 22) and those who responded 'no' (n = 60) were compared on the quality ratings they gave VC. No differences were revealed between these two groups of respondents, U = 533.5, p > .05.

In addition to this, 44% of respondents had used it once before, 12% twice, and 44% three times or more, although there were only 44 responses to this question. Differences were analysed between those who had used VC once before (n = 11) and three times or more (n = 11) to test whether they rated VC quality differently. Those who had used it twice before were excluded due to the small group number (n = 3). Although the difference between the two groups was non-significant (U = 43.0, p > .05), there was a trend for those who had used VC three times or more to rate VC more negatively than those who had used it just once before. This is displayed in Figure 27.

Figure 27. The distribution of quality ratings for respondents who had used VC once before and those who used it three times or more.



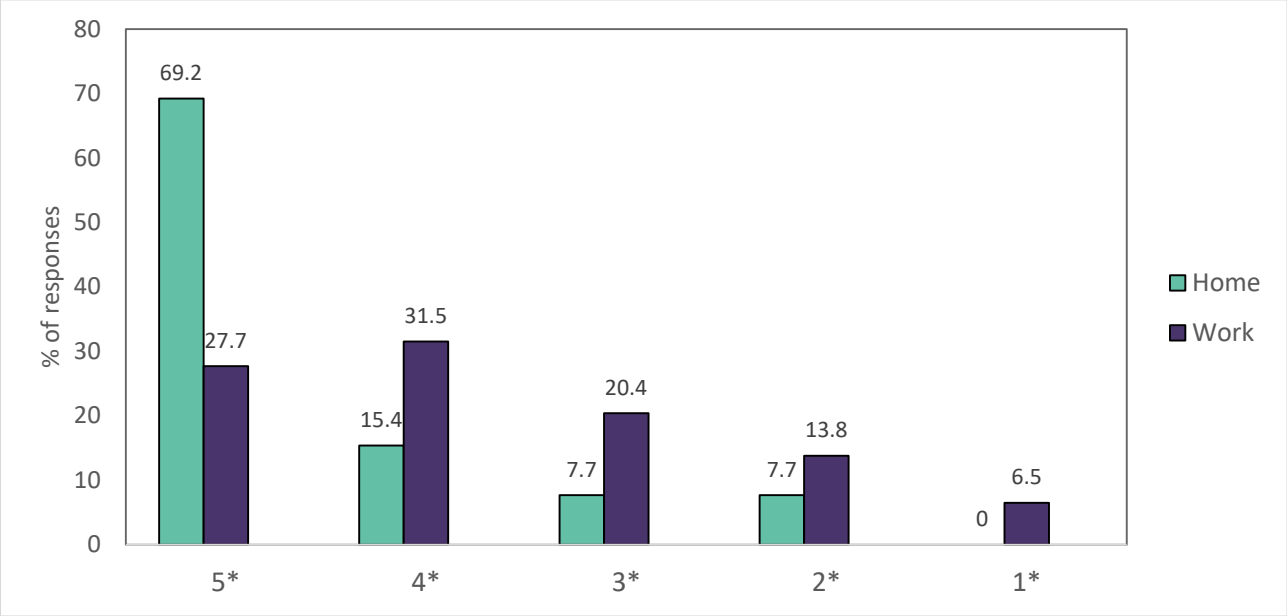
Respondents were also asked to state whether or not they would use VC again after their appointment. 95.2% of patients said they would use it again (n = 83). Comparisons between respondents who would (n = 78) and wouldn't use (n = 4) VC again were not possible due to the low group size.

Clinician work locations

In BCUHB, only 4.7% of clinicians were working from home. Analysis to test the differences between those working from home (n = 13) and their work location (n = 260) was not possible due to the vast differences in group sizes. However, the distributions of responses are displayed in Figure 28.

The prevention of FTF was higher in those working from their work location (89%, n = 246), compared with only 70.0% for those working from home. However, once again, the size of the group for those working from home was small (n = 10), thus possibly introducing bias or skewing these results.

Figure 28. The distributions of quality rating responses for clinicians working from home and their work.



Care Sector Split & Findings.

Quality rating and prevention of FTF

Primary and Secondary Care seemed to rate VC similarly, and the one respondent in Community Care gave it a 5-star rating. A Mann-Whitney U test compared Primary and Secondary Care (with Community Care excluded due to the very small group size) and revealed no significant differences between the two on VC quality ratings, $U = 17128.5$, $p > .05$. Also, FTF was prevented more often in Primary Care, with 93.2% of respondents stating it was prevented, compared with 86.7% in Secondary Care. These data are displayed in Table 27.

Table 27. The distributions and descriptive statistics of responses for VC quality ratings and the prevention of FTF in each care sector.

VC Quality %	Primary		Secondary		Community	
5*	37.9		41.0		100	
4*	24.7		32.5		0	
3*	16.3		16.0		0	
2*	15.8		5.5		0	
1*	5.3		5.0		0	
Mean	3.7		4.0		5.0	
Median	4.0		4.0		5.0	
Total n	190		200		1	
	Prevented FTF					
	Yes	No	Yes	No	Yes	No
%	93.2	6.8	86.7	13.3	100.0	0.0
Freq.	161		196		1	

Patient versus clinician

Analyses were conducted to test the differences between patients and clinicians in each care sector. There were significant differences between patients and clinicians in Primary and Secondary Care, analyses could not be conducted in Community Care due to the very small number of responses. The statistics are displayed in Table 28. This suggests that there are differences between clinicians and patients in both Primary and Secondary Care.

Table 28. The U statistics of the Mann-Whitney U tests of differences between patients and clinicians in each individual care sector, as well as group sizes. Significance is marked with *.

	U	Patient n	Clinician n
Primary	1700.0***	42	148
Secondary	3128.5***	71	129
Community	/	/	/

*** p < .001.

Patient demographics

The demographics of the patients for each care sector are displayed in Table 29.

Table 29. The percentage of patients per age group and gender for each of the care sectors.

	Care Sector		
Age Group %	**Primary**	**Secondary**	**Community**
Under 12	14.6	8.5	0.0
13-17	26.8	12.7	100.0
18-24	0.0	0.0	0.0
25-44	14.6	38.0	0.0
45-64	17.1	26.8	0.0
65+	26.8	14.1	0.0
Freq.	41	71	1
Gender %			
Male	35.7	36.1	0.0
Female	64.3	63.9	100.0
PNTS/Other	0.0	0.0	0.0
Freq.	42	72	1

Patient usage of VC

In Primary Care (n = 8), 37.5% of respondents had used VC before, compared with 26.4% of Secondary Care respondents (n = 72), and none in Community Care as there was only one respondent. 83.3% of Primary Care respondents (n = 6) had only used VC once before, and 16.7% had used it three times or more. In Secondary Care (n = 19), 31.6% of respondents had used VC once before, 15.8% twice, and 52.6% three times or more. In terms of using VC again/after COVID-19, 75% of Primary Care patients (n = 8) would use it again, compared with 97.2% of Secondary Care respondents (n = 72). This difference in percentages may be due to the small group sizes.

Clinician work location

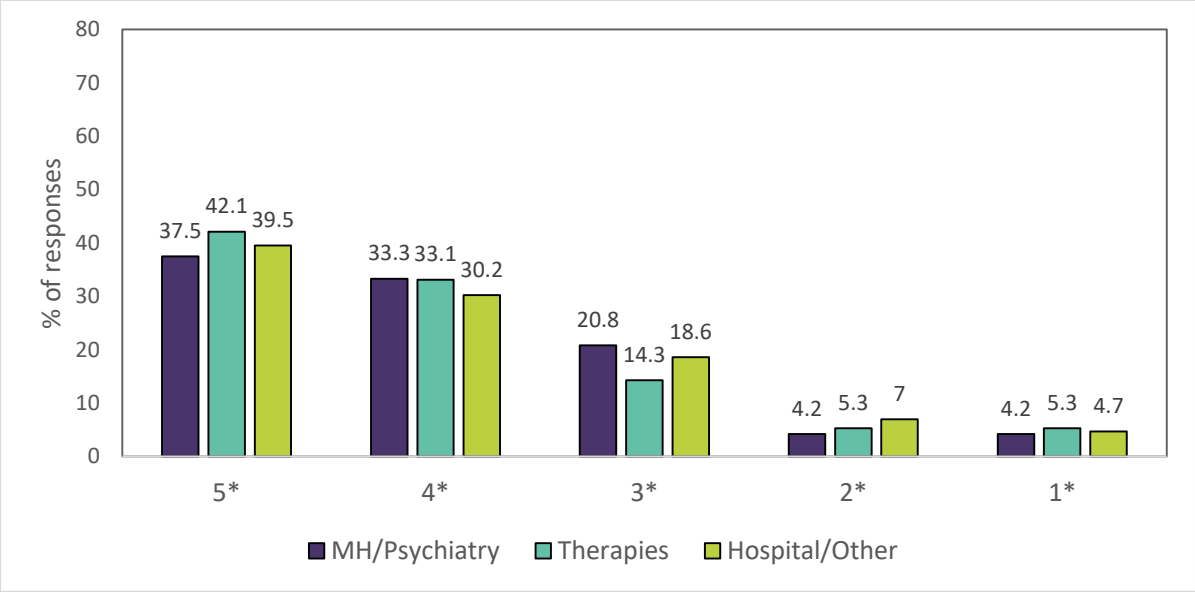
The proportion of respondents who were working from home in BCUHB was similar in both Primary and Secondary Care (no data for Community Care). This was 5.0% in Primary Care (n = 140) and 4.6% in Secondary Care (n = 130).

Secondary Care Findings

Quality rating and prevention of FTF

The quality ratings in each Secondary Care sub-category were analysed for differences between them (Mental Health/Psychiatry n = 24, Therapies n = 133, Hospital/Other = 43). A Kruskal-Wallis revealed no significant differences between the Secondary Care sub-categories on the ratings they gave VC, H = 0.34, df = 2, p > .05. This is demonstrated in Figure 29.

Figure 29. The distributions of scores for quality ratings across the sub-categories of Secondary Care.



Demographics of patients

Patient demographics, including age group and gender, in each of the Secondary Care sub-categories are displayed in Table 30.

Table 30. The percentage of patients in each age group and gender per Secondary sub-category.

	Care Sector		
Age Group %	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Under 12	0.0	13.6	0.0
13-17	44.4	11.4	0.0
18-24	0.0	0.0	0.0
25-44	33.3	43.2	27.8
45-64	22.2	22.7	38.9
65+	0.0	9.1	33.3
Freq.	9	44	18
Gender %			
Male	40.0	29.5	50.0
Female	60.0	70.5	50.0
PNTS/Other	0.0	0.0	0.0
Freq.	10	44	18

VC usage by Secondary Care

The responses to using VC before, how many times, and if respondents would use VC again are displayed in Table 31. Mental Health/Psychiatry had the highest frequency of responses for using VC before, with 40.0% of respondents stating they had used it prior to their appointment. This is followed by Therapies, and then Hospital/Other. Interestingly, 100% of respondents in both Therapies and Hospital/Other would use VC again or after COVID-19 has passed. However, it is difficult to compare these data, as the group sizes differ from each other.

Table 31. The distribution of responses to using VC before, how many times, and if respondents would use it again per Secondary Care sector.

	Care Sector %		
Used VC Before?	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Yes	40.0	27.8	16.7
No	60.0	72.2	83.3
Freq.	10	44	18
How Many Times?			
Once	25.0	33.3	33.3
Twice	0.0	16.7	33.3
Three or more	75.0	50.0	33.3
Freq.	4	12	3
Use Again/After?			
Yes	80.0	100.0	100.0
No	20.0	0.0	0.0
Freq.	10	44	18

Clinician work location by Secondary Care sub-categories

A similar proportion of clinicians were working from home in each of the Secondary Care sub-categories, with 6.7% in Mental Health/Psychiatry (n = 15) and 5.7% in Therapies (n = 88). 100% of respondents in Hospital/Other (n = 27) were working from their clinical base (work location).

Type of appointment

Table 32 displays the number of respondents carrying out each type of appointment over VC. In particular, follow-up appointments were the most common type, and discharge and feedback/outcomes being the least common (with no occurrences in BCUHB). Table 33 also displays the proportion of appointments being conducted by the work location of the clinician.

Table 32. The frequencies (freq.) and percentages (%) of appointment types.

	%	Frequency
Appointment Type		
Advice	3.1	3
Discharge	0.0	0
Feedback/Outcomes	0.0	0
First Appointment	18.4	18
Follow-up	40.8	40
Review	7.1	7
Therapy	22.4	22
Other	8.2	8

Table 33. The proportion of appointments being carried out at work and at home.

	Work Location		
	Home	Work	Frequency
Appointment Type			
Advice	0	100.0	3
Discharge	0.0	0.0	0
Feedback/Outcomes	0.0	0.0	0
First Appointment	5.6	94.4	18
Follow-up	5.0	95.0	40
Review	0.0	100.0	7
Therapy	0.0	100.0	22
Other	12.5	87.5	8

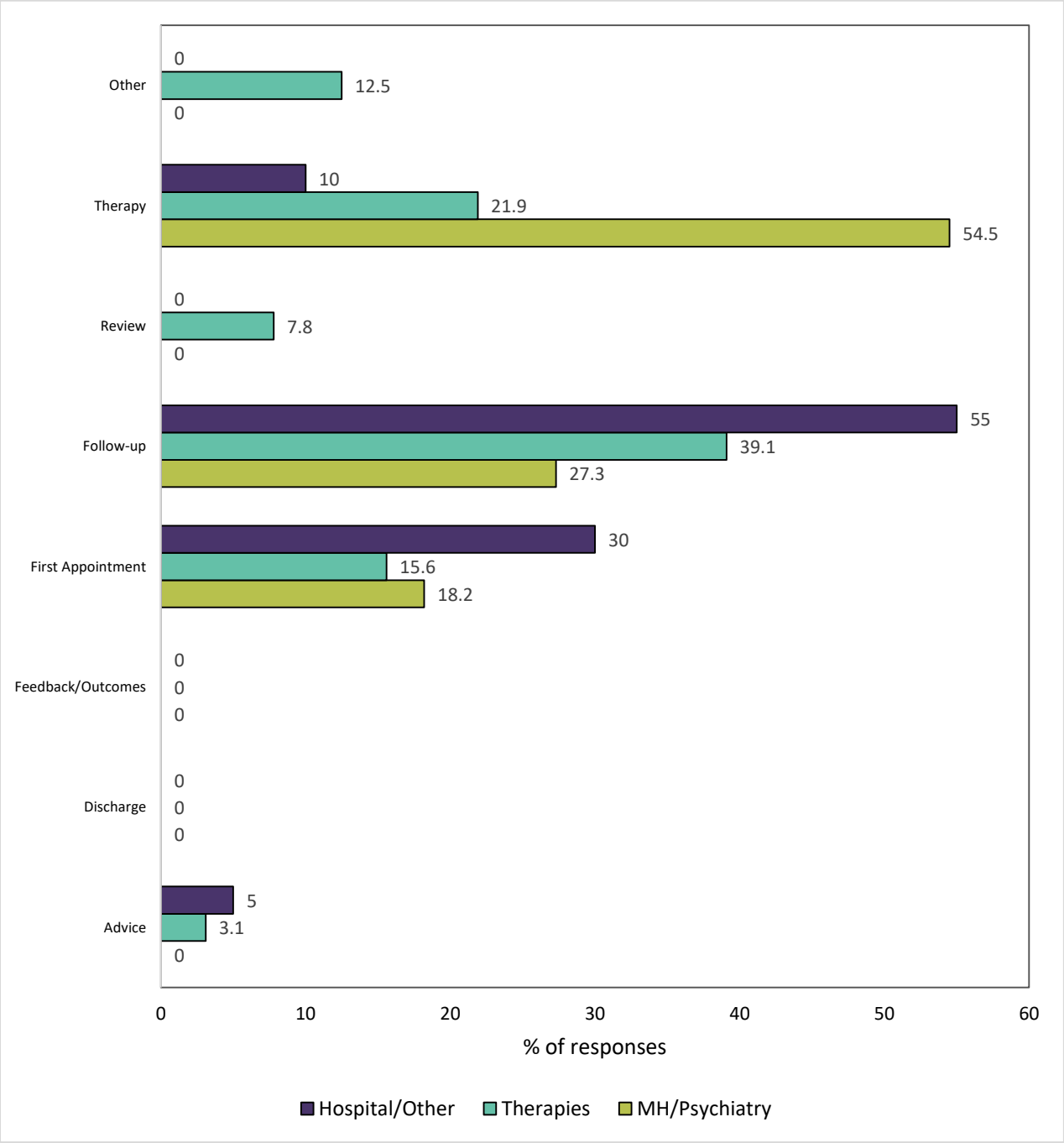
Table 34. The distributions of quality rating scores and the prevention of FTF across the difference appointment types.

Quality Rating %	**Advice**	**Discharge**	**Feedback/ Outcomes**	**First Appointment**	**Follow-up**	**Review**	**Therapy**	**Other**
5*	0.0	/	/	22.2	25.0	42.9	27.3	0.0
4*	66.7	/	/	22.2	52.5	28.6	36.4	37.5
3*	33.3	/	/	22.2	15.0	28.6	22.7	50.0
2*	0.0	/	/	5.6	7.5	0.0	0.0	12.5
1*	0.0	/	/	27.8	0.0	0.0	13.6	0.0
Freq.	3	/	/	18	40	7	22	8
Prevented FTF? %								
Yes	100.0	/	/	76.5	84.2	100.0	86.4	37.5
No	0.0	/	/	23.5	15.8	0.0	13.6	62.5
Freq.	3	/	/	17	38	7	22	8

Considering VC quality ratings, review appointments had the highest frequency of 5-star ratings, however all appointment types seemed similar in the ratings they gave VC. Additionally, the prevention of FTF seemed to vary according to appointment type, however this may be due to the differing responses numbers. This is displayed in Table 34.

The Secondary Care sub-categories were also analysed for the type of appointments clinicians were conducting using VC. Figure 30 displays these distributions, with Therapy being the most common appointment type in Mental Health/Psychiatry (54.5%, total n = 11), follow-up in Therapies (39.1%, total n = 64), and Hospital/Other (55.0%, total n = 55).

Figure 30. The proportion of appointment types carried out in each Secondary sub-category.



Discussion of BCUHB

VC was rated positively, generally, by the patients and clinicians in BCUHB, as well as there being a high prevention of FTF. However, there was a difference between patients and clinicians for their quality ratings of VC, whereby patients once again rated VC more positively. On the other hand, Primary and Secondary Care were very similar in their ratings, and no differences were

revealed between them through statistical analyses. This suggests that the two care sectors view VC positively. Although similar in the prevention of FTF, Primary Care had a slightly larger proportion of respondents stating that it had been prevented by VC. There was only one respondent in Community Care, and this individual viewed VC to be positive also, with FTF being prevented for them.

Considering Secondary Care, the most common appointment being conducted through VC was follow-up appointments. There was also a similar proportion of clinicians working from home. Overall, there were no differences between the sub-categories of Secondary Care (Mental Health/Psychiatry, Therapies, Hospital/Other) on how they rated VC, suggesting no evident difference exist between them in BCUHB, and that they view VC similarly.

Therefore, BCUHB patients view VC more positively than clinicians, although the prevention of FTF was high, overall. This indicates a difference in the experience when using VC between these two respondents. However, no differences were identified between Primary and Secondary Care, nor the Secondary Care sub-categories, which suggests VC is rated similarly by the clinicians and patients in each sector/category.

Cardiff & Vale University Health Board (CAVUHB)

Sample Total

There was a total of 1121 responses in CAVUHB, with 727 clinicians and 394 patients

Quality rating and the prevention of FTF

In CAVUHB, 36.7% rated VC 5-stars (excellent), with 82.5% of responses giving VC an excellent, very good, or good rating. FTF was also prevented 88.1% of the time. These responses are displayed in Figure 31 and Figure 32.

Figure 31. The overall proportion of quality ratings in CAVUHB (n = 1113)

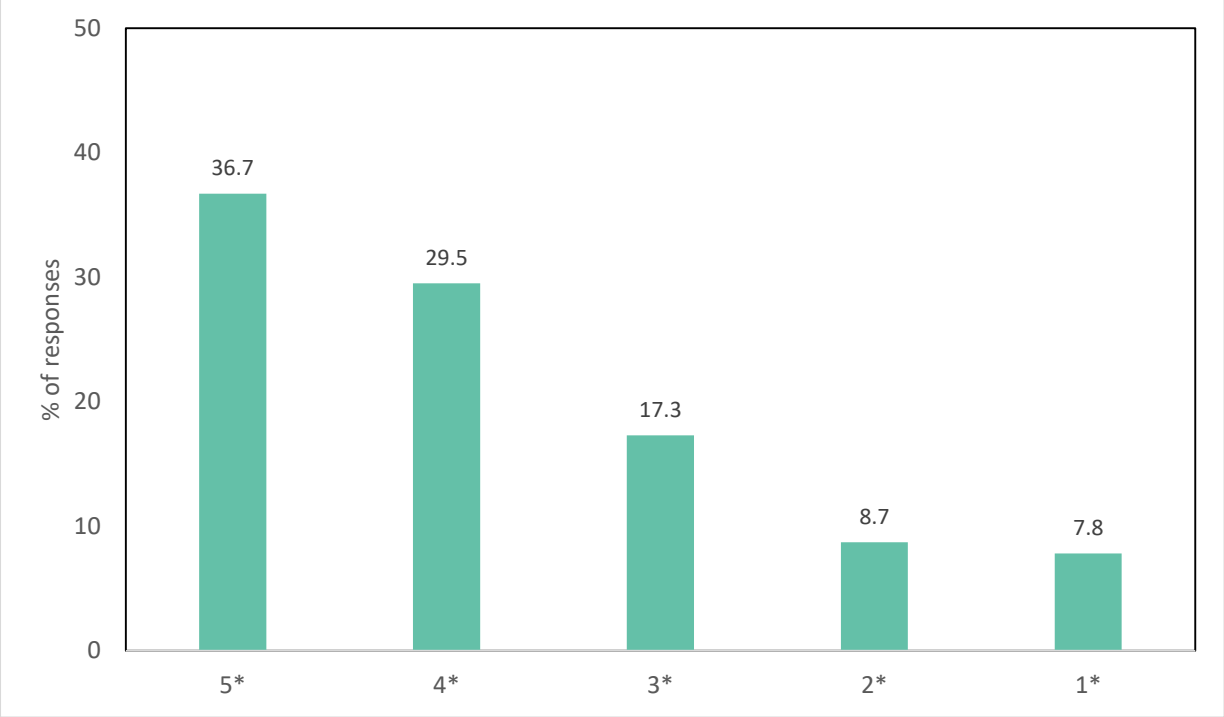
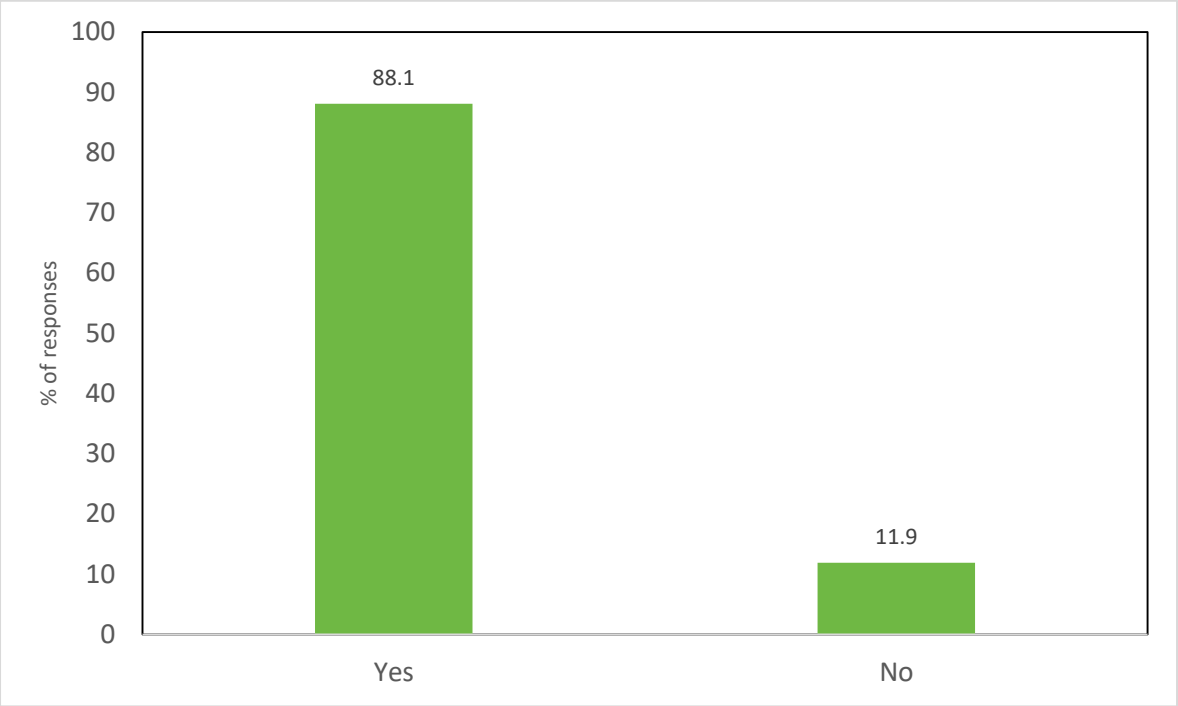


Figure 32. The overall prevention of FTF in CAVUHB (n = 1009).



Patient versus clinician

A Mann-Whitney U analysis was conducted to test the differences between patients and clinicians on their VC quality ratings. This revealed a significant difference between patients and clinicians ($U = 95708.5$, $p < .001$), suggesting that patients rated VC quality more positively than clinicians.

Demographics of patients

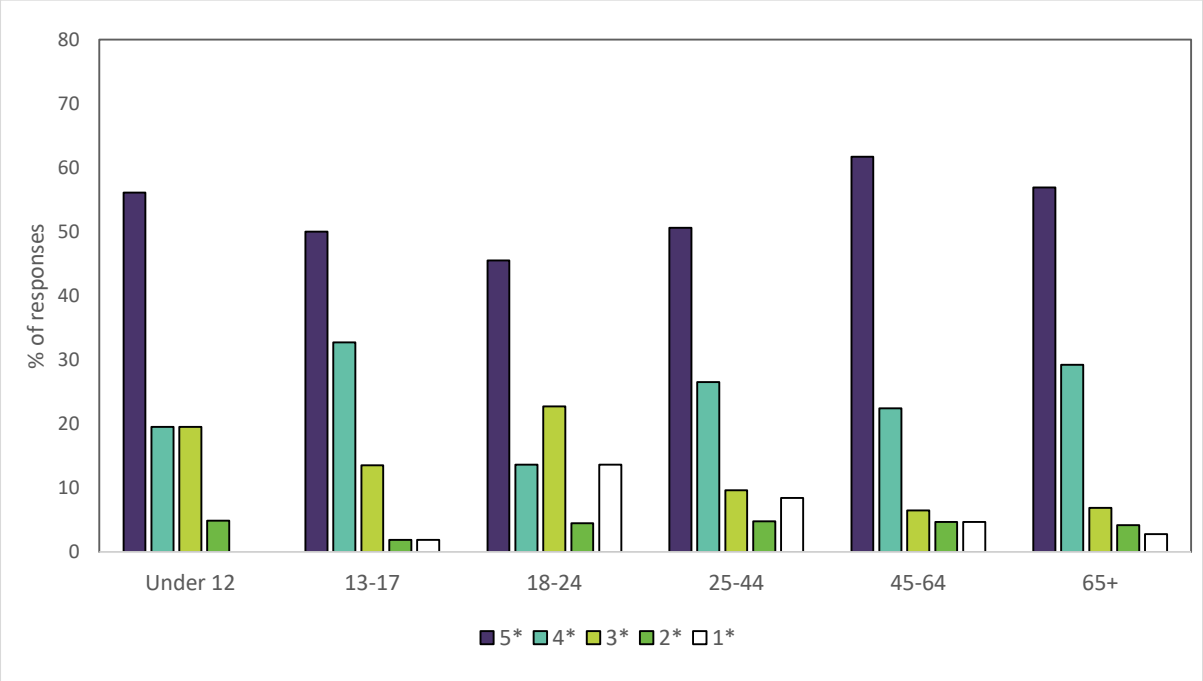
Table 35 displays the age groups and genders of the patients with CAVUHB. The majority of patients were between the ages of 45-64 and were female.

Table 35. The frequencies and percentages of each patient age group and gender.

Age	%	Freq.	Gender	%	Freq.
Under 12	10.8	41	Male	37.6	145
13-17	13.6	52	Female	61.4	237
18-24	5.8	22	PNTS/Other	1.0	4
25-44	22.0	84			
45-64	28.3	108			
65+	19.4	74			
Total Responses		381	Total Responses		386

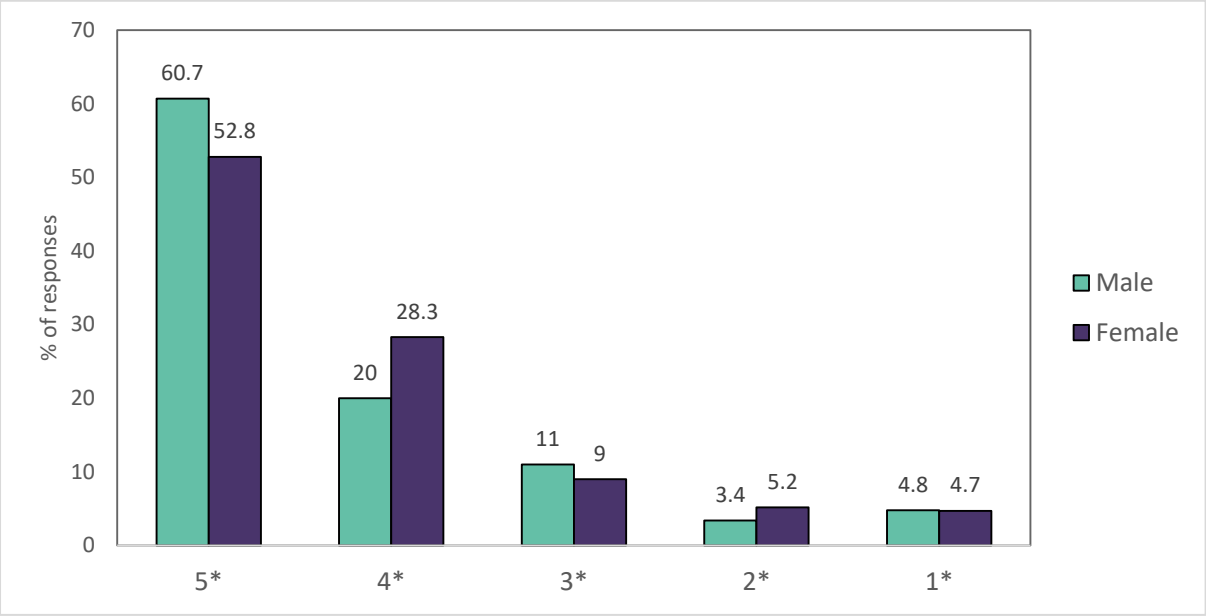
The data was analysed for any differences between the age groups on the quality ratings they gave VC. A Kruskal-Wallis revealed no significant differences, $H = 5.72$, $df = 5$, $p > .05$, suggesting that in general, the age groups rated VC similarly. This is displayed in Figure 33.

Figure 33. The distributions of quality rating scores per age group.



In addition to this, an analysis also tested the differences between males (n = 233) and females (n = 145). PNTS/Other was excluded due to the low group size (n = 4). There was no significant difference between the genders ($U = 15800.5$, $p > .05$), suggesting males and females rated VC similarly (Figure 34).

Figure 34. The distribution of quality rating scores for males and females.



Patient usage of VC

In general, 32.5% of patients (n = 107) reported using VC previously. The ratings that were given by individuals who had used VC (n = 94) and those who hadn't used VC (n = 191) were similar, and there were no evident differences in the distribution of responses. This is demonstrated in Figure 35.

For those who had used VC previously (n = 113), 40.7% of respondents had used it once, 14.2% had used it twice, and 45.1% three times or more. Although a Mann-Whitney U found no significant differences between respondents who had used it once (n = 46) and three times or more (n = 51) (twice was excluded due to the smaller group size, n = 16) there was a trend for those who had used VC more to rate it more negatively (Figure 36).

Figure 35. The distributions of quality ratings for respondents who had used VC before (yes) and those who had not (no).

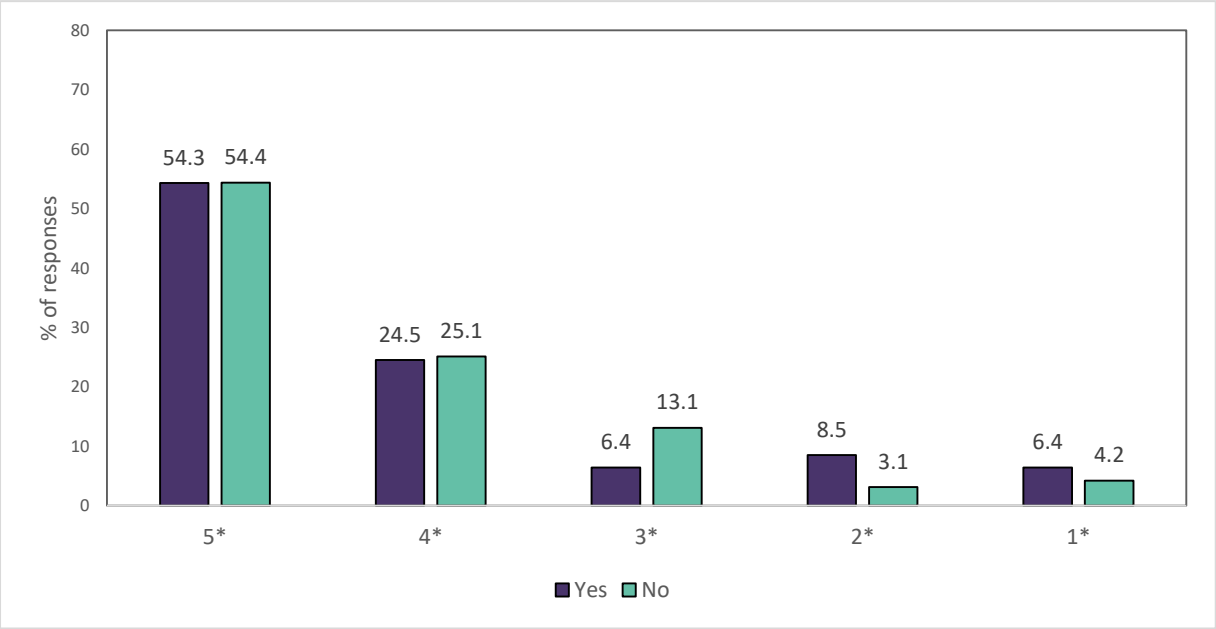
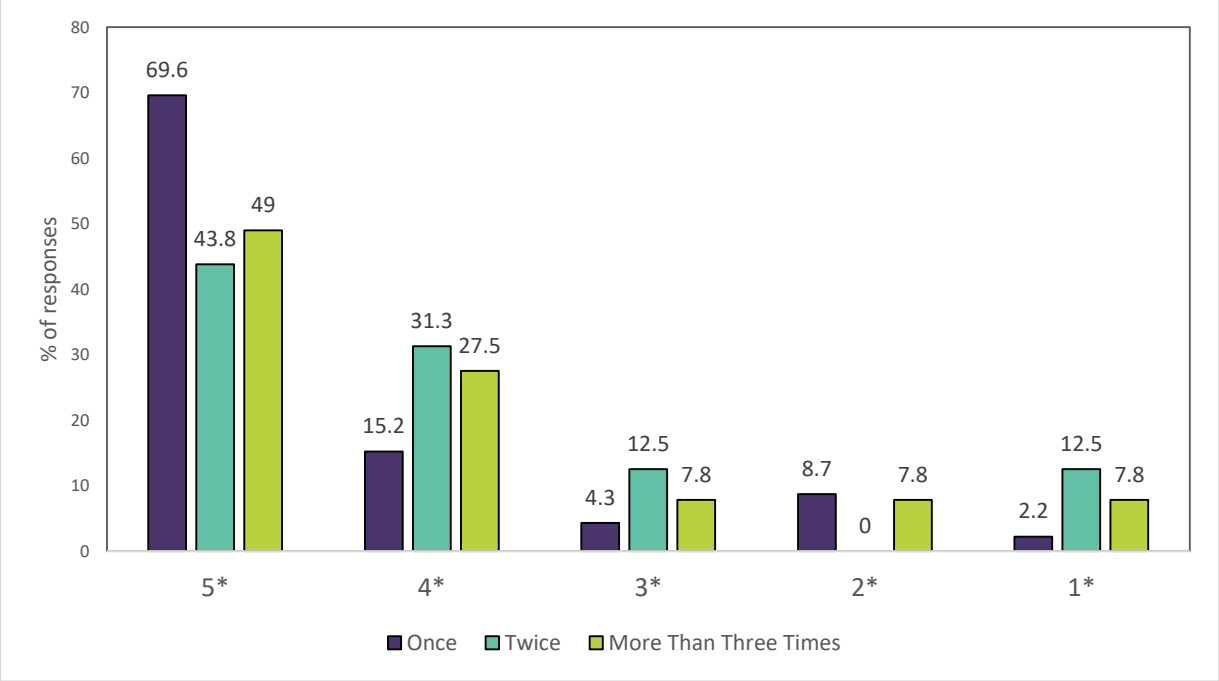


Figure 36. The distribution of quality responses for respondents who had used VC once, twice, and three times or more previously.



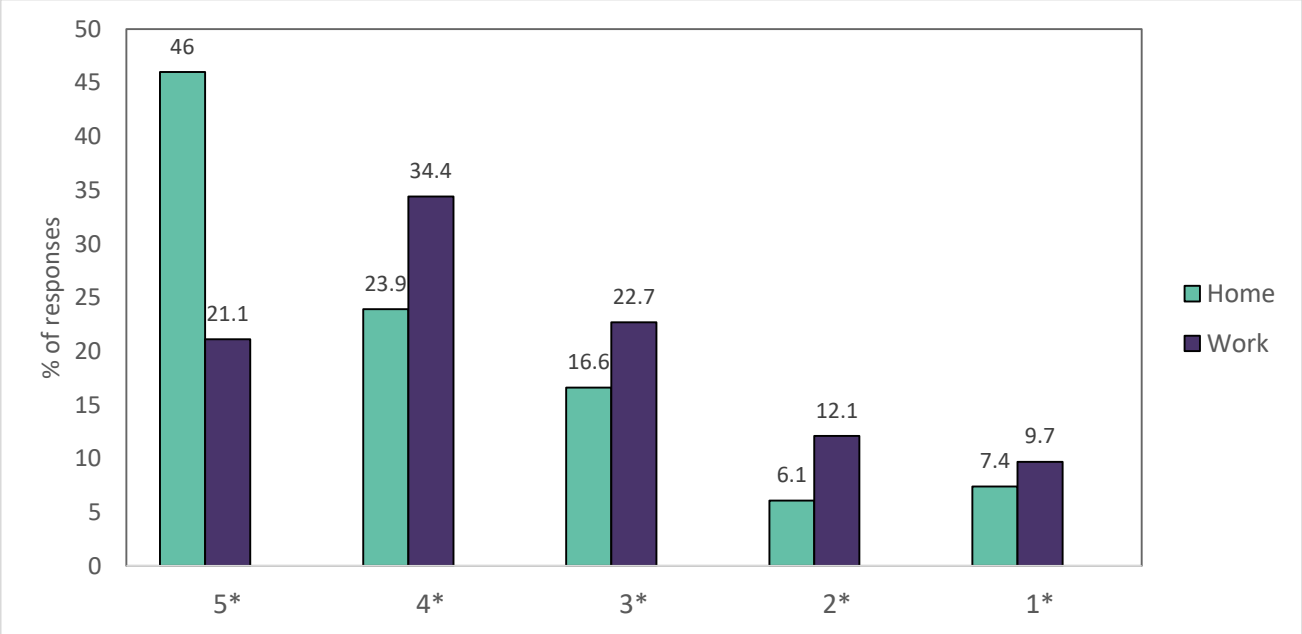
Finally, respondents were asked whether they would use VC again or after COVID-19 had passed. 95.7% responded that they would use VC again. It also

emerged that for the respondents who would not use VC again, a FTF appointment was only prevented for 45.5% of these. However, there were only 11 responses for not using VC again and whether FTF was prevented.

Clinician work location

The percentage of clinicians working from home in CAVUHB was 24.3%, with 75.3% working from their work location, and 0.4% stating 'other'. Although there were differences in group sizes for those working from home (n = 163) and work (n = 503), a Mann-Whitney U test was conducted to test the differences between these two groups of respondents and their quality ratings. This revealed a significant difference between those working from home and their work, U = 30531, p < .001, suggesting that clinicians working from home rated VC more positively, as displayed in Figure 37.

Figure 37. The distributions of quality ratings for clinicians working from home and their work.



Care Sector Split & Findings.

This section will consider the findings from the individual care sectors, Primary, Secondary, and Community Care.

Quality ratings and prevention of FTF

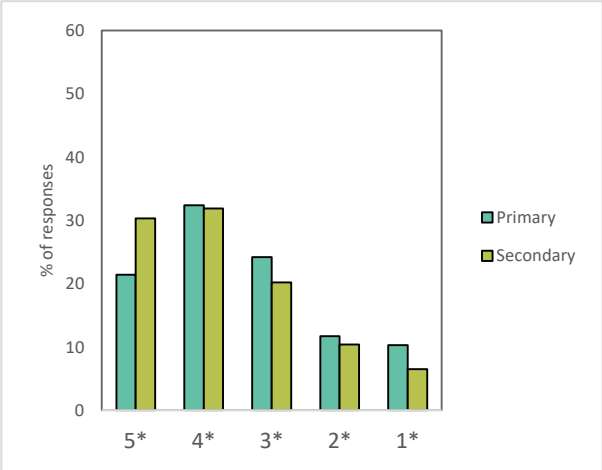
Although there was a small group size for Community Care (n = 13), the care sectors seemed to rate VC similarly, with no differences emerging between them, as shown in Table 36. FTF prevention was also similar in Primary and Secondary Care, but it was slightly lower in Community Care. This is also demonstrated in Table 2.

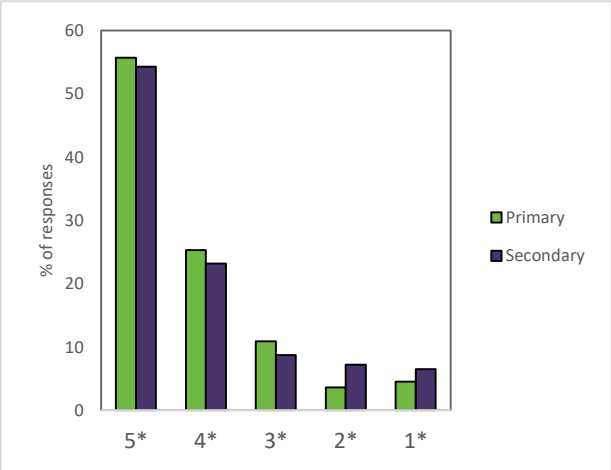
Table 36. The distributions and descriptive statistics of responses for VC quality ratings and the prevention of FTF in each care sector.

VC Quality %	**Primary**		**Secondary**		**Community**	
5*	36.5		36.9		38.5	
4*	29.3		29.8		15.4	
3*	18.3		17.3		7.7	
2*	8.2		9.6		23.1	
1*	7.8		6.5		15.3	
Mean	3.8		3.8		3.4	
Median	4.0		4.0		4.0	
Freq.	502		521		13	
	Prevented FTF?					
	Yes	No	Yes	No	Yes	No
%	87.8	12.2	88.7	11.3	76.9	23.1
Freq.	410		515		13	

The data was analysed for patients and clinicians separately in each care sector. Community Care was excluded due to the low group size. For clinicians alone, there was a significant difference between the ratings that Primary and Secondary Care gave VC, $U = 46999.0$, $p < .01$. On the other hand, there was no significant difference between Primary and Secondary Care for patients. This suggests that Secondary Care clinicians rate VC as more positive than Primary Care clinicians, and that both Primary and Secondary Care patients rate VC similarly. This is made clear in Figure 38 and Figure 39.

Figure 38 (left) and Figure 39 (right). The differences in distributions between Primary and Secondary clinicians (left) and patients (right)





Patient versus clinician

Analyses were once again conducted to test the differences between patients and clinicians on their quality ratings in each care sector separately. There were significant differences between the two respondents in Primary and Secondary Care, suggesting that patients rate VC more positively than clinicians in both of these care sectors. The statistics are displayed in Table 37. There was only one patient in Community Care and thus comparisons were not possible.

Table 37. The U statistics of Mann-Whitney U tests of differences between patient and clinician's quality ratings, as well as group sizes, in each care sector.

	U	**Patient n**	**Clinician n**
Primary	18587.0***	221	281
Secondary	20162.0***	138	383

*** $p < .001$.

Patient demographics

The demographics of the patients in each care sector are displayed in Table 38.

Table 38. The percentage of patients per age group and gender for each of the care sectors.

	Care Sector		
Age Group %	**Primary**	**Secondary**	**Community**
Under 12	18.6	1.4	0.0
13-17	19.5	7.1	100.0
18-24	3.3	9.2	0.0
25-44	5.2	41.8	0.0
45-64	26.7	29.8	0.0
65+	26.7	10.6	0.0
Freq.	210	141	1
Gender %			
Male	43.1	29.9	0.0
Female	56.4	68.1	100.0
PNTS/Other	0.5	2.1	0.0
Freq.	211	144	1

Patient usage of VC

There was only one response for Community Care, and this patient stated not having used VC before. For Primary Care (n = 114), 19.3% of respondents had used VC before, and this compares to 38.9% of respondents in Secondary Care. For patients who had used VC before in Primary Care (n = 41), 63.4% had used it once, 9.8% twice, and 26.8% three times or more. For Secondary Care patients (n = 56), 33.9% had used it once, 14.3% twice, and 51.8% three times or more. In terms of whether respondents would use VC again, 92.2% in Primary Care and 98.6% in Secondary Care responded 'yes'.

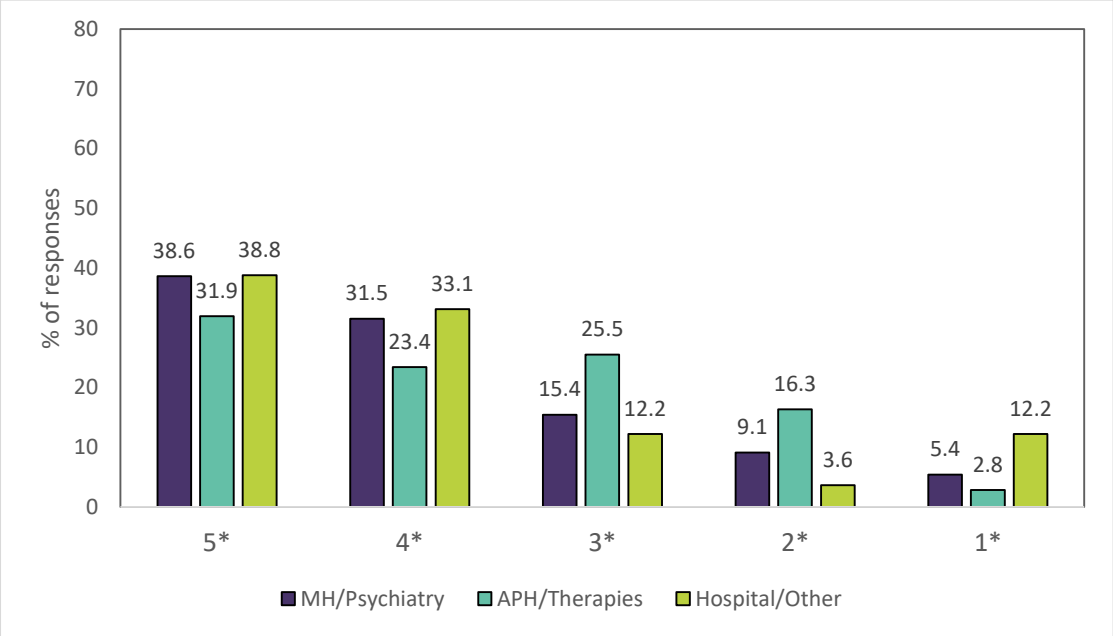
Clinician work location by care sector

The majority of Primary Care clinicians (91.0%, n = 255) and Community Care clinicians (91.7%, n =12) were working from their work location, compared with 63.9% of Secondary Care clinicians (n = 363).

Secondary Care Findings

The quality ratings in each Secondary Care sub-category were similar. However, Therapies rated VC slightly more negatively than Mental Health/Psychiatry and Hospital/Other, and this can be seen in Figure 40. Interestingly, however, there were differences between the sub-categories for the prevention of FTF. In particular, FTF was prevented 97.0% of the time in Mental Health/Psychiatry (n = 233), 84.2% for Hospital/Other (n = 139), and only 79.7% for Therapies (n = 139).

Figure 40. The distribution of quality ratings across the sub-categories of Secondary care.



Demographics of patients

The demographics of the patients in each Secondary Care sub-category are displayed in Table 39.

Table 39. The percentage of patients in each age group and gender per Secondary sub-category.

	Secondary Sub-category		
Age Group %	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Under 12	0.0	33.3	0.0
13-17	16.7	16.7	1.1
18-24	8.3	16.7	9.2
25-44	45.8	33.3	40.2
45-64	25.0	0.0	34.5
65+	4.2	0.0	14.9
Freq.	48	6	87
Gender %			
Male	26.5	50.0	30.3
Female	69.4	50.0	68.5
PNTS/Other	4.1	0.0	1.1
Freq.	49	6	89

VC usage by Secondary Care

The responses to using VC before, how many times, and if respondents would use it again are displayed in Table 40. Mental Health/Psychiatry had the largest frequency of respondents for using VC before (71.4%), followed by Therapies (33.3%, and then Hospital/Other (21.3%). Mental Health/Psychiatry also had the highest proportion of respondents that had used it three or more times (71.4%). 100% of respondents in Mental Health/Psychiatry and Therapies would use VC again or after COVID-19, and 97.7% would in Hospital/Other.

Table 40. The distributions of responses to using VC before, how many times, and if respondents would use it again per Secondary Care sector.

	Care Sector %		
Used VC Before?	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Yes	71.4	33.3	21.3
No	28.6	66.7	78.7
Freq.	49	6	89
How Many Times?			
Once	17.1	50.0	63.2
Twice	11.4	50.0	21.1
Three or more	71.4	0.0	15.8
Freq.	35	2	19
Use Again/After?			
Yes	100.0	100.0	97.7
No	0.0	0.0	0.0
Freq.	49	6	87

Clinician work location by Secondary sub-categories

Mental Health/Psychiatry (n responses = 175) had the highest proportion of clinicians working from home (73.1%). Therapies (1.0%, n responses = 103) and Hospital/Other (2.4%, n responses = 85), on the other hand, had very low numbers of clinicians working from home.

Type of appointment

This question was unique to the Secondary and Community Care clinician surveys, and thus does not include Primary Care data. Table 41 displays the number of respondents carrying out each type of appointment. Specifically, first appointments were the most common, and feedback/outcomes being the least common. Table 8 also displays the type of appointments being carried out from the clinician's home or place of work.

Table 41. The frequencies and percentages of appointment types conducted in CAVUHB.

	%	Frequency
Appointment Type		
Advice	4.0	0
Discharge	0.9	2
Feedback/Outcomes	0.0	0
First Appointment	34.8	78
Follow-up	30.8	69
Review	8.0	18
Therapy	18.3	41
Other	3.1	7

Table 8. The proportion of appointments being carried out at work or at home.

	Work Location		
	Home	Work	Frequency
Appointment Type			
Advice	25.0	75.0	8
Discharge	100.0	0.0	2
Feedback/Outcomes	/	/	/
First Appointment	20.5	79.5	73
Follow-up	33.8	66.2	65
Review	23.5	76.5	17
Therapy	77.4	22.6	31
Other	28.6	71.4	7

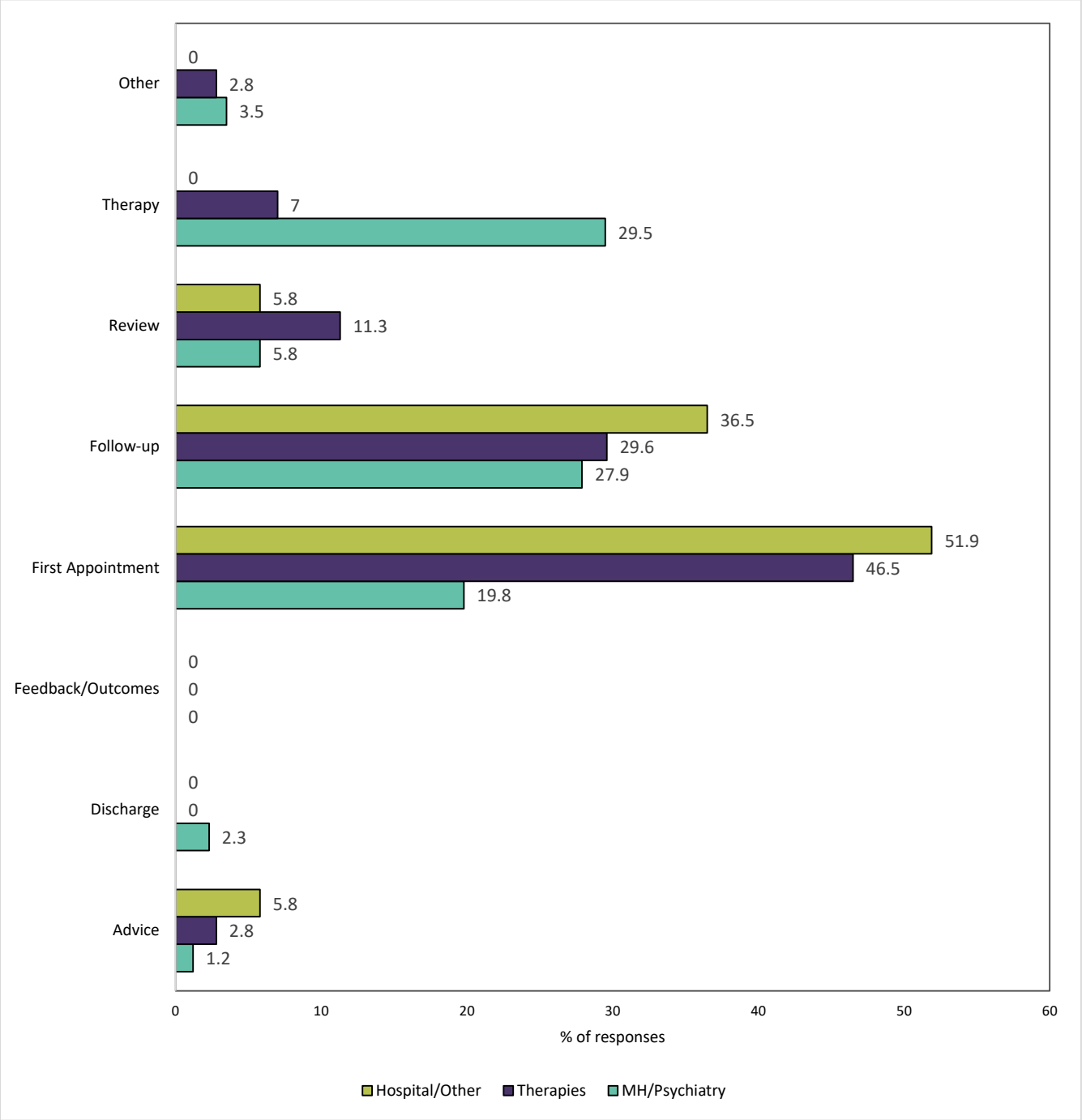
Considering VC quality ratings, therapy appointments had the highest frequency of 5-star ratings, with first appointments being rated more negatively than the other types. Interestingly, the prevention of FTF was lower for first appointments (68%) when compared with the others. This data is displayed in Table 42.

Table 42. The distributions of quality ratings and the prevention of FTF across the different appointment types.

Quality Rating %	Advice	Discharge	Feedback/ Outcomes	First Appointment	Follow-up	Review	Therapy	Other
5*	11.1	50.0	/	17.1	36.2	33.3	51.2	42.9
4*	33.3	0.0	/	30.3	31.9	16.7	24.4	14.3
3*	11.1	50.0	/	30.3	17.4	33.3	9.8	14.3
2*	11.1	0.0	/	15.8	4.3	16.7	7.3	28.6
1*	33.3	0.0	/	6.6	10.1	0.0	7.3	0.0
Freq.								
Prevented FTF? %								
Yes	88.9	100.0	/	68.0	95.5	94.4	89.5	85.7
No	11.1	0.0	/	32.0	4.5	5.6	10.5	14.3
Freq.	9	1	/	75	67	18	38	7

In addition to this, the Secondary Care sub-categories were also analysed for the type of appointments that clinicians were conducted using VC. Figure 41 displays these responses, with therapy appointments being most common in Mental Health/Psychiatry (n = 86), first appointments for Therapies (n = 71), and first appointments in Hospital/Other (n = 52).

Figure 41. The proportion of appointment types carried out in each Secondary Care sub-category.



Discussion of CAVUHB.

The analysis of the data for CAVUHB suggests that VC was rated positively and FTF appointments were prevented the majority of the time. Also, there was a high proportion of clinicians working from home, and these respondents gave VC more positive ratings than those working from their clinical base (work

location). The care sectors were similar in their ratings, although Community Care were slightly more negative, perhaps because of the lower group number. In addition to this, clinicians and patients rated VC differently, whereby patients gave more positive ratings, suggesting the experiences of these respondents differed when using VC, that may have caused patients to view it as more desirable. This difference between patients and clinicians was evident across all three care sectors.

Considering Secondary Care, the most common appointment type conducted using VC was first appointments, although interestingly, the prevention of FTF was found to be lower for these appointments compared with the other types. This supports the idea that first appointments may not be completely ideal or suitable for VC, as perhaps information can be missed regarding a new patient. Furthermore, there was also a lower prevention of FTF in the sub-category of Therapies compared with Mental Health/Psychiatry and Hospital/Other. Although the sub-categories were similar in their quality ratings, Therapies were slightly more negative than the others.

In summary, the findings from the care sectors suggest that there are no evident differences between Primary and Secondary Care, although there were differences between patients and clinicians across the entire data and care sectors. Also, it seems that perhaps in CAVUHB, first appointments are not appropriately suited for VC, with a lower prevention of FTF highlighted for this appointment type.

Cwm Taf Morgannwg University Health Board (CTMUHB)

Sample Total

There was a total of 523 responses in CTMUHB, with 330 clinicians and 193 patients.

Quality rating and prevention of FTF

Overall, 87.5% of respondents in CTMUHB (total n = 520) rated VC excellent, very good, or good, with 44.0% giving VC a 5-star ('excellent') rating. FTF was prevented for 86.5% of respondents (n = 473). This is displayed in Figure 42 and Figure 43.

Figure 42. The overall prevention of FTF in CTMUHB (n = 520)

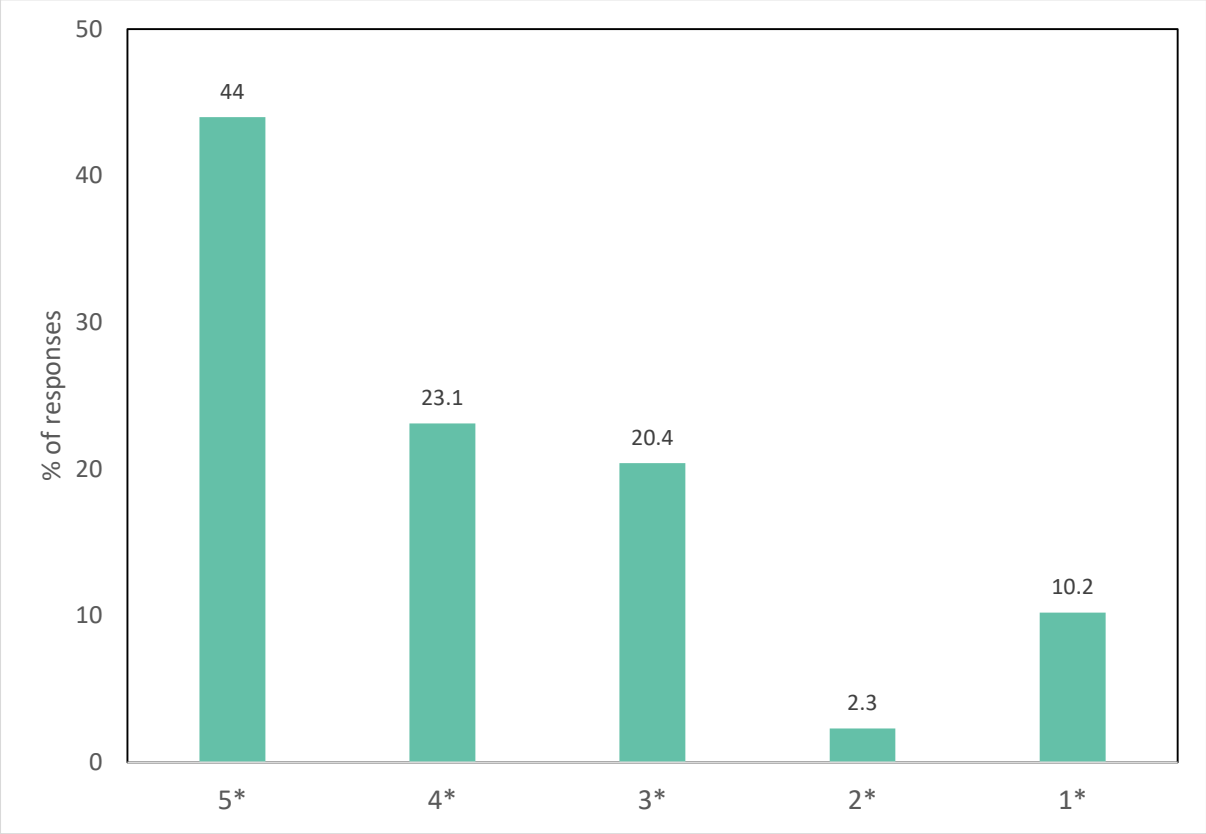
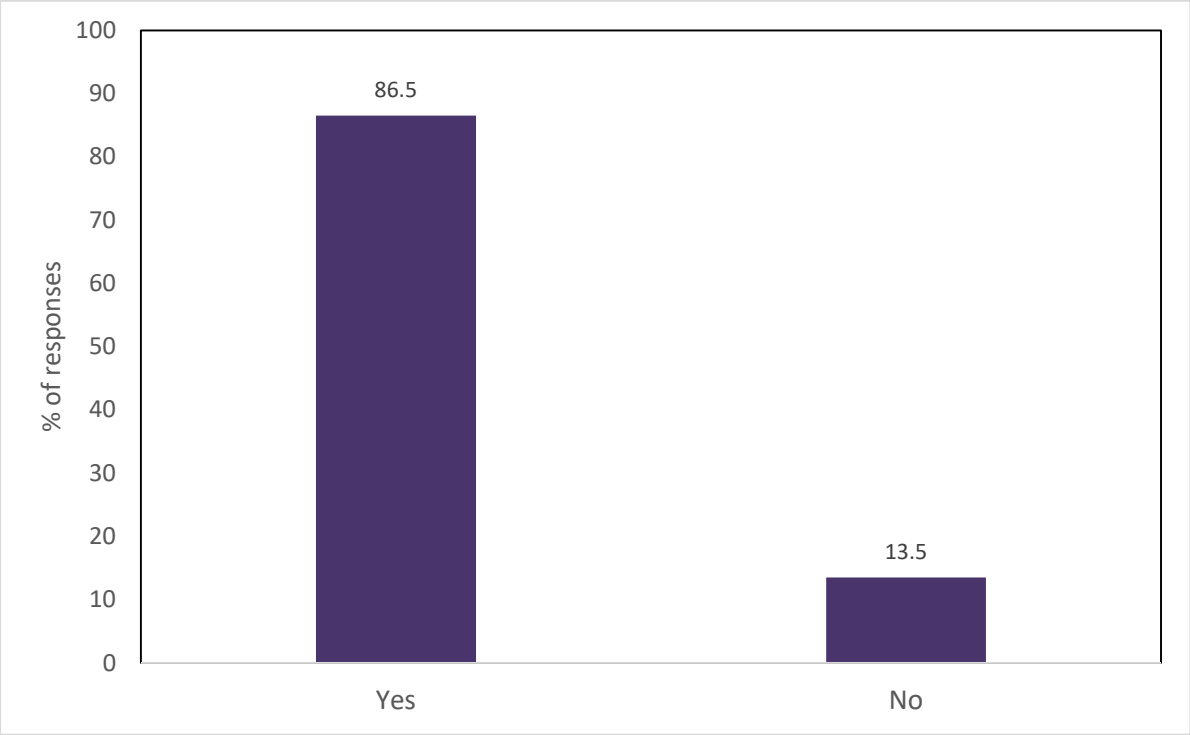


Figure 43. The overall prevention of FTF in CTMUHB (n = 473).



Patient versus clinician

A Mann-Whitney U test was conducted to test the differences between patient and clinicians' VC quality ratings. This revealed significant differences between the two types of respondents, $U = 20427.0$, $p < .001$, suggesting that patients rated VC more positively than clinicians.

Demographics of patients

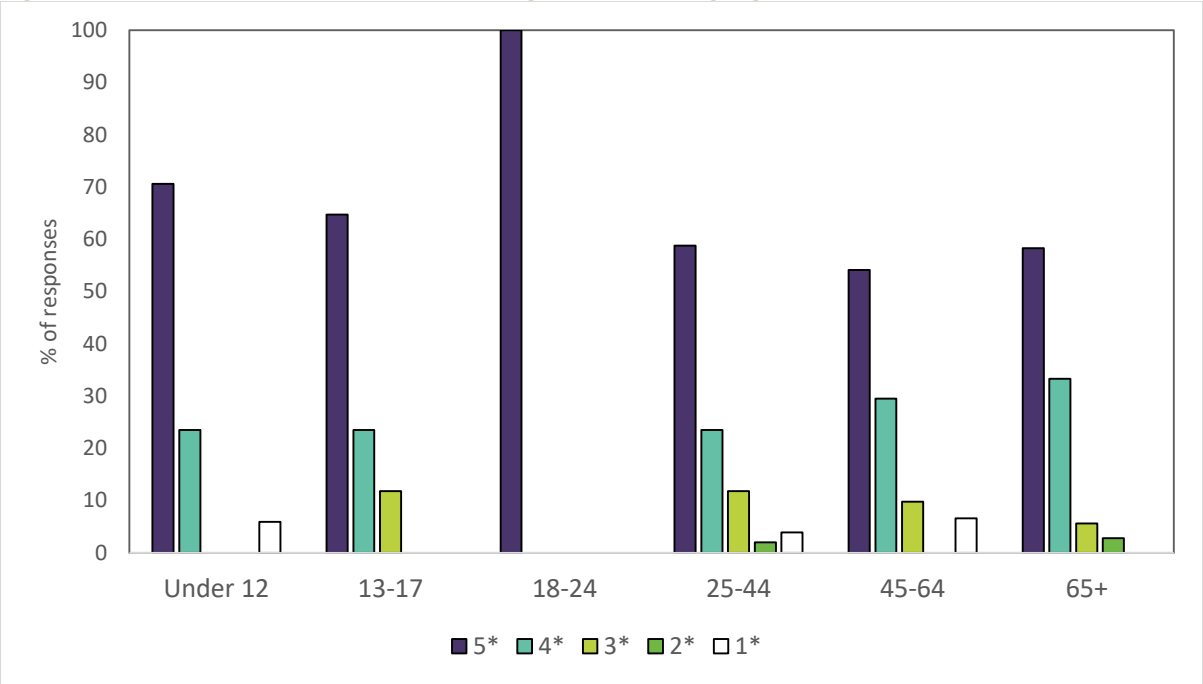
Table 43 displays the demographics of the patients in CTMUHB. The most common age group was 45-64, and the majority were female.

Table 43. The frequencies and percentages of each patient age group and gender.

Age	%	N	Gender	%	n
Under 12	8.9	17	Male	38.3	74
13-17	8.9	17	Female	59.6	115
18-24	4.7	9	PNTS/Other	2.1	4
25-44	26.6	51			
45-64	32.3	62			
65+	18.8	36			
Total Responses		131	Total Responses		193

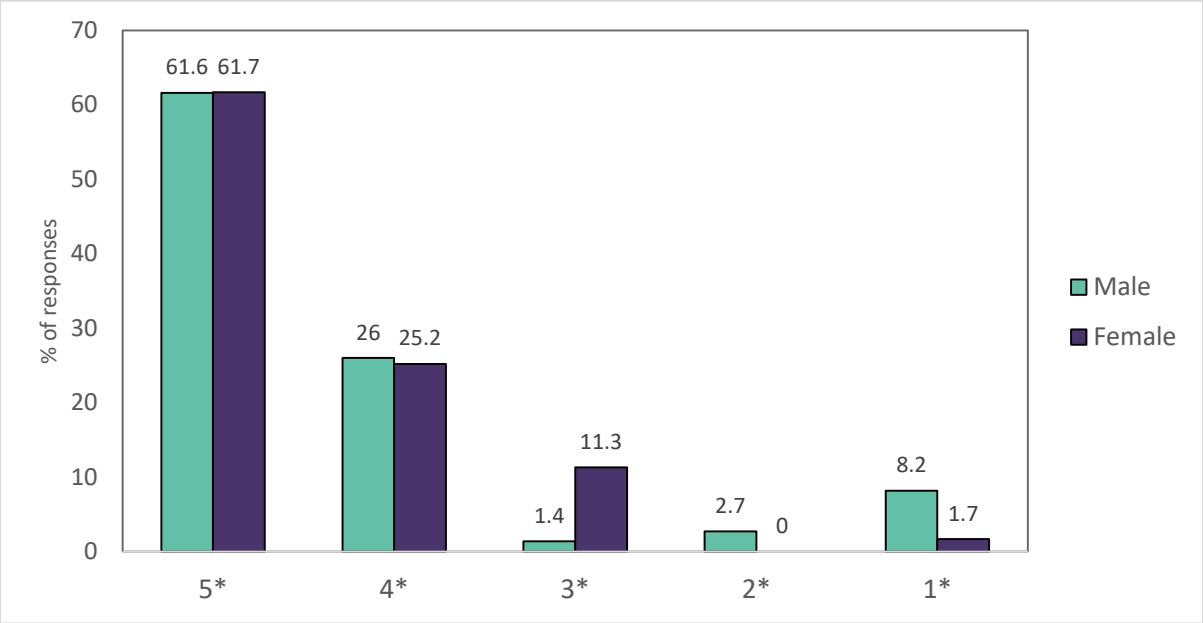
The data was analysed for any differences between the age groups on their VC quality ratings, but no differences emerged ($H = 7.87$, $df = 5$, $p > .05$), suggesting they rate VC similarly (Figure 44).

Figure 44. The distributions of quality rating scores per age group.



In addition to this, an analysis was also conducted to test the differences between males (n = 73) and females (115) on the ratings they gave VC. PNTS/Other were excluded due to the small group size (n = 4). There were no differences between the genders, as displayed in Figure 45.

Figure 45. The distribution of quality rating scores for males and females.



Patient usage of VC

Overall, only 7.5% of respondents reported using VC before (n = 134). In terms of quality ratings, those who had used VC before and those who had not tended to rate VC similarly, with 60.2% of those who had used it before giving VC 5-stars, and 60% of those who hadn't used it before.

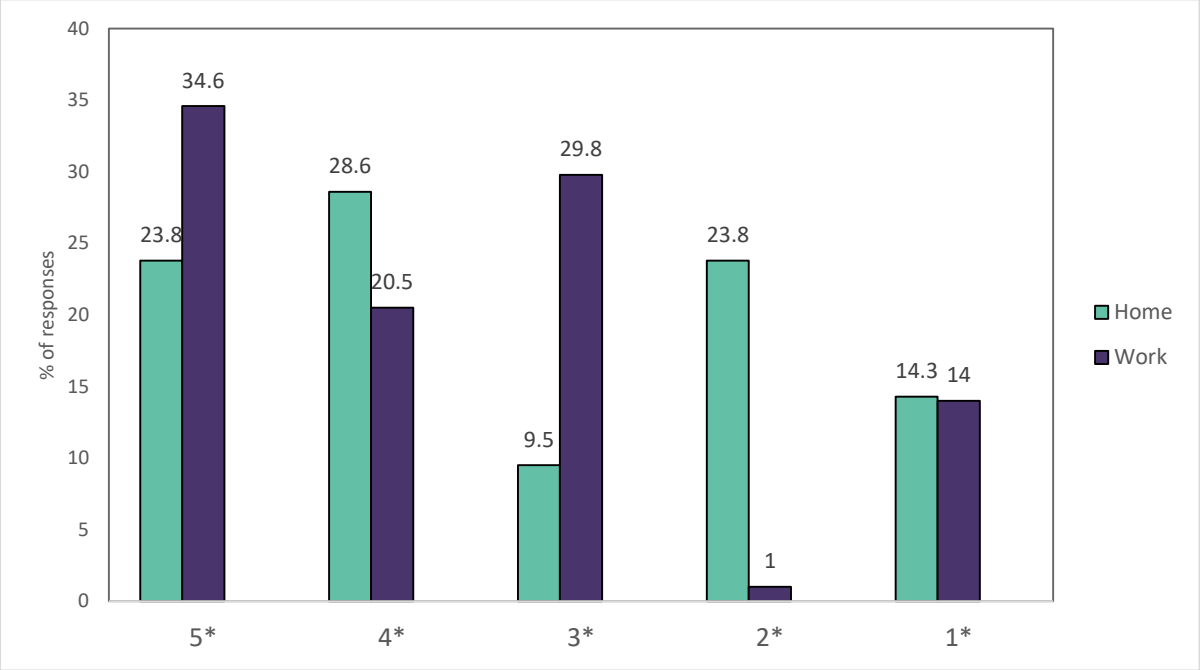
Of those who had used VC previously (n = 26), 65.4% had used it once, 19.2% used it twice, and 15.4% three times or more. The group sizes were so different and small, however, that quality ratings could not be compared. 76.5% of those who had used it once (n = 17) gave VC 5-stars, compared with 60.0% of those who used it twice (n = 5), and 100% for three times or more (n = 4).

Respondents were also asked to report whether they would use VC again or after COVID-19 had passed (n = 131), and 92.4% responded that they would. For those who would not use it again (n = 10), only 70.0% of these reported FTF being prevented by their video appointment, compared with 86.8% of those who responded 'yes' (n = 121).

Clinician work location

The percentage of clinicians working from home in CTMUHB was 6.7% (n = 21), with the remaining 93.3% working from their clinical base or work location (n = 294). Due to the vast differences in group sizes, comparisons on their VC quality ratings were not possible. However, the distributions are displayed in Figure 46. It seems that those working from home rated VC relatively more negatively than those working from their work.

Figure 46. The distributions of quality ratings for clinicians working from home and their work.



Care Sector Split & Findings

This section will consider the findings from the individual care sectors, Primary, Secondary, and Community Care.

Quality rating and prevention of FTF

There were only four responses for quality ratings in Community Care, and these respondents gave VC 5-stars. Considering Primary Care (n = 374) and Secondary Care (n = 133), they both rated VC similarly, and no significant differences were revealed between the two care sectors (U = 23125, p > .05).

These responses are shown in Table 44. The prevention of FTF was also similar between Primary and Secondary Care, and for Community Care, it was prevented for 100% of respondents.

Table 44. The distributions and descriptive statistics of responses for VC quality ratings and the prevention of FTF in each care sector.

VC Quality %	**Primary**		**Secondary**		**Community**	
5*	42.8		47.4		100.0	
4*	21.1		27.1		0	
3*	24.6		9.8		0	
2*	0.3		7.5		0	
1*	11.2		8.3		0	
Mean	3.8		4.0		5.0	
Median	4.0		4.0		5.0	
Freq.	374		133		4	
	Prevented FTF?					
	Yes	No	Yes	No	Yes	No
%	86.0	14.0	87.8	12.2	100.0	0.0
Freq.	329		131		4	

Patient versus clinician

Analyses were conducted to test the differences between patients and clinicians' quality ratings in the care sectors. All respondents in Community Care were patients, and thus could not be analysed. For Primary and Secondary Care, there were significant differences between patients and clinicians, displayed in Table 45. This suggests that patients rated VC more positively than clinicians in each of the care sectors.

Table 45. The U statistics of the Mann-Whitney U tests of differences between patient and clinicians' quality ratings, as well as group sizes, in each care sector. Significance is marked with *.

	U	**Patient n**	**Clinician n**
Primary	9325.0***	108	266
Secondary	1409.5***	75	58

*** $p < .001$.

Demographics of patients

The demographics of patients in each care sector are displayed in Table 46.

Table 46. The percentage of patients per age group and gender for each of the care sectors.

	Care Sector		
Age Group %	**Primary**	**Secondary**	**Community**
Under 12	12.3	5.2	0
13-17	15.1	1.3	0
18-24	4.7	5.2	0
25-44	14.2	44.2	25.0
45-64	31.1	32.5	25.0
65+	22.6	11.7	50.0
Freq.	106	77	4
Gender %			
Male	42.1	33.8	50.0
Female	55.1	64.9	50.0
PNTS/Other	2.8	1.3	0.0
Freq.	107	77	4

Patient usage of VC

There were only four patients in Community Care and all of these individuals reported not using VC before. Of the respondents that had used VC previously, 68.8% in Primary Care (n = 16) had used it once, 18.8% twice, and 12.5% three times or more. In Secondary Care (n = 10), 60% had used it once, 20% twice, and 20% three times or more. All four respondents for Community Care stated they would use VC again, compared with 84.4% in Primary Care (n = 45), and 96.1% in Secondary Care (n = 77).

Clinician work location by care sector

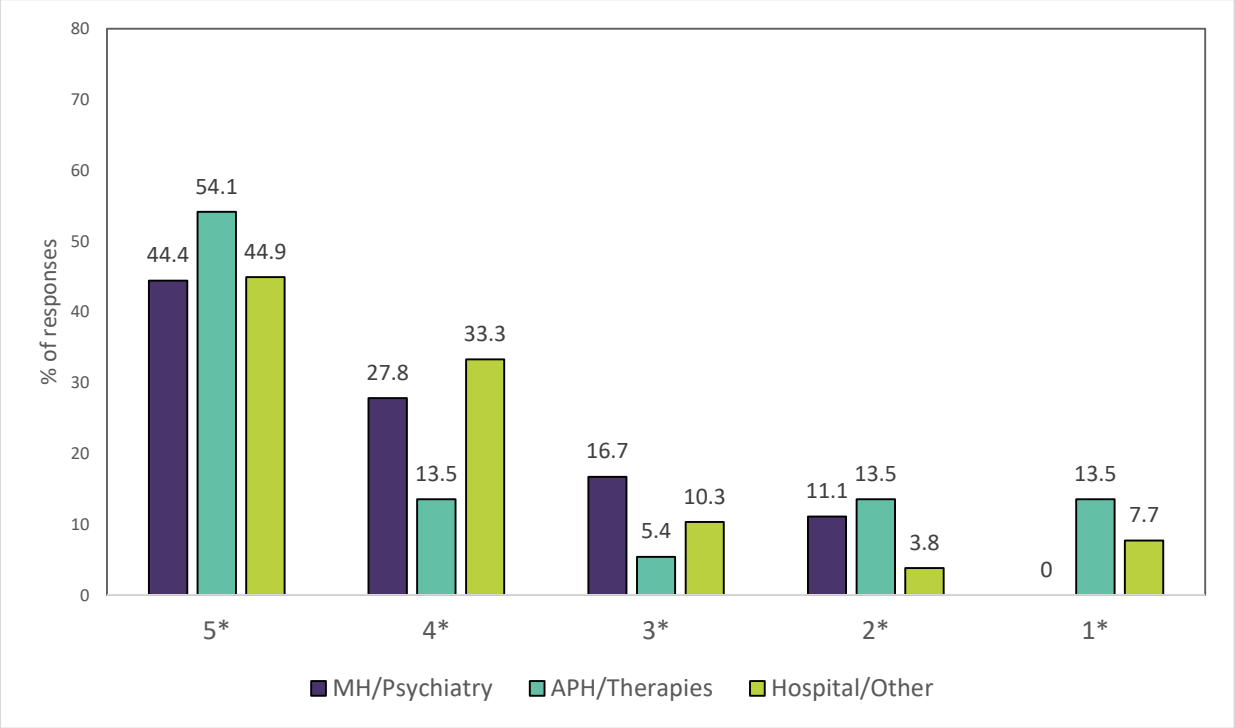
There were no responses for this question in Community Care. For Primary Care, only 1.2% of clinicians (n = 253) were working from home. On the other hand, 28.8% of Secondary Care clinicians (n = 59) were working from home.

Secondary Care Findings

Quality rating and prevention of FTF

The quality ratings in each Secondary Care sub-category were analysed for any differences (Mental Health/Psychiatry n = 18, Therapies n = 37, Hospital/Other n = 78). A Kruskal-Wallis revealed no significant differences between the sub-categories ($H = 0.009$, $df = 2$, $p > .05$), suggesting they rated VC similarly, and this is displayed in Figure 47. However, it seemed that Therapies rated VC slightly more positively than Mental Health/Psychiatry and Hospital/Other.

Figure 47. The distributions of quality ratings across the sub-categories of Secondary care.



Patient demographics

The patient responses to the demographic questions are displayed in Table 47, including age groups and gender.

Table 47. The percentage of patients in each age group and gender per Secondary Care sub-category.

	Care Sector %		
Used VC Before?	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Yes	100.0	25.0	5.8
No	0.0	75.0	94.2
Freq.	1	24	52
How Many Times?			
Once	0.0	66.7	66.7
Twice	0.0	16.7	33.3
Three or more	100.0	16.7	0.0
Freq.	1	6	3
Use Again/After?			
Yes	100.0	95.8	96.2
No	0.0	4.2	3.8
Freq.	1	24	52

VC usage by Secondary Care

The responses to using VC before, how many times, and whether respondents would use VC again or after COVID-19 are displayed in Table 48. There was only one respondent for Mental Health/Psychiatry, and this individual had used VC previously more than three times. 25% of respondents in Therapies had used VC before, compared with 5.8% in Hospital/Other. Also, 95.8% of responses in Therapies and 96.2% in Hospital/Other would use VC again.

Table 48. The distribution of responses to using VC before, how many times, and if respondents would use it again per Secondary Care category.

	Secondary Sub-category		
Age Group %	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Under 12	0.0	0.0	7.7
13-17	0.0	0.0	1.9
18-24	0.0	0.0	7.7
25-44	100.0	58.3	36.5
45-64	0.0	37.5	30.8
65+	0.0	4.2	15.4
Freq.	1	24	52
Gender %			
Male	0.0	37.5	32.7
Female	100.0	58.3	67.3
PNTS/Other	0.0	4.2	0.0
Freq.	1	24	52

Clinician work location by Secondary Care sub-categories.

The proportion of clinicians working from home was similar across the sub-categories, with 24.1% working from home in Hospital/Other (n responses = 29), 33.3% in Mental Health/Psychiatry (n responses = 18), and 33.3% in Therapies (n responses = 12).

Type of appointment

This question was unique to the Secondary and Community clinician surveys, and thus the following data does not include Primary Care. Table 49 displays the proportion of appointments carried out by VC. In particular, follow-ups were the most common, and discharge and feedback/outcomes being the least common. Table 50 also displays the type of appointments being conducted by work location of the clinician.

Table 49. The frequencies and percentage of appointment types.

	%	Frequency
Appointment Type		
Advice	8.1	5
Discharge	0.0	0
Feedback/Outcomes	0.0	0
First Appointment	19.4	12
Follow-up	50.0	31
Review	8.1	5
Therapy	11.3	7
Other	3.2	2

Table 50. The proportion of appointments being carried out at work and at home.

	Work Location	
	Home	**Work**
Appointment Type		
Advice	22.2	2.4
Discharge	0.0	0.0
Feedback/Outcomes	0.0	0.0
First Appointment	33.3	14.6
Follow-up	33.3	53.7
Review	5.6	9.8
Therapy	5.6	14.6
Other	0.0	4.9
Freq.	18	41

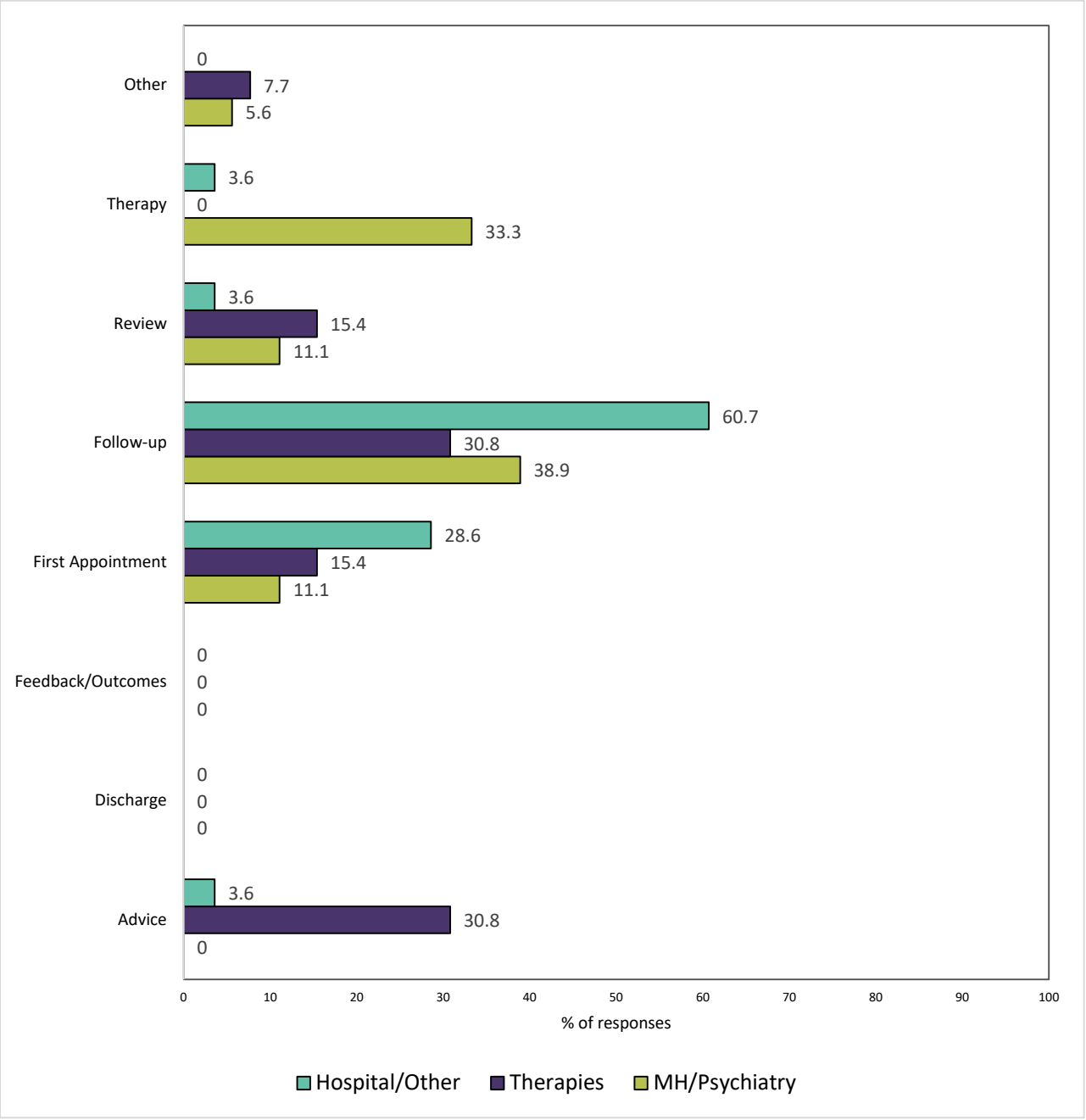
Considering VC quality ratings, follow-up appointments had the highest frequency of 5-star ratings. The prevention of FTF was also similar between the appointment types. This is displayed in Table 51.

Table 51. The distributions of quality ratings and the prevention of FTF across the different appointment types.

Quality Rating %	**Advice**	**Discharge**	**Feedback/ Outcomes**	**First Appointment**	**Follow-up**	**Review**	**Therapy**	**Other**
5*	20.0	/	/	25.0	38.7	20.0	33.3	50.0
4*	0.0	/	/	25.0	29.0	40.0	66.7	0.0
3*	40.0	/	/	16.7	9.7	20.0	0.0	0.0
2*	0.0	/	/	16.7	19.4	0.0	0.0	0.0
1*	40.0	/	/	16.7	3.2	20.0	0.0	50.0
Freq.	5	/	/	12	31	5	6	2
Prevented FTF? %								
Yes	100.0	/	/	90.0	90.0	80.0	100.0	100.0
No	0.0	/	/	10.0	10.0	20.0	0.0	0.0
Freq.	5	/	/	10	30	5	7	1

In addition, the Secondary Care sub-categories were analysed for the type of appointments that clinicians were conducting using VC. This is displayed in Figure 48. Follow-up appointments were the most common for Mental Health /Psychiatry (38.9%, total n = 18), both advice and follow-up for Therapies (30.8%, total n = 13), and follow-up for Hospital/Other (60.7%, total n = 28).

Figure 48. The proportion of appointment types in each Secondary sub-category.



Discussion of CTMUHB

The analysis of the data for CTMUHB suggests that respondents rate VC positively, and that FTF is prevented for the majority of appointments. There were no differences exhibited between Primary and Secondary Care, and the prevention of FTF was also similar for the two, suggesting that the two care sectors view VC similarly. On the other hand, there were differences between patients and clinicians' ratings, overall and in each care sector. This suggests

that the experiences with VC of the two respondents differ, which results in the difference in opinions on how positive or negative they rate VC. In addition to this, a high proportion of patients stated that they would use VC again or after COVID-19 had passed, supporting this positive response from these respondents. According to clinicians, there was a trend for those working from home to rate VC as more negative than those working at work, although there was only a small percentage of clinicians working from home.

Considering Secondary care findings, the most common type of appointment conducted over VC was follow-ups, with feedback/outcomes and discharge being the least common. Also, the sub-categories of Secondary care (Mental Health/Psychiatry, Therapies, Hospital/Other) were all similar in the ratings they gave VC, suggesting that they view their experience with VC similarly, overall.

In summary, respondents in CTMUHB rate VC positively, and FTF was prevented for the majority of appointments. No differences emerged between Primary and Secondary Care, or the Secondary sub-categories, however, there were differences between patients and clinicians across the entire data as well as within the care sectors.

Hywel Dda University Health Board (HDUHB)

Sample Total

There was a total of 663 responses in HDUHB, with 529 clinicians and 134 patients.

Quality rating and prevention of FTF

Overall, 82.6% of respondents rated VC excellent, very good, or good, and VC was given 5-star ratings (excellent) by 36.8% of the respondents. FTF was also prevented 88.7% of the time. These responses are displayed in Figure 49 and Figure 50.

Figure 49. The overall proportion of quality ratings in HDUHB (n = 655).

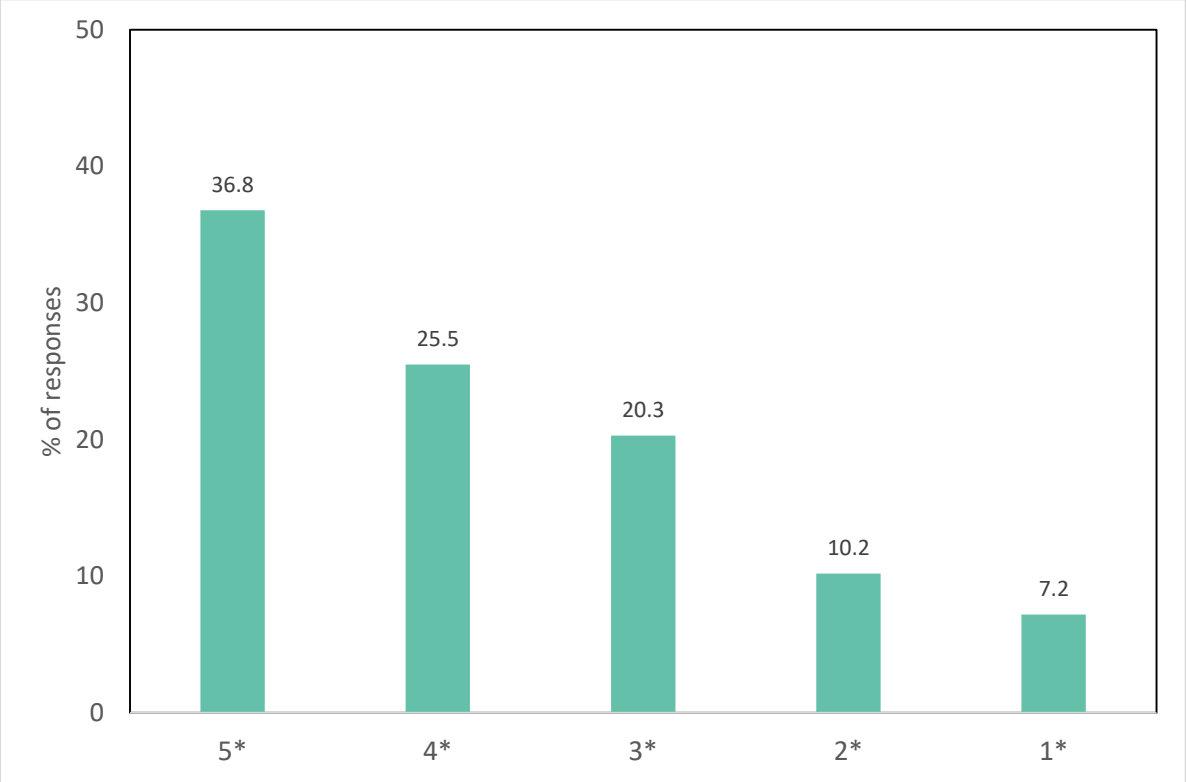
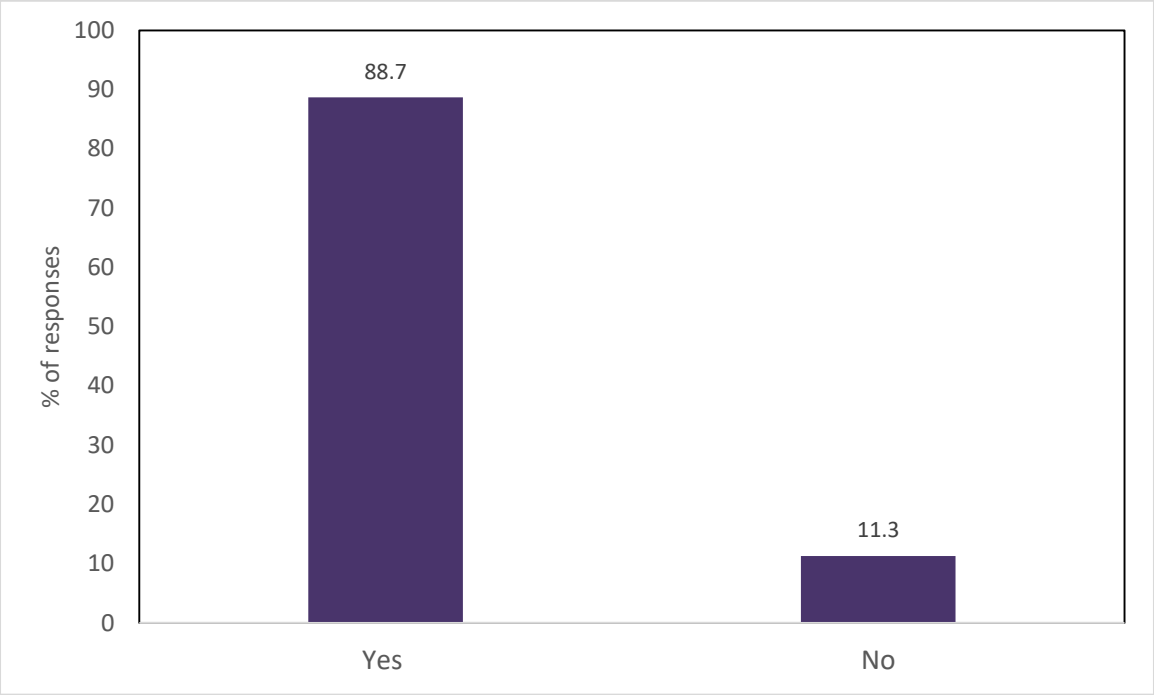


Figure 50. The overall prevention of FTF in HDUHB (n = 592).



Patient versus clinician

A Mann-Whitney U analysis was conducted in order to test the differences between patients and clinicians' quality ratings of VC. There was a significant difference between the two, $U = 22710.0$, $p < .001$, with clinicians rating VC more negatively than patients.

Demographics of patients

Patient demographics, including age groups and genders are displayed in Table 52. The majority of respondents were over the age of 65 and were female.

Table 52. The frequencies and percentages of each patient group and gender.

Age	**%**	**n**	**Gender**	**%**	**n**
Under 12	12.9	17	Male	40.2	53
13-17	23.5	31	Female	58.3	77
18-24	4.5	6	PNTS/Other	1.5	2
25-44	6.8	9			
45-64	20.5	27			
65+	31.8	41			
Total Responses		132	Total Responses		132

The data was analysed to test the differences between the patient age groups on their VC quality ratings. A Kruskal-Wallis revealed no significant differences between the groups, $H = 4.32$, $df = 5$, $p > .05$, suggesting that the age groups rated VC similarly (Figure 51).

In addition, an analysis was also carried out to test the differences between males (n = 53) and females (n = 76). PNTS/Other was excluded as there were only two respondents. There was no difference between the genders, $U = 1981.5$, $p > .05$, suggesting they rated VC similarly (Figure 52).

Figure 51. The distributions of quality rating scores per age group.

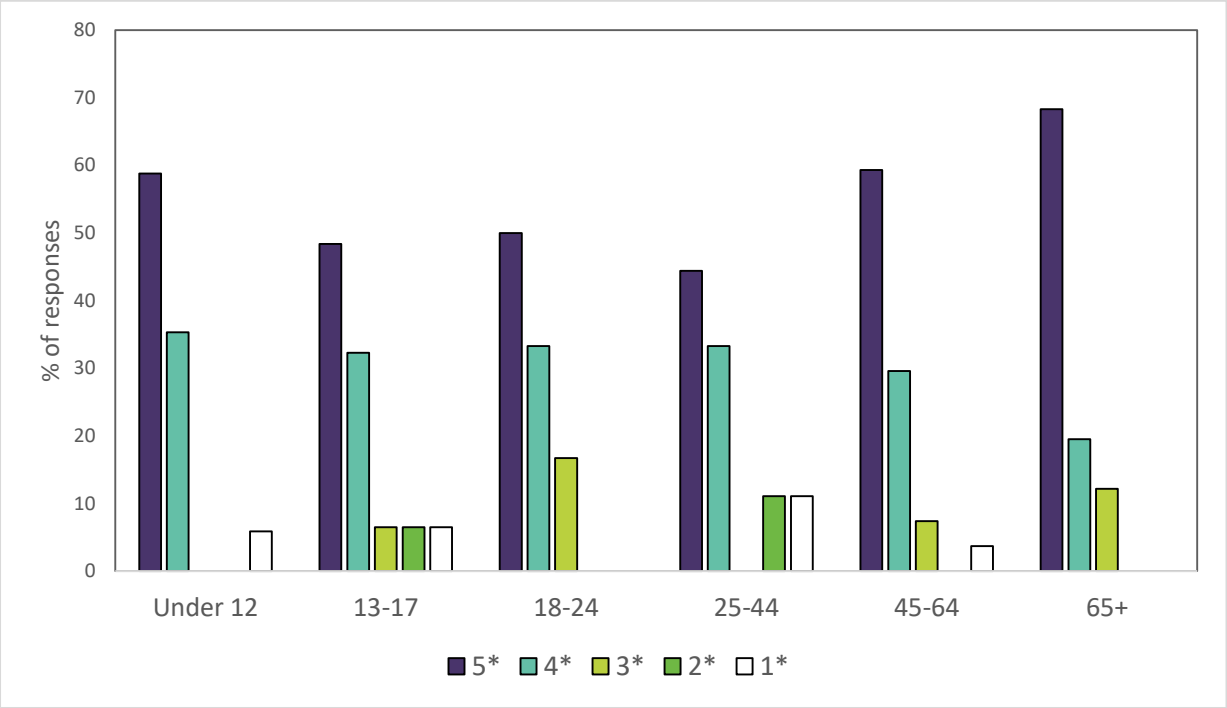
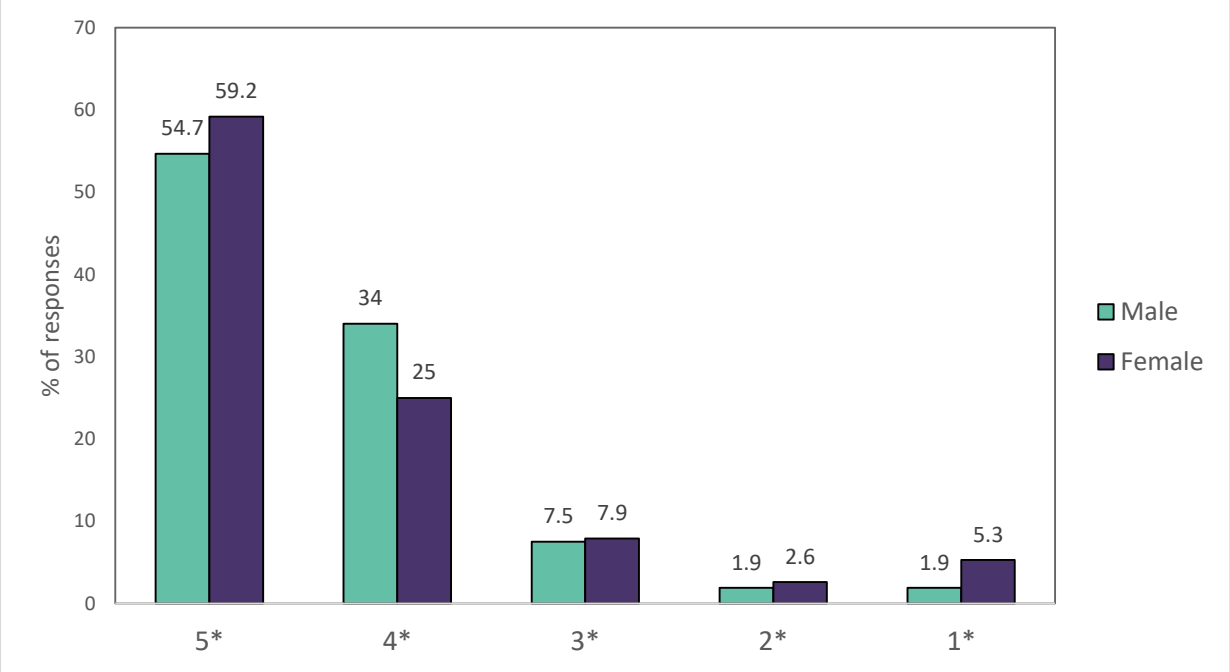


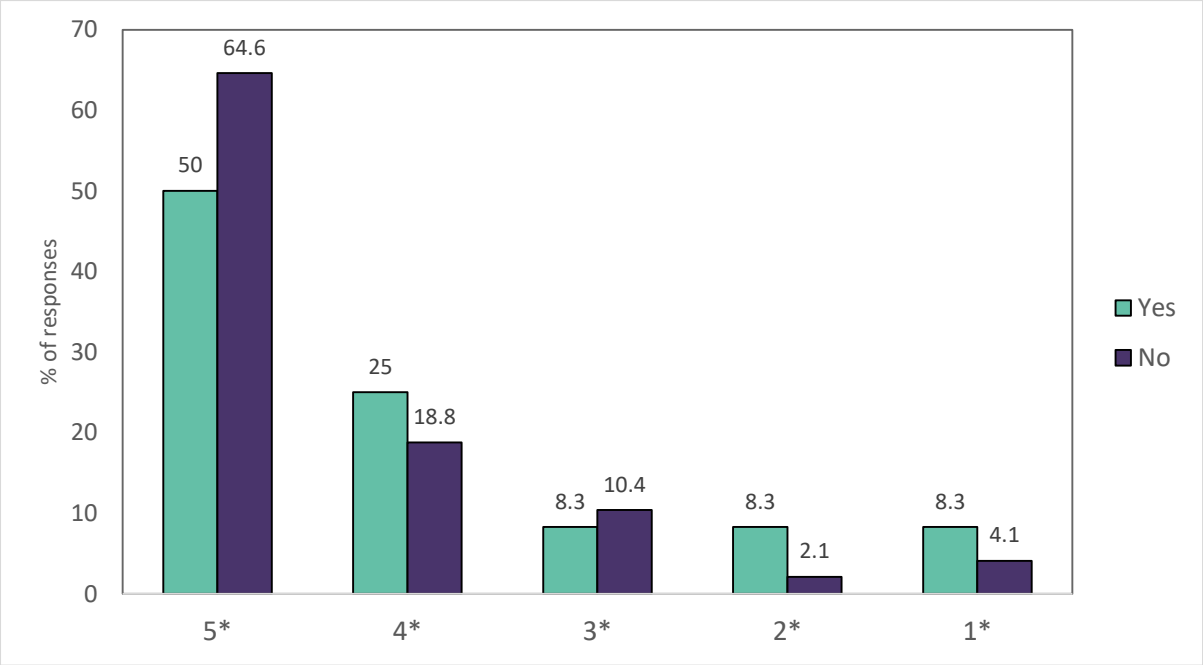
Figure 52. The distribution of quality ratings for males and females.



Patient usage of VC

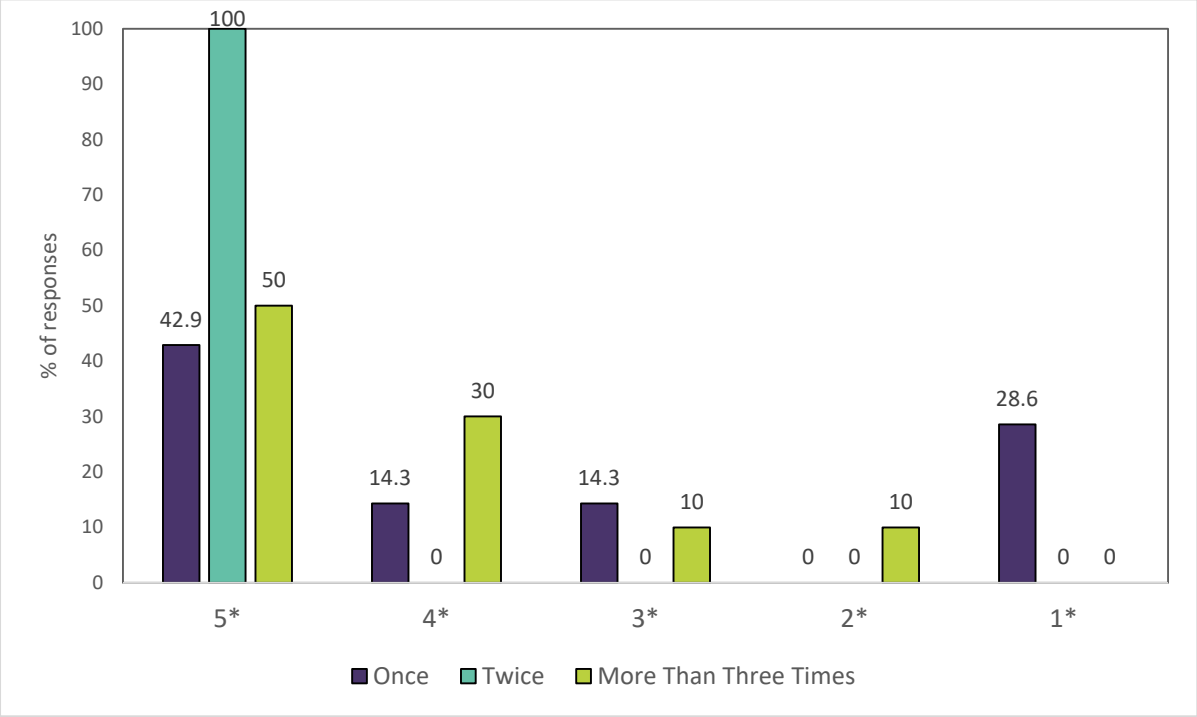
Overall, 20% of 74 respondents had used VC prior to their appointment. As the number of responses for using VC was small, comparisons between those who had used VC previously and those who had not were not possible. However, there was a trend for those who had used VC before (n = 12) to rate it as more negative compared with those who had not used it (n = 48), displayed in Figure 53.

Figure 53. The distribution of quality ratings for respondents who had used VC before (yes) and those who had not (no).



Of those who had used VC previously, 38.9% had used it once, 5.6% twice, and 55.6% three times or more. However, there were more responses for this question (n = 116) than the question asking respondents if they had used VC previously. Quality ratings were similar across these respondents, although group sizes were very small for the responses (Figure 54).

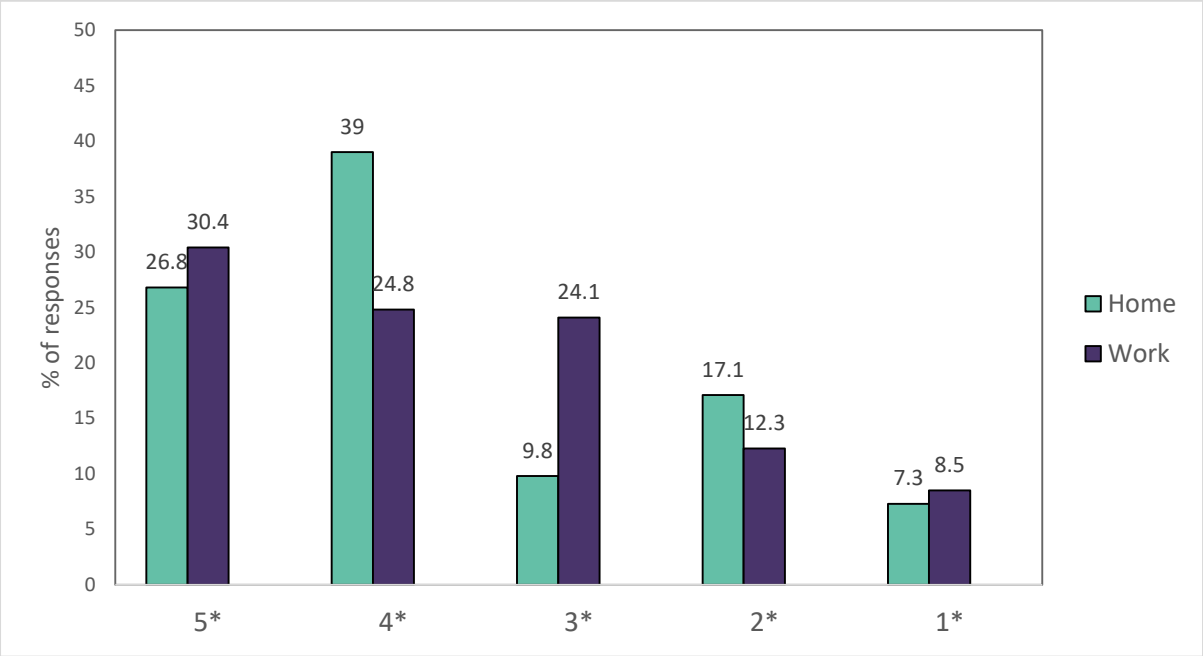
Figure 54. The distribution of quality ratings for respondents who had used VC once (n = 7), twice (n = 1), and three times or more (n = 10).



Clinician work location

The percentage of clinicians working from home in HDUHB was 8.8%. The quality ratings were similar between those working from home (n = 41) and those working from their work (n = 424), and these are displayed in Figure 55. The prevention of FTF was also similar, with 89.7% prevention for those working from home, and 88.7% for those working from their work location.

Figure 55. The proportion of quality ratings for clinicians working from home and their work.



Care Sector Split & Findings.

This section will consider the findings from the individual care sectors, Primary, Secondary, and Community Care.

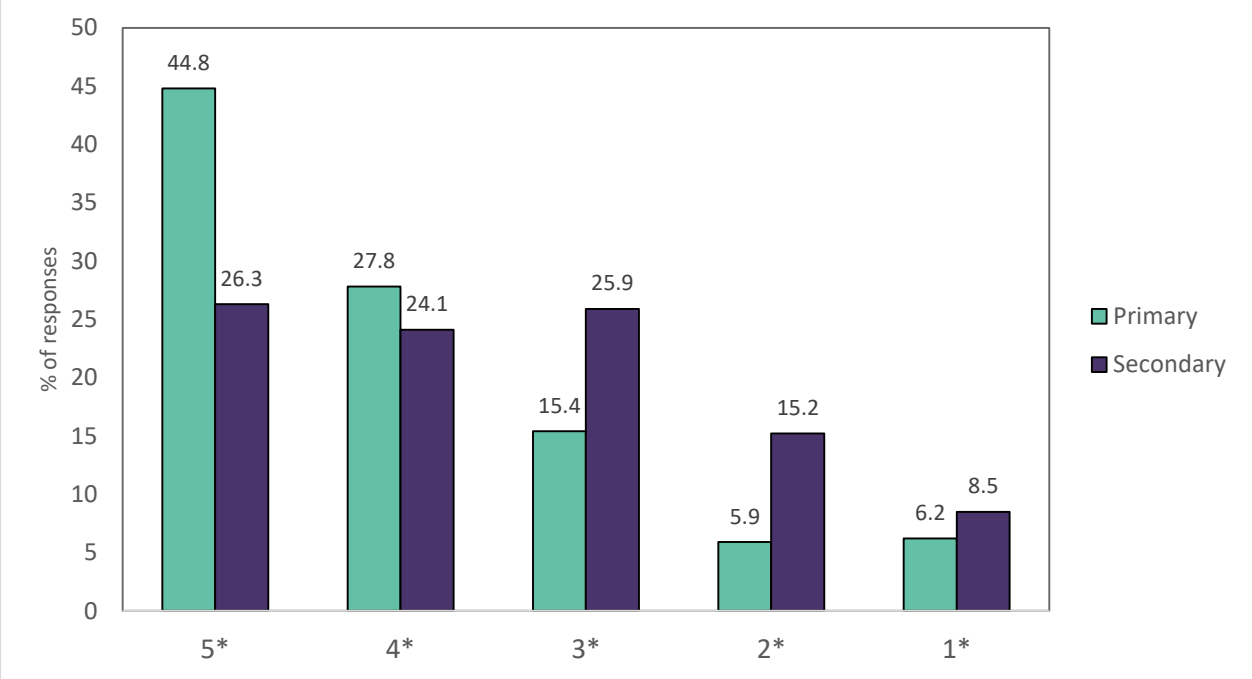
Quality rating and prevention of FTF

For Community Care, there were only three responses for quality ratings. Two of these rated VC 5-stars, and the other rated VC 1-star. Considering Primary and Secondary Care, Primary Care seemed to rate VC more positively than Secondary Care, and this difference was revealed by a Mann-Whitney U test ($U = 35888.0$, $p < .001$), displayed in Figure 56 and Table 53. Secondary Care had the highest prevention of FTF out of Primary and Secondary Care. All three respondents in Community Care reported FTF being prevented.

Table 53. The distributions and descriptive statistics of responses for VC quality ratings and the prevention of FTF in each care sector.

VC Quality %	Primary		Secondary		Community	
5*	44.8		26.3		66.7	
4*	27.8		24.1		0.0	
3*	15.4		25.9		0.0	
2*	5.9		15.2		0.0	
1*	6.2		8.5		33.3	
Mean	4.0		3.4		3.7	
Median	4.0		4.0		5.0	
Freq.	306		316		3	
	Prevented FTF?					
	Yes	No	Yes	No	Yes	No
%	85.3	14.7	90.9	9.1	100.0	0.0
Freq.	251		308		3	

Figure 56. The proportion of quality ratings for Primary and Secondary Care.

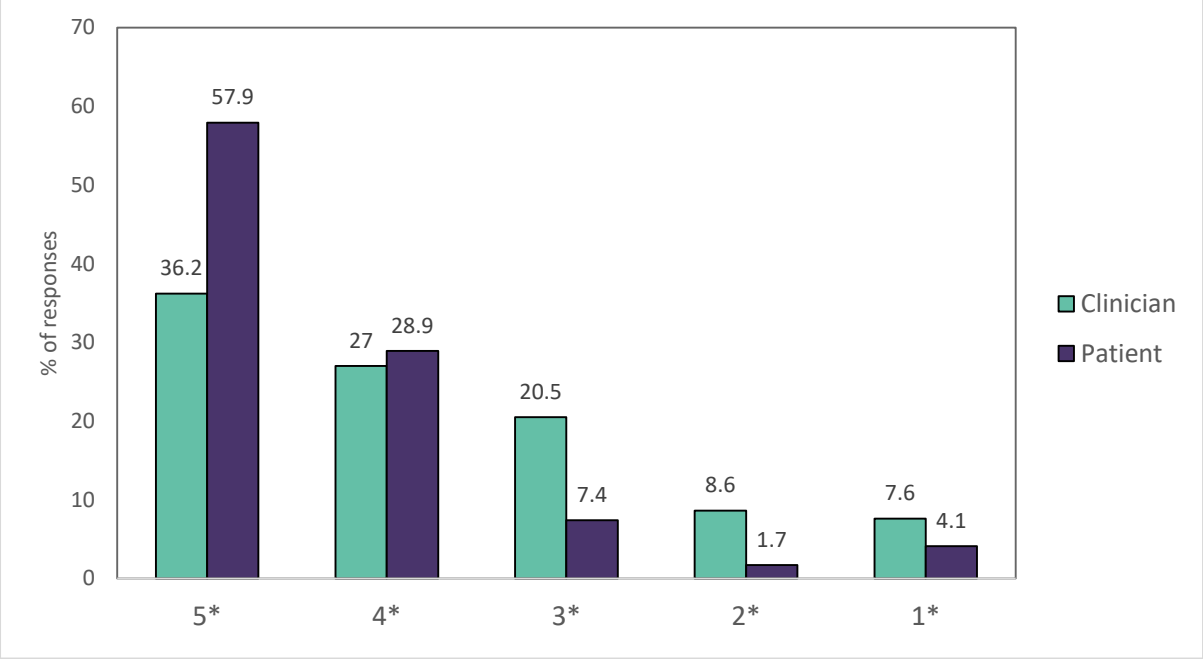


In addition to this, the data was further explored to test whether there were differences between the quality ratings in Primary and Secondary Care for clinicians individually. The comparison between patients was not possible as there was a small group size (n = 8) for those in Secondary Care compared with Primary Care (n = 121). For clinicians alone, there was a significant difference between the care sectors, U = 24042, p < .01, with Secondary Care clinicians rating VC as more negative.

Patient versus clinician

Once again, comparisons were only possible between patients and clinicians in Primary Care, as there were only 8 responses in Secondary Care for patients. There was a significant difference between patients (n = 121) and clinicians (n = 185) in Primary Care (U = 8005.0, p < .001), with patients rating VC as more positive (Figure 57).

Figure 57. The proportion of quality ratings for patients and clinicians in Primary Care.



Demographics of patients

The demographics of patients in each care sector are displayed in Table 54.

Table 54. The percentage of patients per age group and gender for each of the care sectors.

	Care Sector		
Age Group %	**Primary**	**Secondary**	**Community**
Under 12	13.2	12.5	0.0
13-17	24.8	12.5	0.0
18-24	5.0	0.0	0.0
25-44	4.1	37.5	50.0
45-64	20.7	25.0	0.0
65+	32.2	12.5	50.0
Freq.	121	8	2
Gender %			
Male	38.8	62.5	0.0
Female	59.5	37.5	100.0
PNTS/Other	1.7	0.0	0.0
Freq.	121	8	2

Patient usage of VC

For Primary Care patients (n = 49), 10.2% had used VC before their appointment. 93.6% of respondents (n = 47) reported they would use VC again or after COVID-19 had passed. There were only n = 8 responses for Secondary Care, and 62.5% of these had used VC before, and all stated they would use VC again or after COVID-19 had passed. For the two patients in Community Care, one had used VC and one had not used VC before, and both stated they would use VC again or after COVID-19 had passed.

Clinician location by care sector

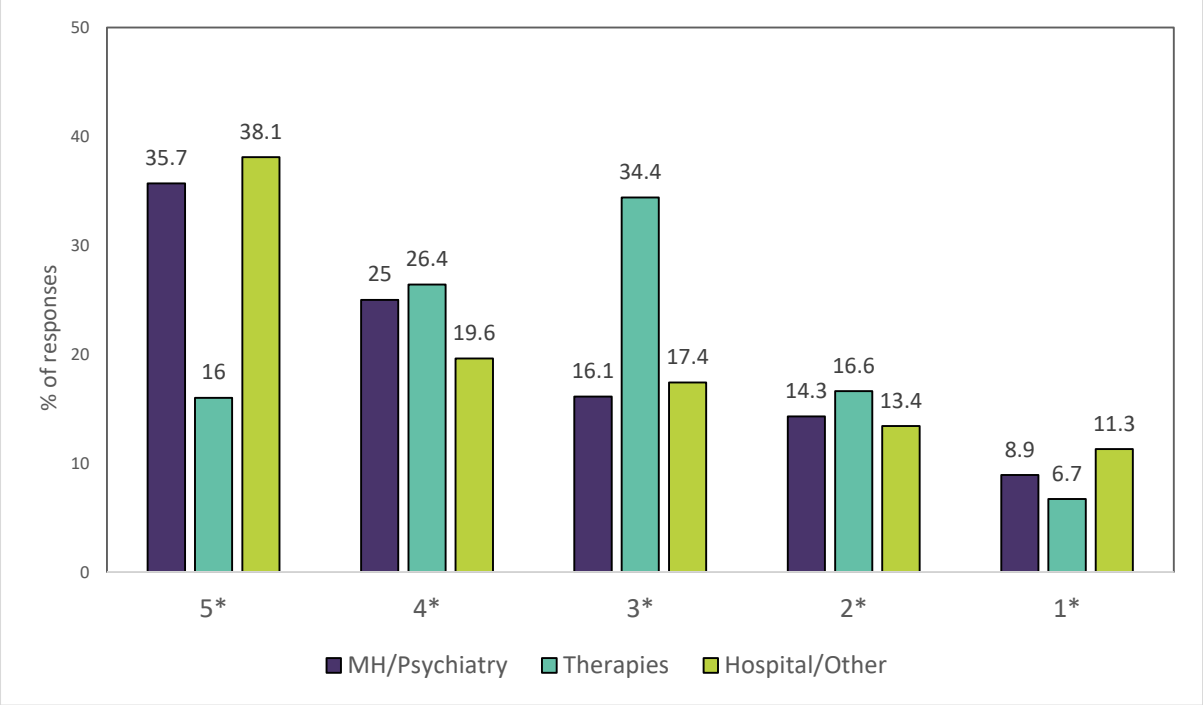
Considering the location of the clinician, 7.3% of respondents in Primary Care (n = 165) and 9.2% of the respondents in Secondary Care (n = 273) were working from home. There was only one response for Community Care, and this respondent was also working from home.

Secondary Care Findings

Quality rating and FTF prevention

The quality ratings in each sub-category of Secondary Care were analysed for differences. A Kruskal-Wallis revealed significant differences between the three sub-categories ($H = 7.86$, $df = 2$, $p = .02$). In particular, it seemed that Therapies rated VC as more negative than Mental Health/Psychiatry and Hospital/Other. Mental Health/Psychiatry were similar in the ratings they gave VC. The distribution of responses is demonstrated in Figure 58. The prevention of FTF was 94.4% for Mental Health/Psychiatry (n = 54), 86.3% for Therapies, and 96.8% for Hospital/Other, suggesting that the prevention was lower in Therapies compared with the other sub-categories.

Figure 58. The distributions of quality ratings for the sub-categories of Secondary Care.



Demographics of patients

The demographics of patients, including age and gender, in each sub-category is displayed in Table 55. There was no data for Mental Health/Psychiatry.

Table 55. The percentage of patients in each age group and gender per Secondary Care sub-category.

	Secondary Sub-category		
Age Group %	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Under 12	/	0.0	20.0
13-17	/	33.3	0.0
18-24	/	0.0	40.0
25-44	/	33.3	0.0
45-64	/	33.3	20.0
65+	/	0.0	20.0
Freq.	/	3	5
Gender %			
Male	/	66.7	60.0
Female	/	33.3	40.0
PNTS/Other	/	0.0	0.0
Freq.	/	3	5

VC Usage by Secondary Care

Due to the small number of responses for Secondary Care patients in HDUHB, there were not many responses for the usage of VC. The data that was collected is displayed in Table 56.

Table 56. The distribution of responses to using VC before, how many times, and if respondents would use it again per Secondary Care sector.

	Care Sector %		
Used VC Before?	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Yes	/	66.7	60.0
No	/	33.3	40.0
Freq.	/	3	5
How Many Times?			
Once	/	0.0	0.0
Twice	/	0.0	0.0
Three or more	/	100.0	100.0
Freq.	/	2	3
Use Again/After?			
Yes	/	100.0	100.0
No	/	0.0	0.0
Freq.	/	3	5

Clinician work location by Secondary Care sub-categories

Mental Health/Psychiatry (n = 56) had the highest proportion of respondents working from home (25%), followed by Hospital/Other (8.1%, n = 62), and then therapies (3.9%, n = 155).

Type of appointment

Table 57 displays the number of respondents carrying out each type of appointment. In particular, follow-ups were the most common type of appointment (34.4%), and discharge and feedback/outcomes were the least common. Also, the type of appointments being conducted by work location of the clinician is displayed in Table 58.

Table 57. The frequencies and percentage of appointment types.

	%	Frequency
Appointment Type		
Advice	9.6	15
Discharge	0.0	0
Feedback/Outcomes	0.0	0
First Appointment	33.1	52
Follow-up	34.4	54
Review	6.4	10
Therapy	10.8	17
Other	5.7	9

Table 58. The proportion of appointments being carried out at work and at home.

	Work Location		
	Home	Work	N
Appointment Type			
Advice	50.0	50.0	2
Discharge	/	/	/
Feedback/Outcomes	/	/	/
First Appointment	8.5	91.5	47
Follow-up	7.7	92.3	39
Review	0.0	100.0	10
Therapy	35.3	64.7	17
Other	22.2	77.8	9

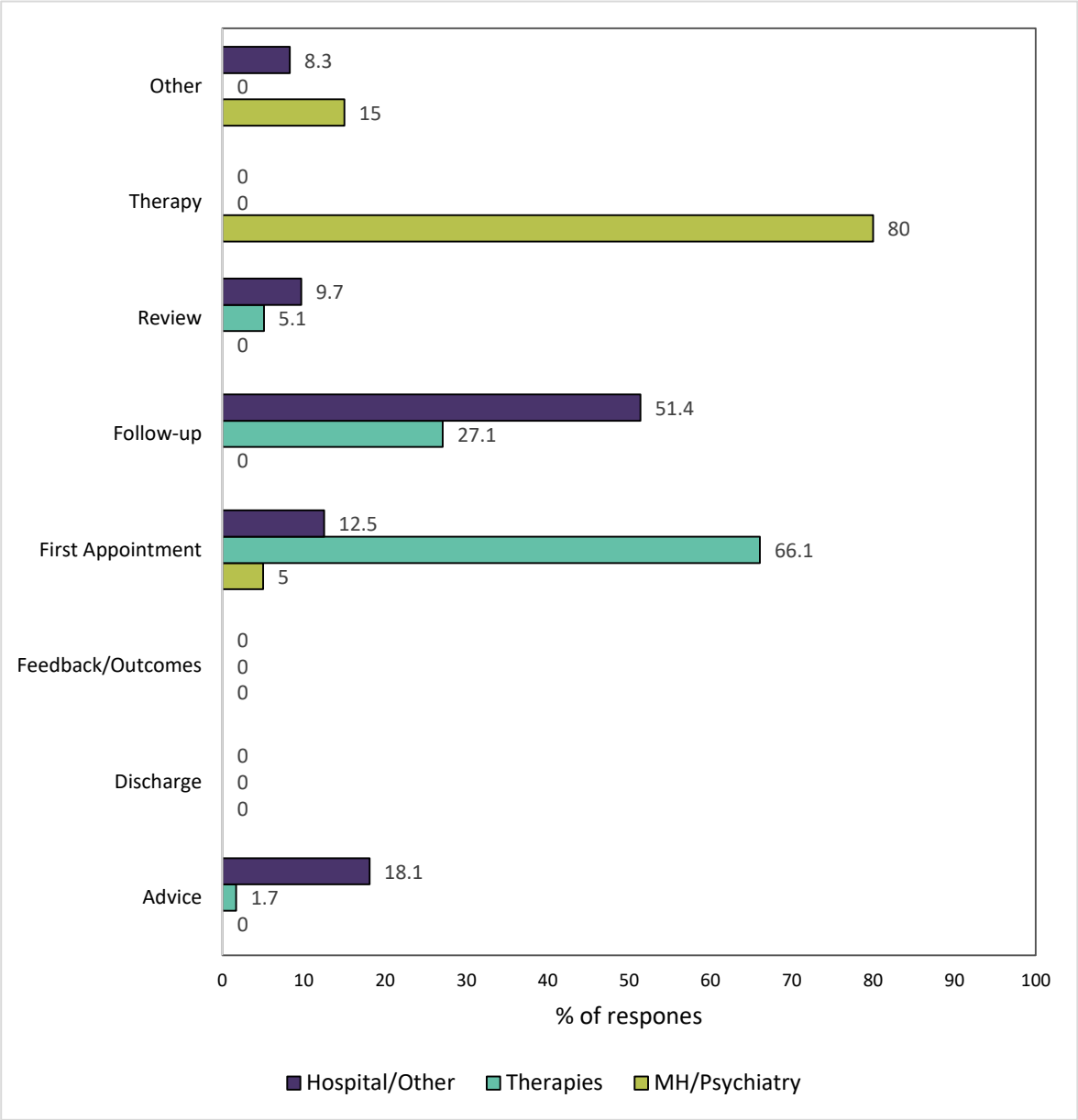
Table 59. The distributions of quality ratings and the prevention of FTF across the different appointment types.

Quality Rating %	**Advice**	**Discharge**	**Feedback/ Outcomes**	**First Appointment**	**Follow-up**	**Review**	**Therapy**	**Other**
5*	53.3	/	/	26.9	20.4	10.0	41.2	33.3
4*	33.3	/	/	25.0	22.2	0.0	23.5	55.6
3*	6.7	/	/	19.2	27.8	50.0	11.8	0.0
2*	0.0	/	/	13.5	20.4	30.0	23.5	0.0
1*	6.7	/	/	15.4	9.3	10.0	0.0	11.1
Freq.	15	/	/	52	54	10	17	9
Prevented FTF? %								
Yes	93.3	/	/	84.3	90.6	100.0	100.0	50.0
No	6.7	/	/	15.7	9.4	0.0	0.0	50.0
Freq.	15	/	/	51	53	9	17	8

Considering VC quality ratings, advice appointments had the highest frequency of 5-star ratings, and review appointments were rated relatively negative by clinicians conducting these. The prevention of FTF was highest in review and therapy appointments and was lowest in first appointments. This is displayed in Table 59.

In addition, the Secondary Care sub-categories were analysed for the type of appointments that clinicians were conducting using VC. Figure 59 displays these distributions, with therapy appointments being most common for Mental Health/Psychiatry (80.0%, n = 20), first appointments for Therapies (66.1%, n = 59), and follow-up for Hospital/Other (51.4%, n = 72).

Figure 59. The proportion of appointment types carried out in each Secondary Care sub-category.



Discussion of HDUHB

The analysis of the findings from HDUHB suggest that respondents provide VC positive ratings, and FTF was prevented the majority of the time. Overall, Primary Care were more positive in their ratings given to VC, although Secondary Care had a higher proportion of FTF prevention. This implies, that even though the prevention of FTF was lower in Primary Care, they still provide positive ratings, suggesting there are additional variables in the response to VC

than simply preventing FTF. In addition, patients and clinicians differed in their responses, with patients rating VC more positively. This difference also emerged in Primary Care, although comparisons could not be conducted for Secondary Care due to the low number of patient responses. Thus, this suggests that patient and clinicians' experiences with VC differ, resulting in more positive ratings for patients alone.

Considering Secondary Care, the most common appointment was follow-up, with the least common being discharge and feedback/outcomes. In terms of quality ratings in each of the Secondary Care sub-categories, Therapies rated VC more negatively than Mental Health/Psychiatry and Hospital/Other, and interestingly, the prevention of FTF was also slightly lower for Therapies. To support these responses, the most common appointment for Therapies was first appointments, which may provide an explanation for the differences compared with the other Secondary Care categories. That is, first appointments are seen as being less suitable by clinicians than the other appointment types.

In summary, respondents in HDUHB gave VC positive ratings, although differences existed between Primary and Secondary Care for both quality ratings and the prevention of FTF. Also, there were differences present between patients and clinicians, suggesting distinct experiences with VC. The sub-category of Therapies provided more negative responses, perhaps due to the most common appointment type being first appointments, which are deemed unsuitable for VC by many clinicians.

Powys Teaching Health Board (PTHB)

Sample Total

There was a total of 211 responses from PTHB, with 135 clinicians and 76 patients.

Quality rating and prevention of FTF

Overall, 86% of respondents in PTHB rated VC excellent, very good, or good, and VC was given a 5-star ('excellent') rating by 45.7% of respondents. Also, 88.7% of consultations prevented a FTF appointment. These responses are displayed in in Figure 60 and Figure 61.

Figure 60. The overall proportion of quality responses in PTHB (n = 208).

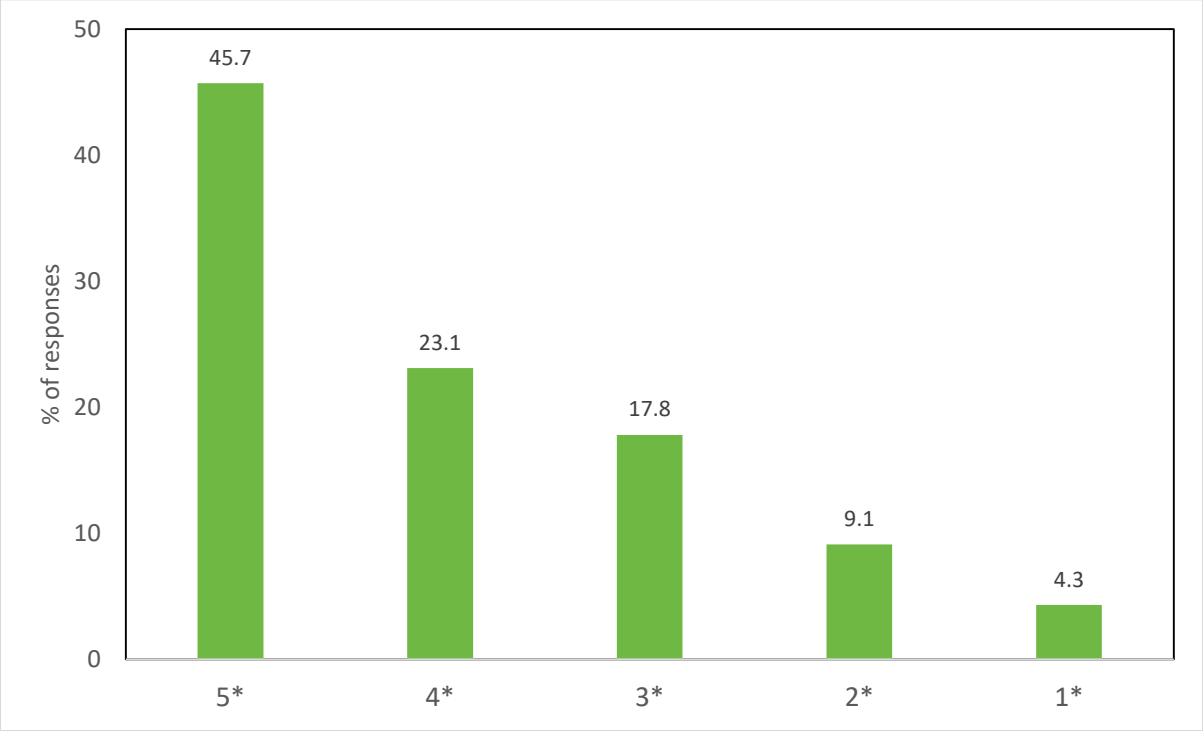
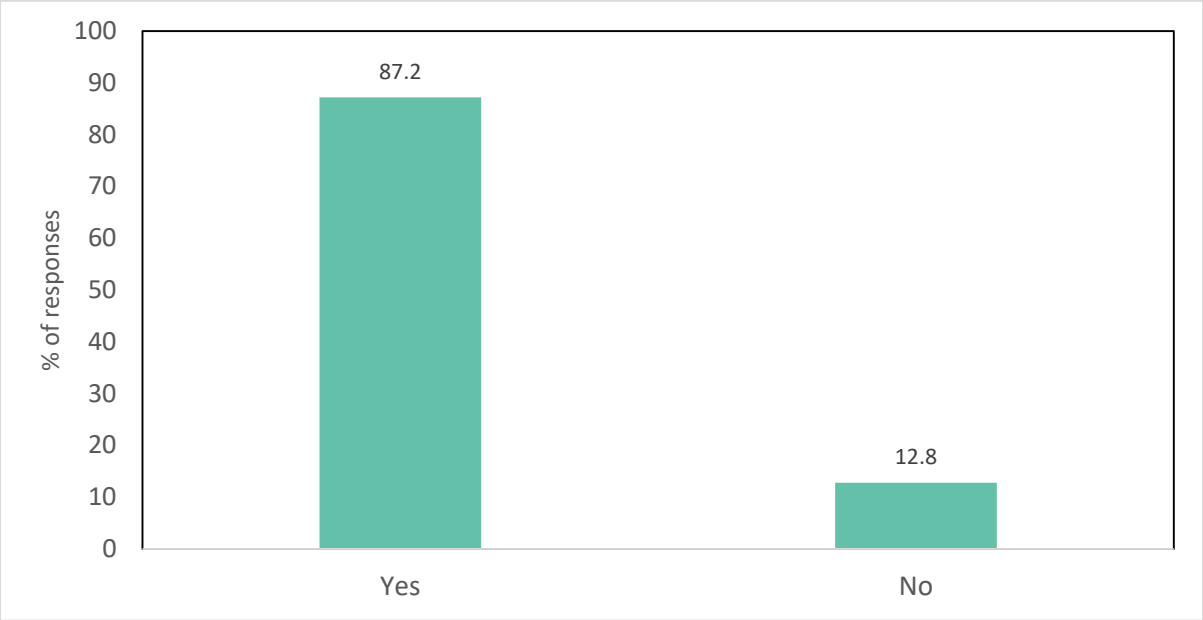


Figure 61. The overall prevention of FTF in PTHB (n = 187).



Patient versus clinician

All the Health Boards thus far have seen differences in the quality ratings given by patients and clinicians. However, in PTHB, there were no differences between respondents ($U = 4244.0$, $p > .05$), suggesting that patients and clinicians both rate VC similarly.

Demographics of patients

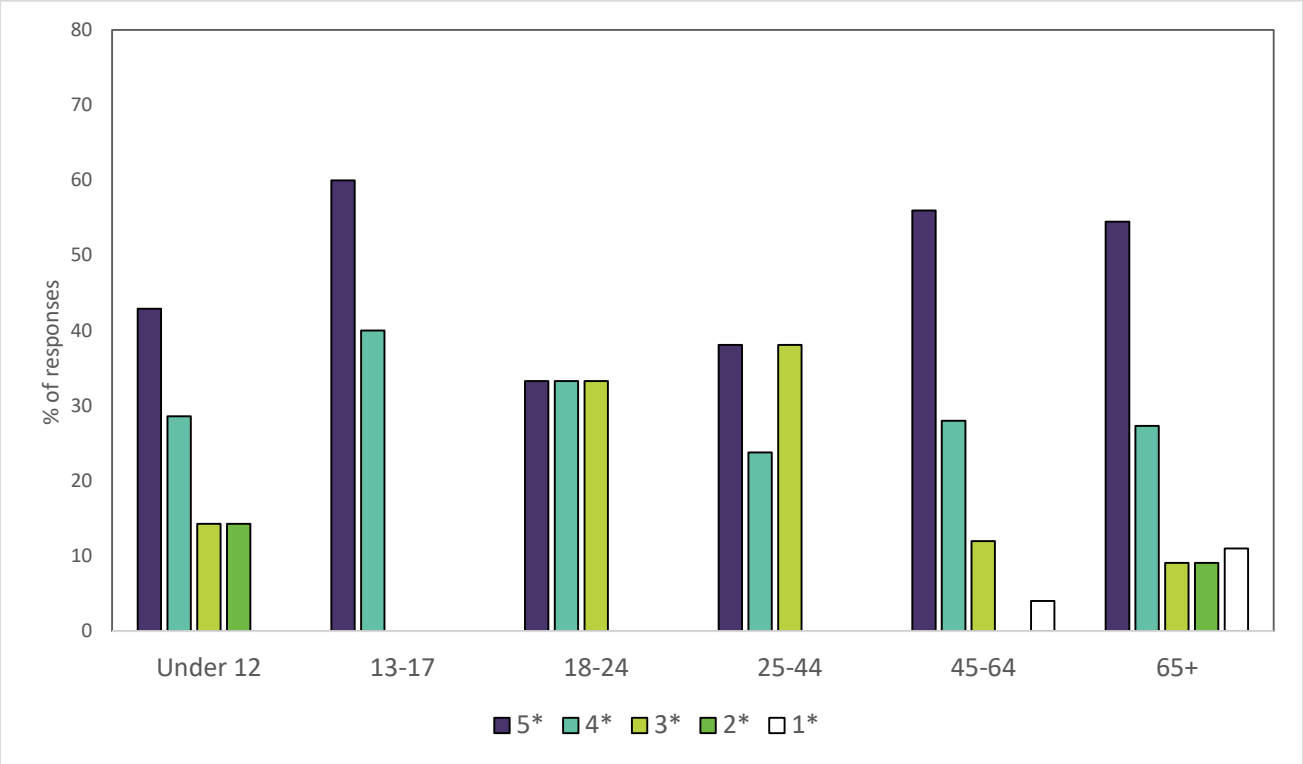
Table 60 displays the patients' demographics. The majority of respondents were between the ages of 45 and 64 and were female.

Table 60. The frequencies and percentages of each patient age group and gender.

Age	**%**	**n**	**Gender**	**%**	**n**
Under 12	9.6	7	Male	45.3	34
13-17	8.2	6	Female	52.0	39
18-24	4.1	3	PNTS/Other	2.7	2
25-44	28.8	21			
45-64	34.2	25			
65+	15.1	11			
Total Responses		73	Total Responses		75

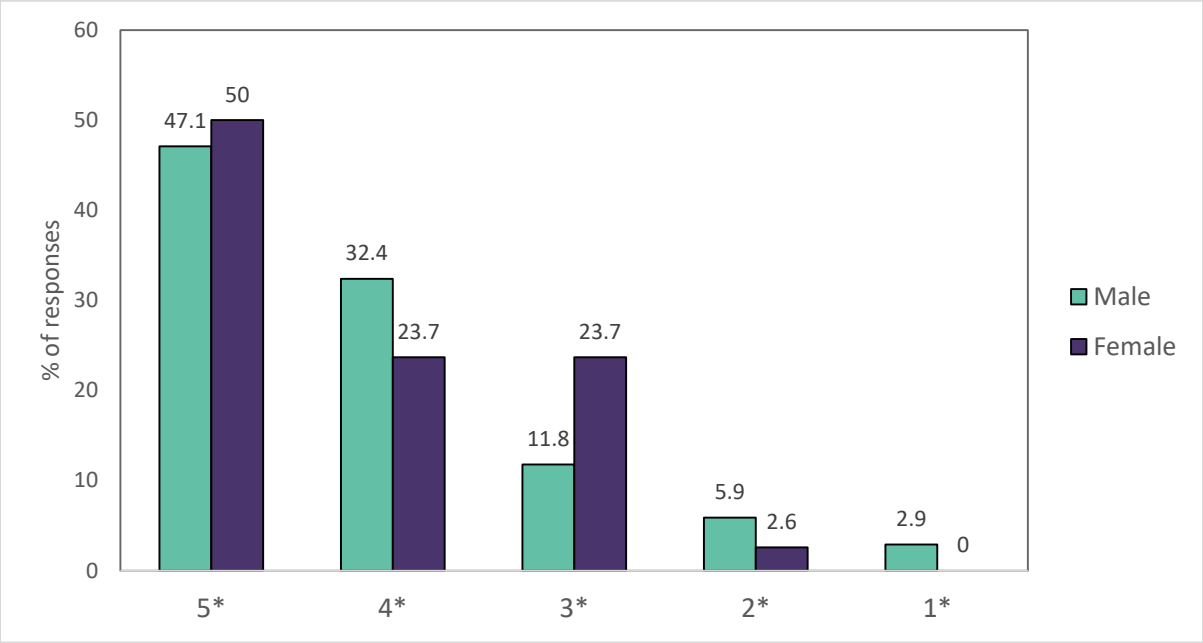
Due to differences between the group sizes of the age groups, no comparisons were run. However, the distributions of responses are displayed in Figure 62.

Figure 62. The distributions of quality ratings per age group.



In addition to this, differences were tested between males and females' quality ratings. PNTS/Other were excluded due to the small group size (n = 2). The test revealed no significant differences between males (n = 34) and females (n = 38), suggesting they rate VC similarly (Figure 63).

Figure 63. The distribution of quality ratings for males and females.



Patient usage of VC

Overall, 34% of respondents (total n = 50) reported using VC before. In addition to this, interestingly a significant difference was found between those who had used VC before (n = 16) and those who had not (n = 33) on the quality ratings they gave VC (U = 168.5, p = .03). This suggests that those who had used VC before rated it more negatively than those who had (Figure 64). The prevention of FTF for those who had used VC before (n = 17) was 100%, compared with 84.8% for those who had not (n = 33).

Of those who had previously used VC (n = 17), 11.8% had used it once, 47.1% twice, and 41.2% three times or more. There was only one respondent who had only used it once before that gave a quality rating, and this individual gave VC 3-stars. The distributions of responses for quality ratings are displayed in Table 61, where a trend can be seen for those who had used it twice to rate it more negatively than those who had used it three times or more.

Figure 64. The distributions of quality ratings for respondents who had used VC before (yes) and those who had not (no).

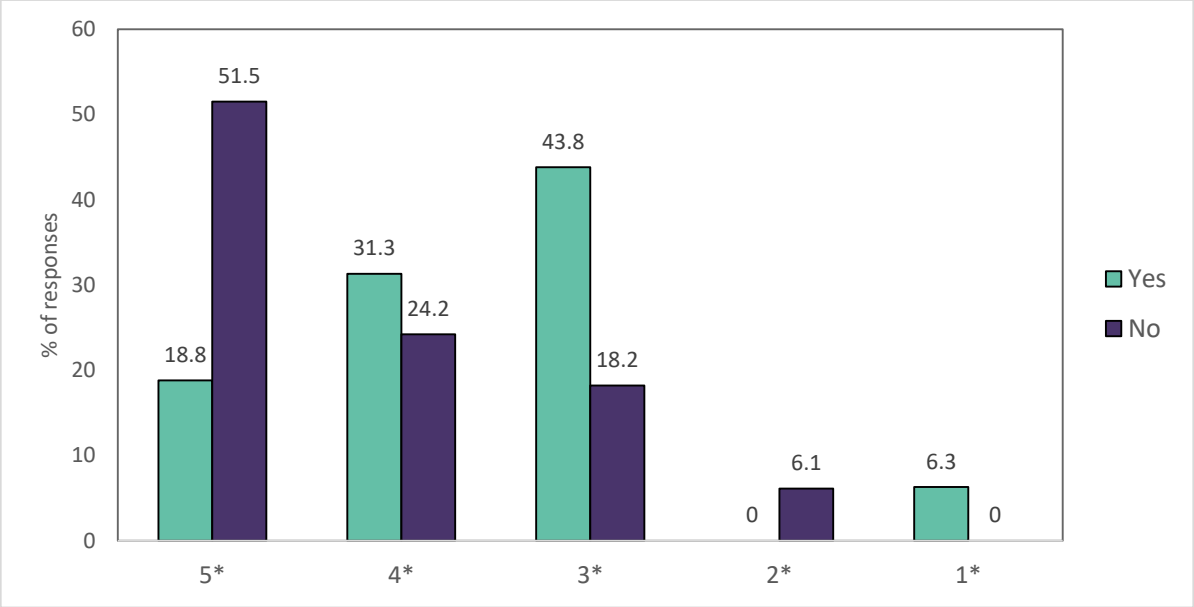


Table 61. The distributions and descriptive statistics of quality ratings for those who had used VC once, twice, and three times or more.

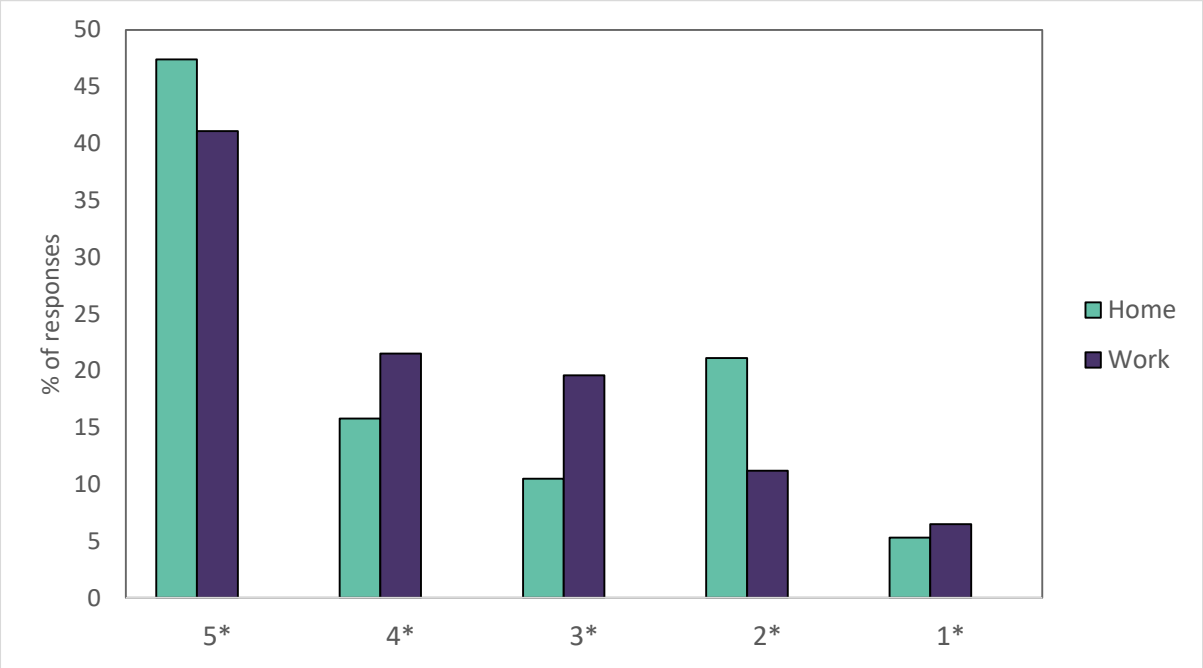
	How Many Times?		
VC Quality %	**Once**	**Twice**	**Three times or more**
5*	0.0	12.5	28.6
4*	0.0	12.5	57.1
3*	100.0	62.5	14.3
2*	0.0	0.0	0.0
1*	0.0	12.5	0.0
Mean	3.0	3.1	4.1
Median	3.0	3.0	4.0
Freq.	1	8	7

Respondents were also asked to state whether or not they would use VC again or after COVID-19 had passed. There were 49 responses, and all of these individuals stated they would use VC again.

Clinician work location

The percentage of clinicians working from home in PTHB was 14.7%, with 84.5% working from their work, and 0.8% stating 'Other'. The quality ratings given by respondents working from home and working from their work seemed to be similar, displayed in Figure 65. Also, the prevention of FTF was also similar, with 84.2% prevention for those working from home, and 86.0% for those at work.

Figure 65. The distribution of quality ratings for clinicians working from their home and from their work.



Care Sector Findings

This section will consider the findings from the individual care sectors, Primary, Secondary, and Community Care.

Quality rating and prevention of FTF

Secondary Care seemed to rate VC as more negative compared with Primary and Community Care, as show in Table 62. Also, the prevention of FTF was similar in Primary and Secondary Care and was prevented for 100% of the respondents in Community Care.

Table 62. The distributions and descriptive statistics of responses for VC quality ratings and the prevention of FTF in each care sector.

VC Quality %	Primary		Secondary		Community	
5*	56.1		41.5		50.0	
4*	25.8		22.3		16.7	
3*	10.6		19.2		33.3	
2*	6.1		10.8		0.0	
1*	1.5		6.2		0.0	
Mean	4.3		3.8		4.2	
Median	5.0		4.0		4.5	
Freq.	66		130		6	
	Prevented FTF?					
	Yes	No	Yes	No	Yes	No
%	84.6	15.4	89.4	10.6	100.0	0.0
Freq.	52		123		6	

The data was explored for any differences between the care sectors on the quality ratings they gave VC. Community Care was excluded from the analysis due to the small group size (n = 6). A Mann-Whitney U revealed a significant difference between Primary and Secondary Care (U = 3418.0, p = .013), suggesting that Primary Care rated VC more positively than Secondary Care.

Patient versus clinician

As stated previously, there were no significant differences between the VC quality ratings given by patients and clinicians overall. Analyses were conducted to test whether there were any differences between respondents in the individual care sectors. These revealed a significant difference between patients (n = 26) and clinicians (n = 40) in Primary Care (U = 376.5, p < .05), but no differences between patients (n = 39) and clinicians (n = 91) in Secondary Care. This suggests that patients rate VC more positively than clinicians in Primary Care, but both rate VC similarly in Secondary Care.

Demographics of patients

The demographics of patients are displayed in Table 63.

Table 63. The percentage of patients per age group and gender in each care sector.

	Care Sector		
Age Group %	**Primary**	**Secondary**	**Community**
Under 12	20.8	5.1	0.0
13-17	16.7	5.1	0.0
18-24	8.3	0.0	0.0
25-44	4.2	38.5	100.0
45-64	29.2	41.0	0.0
65+	20.8	10.3	0.0
Freq.	24	39	4
Gender %			
Male	56.0	37.5	25.0
Female	40.0	60.0	75.0
PNTS/Other	4.0	2.5	0.0
Freq.	25	40	4

Patient usage of VC

There was no data for patient usage of VC in Primary Care. In Secondary Care, 35.0% of patients had used VC before (total n = 40), with 7.1% having used it once, 50.0% twice, and 42.9% three times or more (total responses for this question was 14). There were only four responses in Community Care, and only one individual had used VC previously. Also, there was one response for using VC twice before. In both Secondary (n = 39) and Community Care (n = 4), all respondents stated they would use VC again.

Clinician work location by care sector

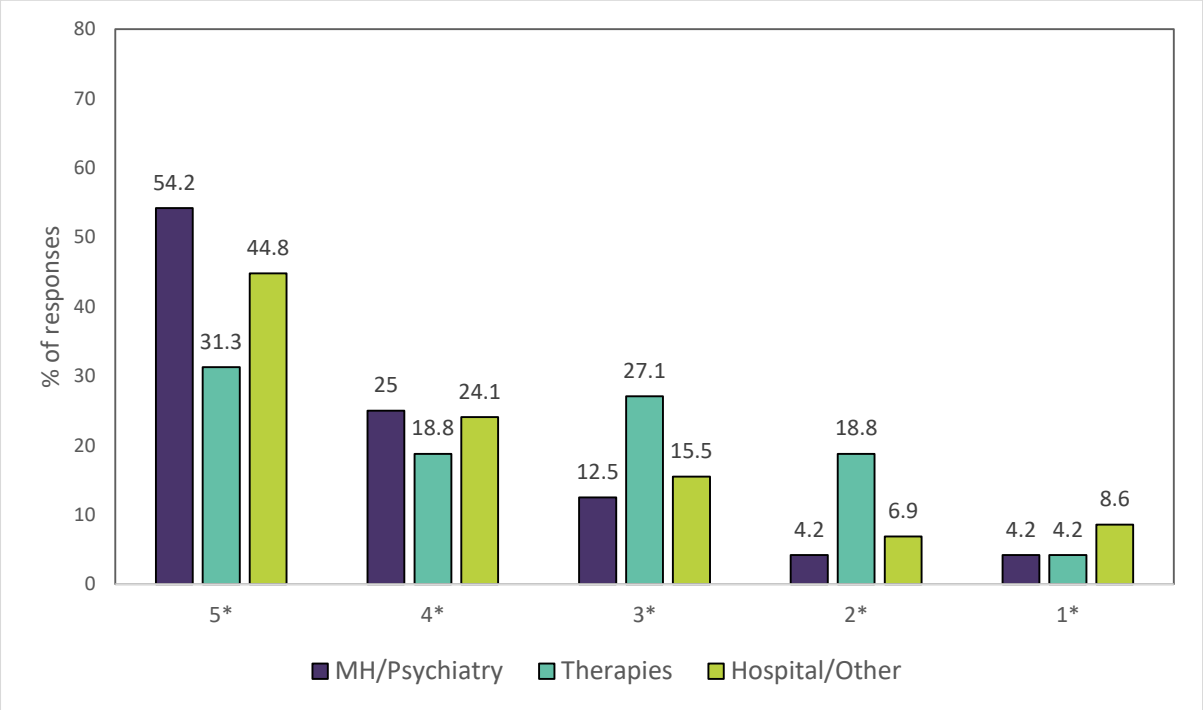
Considering the work location of clinicians, 7.8% of respondents in Primary Care were working from home (total n = 38), and 18.0% in Secondary Care (n = 89). There were only two responses in Community Care, and these were working from work.

Secondary Care Findings.

Quality rating and prevention of FTF

The quality ratings of each Secondary Care sub-category were analysed for any differences between them. A Kruskal-Wallis revealed no such differences, $H = 5.70$, $df = 2$, $p > .05$, suggesting that the sub-categories of Secondary Care rated VC similarly. However, there was a trend for Mental Health/Psychiatry (n = 24) to rate VC more positively, followed by Hospital/Other (n = 58), and then Therapies (n = 48). This is displayed in Figure 66. In addition, FTF prevention was lower in Mental Health/Psychiatry (83.3%, n = 24), and was exactly the same (90.9%) for both Therapies (n = 44) and Hospital/Other (n = 55).

Figure 66. The distributions of quality ratings across the sub-categories of Secondary Care.



Demographics of patients

Patient demographics in each of the sub-categories are displayed in Table 64.

Table 64. The percentage of patients in each age group and gender per Secondary Care sub-category.

	Secondary Sub-category		
Age Group %	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Under 12	0.0	5.9	9.1
13-17	0.0	5.9	9.1
18-24	0.0	0.0	0.0
25-44	36.4	41.2	36.4
45-64	54.5	29.4	45.5
65+	9.1	17.6	0.0
Freq.	11	17	11
Gender %			
Male	27.3	50.0	27.3
Female	72.7	44.4	72.7
PNTS/Other	0.0	5.6	0.0
Freq.	11	17	11

Patient usage of VC

The responses to using VC before, how many times, and if they would use it again are displayed in Table 65. Therapies had the largest proportion of respondents who had used VC before, followed by Mental Health/Psychiatry, and then Hospital/Other. All respondents in each sub-category stated they would use VC again or after COVID-19 had passed.

Table 65. The distribution of responses to using VC before, how many times, and if respondents would use it again per Secondary Care sub-category.

	Care Sector %		
Used VC Before?	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Yes	36.4	44.4	18.2
No	63.6	55.6	81.8
Freq.	11	18	11
How Many Times?			
Once	0.0	12.5	0.0
Twice	50.0	62.5	0.0
Three or more	50.0	25.0	100.0
Freq.	4	8	2
Use Again/After?			
Yes	100.0	100.0	100.0
No	0.0	0.0	0.0
Freq.	11	17	11

Clinician work location by Secondary Care sub-categories

Mental Health/Psychiatry (n = 13) had the highest proportion of clinicians working from home (84.6). Therapies (n = 31) had 12.9% of clinicians working from home, and Hospital/Other (n = 45) only had 2.2% working from home.

Type of appointment

Table 66 displays the number of respondents carrying out each type of appointment. Specifically, follow-up and first appointments were the most common type, and advice, discharge, and feedback/outcomes were the least common. Table 67 also displays the type of appointments being conducted by work location.

Table 66. The frequencies and percentages of appointment types.

	%	Frequency
Appointment Type		
Advice	0.0	0
Discharge	0.0	0
Feedback/Outcomes	0.0	0
First Appointment	30.0	18
Follow-up	31.7	18
Review	5.0	3
Therapy	28.3	17
Other	5.0	3

Table 67. The proportion of appointments being carried out at work and at home.

	Work Location		
	Home	Work	Frequency
Appointment Type			
First Appointment	11.1	88.9	18
Follow-up	11.8	88.2	17
Review	33.3	66.7	3
Therapy	47.1	52.9	17
Other	0.0	100.0	2

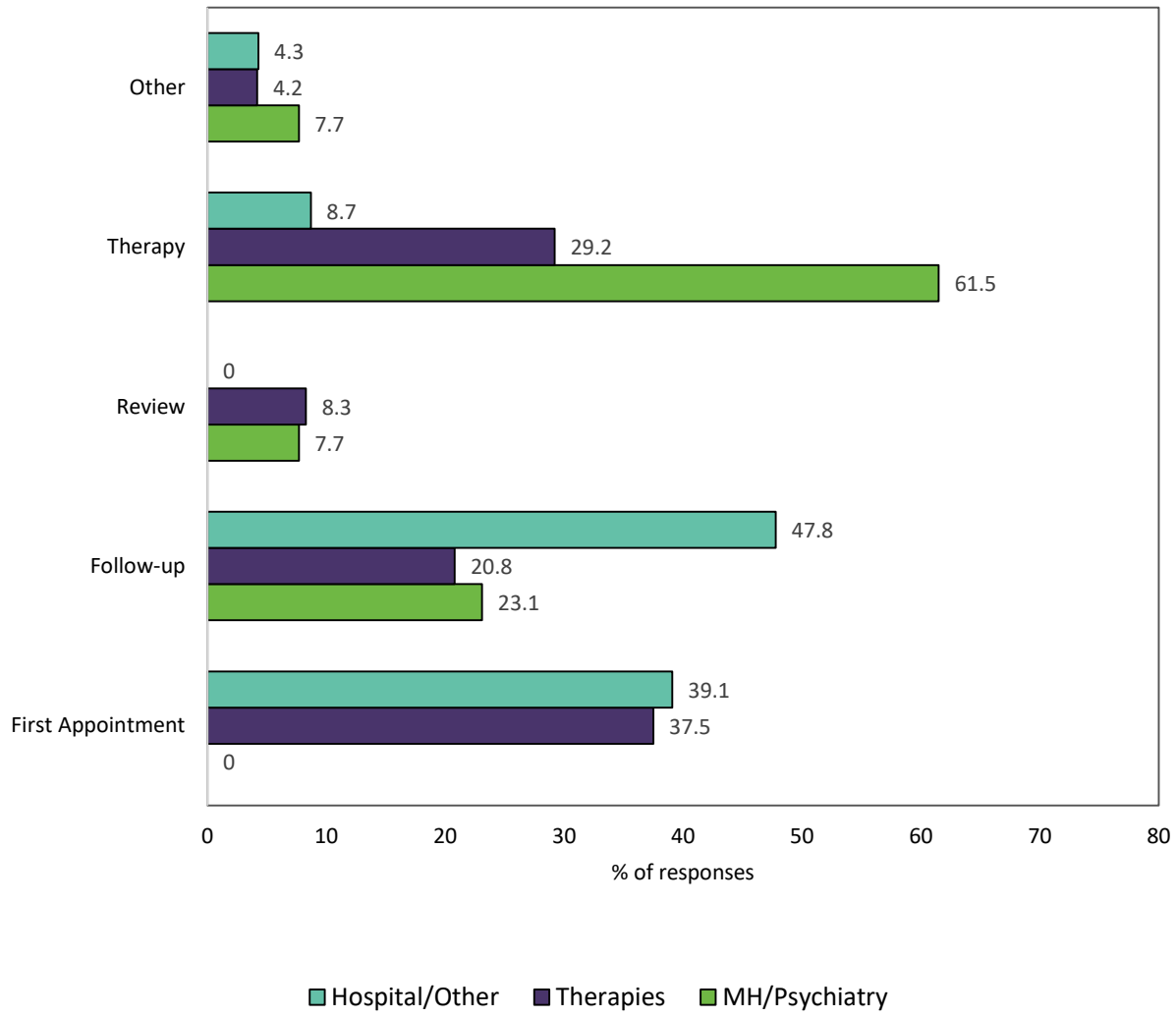
Considering quality ratings and the prevention of FTF per appointment type, therapy appointments had the highest proportion of 5-star ratings, and review had the highest prevention of FTF (although there were only 3 respondents). After review, therapy also had the highest prevention of FTF. This can be seen in Table 68. There was no data for advice, discharge, and feedback/outcomes.

Table 68. The distributions of quality ratings and the prevention of FTF across the different appointment types.

Quality Rating %	**First Appointment**	**Follow-up**	**Review**	**Therapy**	**Other**
5*	27.8	44.4	33.3	64.7	33.3
4*	22.2	22.2	33.3	5.9	0.0
3*	16.7	11.1	33.3	17.6	66.7
2*	22.2	22.2	0.0	5.9	0.0
1*	11.1	0.0	0.0	5.9	0.0
Freq.	18	18	3	17	3
Prevented FTF? %					
Yes	88.9	86.7	100.0	93.8	50.0
No	11.1	13.3	0.0	6.3	50.0
Freq.	18	15	3	16	2

Finally, the Secondary Care sub-categories were analysed for the type of appointments that clinicians were conducting using VC. Figure 67 displays these distributions, with therapy being the most common for Mental Health/Psychiatry, first appointments for Therapies, and follow-up for Hospital/Other.

Figure 67. The proportion of appointment types carried out in each Secondary Care sub-category.



Discussion of PTHB

The analysis of the data for PTHB suggests that respondents rate VC positively, and that there is a high prevention of FTF across appointments. However, it was evident that Secondary Care respondents were more negative in their responses than Primary Care, suggesting that there are differences between the ratings and perhaps experiences that these respondents have with VC. On the other hand, no differences between patients and clinicians emerged, overall or for Secondary Care, although there were differences in Primary Care, suggesting that Primary Care clinicians are more negative in their

opinions of VC than patients. All of the patients (that responded) in PTHB also stated they would use VC again or after COVID-19 had passed, suggesting the outcome of the patients' VC were positive enough that they would consider using it again. However, those patients who had used VC before rated VC more negative compared with those who had not, this could suggest that there is something novel, and exciting about using VC for the first time, which results in more positive ratings.

Considering Secondary Care, follow-up and first appointments were the most common types being conducted using VC, whereas advice, discharge, and feedback were the least common. In terms of the Secondary care sub-categories, Mental Health/Psychiatry, Therapies, and Hospital/Other rated VC similarly, and no differences between them emerged, except for a slight trend for negative ratings in Therapies and more positive ratings in Mental Health/Psychiatry.

In summary, PTHB gave VC positive ratings overall, with differences between patients and clinicians only evident in Primary Care, and more negative ratings in Secondary Care, overall. All patients would use VC again, which is a positive result, and suggests that patients have positive views of VC.

Swansea Bay University Health Board (SBUHB)

Sample Total

There was a total of 1549 responses in SBUHB, with 1106 clinicians and 443 patients.

Quality rating and prevention of FTF

Overall, 80.8% of respondents in SBUHB rated VC excellent, very good, or good, and VC was given 5-star ratings ('excellent') by 45.7% of respondents. FTF was prevented 87.2% of the time. These responses are displayed in Figure 68 and Figure 69.

Figure 68. The overall distribution of quality ratings in SBUHB (n = 1509).

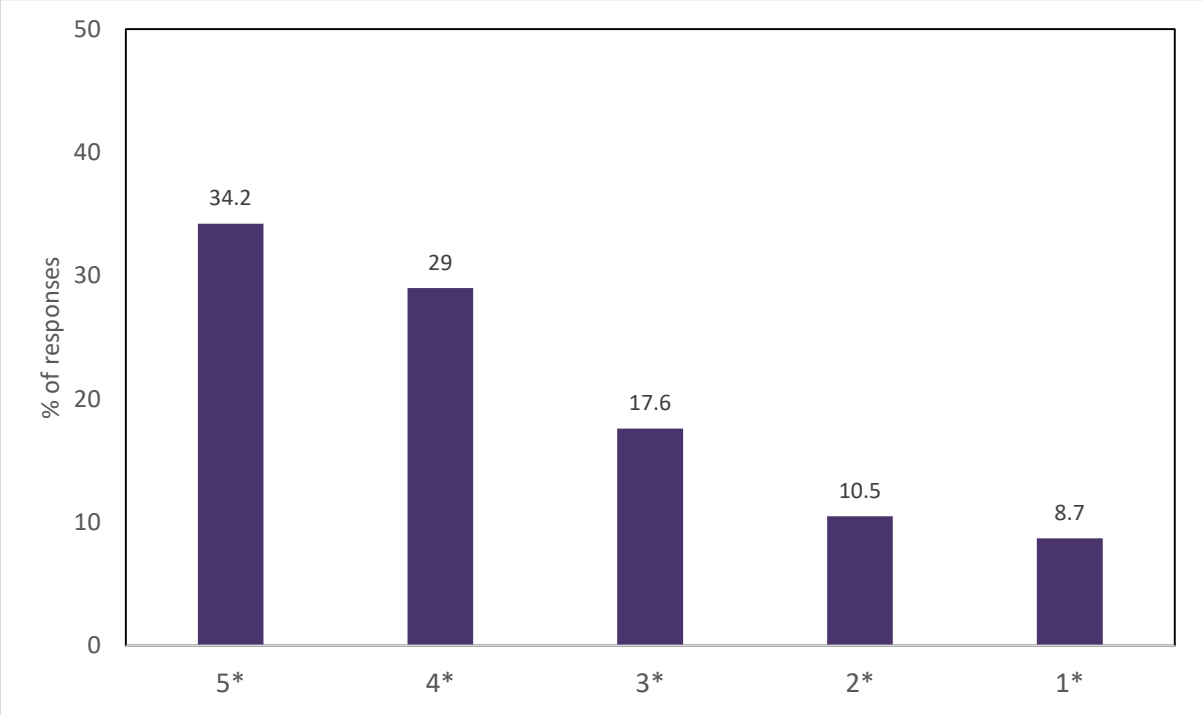
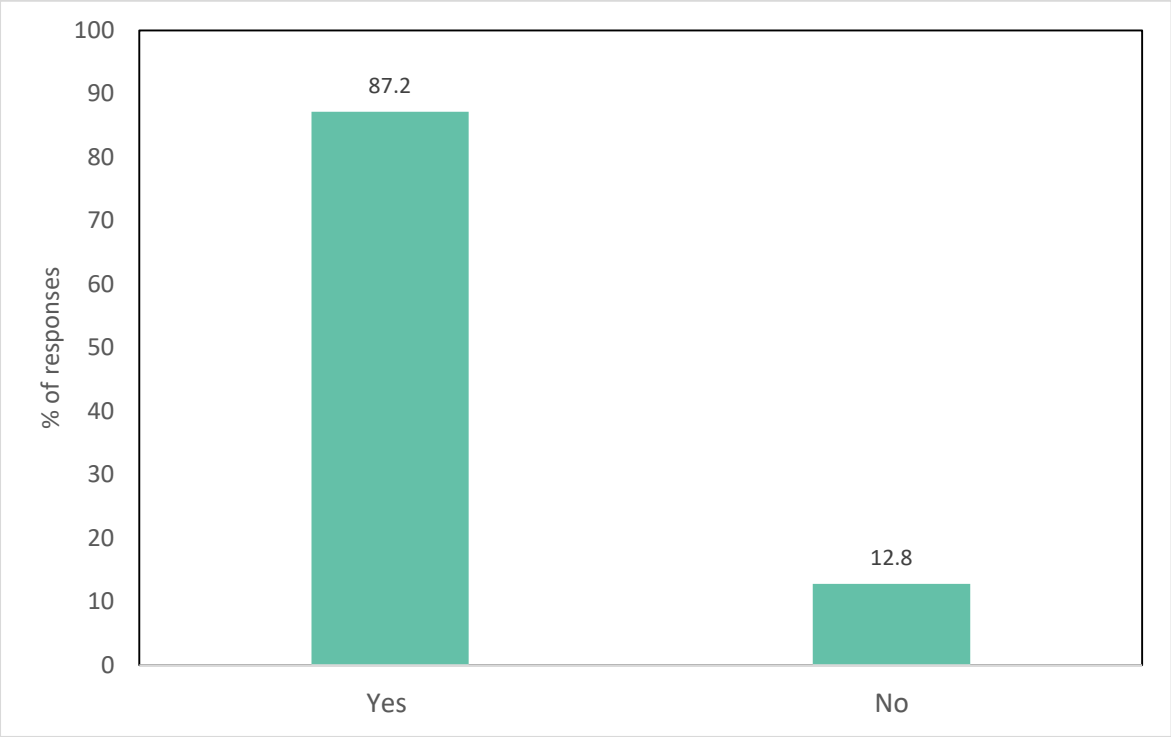


Figure 69. The overall prevention of FTF in SBUHB (n = 1450).



Patient versus clinician

A Mann-Whitney U test was conducted to test the differences between the quality ratings given by patients and clinicians. This revealed a significant difference ($U = 124376.0$, $p < .001$), suggesting that patients rated VC more positively than clinicians.

Demographics of patients

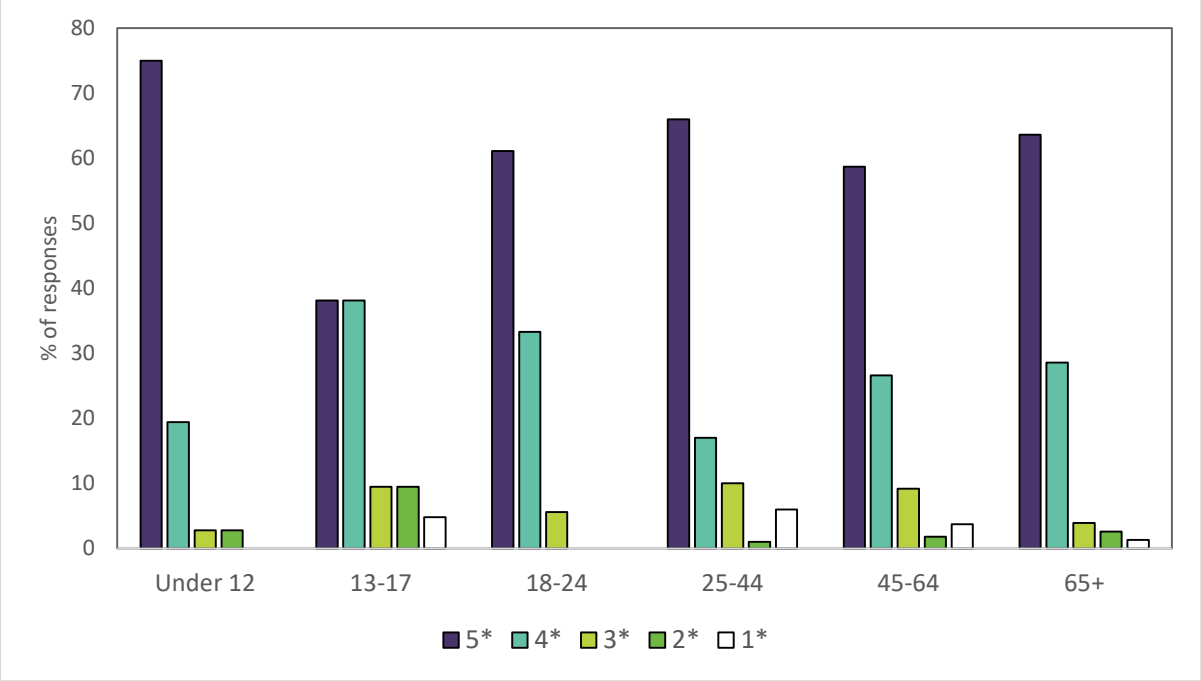
Table 69 displays the demographics of patients in SBUHB, including age and gender. The majority of respondents were between the ages of 45 and 64 and were female.

Table 69. The frequencies and percentages of each patient age group and gender.

Age	%	n	Gender	%	n
Under 12	9.8	36	Male	40.1	150
13-17	5.7	21	Female	59.1	221
18-24	4.9	18	PNTS/Other	0.8	3
25-44	27.4	101			
45-64	30.2	111			
65+	22.0	81			
Total Responses		368	Total Responses		374

The data was analysed to test the differences between the age groups on the quality ratings they gave VC. The age groups were similar in their ratings, and there were no significant differences between them ($H = 9.31$, $df = 5$, $p > .05$). The distributions of responses are displayed in Figure 70.

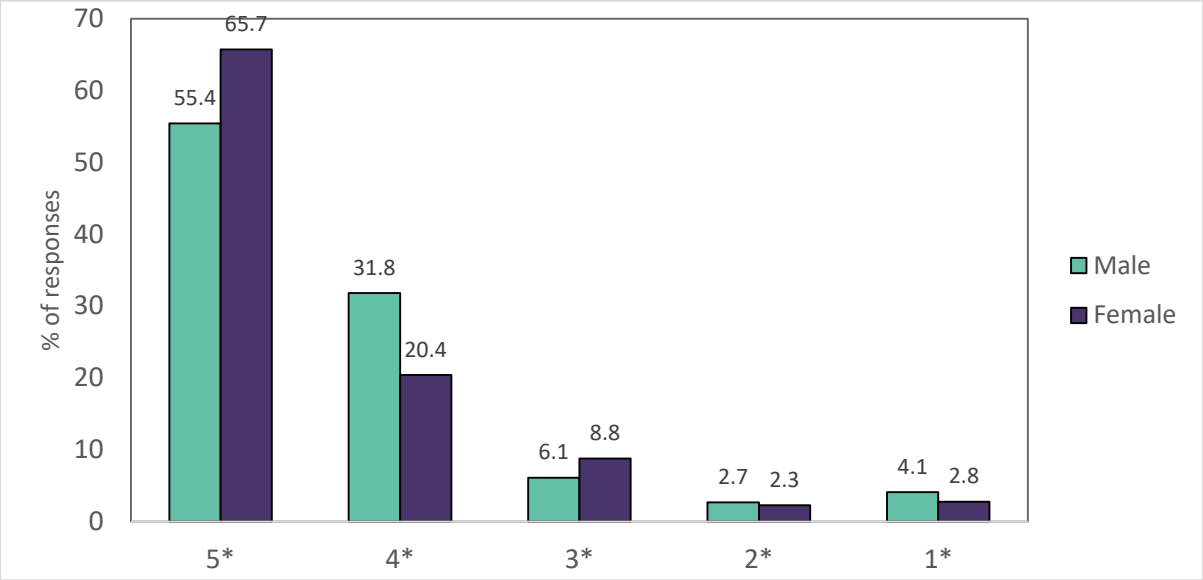
Figure 70. The distributions of quality ratings per age group.



In addition to this, an analysis was also conducted to test the differences between males and females. Due to the low group size in PNTS/Other (n = 3), this was excluded from the analysis. There was no significant difference

between males (n = 148) and females (n = 216) (U = 14570, p > .05), suggesting they rated VC similarly (Figure 71).

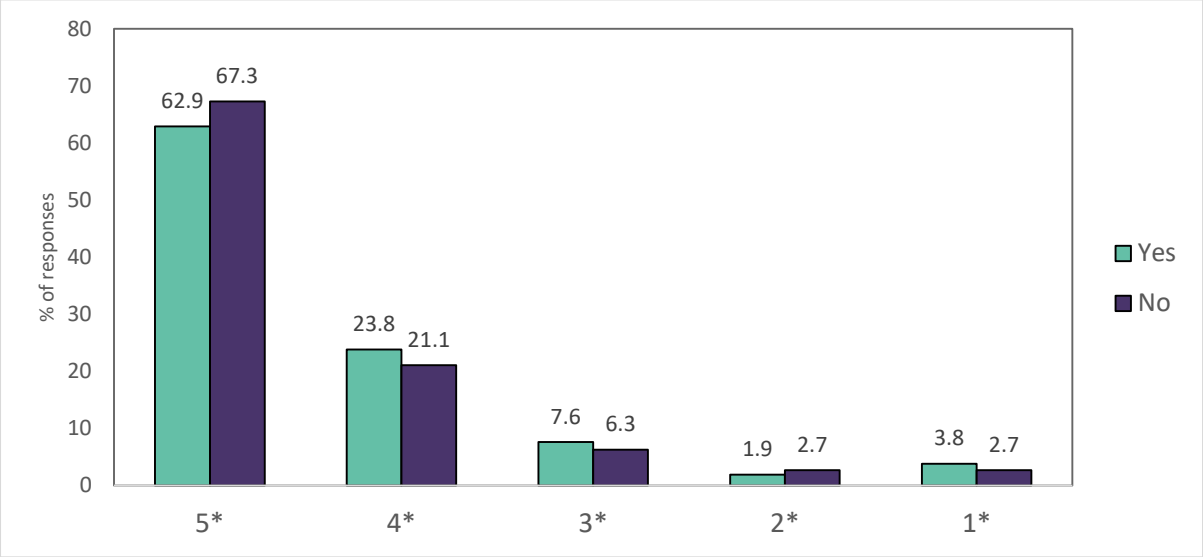
Figure 71. The distributions of quality ratings for males and females.



Patient usage of VC

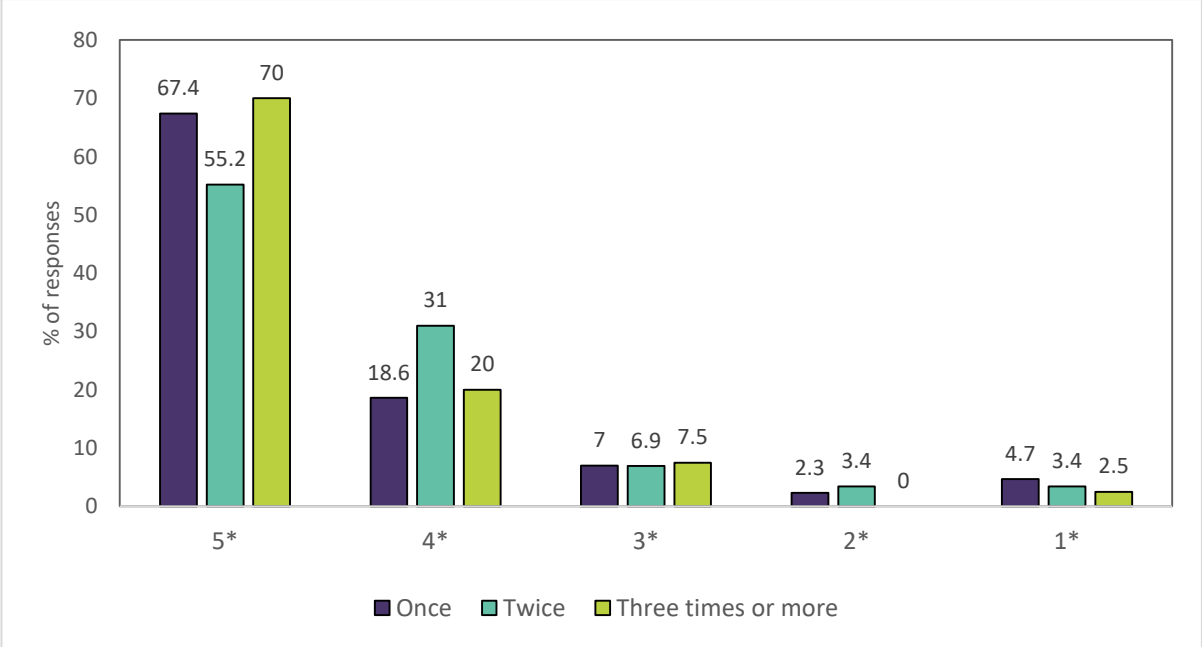
Overall, 32.4% of respondents (total n = 333) had used VC before their appointment, and those who had used VC (n = 105) and had not used it before (n = 223) seemed to rate VC similarly, as displayed in Figure 72. The prevention of FTF was similar for both groups of respondents, 90.7% for those who had used it previously (n = 107) and 87.7% for those who had not (n = 220).

Figure 72. The distributions of quality ratings for respondents who had used (yes) and had not used (no) VC before.



Of those who had previously used VC, 38.3% had used it once, 26.1% twice, and 35.7% three times or more. These groups of respondents also rated VC similarly, with responses being more positive than negative, demonstrated in Figure 73.

Figure 73. The distribution of quality ratings for respondents who had used VC once (n = 43), twice (n = 29), and three times or more (n = 40).

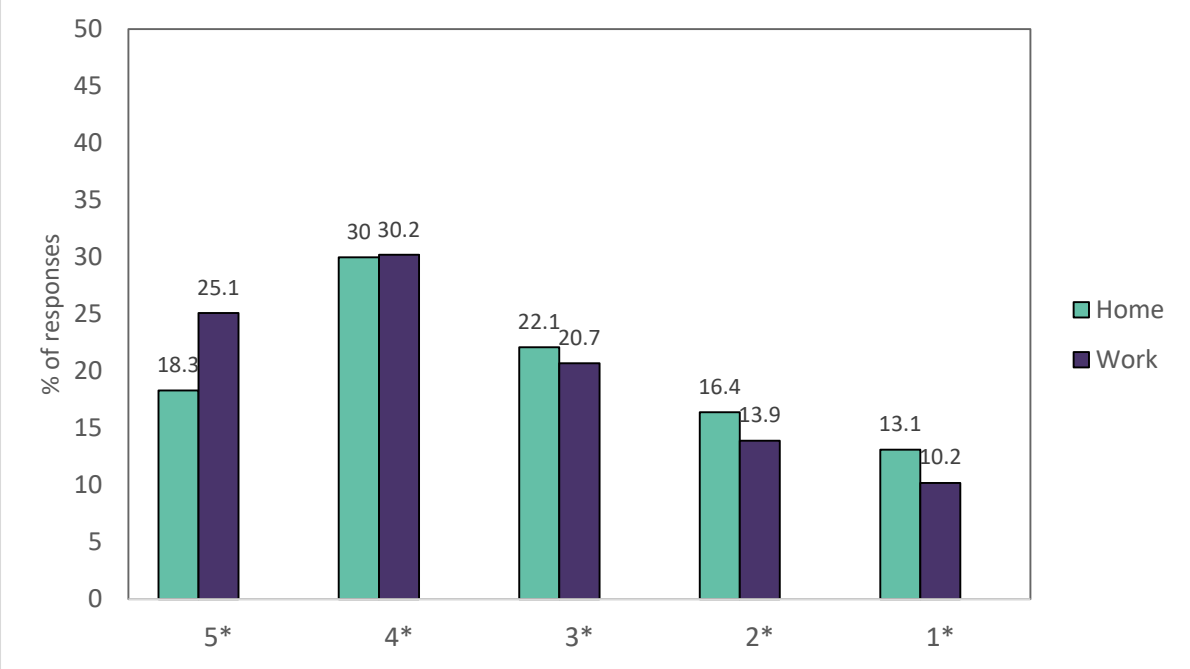


Furthermore, respondents were also asked whether they would use VC again or after COVID-19 had passed. 97.3% of 330 respondents stated they would use it again. For those who would not use VC again (n = 8), FTF was prevented only two of these respondents.

Clinician work location

The percentage of clinicians working from home in SBUHB was 21.3% of 1025 respondents. Interestingly, there was a significant difference between the quality ratings of those working from home and those working at work (U = 75465.5, p = .023), suggesting that those working from home rate VC more negatively than those working at work (Figure 74). The prevention of FTF was similar at home (85.4%, n = 212) and at work (87.1%, n = 768).

Figure 74. The distribution of quality ratings for clinicians working from home (n = 213) and work (n = 786).



Care Sector Findings.

This section will consider the findings from the individual care sectors, Primary, Secondary, and Community Care.

Quality rating and the prevention of FTF

Primary Care had the most positive ratings for VC, with 41.6% of respondents rating VC 5-stars. This compares with only 32.4% of respondents in Secondary Care, and 29.0% in Community Care. On the other hand, the prevention of FTF was similar across all three care sectors. These data are displayed in Table 70.

Table 70. The distributions and descriptive statistics of responses for VC quality ratings and the prevention of FTF in each care sector.

VC Quality %	**Primary**		**Secondary**		**Community**	
5*	41.6		32.4		29.0	
4*	27.3		30.9		27.1	
3*	16.8		17.7		20.6	
2*	5.8		11.5		13.1	
1*	8.5		7.4		10.3	
Mean	3.9		3.7		3.5	
Median	4.0		4.0		4.0	
Freq.	363		947		107	
	Prevented FTF?					
	Yes	No	Yes	No	Yes	No
%	85.8	14.2	87.6	12.4	87.6	12.4
Freq.	317		941		105	

The data was explored for any statistical differences between the care sectors on the quality ratings given. There was a significant difference between the sectors ($H = 11.06$, $df = 2$, $p < .01$), whereby Primary care gave VC more positive ratings than Secondary and Community.

Patient versus clinician

Analyses were once again conducted to test the differences between patients and clinicians in each care sector. There were significant differences

between patients and clinicians in both Primary and Secondary Care, meaning patients rated VC more positively in both care sector. Comparisons could not be conducted in Community Care as there were only 6 patients and 101 clinicians. Table 71 displays the U statistics and group sizes for the comparisons.

Table 71. The U statistics of the Mann-Whitney U tests of differences between patient and clinicians' quality ratings, as well as group sizes, in each care sector. Significance is marked with *.

	U	Patient n	Clinician n
Primary	9745.0***	135	228
Secondary	45072.0***	269	678

*** p < .001.

Demographics of patients

The demographics of patients in each care sector are displayed in Table 72.

Table 72. The percentage of patients per age group and gender for each care sector.

	Care Sector		
Age Group %	**Primary**	**Secondary**	**Community**
Under 12	12.1	9.8	0.0
13-17	19.7	2.9	0.0
18-24	0.0	5.1	16.7
25-44	7.6	32.0	50.0
45-64	30.3	30.5	16.7
65+	30.3	19.6	16.7
Freq.	66	275	6
Gender %			
Male	33.3	41.1	33.3
Female	66.7	57.8	66.7
PNTS/Other	0.0	1.1	0.0
Freq.	69	275	6

Patient usage of VC

Interestingly, no respondents in Primary Care (n = 29) had used VC before. In Secondary Care (n = 274), 36.9% of respondents had used VC before, and 16.7% in Community Care (n = 6). In particular, 34.7% of respondents in Secondary Care (n = 101) had used it once, 27.7% twice, and 37.6% three times or more. One respondent in Community Care stated they had used it three times or more.

Clinician work location by care sector

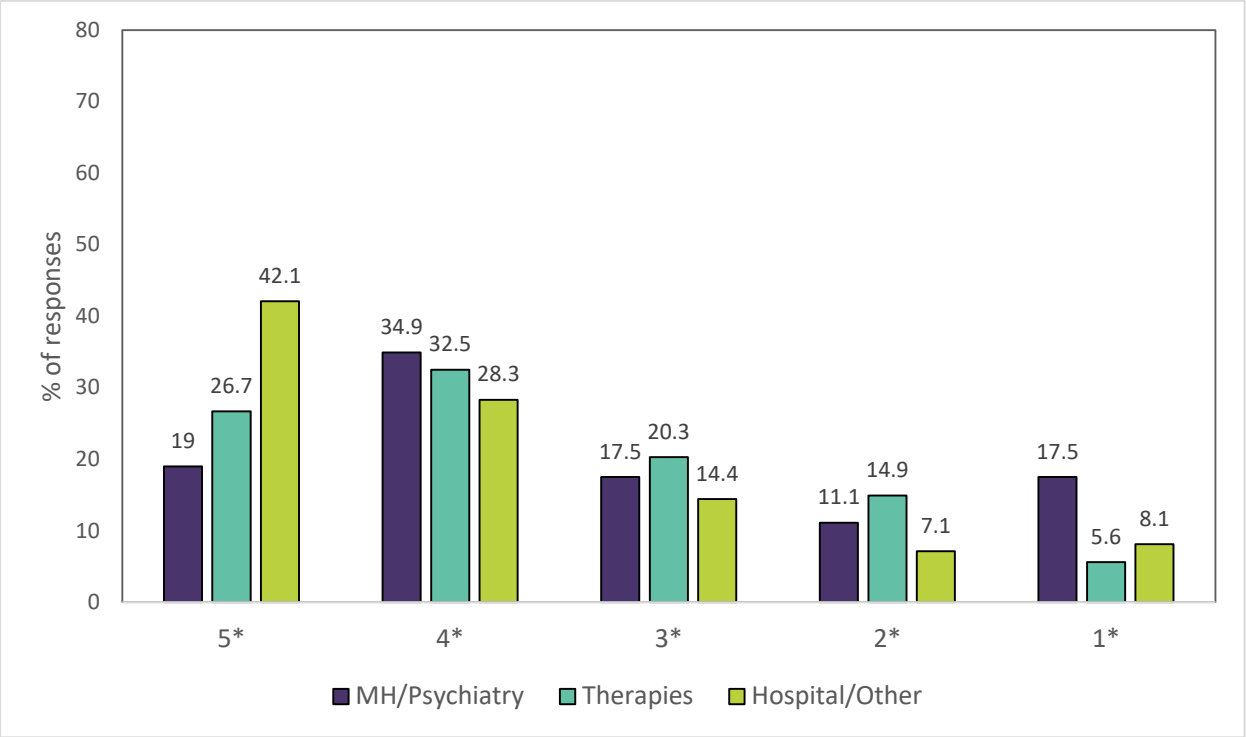
In Primary Care (n = 205), 1.5% of clinicians were working from home. There was a higher proportion in Secondary Care (n = 654), with 24.3% working from home, as well as in Community Care (43.9%, n = 98).

Secondary Care Findings

Quality rating and prevention of FTF.

The sub-categories of Secondary Care (Mental Health/Psychiatry n = 63, Therapies n = 502, Hospital/Other n = 382) were analysed for any differences between the quality ratings given. A Kruskal-Wallis revealed significant differences between the care sectors ($H = 25.59$, $df = 2$, $p < .01$), suggesting that Mental Health/Psychiatry rated VC more negatively, followed by Therapies, and then Hospital/Other giving the most positive ratings. This is displayed in Figure 75. It is important to note, however, the difference in group size for Mental Health/Psychiatry compared with the other categories. This may have skewed the ratings to be more negative due to the lack of responses.

Figure 75. The distribution of quality ratings across the sub-categories of Secondary Care.



Demographics of patients

Patient demographics, including age group and gender, in each sub-category of Secondary Care are displayed in Table 73.

Table 73. The percentage of patients in each age group and gender per Secondary sub-category.

	Secondary Sub-category		
Age Group %	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Under 12	4.2	10.3	10.4
13-17	16.7	1.7	1.5
18-24	0.0	6.8	4.5
25-44	20.8	29.1	36.6
45-64	50.0	34.2	23.9
65+	8.3	17.9	23.1
Freq.	24	117	134
Gender %			
Male	66.7	41.0	36.6
Female	33.3	58.1	61.9
PNTS/Other	0.0	0.9	1.5
Freq.	24	117	134

VC Usage by Secondary Care

The responses to using VC before, how many times, and if respondents would use it again are displayed in Table 74. Mental Health/Psychiatry had the highest proportion of patients stating that they had used VC before, which was followed closely by Therapies, and then Hospital/Other.

Clinician work location by Secondary Care sub-categories

Mental Health/Psychiatry (n = 39) had the highest frequency of clinicians working from home (43.6%). In contrast, 29.0% of clinicians in Therapies were working from home n = 379), and only 13.6% in Hospital/Other (n = 236).

Table 74. The distribution of responses to using VC before, how many times, and if respondents would use it again per Secondary Care sub-category.

	Care Sector %		
Used VC Before?	**Mental Health/Psychiatry**	**Therapies**	**Hospital/Other**
Yes	68.9	37.9	42.2
No	31.1	62.1	57.8
Freq.	45	145	83
How Many Times?			
Once	13.3	22.2	37.1
Twice	10.0	20.4	11.4
Three or more	76.7	57.4	37.1
Freq.	30	54	35
Use Again/After?			
Yes	97.8	98.6	98.8
No	2.2	1.4	1.2
Freq.	45	142	81

Type of appointment

This question was unique to the Secondary and Community Care clinician surveys, and thus the following data does not include Primary Care. Table 75 displays the number of respondents carrying out each type of appointment. In particular, follow-up appointments were the most common type, and discharge was the least common. Also, Table 76 demonstrates the types of appointments being carried out based on the location of the clinician.

Table 75. The frequencies and percentages of appointment types carried out through VC.

	%	Frequency
Appointment Type		
Advice	4.8	13
Discharge	0.0	0
Feedback/Outcomes	3.7	10
First Appointment	24.6	67
Follow-up	39.0	106
Review	8.1	22
Therapy	15.4	42
Other	4.4	12

Table 76. The proportion of appointments being carried out at work and at home.

	Work Location		
	Home	**Work**	**Frequency.**
Appointment Type			
Advice	33.3	66.7	12
Discharge	/	/	/
Feedback/Outcomes	30.0	70.0	10
First Appointment	34.4	65.6	61
Follow-up	27.5	72.5	91
Review	27.3	72.7	22
Therapy	50.0	50.0	42
Other	16.7	83.3	12

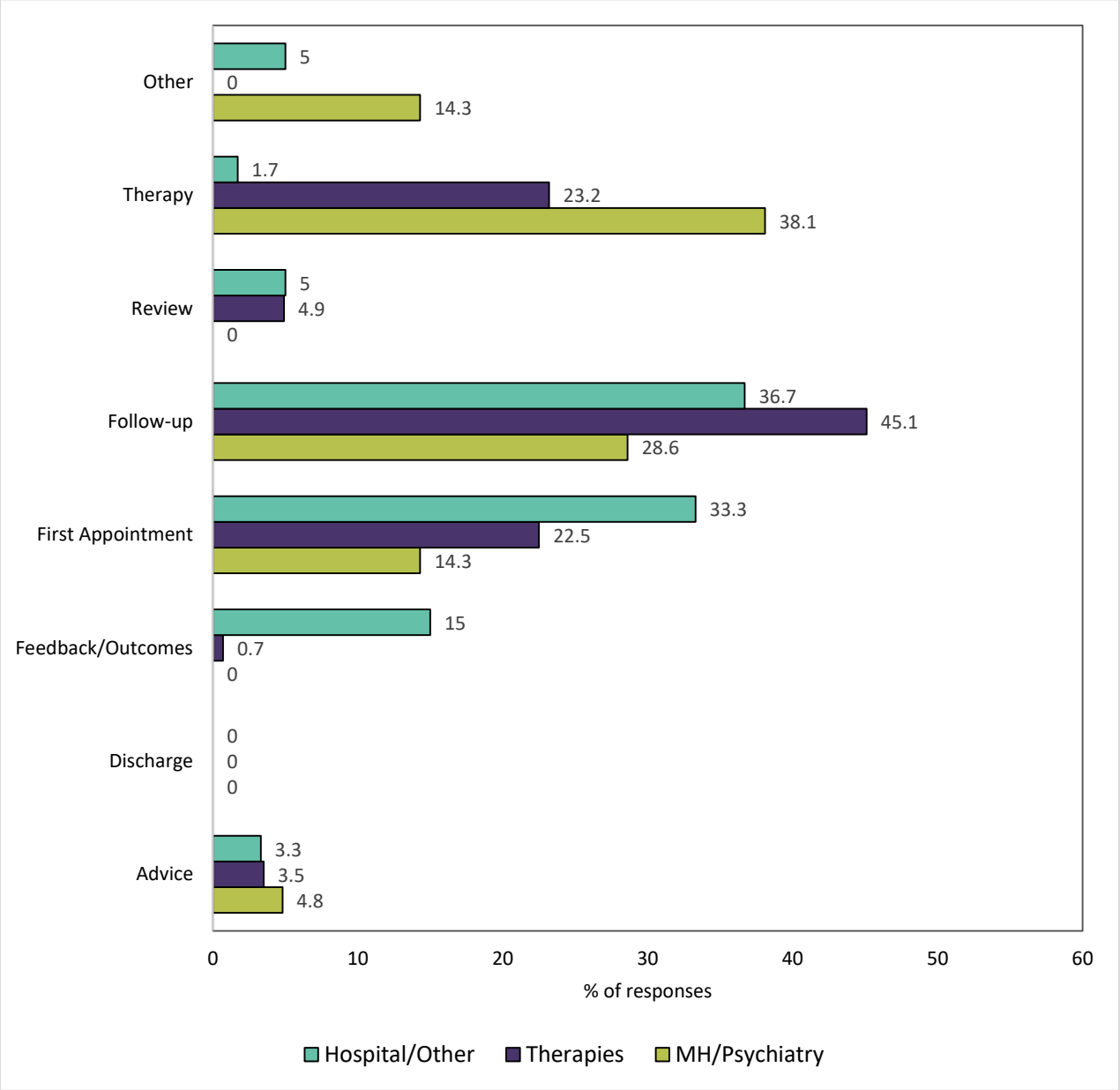
Considering VC quality ratings, feedback/outcomes had the most positive responses, with 50% of respondents giving VC 5-stars. The most negative responses were for review appointments, with only 4.8% of respondents giving VC 5-stars. In addition to this, the prevention of FTF was also lowest for review appointments. This information is displayed in Table 77.

Table 77. The distributions of quality ratings and the prevention of FTF across the different appointment types.

Quality Rating %	Advice	Discharge	Feedback/ Outcomes	First Appointment	Follow-up	Review	Therapy	Other
5*	25.0	/	50.0	22.7	19.8	4.8	11.9	16.7
4*	41.7	/	10.0	40.9	35.8	19.0	28.6	50.0
3*	16.7	/	10.0	16.7	19.8	19.0	26.2	25.0
2*	0.0	/	20.0	7.6	11.3	47.6	21.4	8.3
1*	16.7	/	10.0	12.1	13.2	9.5	11.9	0.0
Freq.	12	/	10	66	106	21	42	12
Prevented FTF? %								
Yes	100.0	/	100.0	84.6	89.0	77.3	97.5	70.0
No	0.0	/	0.0	15.4	11.0	22.7	2.5	30.0
Freq.	13	/	10	65	100	22	40	10

Furthermore, the Secondary Care sub-categories were also analysed for the type of appointments that clinicians were conducted using VC. Figure 76 displays these responses, with therapy appointments being most common for Mental Health/Psychiatry, follow-up for Therapies, and follow-up and first appointments for Hospital/Other.

Figure 76. The proportion of appointment types carried out in each Secondary Care sub-category.



Discussion of SBUHB

The analysis of the data from SBUHB demonstrates that respondents were positive in their ratings for VC, and FTF was prevented for the majority of appointments. Specifically, Primary Care were more positive than Secondary and Community Care in terms of quality ratings, suggesting that the respondents in each have different experiences which may result in the different quality ratings. In addition to this, patients and clinicians differed in the ratings they gave, whereby patients viewed VC as more positive than

clinicians. This was found for the entire data, as well as within Primary and Secondary Care. To support this, almost all of patients across the data stated they would use VC again or after COVID-19 had passed. These findings could imply that patients find VC beneficial, resulting in these optimistic responses, and that it is a good replacement for FTF where appropriate.

Considering Secondary Care findings, the most common type of appointment carried out with VC was first appointments, and the least common was discharge. In terms of the Secondary Care sub-categories (Mental Health/Psychiatry, Therapies, and Hospital/Other), there were differences between the ratings given in each, whereby Mental Health/Psychiatry tended to rate VC more negatively, followed by Therapies, and the Hospital/Other. Mental Health/Psychiatry also had the highest proportion of clinicians working from home.

In summary, respondents in SBUHB typically rated VC as positive, and FTF was prevented for a high proportion of respondents. Primary Care gave VC more positive ratings, in all care sectors and amongst patients. Furthermore, Mental Health/Psychiatry tended to be more negative in their ratings compared with the other sub-categories of Secondary Care.

Velindre Cancer Centre (VCC)

Total Sample

Unfortunately, there was only 23 responses in total for VCC. There may have been more responses within the survey, however, due to the fact the questions were not forced choice, these may have been missing. Thus, VCC will be analysed as a whole, and not split based on respondent type or sub-categories.

Quality ratings and prevention of FTF

Overall, VC was rated excellent, very good, or good by 73.8% of the respondents, with 39.1% giving VC 5-stars ('excellent'). Also, FTF was prevented for 95.7% of consultation. These responses are displayed in Figure 77 and Figure 78.

Figure 77. The overall proportion of quality ratings in VCC (n = 23).

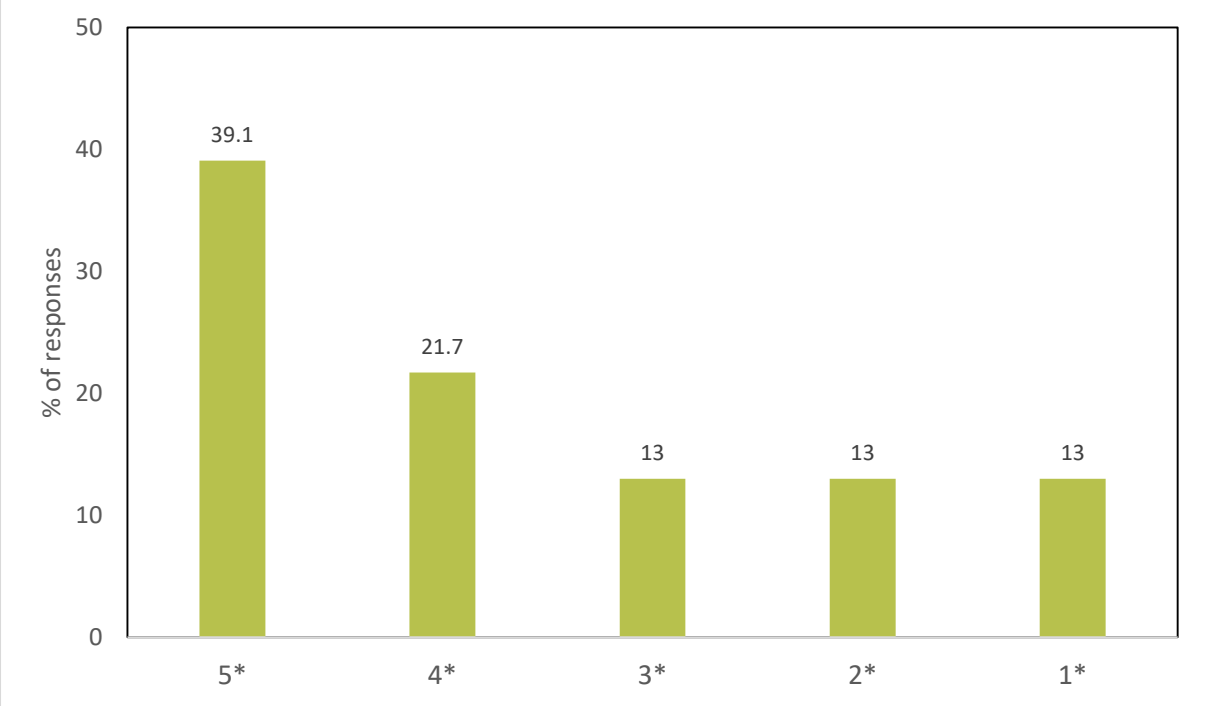
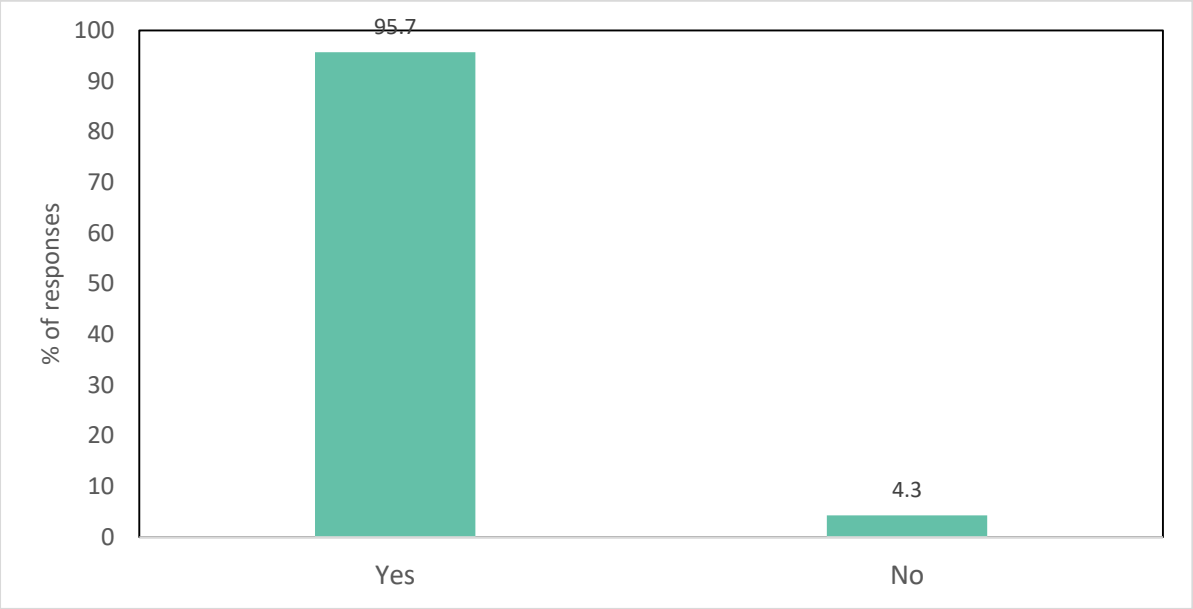


Figure 78. The overall prevention of FTF in VCC.



Patient demographics

Of the five patients who responded to the demographic questions in VCC, 2 of these were 25-44, 1 was 45-64, and 2 were over the age of 65. There were 3 males and 2 females.

Patient usage of VC

Four out of five patients had used VC before, with two having used it twice and two three times or more. All patients reported they would use VC again or after COVID-19 had passed.

Work location of clinician

There were 18 responses to this question regarding the work location of the clinician. In particular, 5 were working from home, and 13 were working at work.

Appointment types

Follow-up appointments were the most common type of appointments being conducted by clinicians over VC (3 out of 14) and review appointments being the least common (1 out of 14).

Travel Savings in Phase 1

Total Travel Savings by Hours, Miles & Co2

This poster was designed by our Duke of Edinburgh Bronze Student Ansh Ahuja.

Qualitative Data Section

Summary of the Section

This section of the chapter provides a thematically analysed overview of the narrative data that was captured in the free-text boxes in the surveys. Quotes are provided, with reference to the Health Board, care sector and speciality it was linked to.

This is split up into different sections, including

- Primary Care – Patient Perspective
- Primary Care – Clinician Perspective
- Secondary/Community Care – Patient Perspective
- Secondary/Community Care – Clinician Perspective

Primary Care: General Practitioner (GP), Urgent Out of Hours & 111: The Patient Perspective

Theme 1: Rating the Quality of the Video Consultation – The Patient

Primary Care patients were overwhelmingly positive about the use of VC, particularly in ABUHB, with patients reporting ease of communication and expressing gratitude for both the service and the clinicians offering it. The patients proposed a need for VC post-COVID, arguing that the prevention of a FTF consultation is valuable beyond the risk of COVID-19 transmission. Technical problems were still present; however, these were less important to patients who felt as though the clinical efficacy and level of clinician expertise prevailed. Individual Health Board quotes regarding this theme are outlined below.

Aneurin Bevan University Health Board (ABUHB)

"Brilliant service"

"Brilliant way to communicate!"

"No issues, worked straight away. Communication with Doctor was good but initially doctor had problems seeing the problem but this was soon rectified."

"A really helpful consultation with [clinician]"

"Amazing service"

"Brilliant! Consultation was effective and system worked well - was really helpful not having to go into the surgery when in pain. Was able to have the conversation I needed to have. The triage system worked well and helped me get the help I needed- no waiting on the phone and means it is accessible 24/7, thank you so much"

"Couldn't see the doctor but he was great and he could see me ... And gave me a remote diagnosis ... Great facility"

Dr [name removed] was very thorough, it's the first time I have done this, for me, being agoraphobic is ideal. Once again Dr [name removed] was very very nice and she made me feel at ease....Thank you."

"Earlier than booked and very quick. Much more efficient than going to the surgery"

"Excellent and professional. Top marks."

"Very efficient"

"That was great! Very beneficial and helpful! Would happily do it again"

"Great facility, should be used after coronavirus is a distant memory"

"Good use of technology to minimise infection risk"

"No issues, visibility good. Sound clear. With regards to consultation - professional, caring and informative. 5 star service and is an obvious way to progress medical consultation post COVID"

"I like to use this more often save coming out and being around other sick people if you can be diagnosed easily over video. I understand sometimes this is not the case and you got to come down"

"If used regularly could be the way forward for minor ailments, if a person-2-person appointment needed, can be arranged"

Betsi Cadwalar University Health Board (BCUHB)

"Thank you for this consultation, so helpful to get my wrist seen and alleviate my concerns about taking antibiotics before my operation"

"Fabulous"

"Initially difficult to set up call. First attempt failed to have sound. Excellent consultation with actual doctor. Many thanks"

"Very impressed"

"The consultation was great."

Cardiff and Vale University Health Board (CAVUHB)

"Excellent service in this day and age. Well done and thank you"

"A lot better than I thought it would be. Amazing is the only word to describe the video call"

"Extremely engaging consultation. More progress made during this call than with previous appointments with the doctor and a quick follow up to ensue"

"First time I'd used this service. Simply explained, straightforward to use. I reckon this is a major step forward for a consultation."

"Great to be able to talk to a doctor and show them how movement in my shoulder is affecting me, brilliant"

"Very pleased with my consultation"

"I was very happy with the advice given. The doctor was able to see the problem area on the video screen."

"System easy to use, Nurse very helpful and I think has sorted my issue."

"This was an extremely efficient and effective way to have a consultation with a doctor at my local surgery. I hope this carries on after the current epidemic."

"Was slightly apprehensive about doing a video call as not taken part in one before but it was straight forward and much easier than I thought plus more convenient than attending surgery in person. Nurse was lovely too."

Cwm Taf Morgannwg University Health Board (CTMUHB)

"Brilliant way to do things, I wouldn't mind keeping it this way forever"

"Brilliant wish they done this all the time"

"Excellent service in these strange and trying times."

"Very good service. Excellent doctor"

"Very helpful"

"Great experience and service speedy and efficient."

"Fantastic consultation"

"First class"

"Wonderful service"

Hywel Dda University Health Board

"Excellent way to see your doctor under the present circumstances"

"Fantastic quality of call and [the clinician] was brilliantly helpful."

"Good effective way of consultation for my symptoms"

"Great help and very useful!!"

"Great meeting with [the clinician] - he was extremely friendly, helpful and answered all my questions. Gave details about my operation and how it works which was very informative. Video call was great quality via my laptop. I had to switch from my phone as it was not working when entering the call (blank white screen)."

"Great service."

"Great stuff!"

"It was a good way for consulting with the doctor, saves time for both concerned. A satisfactory way instead of a visit to the surgery in these difficult times"

"It was great to have this facility whilst we are all dealing with COVID-19. Think it would be good long-term as well to deal with patients and quick consultations. Saves travelling time etc. which is good for the environment. Excellent"

"It's brilliant - will use again"

"Much better than having to attend surgery in COVID times and also with a new born baby. App easy to load, no issues. After COVID, maybe more video appointments like this would benefit both NHS and patients?"

"Worked very well. Dr [name removed] very patiently talked me through connecting for the first time. Must save time for all concerned. Happy to use video Consultation in future"

Powys Teaching Health Board (PTHB)

"Very easy and served the purpose very well"

"Our first time, and the doctors! It went well for both of us and was more reassuring than a phone call."

"All questions answered and fully discussed in a relaxed and pressure free atmosphere created by Dr [name removed]. There was opportunity to physically show the condition causing the problem. The conversation was in no way rushed which allowed all points to be fully explained by both myself and the doctor and full consideration given to resolve how to progress. Next follow up appointment agreed."

Swansea Bay University Health Board (SBUHB)

"Really easy to use"

"Really good"

"Easy to use if you are computer savvy."

"Great communication and care from the doctor"

"Great doctor"

"Great service"

"This was brilliant for a non-emergency consultation"

"Very reassuring be able to speak to doctor"

Urgent Primary Care, OOHs/111

"Brilliant service"

"Excellent consultation with the doctor she was so understanding and patient. Thank you."

"Thanks for this service. Extremely approachable Doctor [name removed] and very reassured after the consultation. All aspects of the service call handler, nurse and doctor were a credit to the NHS"

"This is a brilliant idea and should be used more."

"Very helpful good service thanks NHS"

"Very prompt and helpful"

"Very quick and thorough diagnosis"

"Very satisfied with the service"

Theme 2: Prevention of Face-to-Face Consultation – The Patient Perspective

Some clinicians felt as though they needed to see their patients due to one of two reasons; a) where the visual quality of the consultation was insufficient or, b) when the condition of the patient warranted a physical check-up. Much like in Secondary/Community Care, Primary Care patients sometimes required a follow-up appointment which could not be carried out via VC. Nonetheless, for many patients, VC was considered to be comparable with a FTF appointment, offering what they considered to be the same or similar clinical experience.

However, some patients maintained an explicit preference for FTF consultation due to the nature or severity of their condition. The following quotes provide insight into which types of consultation are best suited for VC within Primary

Care. Overall, it is clear that VC suitability relies on the ability of the clinician to accurately and confidently diagnose and/or advise the patient. Individual Health Board quotes regarding this theme are outlined below.

Aneurin Bevan University Health Board (ABUHB)

"Prescribed antibiotics over video. Consultant knew what the issue was."

"Medication prescribed over the phone."

"Helped GP confirm need for face-to-face consultation"

Cardiff and Vale University Health Board (CAVUHB)

"Video quality poor to show skin condition"

Cwm Taf Morgannwg University Health Board (CTMUHB)

"This consultation was exactly like a face-to-face consultation. It was excellent"

"Being on a video it was practically a face-to-face consultation anyway"

"Prescription given for ear infection"

"The doctor would like to see me too be sure"

Hywel Dda University Health Board

"Needed a practical demonstration of a diabetic pen"

"Needed to be assessed by the physio in person"

"Doctor was able to consult via video link and assess my condition"

"X-ray referral made"

Swansea Bay University Health Board (SBUHB)

"It was discussed well on camera"

"The practitioner asked me to attend the surgery for a small procedure"

Theme 3: The Long-Term Use of Video Consulting & its Benefits to the Patient

Among all Health Boards, Primary Care patients agreed that VC would be useful post-COVID due to the improved time efficiency and convenience it offers. For many Primary Care patients, VC was considered "easy".

In CAVUHB, there was a consensus among the patients that suitability of VC was situational and often depended on the characteristics of their condition. The patients acknowledged that VC was able to minimise the time spent dedicated to their consultation, much like patients from other Health Boards. Individual Health Board quotes regarding this theme are outlined below.

Aneurin Bevan University Health Board (ABUHB)

"Easy and no waiting in doctors"

"It's easier for someone who works, so they can get a call sorted for the morning and do it in a quiet place in work"

"Really efficient don't need to take time off work"

"Why wouldn't you it's a great service that's beneficial to the patient and the practitioner."

Betsi Cadwalar University Health Board (BCUHB)

"Very helpful and easy"

"Great way to contact the GP without the need for a visit to the surgery."

Cardiff and Vale University Health Board (CAVUHB)

"For minor issues yes."

"Saves on waiting in the surgery when the consultation can be done by video. Obviously this is not appropriate for everything."

"If it's appropriate"

"Depends, sometimes yes, sometimes no"

"For people who are unable to attend the doctor surgery"

"I think this definitely needs to be an option going forward."

Cwm Taf Morgannwg University Health Board (CTMUHB)

"If it's available, I'm shielding so this helps"

"Really useful service"

"This is a very efficient service. I think it's very good for the patient and the Dr too."

Hywel Dda University Health Board

"I would prefer to speak to a doctor in person and in private. Privacy is not always possible due to my partner working from home and having children with additional needs."

"If available and if helpful to our NHS services"

"As it saves a journey for the Doctor to visit me"

Primary Care: GPs, Urgent Out of Hours & 111: The Clinician Perspective

Theme 4: Rating the Quality of the Video Consultation – The Clinician

Overall, Primary Care clinicians proposed that VC had the potential to be a convenient alternative to FTF consultations. However, any technical issues experienced before or during the call were thought to inhibit the clinical efficacy of some, but not all, appointments. A reoccurring concept was the varying ability of the clinician to assess skin lesions, which appeared to depend mostly on the technological remits of VC. For tasks which typically rely on visual elements, high video quality was required. However, this depends on socioecological factors beyond that of the digital intervention itself. Overall, the narrative presented contests the quantitative findings which found that Primary Care clinicians rated VC most favourably. This is likely due to the clinicians' emphasis on technical problems, and less focus on the clinical efficacy of the consultation. Individual Health Board quotes regarding this theme are outlined below.

Aneurin Bevan University Health Board (ABUHB)

> *"Can replace and help reduce F2F consultations where the patient does not need a clinical examination / has mobility issues etc."*

> *"Clear resolution, looked at hands from 15-20cm distance, steady camera, could see skin rash clearly,"*

> *"Easy set up. Useful to diagnose a rash in a child patient & her mum very happy with the process. Many thanks."*

> *"Really excellent I feel I could assess the status of the patient's post-op wound with a high degree of certainty"*

> *"It has helped in reviewing two patients with possible COVID related symptoms."*

"Nursing home virtual ward round (for almost 1 hour) - few issues with signal strength and therefore video and sound variable. However overall easy to use and useful during current pandemic"

"This was a test to get me started on using the system the video quality was ok I am not sure I would be happy to diagnose skin conditions with it but the audio was spot on"

"Very poor quality video unable to appreciate the rash at all, kept freezing and cutting out"

Cardiff and Vale University Health Board (CAVUHB)

"Really easy to use"

"Awesome."

"Excellent call quality and video."

"For a few calls now I have had issues with blurring at my end. Patient doesn't seem to be affected by this, but there is a sound lag and images quite blurred. This is problematic for rashes and isn't sorted by refreshing the call"

"Connection initially pixelated but refreshing worked. Then cut out but refreshing failed. It did last long enough for me to make a diagnosis though, so was worthwhile"

"I am finding the pictures just not reliably clear - on all patients, so does not seem to be down to their connection."

Cwm Taf Morgannwg University Health Board (CTMUHB)

"It's a great piece of software"

"Worked well on patient iPhone"

"Could not see rash well due to operating of their camera"

"Consultation was for a rash but video quality not good enough to assess visually."

"Quality of picture very poor-difficult to see the lesion we were consulting about."

Hywel Dda University Health Board

"Simple rash in a child, much quicker and more convenient for child and family, and for me as GP"

"We successfully managed patients in a care home using this facility today, all staff involved found it easy to use and the GP was happy."

"Very helpful in diagnosing a rash in a child"

Swansea Bay University Health Board (SBUHB)

"Initial difficulty in connecting but once connected call went well; video quality could be better but I suppose that depends on the quality of the WiFi and patient's computer camera"

"Excellent 1st attempt."

"Worked well"

"Could not see inflammation of an arm in order to give antibiotics or not. Used email picture instead"

Urgent Primary Care, OOHs/111

"Very helpful to see a shingles rash in a care home"

"First time using this and I thought it was really good"

"After initial video consultation set up three way video with vascular registrar"

Theme 5: Prevention of Face-to-Face Consultation – The Clinician Perspective

There were a number of instances where clinicians were able to prevent or enhance subsequent FTF appointments by using VC. This was particularly effective when the clinician was able to replicate the same or similar level of service typically experienced during FTF consultation.

Sometimes the clinical needs of the patient were not met during the VC, and as a result, clinicians requested a follow up appointment to conduct any assessments which required physical contact. This contributes to the argument that VC is suitable for a number of ailments, however there are some circumstances where FTF consultations are unavoidable. Although, clinicians were sometimes able to adopt additional methods of communication to account for sub-optimal picture quality, such as email. It is important to note however, that there was a low response rate for the qualitative responses and therefore likely that there is more to the picture than what is being discussed within this section of the report.

Nonetheless, VC was considered adequate, and oftentimes preferable for infection control, non-contact assessments, education, ward rounds, fit/sick notes, and some referrals to Secondary/Community Care. Moreover, some clinicians opted for VC for tasks which would typically employ a telephone consultation within a pre-COVID-19 landscape, thus exhibiting a preference for VC over their existing procedures. Individual Health Board quotes regarding this theme are outlined below.

Aneurin Bevan University Health Board (ABUHB)

> *"[Yes] but the nursing home understands that a GP will visit where necessary to address any problems"*

> *"Urgency was assessed which was helpful"*

"I would have love to see this child, but I was happy to deal on video, as I saw all what I wanted to see"

"Patient possible chicken pox so ideal for infection control"

"Wouldn't have bought in to surgery. Minor ailment"

"No- had to look in mouth"

"No- had to look in ear"

Cardiff and Vale University Health Board (CAVUHB)

"No- But I am hoping that emailed photos may avoid the need for F2F"

"Pt will send photos instead as unable to see with video consult"

"Dealt with-saw a foot problem"

Cwm Taf Morgannwg University Health Board (CTMUHB)

"Perfect consultation to use video consultation for"

"Visualizing a small child at video consultation gave additional reassuring information"

"Review of infection and fit note given"

"F2F appointment arranged subsequently"

Hywel Dda University Health Board

"Elderly lady who needed referral to hospital based on scan results"

"Patient with learning disabilities who was not comfortable with telephone consultation"

"A little girl fearful of COVID so [using VC] avoided masks etc. whilst talking"

Powys Teaching Health Board (PTHB)

"Easy to use"

Swansea Bay University Health Board (SBUHB)

"Helped support the decision to see her"

"Able to train how to use asthma inhaler and device"

Urgent Primary Care, OOHs/111

"Prevented needing to bring 6 month old for face-to-face assessment."

"Suspected COVID-19 in elderly patient"

Overall Summary: Primary Care Perspectives – The Patient & The Clinician

Overall, Primary Care offered similar feedback to that of Secondary/Community Care in that there was a distinct difference between patients and clinicians. Primary Care clinicians were less likely to endorse the regular use of VC within their practice, in line with the quantitative findings (with a lot of emphasis placed on the technological restraints rather than the experience as a whole). However, the Primary Care patients were far more positive about the use of VC – looking at it as an overall experience and recognising a number of perceived benefits. This supports the findings of the quantitative analysis, which found a significant difference between patients and clinicians across their quality ratings.

Secondary & Community Care Data: The Patient Perspective

Theme 1: Rating the Quality of the Video Consultation – The Patient

Across a range of Health Boards and specialties, a vast proportion of Secondary/Community Care patients reported a positive experience with video consultation. The patients often expressed gratitude towards the platform, service and clinician for responding to their needs, frequently describing their experience as either "*excellent*", "*fantastic*", "*good*" and "*great*". The patients based their assessment on the how well the consultation went from a clinical and technological perspective, with little variability across Health Boards in terms of the content of the qualitative feedback. However, ABUHB, CAVUHB and SBUHB had the greatest number of positive responses, relative to the number of responses from each respective Health Board.

From a clinical perspective, VC was able to offer the clinicians and patients an opportunity to use non-verbal information to communicate, be it via demonstrations, sign language or facial expressions. For many patients, VC provided a sense of comfort and confidence which met, and in some cases, exceeded the capabilities of a FTF consultation. Individual Health Board quotes regarding this theme are outlined below (with tagging of speciality if provided by respondent):

Aneurin Bevan University Health Board (ABUHB)

> "*Excellent service from Physio. [The clinician] was brilliant at engaging with my daughter and was able to carry out a thorough case history, assessment and gave really good advice and exercises! Thank you so much*" (Paediatric Physiotherapy Patient).

> "*Very clear visuals and audiology. Great consultation with clear precise advice and information. Very relaxed with no technical issues*" (Rheumatology Patient).

> "*Good informative consultation*" (Physiotherapy Patient).

"Really helpful to be seen at the workplace - seeing the problems in situ via the view call that wouldn't otherwise be possible by visiting the hospital in person." (Physiotherapy Patient)

Betsi Cadwalar University Health Board (BCUHB)

"Good communication" (Pain Clinic Patient)

"The consultation was really good and we could see and hear clearly. [The clinician] was brilliant and put [the patient] and I [the parent] at ease and the consultation was very informative." (Lymphedema Patient)

Cardiff and Vale University Health Board (CAVUHB)

"The consultant was excellent and was able to answer all my questions and concerns immediately. Went through various exercises which gave me more confidence in continuing with these going forward, already feel 100% more confident in my future rehabilitation. Many thanks" (Minor Injuries Patient)

"Everything about it was good."(Podiatry Patient)

"[The clinician] has been fantastic at offering support and I am in a much better place than I was 5 weeks ago, Thank you! I have really enjoyed not needing to travel anywhere for these sessions, they have still felt personal and connected despite being through a screen" (Mental Health Patient)

Cwm Taf Morgannwg University Health Board (CTMUHB)

"Excellent consultation" (ENT Patient)

"Excellent. Very little sound break up and very clear on the whole, sound and vision. Better than Zoom and Teams" (Gastroenterology Patient)

"The advisor was very professional and the call was of excellent quality" (Wheelchair Assessment Patient)

"Physiotherapist was extremely helpful and understanding to the situation. Clearly explained things and gave me a good insight to what is going to happen moving forward. Thanks again" (Physiotherapy Patient)

"Very clear video and sound. Able to show movement in knee joint. Physio advice clear, straightforward and practical. Thanks." (Fertility Patient)

Powys Teaching Health Board (PTHB)

"Easy to use. No problems encountered." (Pain Clinic Patient)

"I was a bit apprehensive about a video call prior to my appointment but it felt more like a 'normal' appointment than a telephone conversation would have. I appreciate being able to have a discussion from home rather than waiting in a hospital and would be happy for future appointments to be carried out this way." (Dietician Patient)

"It was all good." (Mental Health Patient)

Swansea Bay University Health Board (SBUHB)

"An excellent diagnostic and treatment device." (Audiology Patient)

"It worked extremely well. It was on time and the sound and visual acuity was excellent. The session progressed very well. As a disabled person I see the value of this way of working." (Psychology Patient)

"There was a slight lag but it didn't cause any problems. I am REALLY grateful to be able to have a video consultation and think this is absolutely fantastic!! It's got to be a better use of everyone's time and NHS resources. I hope this is continued after lockdown." (Plastic Surgery Patient)

"The consultation itself was very good. I positioned the laptop in a location where the consultant would be able to see my ankle and I had plenty of space to do exercises he suggested and it worked well. I felt that he identified the problem and I understand the advice." (Physiotherapy Patient)

"The doctor was very helpful, approachable, friendly and professional. He provided excellent support to help me deal with the ongoing issue, until I can be seen in person for a face-to-face appointment at the hospital. He was very knowledgeable and explained things about my condition and possible reasons behind it, that I was unaware of, and greatly put my mind at ease that what I'm doing to handle my condition so far is right." (ENT Patient)

"Same as 2nd SB quote above? Brilliant Video consultation everything went really well" (Pain Clinic Patient)

"Session went well, really pleased, thank you" (Speech and Language Therapy Patient)

"I found it very easy to make a video call, I could hear and see the Consultant I spoke with very well. Overall, I am pleased with how my video consultation was." (Fertility Patient)

"Really simple to setup and use, very convenient" (ENT Patient)

"The video call was really helpful and reassuring. The advice was excellent." (ENT Patient)

Technology Problems

There were however some technical caveats which if apparent, impacted patient satisfaction. For example, poor connection subsequently minimised the clinicians' ability to perceive the visual and auditory information necessary to conduct the consultation. Nonetheless, connectivity issues had relatively little impact on the patients' perception of VC as a whole.

"Overall the meeting worked very well with just a small amount of intermittent lagging. Much better than a telephone consultation as you have a human connection by seeing each other. There was a few times when audio was difficult but nothing too big." (Mental health Patient, no specified HB)

"Sound and lip sync occasionally were out, the consultant froze twice, however it didn't stop us conducting the tests." (Audiology Patient, SBUHB).

Theme 2: The Long-Term Use of Video Consulting & its Benefits to the Patient

A large proportion of patients agreed that they would likely use VC again. Some patients stated a distinct preference for VC over telephone consultations (TC) and FTF consultations, a perspective which was driven by a number of individual, societal and ecological level factors.

Individual level factors included reduced anxiety, travelling and parking for both the patient and the family members who would have had to transport them to and from their appointments. Furthermore, ecological level factors included the potential impact that reduced travel could have on carbon emissions. Finally, societal level factors included the influence of the COVID-19 pandemic and how VC allowed patients to maintain social distancing or shielding measures.

A number of the respondents proposed a preference for VC over TC, because it was felt that VC provides the patient an opportunity to physically observe the clinician and for them to provide demonstrations, share resources and obtain non-verbal information. During the COVID-19 outbreak, where in many instances FTF communication was non-viable, VC has demonstrated a high level of patient acceptability and suitability.

Beyond enforced isolation periods, there are other barriers to F2F consultations which effect distinct cohorts within the wider population. For example, certain

mental and physical health conditions prevent individuals from seeking treatment due to associated logistic and psychological restraints. VC provides such patient groups with the opportunity to seek treatment without leaving their home. Individual Health Board quotes regarding this theme are outlined below:

Aneurin Bevan University Health Board (ABUHB)

"Great experience, where no examinations are required it's a much calmer, less anxiety-inducing environment for the child (doesn't like hospital)." (Paediatrics Patient)

"Assessment was completed in the comfort of home. No stress regarding ambulance transport or parking. It was as good if not better than going to the hospital, going forward I would prefer this method than going to clinic." (SLT Patient)

"I found it easy and relaxed. I have bad anxiety and the video consultation was easier for me, I didn't feel like I had to cancel" (Weight Management Patient)

"In my opinion, video consulting is how appointments should be done. Think of the time and money that we could all save by doing so. No travelling to and from appointments, parking etc... Less traffic and pollution and being able to have a consultation anywhere in the world." (Dietician Patient)

"I am wary about travelling to appointments after shielding has ended because I won't feel safe due to having to use buses or taxis to get there and back." (Mental Health Patient)

"Brilliant service, no stresses with trying to find a car parking space and received the continuous excellent care from my consultant from the safety of my home! Please can we continue this digital service post COVID 19 crisis" (Rheumatology Patient)

"It saves travelling and good for the planet." (SLT Patient)

"Love it! I use web conferencing in my job so very familiar with getting the best. Felt like we were face-to-face" (Dietician Patient)

"Most definitely it's the way forward in the 21st century WELL DONE NHS fantastic service" (No specified specialty, Patient)

Betsi Cadwalar University Health Board (BCUHB)

"It is so much easier to have a video consultation from home as I get quite apprehensive and anxious when I attend appointments at the hospital so this service is excellent for me. Thank you!" (Paediatric Physiotherapy Patient)

"Would definitely use it again it was excellent" (Lymphedema Patient)

"It's easy and removed travel, parking and time constraints. Removes any risk of potential COVID" (Rheumatology Patient)

Cardiff and Vale University Health Board (CAVUHB)

"While the pandemic is occurring then the video is essential" (Not specified, Patient)

"Thought I'd find it harder than I did" (Mental Health Patient)

"I find no problem using this facility and feel it improves the experience as you are more relaxed at home" (Podiatry Patient)

"Saves everyone time and reduces risk" (Sexual Health Patient)

Cwm Taf Morgannwg University Health Board (CTMUHB)

"This saved us a 90 minute return trip and therefore it was very useful for us."(Fertility)

"Excellent use of time." (Lymphoedema Patient)

"It was convenient and effort free. I like that I did not have to travel and therefore I can reduce my carbon footprint" (Dietician Patient)

Hywel Dda University Health Board

"Saves a lot of travel - more eco-friendly and efficient" (not specified, patient)

"Use video conferencing for work but not video consulting, it is so efficient. Excellent use of resources for touching base." (Urology Patient)

"Good way of working without having to necessarily be seen in a setting" (Lymphedema Patient)

Powys Teaching Health Board (PTHB)

"COVID restrictions still in place. Keeps consultants and patients safe. Minimises number of contacts for all concerned. Chains of transmission and all that." (Paediatrics Patient)

"I don't have any problem with it. I prefer it in some ways." (Mental Health Patient)

Swansea Bay University Health Board (SBUHB)

"I was so pleased to have the consultation it went very well, I am feeling relieved finally to discuss my situation and prefer this method of appointment, very grateful, I feel like crying, thank you very much" (ENT Patient)

"Great service, happy to have video consultations for majority of appointments. Should only need face-to-face when physical examination or tests needed." (Physiotherapy Patient)

"Am hoping some of my other appointments will be like this as makes a massive difference saving travel time, parking and anxiety of getting to an appointment on time." (Unspecified)

"Video link call was better than sitting in a waiting room and doctors' room in a hospital as I felt less anxious." (Pain Clinic Patient)

"This type of consultation was beneficial for my son as it removed the need for my son to travel to the hospital and therefore reduced his anxiety." (Neurodevelopmental Patient)

"This is much easier than having to leave the house, I am 90 years old and the effort it takes to leave the house, get my granddaughter to pick me up and take me in my wheelchair to an appointment, is exhausting. A 20 minute consultation takes exactly that, in the comfort of my own home. If I travel to the hospital it probably takes me 2-3 hours" (SLT Patient)

"Saves a trip, which saves time and expense." (Neurodevelopmental Patient)

"I think these appointments would be great for the future. I live in Bridgend so it saved me time driving, stress of trying to park etc. and everything was solved within 20mins. Brilliant and it will help save the planet with less cars on the road." (Fertility Patient)

Velindre Cancer Centre (VCC)

"As good as being at Velindre and much easier and safer" (patient)

"Much safer at the moment in view of COVID" (patient)

No specified Health Board:

"It was much easier to undertake one of these appointments via video call - it was more productive having my son in his home environment and he was the chattiest he has ever been with the Doctor… Much prefer it" (Paediatrics Patient)

Not only did VC save the patients time and allowed them to feel safe and comfortable within their own home, it also reduced the amount of energy required to participate, the burden on family members to transport patients to

and from hospital and also minimise the monetary cost of parking and travelling.

Theme 3: Prevention of Face-to-Face Consultation – The Patient Perspective

According to the quantitative findings, there was a high level of FTF prevention for Secondary/Community Care, indicating that, for the most part, VC was able to fulfil its clinical purpose with high levels of acceptability and suitability. However, there were some tasks that could not be completed using VC. There were two common clinical reasons as to why VC did not prevent the need for a FTF consultation; the clinician required objective measurements from the patient, or the follow up appointment required physical contact. Individual Health Board quotes regarding this theme are outlined below (with tagging of speciality if provided by respondent):

Aneurin Bevan University Health Board (ABUHB)

> *"Because we needed to do things with my child that can't be done via a call"* (Occupational Health Patient)

Betsi Cadwalar University Health Board (BCUHB)

> *"Footwear aid could not be made due to unavailability of face-to-face consultation."* (Podiatry Patient)

> *"Cannot conduct full therapy tools e.g. use EMDR which had been working to help reprocess trauma prior to lockdown."* (Mental Health Patient)

Hywel Dda University Health Board

> *"Follow up face-to-face consultation needed to measure for new hearing aid mould"* (Audiology Patient)

> *"Still require a F2F appointment to alter my wheelchair"* (Wheelchair Assessment Patient)

Swansea Bay University Health Board (SBUHB)

"*Tests needed*" (Audiology Patient)

"*Reasons behind medical issue still unclear.*" (ENT Patient)

Secondary & Community Care: The Clinician Perspective

Theme 4: Rating the Quality of the Video Consultation – The Clinician

Despite being less enthusiastic than the patient sample, the clinicians had lots of positive feedback to offer, particularly when reporting the perspective of their patients. However, much like the patient feedback some minor technological complaints were prevalent among the responses. When equipped with the knowledge and resources to rectify the problems at hand, the consultations were considered far more successful. This would imply that beyond the complaints associated with their device or WiFi connectivity, the platform worked well to fulfil the clinical needs of the patient. Furthermore, in some examples from ABUHB and CAVUHB, VC was able to enhance communication between clinician and patient in comparison to FTF or TC alternatives.

Theme 5: Prevention of Face-to-Face Consultation – The Clinician Perspective

The quantitative analysis found that among Secondary/Community Care, FTF appointments were often avoided as a result of VC and the qualitative responses provide insight into what circumstances FTF was necessary. For example, VC sufficiently facilitated triage appointments, and often enabled the clinician to decide whether further investigation was necessary. For some clinicians, VC was not able to replace FTF consultations altogether but provide information for future clinical decisions and treatment plans. Follow-up and discharge appointments were also successful in many circumstances, ensuring that patients were provided with the advice required to maintain physical and/ or mental wellbeing. Either way, VC minimised the amount of time and travel expenses associated with FTF consultations.

VC enabled clinicians to see their patients during government enforced isolation periods (COVID-19), minimising the risk of infection transmission for themselves and the patient. Nonetheless, for those whom VC was sufficient in fulfilling the clinical needs of the patient, hopes were expressed that remote consultations will continue beyond the COVID-19 outbreak. Individual Health

Board quotes regarding this theme are outlined below (with tagging of speciality if provided by respondent):

Aneurin Bevan University Health Board (ABUHB)

"Patient felt much more at ease, made the clinic work more efficiently, excellent visual quality and sound" (Weight Management Clinician)

"I could see & hear my client perfectly" (Audiology Clinician)

"Excellent quality video and extremely co-operative family" (Physiotherapy Clinician)

"The caller's pic wasn't very clear and took a while to improve even when refreshed. When it did clear, it was perfect." (SLT Clinician)

"Took time to get good connection but then worked well" (Paediatrics Clinician)

"A bit blurred at times but brilliant overall." (Mental Health Clinician)

"Would have just done a phone call, but felt I had a better, more engaging conversation with my client by using video" (Physiotherapy Clinician)

Betsi Cadwalar University Health Board (BCUHB)

"Patient very pleased to have this facility" (SLT Clinician)

"All worked well" (Paediatrics Clinician)

"Worked well on the whole although there was slight freezing of the screens for both patient and therapist but connection was not lost" (SLT Clinician)

"All worked well but sound went at end. Refresh button worked so no problems. Mum using laptop so image quality off laptop web cam reduced compared to others." (Physiotherapy Clinician)

"Went well, and better with headphones and much better sound quality than previously with same client" (SLT Clinician)

Cardiff and Vale University Health Board (CAVUHB)

"Excellent - really simple process" (Mental Health Clinician)

"Picture quality great, good interaction." (Podiatry Clinician)

"Really good quality and great outcome" (Orthotics Clinician)

"It took a long time to connect and I ended up having to reboot the system. Once connected the call was good." (No specified specialty, Clinician)

"All worked well. The client was very reluctant to speak but texted me using the chat option; so it was great to have that. I don't think she would have engaged with me otherwise." (Mental Health Clinician)

"Really straightforward no technical issues Patient liked it, great to be able to send a message to say we were running late (patient went to make a cup of tea) - I really liked this improvement to communication" (Sexual Health Clinician)

Cwm Taf Morgannwg University Health Board (CTMUHB)

"Good sound and picture quality and easy to us." (Mental Health Clinician)

"All fine and excited to move forward working in this way as a practitioner psychologist. Positive feedback from CYP and mother also." (Mental Health Clinician)

"Good video and audio connection. So far easy to use interface."(ENT Clinician)
"Clinically patients enjoy the experience" (Neurology Clinician)

Hywel Dda University Health Board

"Excellent video quality and sound. No issues at all." (Rheumatology Clinician)

"All worked well was able to meet client after he finished work" (Mental Health Clinician)

"Good interactive assessment. Patient happy as could easily see to follow instruction" (Physiotherapy Clinician)

"Clear picture and sound. Full assessment completed. Patient described service as excellent." (Physiotherapy Clinician)

Powys Teaching Health Board (PTHB)

"This worked really well today. Very clear and easy to demonstrate exercises."(Physiotherapy Clinician)

"It works perfectly" (Mental Health Clinician)

"Patient commented that he felt it was as effective as face to face" (SLT Clinician)

"Perfect sound and picture" (Physiotherapist Clinician)

"Saving of time both for the patient and myself." (Optometry Clinician)

Swansea Bay University Health Board (SBUHB)

"Fantastic picture quality, very good resolution. The patient and I were able to see very detailed images of her hearing aid and accessories" (Audiology Clinician)

"Good picture & sound quality. Patient able to adequately demonstrate movement & queries/ concerns addressed." (Physiotherapy Clinician)
"Patient comfortable using technology & found system easy to use. Good picture/sound quality and able to review patient and teach progression of exercises." (Physiotherapy Clinician)

> *"Good internet connection. Patient well prepared and positioned camera appropriately for hand examination. Patient and therapist confident in using technology. Able to provide appropriate instruction of active and passive patient and patient able to demonstrate good technique and understanding. Able to discuss and advise re-impending surgery and discuss post-operative management. Patient happy with intervention"* (Physiotherapy Clinician)

Face-to-Face and its Place in the NHS

Obtaining objective measurements or conducting tasks which would typically require physical contact were not always possible. Among these clinicians there was a consensus that whilst VC has its place, so does FTF consultations.

> *"The patient still needs ongoing, face-to-face support to develop their functional skills."* (ABUHB, Occupational Therapy Clinician)

> *"A face-to-face for this patient would allow for a better objective assessment"* (SBUHB, Physiotherapy Clinician)

> *"Video consultation not suitable for patient due to high emotional needs"* (PTHB, Mental Health Clinician)

Whilst highlighting the potential limitations of VC, it remains apparent that for many individuals, VC was considered satisfactory and oftentimes beneficial in terms of time, travel, infection transmission and in reducing anxiety. Although, VC tends to be more useful for patients depending on their individual needs.

Overall Summary

According to the qualitative findings, VC is widely accepted and well received across Health Boards/Trust, care sectors and specialities. Overall, VC offers a number of perceived benefits to patients, families and clinicians. Generally speaking, clinicians exhibited a greater level of negativity towards the use of VC across quality rating and FTF prevention in comparison to patients.

Clinicians' perception of VC was often tainted by the technological quality of the call, which some felt inhibited the clinical efficacy of the consultation. In order to overcome technological difficulties, some clinicians mildly adapted their consultation or adopted troubleshooting techniques which meant that they were able to conduct the consultation to a standard they felt allowed them to meet the clinical needs of the patient. On the other hand, patients put less of an emphasis on the technological characteristics of VC. As a result, patient feedback was notably more positive than the clinician feedback, with many patients expressing gratitude to the service, and the clinicians providing the service.

It could be argued that some of the logistic benefits of VC are more relevant to patients who are more likely to travel specifically for the appointment. However, for 25% of clinicians VC allowed them to work from home, suggesting that some clinicians also experience the benefit of reduced travel and its associated mitigation of monetary and time-related costs. Moreover, within the context of the COVID outbreak and associated government-imposed restrictions, this allowed the clinicians who were isolating or shielding to minimise risk of virus transmission. Which begs the question; will VC be considered as beneficial post-COVID? Interestingly, many clinicians and patients felt as though VC had its place within a post-COVID landscape. This perspective was primarily driven by its perceived benefits.

Overall Discussion: Combining the Data

The data collected, from the quantitative and qualitative aspects of the surveys distributed to a vast number of patients, families and clinicians, revealed interesting findings and considerations regarding VC across Health Boards, care sectors and specialities. These will be discussed, in terms of the analyses conducted and the themes that emerged.

To begin, VC was viewed positively by respondents, overall. This was demonstrated by VC being rated highly, receiving positive ratings, and also reducing the need for FTF appointments. The majority of respondents stated that their VC prevented the need for a FTF appointment, benefiting the condition of the NHS because of COVID-19 (for instance, reducing the risks of transmission). However, although a positive experience was reported, there were discrepancies between the responses of patients and clinicians, in that VC was perceived as more positive from the patients' perspective. This tended to be largely associated with clinicians placing more emphasis on the technological problems and restraints compared to the patients (this assumption is largely supported in the on-going interviews being carried out at present by TEC Cymru).

The qualitative analysis also revealed very optimistic outcomes of VC. VC allowed clinicians and patients to exchange non-verbal information that would not have been possible through simple telephone calls, and in some cases as a preferred method to FTF. For patients, VC exceeded their expectations on many levels. On multiple occasions, patients praised and expressed gratitude to the clinician for being professional and helpful, aiding in the use of platforms and providing sufficient advice and care. They also gave positive responses for the visual and audio quality of the consultation, that the platform was easy to set up, and its improved convenience in terms of not having to travel to and from appointments. Despite the differences between patients and clinicians, clinicians provided positive feedback also, stating that consultations were successful when they acquired the adequate knowledge and resources. It was often reported by clinicians that the Attend Anywhere platform performed well, and VC was once again able to enhance the communication that occurred between themselves and their patients. Again, as mentioned above, the differences between respondents may have emerged due to the technological issues encountered during the process, with Primary Care clinicians in particular stating that visual quality was

insufficient in preventing a FTF appointment, (again, this is supported in the on-going interviews being carried out by TEC Cymru).

Although there was a high number of respondents that stated VC diminished the need for FTF, this was not the case for all. According to qualitative data, this was because clinicians required objective observations from the patient, or because appointments required the physical aspect available during FTF. For example, alteration to wheelchairs, measurements for hearing aids, or the ability to cover all aspects of therapy sessions with mental health specialists. VC, however, allowed clinicians to make informed decisions regarding the need for FTF, such as when further assessments were required. This led to the popular opinion amongst clinicians that VC, in some cases, was unable to act as a replacement for FTF in the long-term but could prove insightful for implementing treatment plans and making informed clinical decisions. To summarise, the need for VC increased after isolation periods were enforced by the Welsh Government due to COVID-19. VC allowed consultations to continue between patients and clinicians when in-person contact was not allowed, at least partially fulfilling the clinical needs of clinicians, and allowing them to continue their care provision over the months.

Moving on, the majority of patients had not used VC before their appointment. Interestingly, the analysis revealed that there were significant differences in the ratings given between those who had used VC previously and those who had not. These findings suggest that those who '*had used*' VC before rate it more negatively, although it is unclear why this may be. Perhaps this is due to the novelty of VC, in that it is a surprising replacement for FTF, but after using it once, this novelty wears off and results in more negative ratings, perhaps in a similar way that they may focus on the technological problems similar to how the clinicians view VC. It may also be the case that VC was considered by some as a temporary measure, and expectation of the return to FTF over VC was more apparent. An alternative explanation may be that those who use

VC more typically require additional care from their clinicians, and perhaps FTF cannot be prevented on all occasions for those who require further consultations. However, this is simply speculation, and an area which requires more exploration.

In addition, a large proportion of patients stated they would use VC again or after COVID-19 had passed, a very positive response, suggesting that their experiences resulted in them wanting to use it in the future. In support, the qualitative analysis suggests that there are many factors influencing the decision to use VC again. For instance, VC reduces the need for patient travel, and allows the enforcement of social distancing by reducing the requirement for in-person consultations. VC also increases the availability and improves the access of consultations and services to specific groups of individuals, perhaps those who would struggle with the typical FTF appointments. For example, patients with physical or psychological disorders. The use of VC after COVID-19 was once again highlighted to be more convenient and would allow patients to reduce the time they needed to dedicate to attending their consultation.

Finally, considering clinicians' work locations, the majority of respondents were using VC at work, with approximately 20% working from home. In general, those using VC at work rated VC more negatively, although FTF prevention was similar for both types of clinicians. This is another area which requires more research and understanding. A reason for this may be that working from home, clinicians feel that they are missing out on the social aspects of working with colleagues, or that the distractions at home impact on their working activities. Nevertheless, many other clinicians report that working from home allowed them to have a better work-life balance and preferred this method (all of these assumptions and additions are supported in the ongoing interviews currently being carried out by TEC Cymru).

Care Sector Findings. The three care sectors were analysed individually in order to see any differences that existed between them. In general, Primary, Secondary, and Community Care seemed to be similar in their quality ratings and the prevention of FTF. However, when considering clinicians and patients separately, there were differences between the care sectors for clinicians, but not patients. In particular, Primary Care clinicians rated VC more positively than Secondary Care clinicians, which could imply that Primary Care clinicians have more positive experiences with using VC, potentially leading to these differences in ratings. Due to the lack of differences between the care sectors for FTF prevention, this was unable to explain the discrepancies in quality ratings. On the other hand, there were no differences found for patients alone, which implies that patients, overall, view VC as a positive experience within each care sector.

However, when considering the qualitative data, Secondary Care were very positive in their responses regarding VC quality, specifically when approaching the feedback from the patients' perspective. Some clinicians stated that their experience was excellent, and had great outcomes, and was just as effective as FTF. Others noted that having the flexibility of the platform allowed patients to express themselves in the way that they were comfortable, such as using the text chat option instead of speaking. Minor technical difficulties were encountered by Secondary Care clinicians, but were easily resolved with simple solutions, such as turning their system off and on. Although Primary Care clinicians were more positive in the quantitative ratings of VC, they were more likely to report technical difficulties experienced during the call or just before the consultations took place. They state that VC quality and high visual acuity is required for the adequate assessments of specific issues, such as skin disorders, which was variable depending on the clinician, but also other factors such as internet quality. This discrepancy between the qualitative and quantitative findings may be due to clinicians placing emphasis upon the technological restraints associated with VC within the open-ended responses.

However, overall, both Primary and Secondary Care clinicians provide valuable insight into their views of VC and the use of such within healthcare. This area requires more exploration and understanding.

In terms of considering patients and clinicians together, differences emerged between these two respondents and the ratings they gave VC in each of the care sectors, in that patients rated it as more positive, in general. This suggests that the difference between patients and clinicians lies within all care sectors and does not depend on which sector the patient is receiving care from. Perhaps this is due to the convenience of VC for patients, as stated previously, reducing the need for travel and taking less time out of their day to attend their appointment. Clinicians, however, may have focused more on the disadvantages of the technical aspects of VC, as seen in Primary Care, resulting in more negative responses when compared with patients. However, it must be noted that clinicians are the ones holding all the responsibility for the consultation, and therefore it is only natural for them to be more negative when the circumstances are not perfect. This allows the patient to observe the consultation as more convenient for example, whereas the clinician will always be concerned about their clinical decisions.

In addition, Primary Care had the highest proportion of patients who had used VC before, followed by Community care, and then Secondary Care. The majority of patients in each care sector stated that they would use VC again or after COVID-19 had passed. Secondary Care patients, in particular, stated that VC reduced anxiety, travel and parking requirements for themselves and their family members, causing them to want to use VC again. Patients reported the relaxed feelings of being in their own home while attending their appointment, and feelings of safety due to the minimisation of transmission risks. In some cases, they even expressed an obvious preference for VC over FTF appointments.

Secondary care findings. As stated previously, Secondary Care was split into three subsequent categories in order for quantitative comparisons to be conducted. These were Mental Health/Psychiatry, Therapies, and Hospital/Other. Overall, there were differences between the sub-categories of Secondary Care in the ratings they gave VC, whereby Hospital/Other rated VC more positively than Mental Health/Psychiatry and Therapies. Interestingly, Therapies tended to give the most negative ratings by clinicians. This is perhaps due to many clinical bases in Therapies situated in poor connectivity areas across Wales, therefore impacting on the technology. (Again, this assumption is widely supported by the ongoing interviews currently being conducted by TEC Cymru – for example, Therapy clinicians specifically pointing out that they use the NHS Wales VC Service feedback survey to identify these connectivity issues in the hope of some Welsh Government improvement in this area).

However, the prevention of FTF was similar across the three, approximately 87% of respondents stated FTF was prevented in each. These findings suggest that Hospital/Other are more positive in their perceptions of VC compared with the other sub-categories, even though FTF is prevented the majority of the time in each.

Approximately 93% of patients in each sub-category of Secondary Care reported that they would use VC again or after COVID-19 had passed. This is a positive response, as the majority would consider using VC again, suggesting that patients are open to using VC across Secondary Care, and that it may be accepted if implemented in the long-term. As stated for Secondary Care, patients felt that VC reduces any associated anxiety with attending FTF appointments, as well as the need to travel, and adds elements to their experience such as being in their own environment.

In summary, there was an overall positive outcome of VC demonstrated across all three sub-categories of Secondary Care, where FTF was prevented a large

proportion of the time, and high VC ratings given (although these were more positive for Hospital/Other). Experiences with VC resulted in patients wanting to use VC in the future, demonstrating an acceptability of VC amongst Secondary Care.

Limitations

It is important to consider the potential limitations of the current data collection methods, and how these could have impacted the results and to improve on in the future. Firstly, due to the free-text nature of the survey, respondents could write whatever they pleased in the boxes, specifically asking about the specialty or profession and the Health Board in which they received their appointment. This means that some responses were ambiguous or were not explicit enough in stating the profession with which the VC took place, which could have impacted the organisation of these into their categories (specifically the Secondary sub-categories). For instance, some respondents in both the clinician and patient survey reported that their appointment or profession was 'Mental Health'. This means that these respondents could have been categorised either into Therapies, as it relates to Psychology, or Mental Health/Psychiatry. Due to the ambiguity of the responses, the decision was made to categorise these 'Mental Health' responses as Mental Health/Psychiatry, which may not be the most appropriate choice to make in terms of the current data. In addition to specialties, this also effected Health Board analyses, due to a large proportion of respondents not being able to be sorted into Health Boards, resulting in a large proportion of missing data.

To improve on this, in the Phase 2 feedback surveys (September 2020 – March 2021) this now includes a drop-down option rather than a free-text box.

Secondly, the questions in the surveys were not forced choice, meaning that respondents could choose whether or not they wanted to respond to each question. The result of this was that each question varied in the number of

responses it received, and thus made certain comparisons or analyses difficult. Nevertheless, a decision for this type of 'freedom of feedback' was made specifically to allow patients and clinicians to choose what they wanted to answer and share. This feature will not be changed in Phase 2.

Finally, despite efforts to develop a National understanding of the use and value of the Video Consulting Service in Wales, some Health Boards and Trusts were keen to capture their own data. For example, HDUHB collected their own Secondary/Community Care patient data for a large part of Phase, and VCC collected their own patient and clinician data for most of Phase 1 which represents the gaps in this dataset.

Phase 2 data collection will be looking to get more national consistency across all HBs and Trusts, and we would encourage all HBs and Trusts to contribute to ensure an improved national picture to be captured.

Improvements, Recommendations & Next Steps For Video Consulting in Wales

The NHS Wales Video Consulting Service has overall been acknowledged as highly satisfactory and acceptable for the use of healthcare delivery in NHS Wales. The major barriers than tend to impact on some of the negative feedback (in both surveys and on-going interviews [which will be published in 2021]) suggests that there are three major gaps that needed filling in order to get the best out of VC in the future. These include:

1. Improvement in connectivity and WiFi across Wales
2. Improvement in resources to access VC across Wales
3. A Patient/Clinician Facing Support Service for VC [a one-stop shop]

For Research & Evaluation

Improvements to Data Collection

The NHS Wales Video Consulting Service 'Live' feedback survey has been adjusted in Phase 2 to improve on the way some of the questions are answered by respondents. This has been changed to a lot of drop-down options rather than free-text boxes.

More Research Needed in Areas of the 'Unknown':

There are some areas within the report that are still unanswered, and despite on-going interviews being currently carried out by TEC Cymru with clinicians, we are still making many assumptions, and to move forward with VC in Wales we need to understand this better.

For example, we need to understand;

- Why clinicians rate VC lower than patients? Is this only related to an over emphasis on technology, the clinical pressures of holding or the risk/responsibility, or something else?
- Why patients rate VC lower as they use VC more? Is this similar to how clinicians place emphasis on technology, or perhaps VC fatigue, or something more?
- Why do 'Therapies' (the largest users of VC) rate VC lower than other care sectors and specialities?
- Why do some Health Boards, care sectors and specialities offer VC to specific patient groups e.g., Powys have the older VC demographics.
- We also need to directly compare VC with TC, as they both offer many of the same benefits, but more is needed to understand the difference.

Next Steps:

To help understand this better, interviews with patients, families and clinicians are on-going; retrospective surveys (e.g., see Chapter 2) and retrospective focus groups are underway to attempt to 'learn and share' the findings of 'good practice' and help plug some of the gaps. Phase 2 is now underway, and a lot more in-depth data is emerging.

Appendices

Appendix 1:

Definition of statistical terms:

- **Mann-Whitney U:** A statistical test used to test the differences between two groups on sets of scores (with these findings, it is VC quality rating scores).
- **"U =":** The results of a Mann-Whitney U test are signified by U-statistics.
- **Kruskal-Wallis:** A statistical test used to test the differences between more than two groups on sets of scores (once again, VC quality rating scores in the current findings).
- **"H =":** The results of a Kruskal-Wallis are signified by H-statistics.
- **Significant difference:** A significant difference between groups means that the groups differ from each other statistically, and that one group's scores are higher/lower than the other groups scores.
- **p-values:** Significant differences are denoted by p-values.
- **p > .05:** No significant difference between the groups.
- **p < .05:** There is a significant difference between groups.
- **Group sizes:** The sizes of the groups, and/or the number of responses for each question are highlighted by "n=".