



Ministry  
of Justice

# The impact of remote hearings on the Crown Court

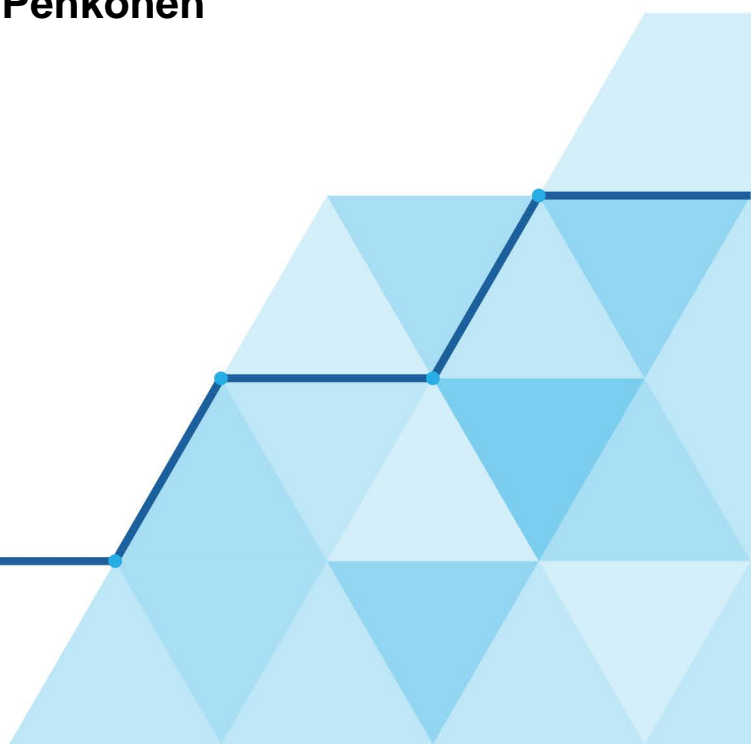
**An evaluation of remote hearings' impact  
on the duration and outcomes of hearings  
and trial cases in the Crown Court**

**Kai Briscoe, Eleanor Rose & Irina Pehkonen**

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# 1. Executive Summary

Remote participation in court hearings has been available through various means for years, and the Covid-19 pandemic led to a rapid increase in remote hearings across all types of courts and areas of law, using a variety of different technological means.

This study focuses on the impact of remote hearings in the Crown Court on efficiency (the duration of hearings and cases) and effectiveness (the pleas submitted and outcomes for not guilty pleas). A remote hearing is defined as one where any participant joins the hearing remotely via telephone or video call.

Propensity Score Matching (PSM) approach is used to analyse data from January 2020 to March 2022, matching remote hearings or cases with at least one remote hearing with similar in-person hearings or cases. There are some factors that are likely to impact the use of remote hearings, and outcomes for defendants. These include judges' discretion on the use of remote hearings, the legal advice given, complexities of cases and court ability and willingness to implement remote hearings. Due to data limitations not all of these factors could be fully controlled for. This means some amount of selection bias in the result may remain. The remote hearings group are likely to be distinctly different from overall Crown Court case population, and the applicability of the analysis across all Crown Court cases will be limited. These factors need to be considered when interpreting the results of this analysis.

Overall, this analysis suggests there are little meaningful differences found in efficiency or effectiveness when remote hearings are used.

Small reductions in hearing durations were found with remote hearings. A remote hearing was on average found to be 6 minutes shorter than a similar in-person hearing and for Plea and Trial Preparation Hearings (PTPH) this difference was 2 minutes. However, holding the plea hearing remotely was found to have no impact on the total case duration or the number of hearings required in a case.

The analysis of trial case outcomes suggests there are no impacts on the wider outcomes of justice. Outcomes in trial cases were guilty plea at or before the plea hearing, guilty plea



after the plea hearing, not guilty plea, dropped case and no plea entered. There was no impact on the not guilty pleas entered or guilty pleas entered at or before the plea hearing, when that hearing was remote. This means holding plea hearings remotely didn't impact the proportion of cases which required a trial. Remote plea hearings were associated with slightly more guilty pleas given after a plea hearing, and less dropped cases and less no pleas entered, however, these differences were comparatively very small and thus not likely to be meaningful.

Where a not guilty plea is given, cases go to trial and the potential outcomes are a conviction, not guilty verdict, and acquittal or a discharge. This analysis found that in these cases, having a remote plea hearing had no impact on convictions, acquittals or not guilty verdicts. There was a very small, not likely to be meaningful, reduction in discharges.

## 2. Introduction and Key Findings

This study considers the impact of holding hearings remotely on the operation of the Crown Court, from January 2020 to March 2022. Remote participation in court hearings has been available through various means for years, such as through prison to court video links. His Majesty's Courts and Tribunals Service (HMCTS) Reform Programme formalised this offer, increased investment into remote hearings technology, and has now offered Video Hearings Service for several years. The Covid-19 pandemic however led to a rapid increase in remote hearings<sup>1</sup> using a variety of different technological means across all types of courts and areas of law.

While remote hearings can offer various intangible benefits, such as ease of access and flexibility, these perceived benefits have been explored in other recent evaluations. This study seeks to refine its focus to a previously not researched aspect of remote hearings, while keeping its scope manageable.

This study focuses on the impact of remote hearings in the Crown Court on efficiency (the duration of hearings and cases) and effectiveness (the outcomes for defendants). In this analysis a remote hearing is defined as one where any participant joins the hearing remotely via telephone or video call. Hearings were identified as remote or in-person through using planned listing data, rather than post-hearing records. To support the analysis in this report, a limited survey of Listing Officers<sup>2</sup> was conducted to understand an operational perspective of remote hearings.

On efficiency, this study considers the differences in individual hearing durations for all hearings and specifically Plea and Trial Preparation Hearings (PTPH). A PTPH is an early hearing in a Crown Court where the defendant is read the offences they have been charged with and asked to plead guilty or not guilty. This study also considers the impact

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<sup>1</sup> Excluding jury trials.

<sup>2</sup> Listing officers are responsible for organising hearings in the Crown Court, and work under the direction of the Resident Judge to monitor and improve court utilisation.

of holding a plea hearing remotely on the total amount of court time used during a case<sup>3</sup> and total number of hearings.

On effectiveness, this study examines the differences in pleas submitted, and the outcomes for not guilty pleas. It is necessary to ensure that the method of holding hearings does not impact the outcomes for the defendant (i.e. that there is no impact in effectiveness if remote hearings are used). The plea hearing is particularly important, as pleading guilty at this point will give defendants maximum credit under the Early Guilty Plea Scheme, up to a one-third reduction in their sentence.<sup>4</sup>

The analysis used a Propensity Score Matching (PSM) approach, meaning that a group of remote hearings or cases with at least one remote hearing were matched with a similar group of in-person hearings or cases. This approach is one of a number of quasi-experimental approaches that can be used where a randomised control trial approach is not possible or practical. It was selected as the most suitable approach because there were a large number of eligible remote and in-person hearings to create multiple matched groups, both at the hearing level and at the case level. In addition, there are a rich set of covariates in court data that can be used to control for differences between matched groups and selection bias.

Despite the use of covariates, it is possible that remote hearings were selected based on factors not recorded in the data and thus the possibility of selection bias remains. This means that the impact assigned to remote hearings in this analysis may be caused by the biased selection of certain types of cases or defendants for remote hearings, as opposed to an impact a type of hearing (remote or in-person) causes. In addition, the results of this analysis cannot be assumed to apply to all hearings or cases in the justice system, as remote hearings (and the matched group used to estimate the impact) are likely to be

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<sup>3</sup> Total amount of court time used in a trial case, calculated as the sum of recorded hearing time for all hearings in a case.

<sup>4</sup> Sentencing guidelines for Crown Court include the Early Guilty Plea Scheme. Where a guilty plea is entered at the first available opportunity (typically the plea hearing) the defendant is given a maximum one-third reduction in their sentence, subject to judicial discretion and certain exemptions. If a guilty plea is given at a later date, the scheme allows lower reductions in sentence from one-quarter to one-tenth on the day of the trial. More information is available on [Reduction in sentence for a guilty plea – first hearing on or after 1 June 2017 – Sentencing](https://www.sentencingcouncil.org.uk/reduction-in-sentence-for-a-guilty-plea-first-hearing-on-or-after-1-june-2017) ([sentencingcouncil.org.uk](https://www.sentencingcouncil.org.uk))

distinctly different from other hearings. This should be borne in mind when reading the analysis and the reported impact and non-impact of remote hearings.

## 2.1 Efficiency results

### **Hearing and Plea and Trial Preparation Hearing Duration**

The average duration of a remote hearing was 23.6 minutes, around 6 minutes (or 20%) shorter than the matched in-person hearings, which lasted for 29.5 minutes. This reduction in hearing time is statistically significant.

The average duration of a remote PTPH was 22.1 minutes, around 2 minutes (or 9%) shorter than the matched in-person hearings, which lasted for 24.2 minutes. This reduction in PTPH time is statistically significant.

Majority of Listing Officers that responded to the survey of their Crown Courts listing practices reported that they list in-person and remote hearings for the same amount of time. However nearly a third listed remote hearings for a longer time than in-person hearings. This indicates that the listing practices do not currently take advantage of the potential benefits of shorter duration of remote hearings, but as courts gain more experience of remote hearings this listing approach may change.

While this evaluation found that the recorded hearing time is shorter for remote hearings than for matched in-person hearings, the survey of Listing Officers indicated that some courts experience technical issues. In a small minority of cases these are serious enough to cause the hearing to be adjourned. These technical issues may mean that remote hearings require more overall court and personnel time than in-person ones. This would not be captured through the analysis of recorded hearing time this evaluation considers.

### **Trial Case Duration**

The case duration analysis examined the total amount of court time in a trial case in terms of the recorded hearing minutes through the case. The average total hearing duration of a for-trial case with at least one remote plea hearing was slightly shorter than the average total hearing duration of the matched in-person cases, but this difference was not statistically significant. The average total hearing duration of a trial case with remote

hearings was 4 hours and 15 minutes, when for the matched in-person cases it was 4 hours and 21 minutes.

### **Number of Hearings**

The average number of hearings in a for-trial case was nearly identical at around 4.9 for both cases with at least one remote plea hearing and for matched in-person only cases.

## **2.2 Effectiveness results**

### **Trial Case Outcomes: Plea types and stages of guilty plea**

This analysis examined the plea types and stages of guilty plea in trial cases, where there are five outcomes – guilty plea at or before the plea hearing, guilty plea after the plea hearing, not guilty plea, dropped case and no plea entered.

The analysis found there to be no differences in the rates of guilty pleas at or before the plea hearing, or in the proportion of not guilty pleas. The rate of guilty pleas at or before the plea hearing was around 52% for cases with at least one remote plea hearing and matched cases which were all in-person. The proportion of not guilty pleas entered at or before the plea hearing was around 12% for cases with all in-person plea hearings and matched cases with least one remote plea hearing.

There were however statistically significant differences in the proportion of guilty pleas entered after a plea hearing, and in dropped cases and in no pleas entered. The proportion of guilty pleas entered after a remote plea hearing was 24.1%, around 1.3 percentage points (pp) more than the matched in-person hearings, which was 22.8%. Remote plea hearings also had fewer dropped cases (10.3% vs 10.9%) and fewer no pleas entered (1.3% vs 1.6%) than in the matched in-person group.

### **Trial Case Outcomes: Not Guilty Plea**

This analysis also considered the outcome of cases that had a not guilty plea – in this instance the outcomes were conviction, not guilty verdict, acquittal or a discharge.<sup>5</sup> There were no statistically significant differences in convictions, acquittals, or not guilty verdicts

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<sup>5</sup> Discharges are given for the least-serious offences such as petty thefts. A discharge means that the person is released from court (either conditionally or absolutely) without any further action, but they will get a criminal record.

for those that had entered not guilty pleas and had at least one remote plea hearing in a case, when compared to the matched group that had entered not guilty pleas and had in-person plea hearings only. There was however a statistically significant difference in discharges. Cases that had entered not guilty pleas and had at least one remote plea hearing had on average less discharges (2.1% discharges) than there were in the matched in-person group (2.8% discharges).<sup>6</sup>

## 2.3 Conclusion

This analysis as a whole suggests there are little meaningful differences found in efficiency or effectiveness when remote hearings are used.

While small reductions in hearing durations were found with remote hearings, this analysis cannot fully answer whether individual remote hearings are more efficient than comparable in-person hearings. Firstly, holding the plea hearing remotely was found to have no impact on the total hearing duration of a trial case or the number of hearings required in a case. Secondly, individual hearing duration is only a part of influencing courts on an everyday basis. Additional time may be required for setting up remote hearings, or to deal with technical difficulties, limiting any efficiency benefits. Furthermore, it may be difficult to utilise any small reductions in individual hearing durations in real-world court setting, where both remote and in-person hearings take place.

The results of this analysis show that remote hearings had very small impacts on effectiveness of trial cases. There was no impact on the not guilty pleas entered or guilty pleas entered at or before the plea hearing, when that hearing was remote. This means holding plea hearings remotely didn't impact the proportion of cases which required a trial. Of these cases which went to trial after a not guilty plea, having a remote plea hearing had no impact on convictions, acquittals or not guilty verdicts, and only a very small impact on discharges. This suggests that remote hearings have no impact on wider outcomes of justice.

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<sup>6</sup> This was consistent with the dataset that included all plea decisions (not guilty, guilty, no plea entered, dropped) – the outcomes before filtering for not guilty pleas only also had a similar difference between remote and in-person matched groups.

### 3. Context

Remote hearings are court hearings where at least one participant is attending through audio or video rather than being in-person.

Remote participation in court hearings has been available through various means for years, such as through prison to court video links. HMCTS Reform Programme formalised this offer, increased investment into remote hearings technology, and has now offered Video Hearings Service for several years. The Covid-19 pandemic however led to a rapid increase in remote hearings across all types of courts and areas of law, using a variety of different technological means.

With the use of remote technology in court and tribunal hearings increasing over the past few years and the plans to continue harnessing these benefits in the future, the importance of understanding the impact of remote hearings on the justice system is pivotal.

The Crown Court has a significant backlog of cases (62,766 open cases in July to September 2022<sup>7</sup>), and so processing its caseload in the most efficient way is necessary for reducing it. So, it is particularly important to understand how remote hearings impact the efficiency of the Crown Court.

This analysis aims to add to the evidence base on this topic by considering the following research questions:

- Do remote hearings impact the efficiency of the Crown Court?
  - Does holding any hearing remotely impact the duration of the hearing?
  - Does holding a PTPH remotely impact the duration of that hearing?
  - Does having a remote plea hearing impact the total time spent in court during a case, or the number of hearings required across the case?

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<sup>7</sup> [Criminal court statistics quarterly: July to September 2022 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/criminal-court-statistics-quarterly-july-to-september-2022) Table C1: Receipts, disposals and outstanding cases in the Crown Court in England and Wales.

- Do remote hearings impact the effectiveness of the Crown Court in trial cases?<sup>8</sup>
  - Does having a remote plea hearing impact the pleas given at this hearing?
  - Does having a remote plea hearing impact on the final outcome (conviction, discharge, acquittal, or not guilty verdict) for those who entered not guilty pleas?

The scope of this analysis does not extend to any additional aspects of remote hearings, such as whether the impacts differ across demographics, or the experience for different court users. While the user experience of remote hearings, and the associated wider impacts outside the Crown Court are important, these factors have been explored in other studies, discussed below. This study seeks to contribute new information to discussion around remote hearings. Future exploratory analysis could consider differences by types of remote hearings, and qualitative research into the decision-making leading into opting for remote hearings.

### 3.1 Existing research

There is limited research into the impact of remote hearings, but the available publications are discussed here.

Prior to the Covid-19 pandemic HMCTS had started to test the use of video technology in hearings and two process evaluations (Rossner and McCurdy, 2018 and 2020)<sup>9</sup> were completed. The Video Hearings Service that was evaluated in these studies was designed specifically for the courts and tribunals' requirements and not used when extending the use of remote hearings in response to the Covid-19 pandemic. While not directly comparable to the type of remote hearings conducted during the Covid-19 pandemic, some relevant factors can be drawn from these two evaluations. Video hearings were said to last longer than telephone and in-person hearings, because of pauses to address

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<sup>8</sup> Trial cases are cases which are sent to the Crown Court for trial, however they may not have a trial if the defendant pleads guilty before the trial. This excludes cases which are sent to the Crown Court for appeal or sentencing.

<sup>9</sup> Rossner and McCurdy (2018) [Implementing Video hearings \(Party-to-State\): A Process Evaluation \(publishing.service.gov.uk\)](https://publishing.service.gov.uk) and Rossner and McCurdy (2020) [Video Hearings Process Evaluation \(Phase 2\) Final Report \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)



technical issues and because some Judges used the beginning of the hearing to orientate the parties. Technical difficulties were typically quickly dealt with and became less of an issue over time. Judges adapted to the video hearings well and were effective in managing them. Users reported high levels of satisfaction with video hearings and the additional convenience.

In addition, there have been two previous evaluations of video links between police stations and magistrates' courts for conducting the first hearings after defendants have been charged and are still physically located in the police station (Terry, Johnson and Thompson, 2010; Fielding, Braun, Hieke and Mainwaring 2020).<sup>10</sup> While these evaluations investigated very different concepts to remote hearings in the Crown Court, some general observations may be useful. Minor technical problems could occur and cause communication problems, particularly where defendants had language difficulties or an interpreter. Defence expressed concerns over the quality of communication with their clients required to provide legal advice and build trust and rapport. Court infrastructure was also said to need adequate audio-visual equipment, and regular maintenance of it.

During the Covid-19 pandemic HMCTS commissioned an evaluation of remote hearings, and how different participants experienced them (Clark 2021).<sup>11</sup> Nuffield Family Justice Observatory has also conducted research into remote hearings in family courts and how participants experienced them (Ryan, Rothera, Roe, Rehill and Harker, 2021).<sup>12</sup>

Clark (2021) reported mixed views on whether remote hearings were associated with worse experience for professional and public users, such as criminal justice professionals and defendants.<sup>13</sup> Some professionals surveyed in the evaluation reported remote hearings to be more intensive and have an impact on their health and wellbeing. However, this evaluation also acknowledged that remote hearings have freed up legal and other professionals working within criminal justice system from travelling to court and allow them to remain working if a hearing is delayed or adjourned. Ryan et al (2021) also highlighted

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<sup>10</sup> Terry et al (2010) [Virtual Court pilot outcome evaluation \(justice.gov.uk\)](https://www.justice.gov.uk/virtual-court-pilot-outcome-evaluation) and Fielding et al (2020) [Video Enabled Justice Evaluation](https://www.enabledjustice.org.uk/)

<sup>11</sup> Clark (2021), [Evaluation of remote hearings during the COVID 19 pandemic](https://www.nuffieldfamilyjustice.org.uk/evaluation-remote-hearings-covid-19)

<sup>12</sup> Ryan et al (2021): [Remote hearings in the family court post pandemic \(nuffieldfjo.org.uk\)](https://www.nuffieldfjo.org.uk/remot-hearings-family-court-post-pandemic)

<sup>13</sup> Clark (2021) references cross-jurisdictional groups, and described how user groups in civil, family and criminal courts experienced remote hearings.

that many professional participants reported a positive impact of remote hearings on their time and working patterns.

Public users, such as defendants, who attended in-person hearings were more likely to consider communication with their legal representative to be good than those who attended remote hearings. This was particularly pronounced for vulnerable groups (Clark, 2021). Similar sentiments were raised by parents surveyed about the use of remote hearings (Ryan et al, 2021).

Clark (2021) suggests that the majority of users in remote hearings did not experience technical issues, but when they did it had a significant impact. One in five remote hearing public users, such as defendants, surveyed reported technological issues. These issues were reported to extend hearing durations and increase the difficulty in participating in court proceedings as they struggled to contribute and follow what was happening.

## 4. Methodology

### 4.1 Data

#### Base dataset

This analysis was conducted using operational data on Crown Court hearings and cases from the XHIBIT database.<sup>14</sup> Further detail is available in Appendix H. The base dataset for this analysis contained information on all hearings that had a valid record<sup>15</sup> that started between 1<sup>st</sup> January 2020 and 1<sup>st</sup> April 2022, inclusively. Common Platform database was not used because it was introduced late 2020 on sequential basis to courts. This meant Common Platform database contained a relatively small proportion of relevant data.

In-person hearings are defined as one where all participants to the hearings attend in person. A remote hearing is defined as one where any participant joins the hearing remotely via telephone or video call. Remote hearings were identified via textual analysis of listings notes. This method has the following caveats:

- Listings notes relate to the planned method of hearing, which may not reflect what happened.
- Some cases had multiple listings with conflicting information on the same day – these were removed at a later point in the analysis.
- It is likely that a small number of hearings were incorrectly identified because of non-standard phrasing.

#### Analysis levels

There are two strands of this analysis, requiring distinct data preparation steps on the dataset described above. The levels are as follows:

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<sup>14</sup> XHIBIT is the administrative database used by Crown Courts across England and Wales, which contains details of Crown Court cases.

<sup>15</sup> This is a standard data filter used to exclude hearings with data quality issues, such as having no hearing start date.

1. Hearing and defendant level – looks at whether individual remote hearings take longer than comparable in-person hearings.
2. Trial case and defendant level – looks at whether holding a plea hearing remotely impacts the total duration and number of hearings in the case (efficiency), as well as plea rates and outcomes for not guilty pleas (effectiveness).

All levels are disaggregated to at least the defendant level, so this aspect will not always be specified throughout the report. This means hearings and cases with multiple defendants may be included in the analysis multiple times. Over ninety per cent of individual hearings or trial cases appear only once in each matching.<sup>16</sup> As such, we expect the impact of clustering to be negligible.

### **Data filters**

To create the hearing level dataset, records were removed where hearings missed important variables, they did not take place or were paper based. Hearings with a duration of less than 2 minutes were also excluded as these were caused by a data issue and did not reflect the true hearing duration. In addition, remote trial hearings were excluded as they are only held remotely in a small number of specific cases<sup>17</sup> which are dependent on the victims' needs and not relevant for evaluating efficiencies.

A subset of the hearings level dataset containing only PTPH was also created by filtering on recorded hearing code.<sup>18</sup>

For the trial level dataset, cases missing important variables, unfinished cases at 01/04/2022, and cases which started before 2020 were removed.

A large sample was retained for each analysis level; the smallest having over 88,000 entries.

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<sup>16</sup> 92.5% of hearings, 91.0% of PTPH, and 91.7% of trial cases appeared only once in each matching. Mean number of times a hearing or a case appear in the matching is below 1.15 for each, and the greatest weight accounts for less than 0.055% of the total weight in both levels.

<sup>17</sup> Due to victim preferences to attend remotely or giving testimony via pre-recorded evidence.

<sup>18</sup> Only hearings with a code of "PTP", "PLE" or "PCM" were selected for the PTPH analysis, as these are typically used for PTPH. This was verified by operational colleagues.

As the filters did not cause any unexpected substantial change in dataset compositions, it is unlikely record removals biased the sample. Further details on numbers removed by filters, and the composition before and after filters is available in Appendix A.

## 4.2 Methodology selection

This study uses Propensity Score Matching (PSM), meaning that a group of hearings or cases with at least one remote hearing were matched with a similar group of in-person hearings or cases. This is a common approach for evaluation of impact and has been used in other Ministry of Justice publications such as Eaton and Mews (2019) and Mews, Hillier, McHugh, and Coxon, (2015).

PSM is one of many quasi-experimental approaches that can be used where a randomised control trial approach is not possible or practical. It was selected as the most suitable approach because there were large eligible populations of both remote and in-person hearings to create multiple matched groups, both at the hearing level and at the case level. In addition, there are a rich set of covariates in court data that can be used to control for differences between matched groups and selection bias.

The limitation of this method is that there may be unmeasured variables which impact both the decision to use remote hearings and the outcomes of hearings; this can then lead to biased impact estimates. The key variables identified by subject matter experts which impact both the probability of being held remotely and the outcomes (such as complexity and bail status) were either available within the dataset or a proxy was identified. As such, it was deemed appropriate to use PSM. However, it is impossible to eliminate the possibility of such variables, and this is discussed further in the limitations section 4.4.

Other methods of evaluation were considered, including Coarsened Exact Matching (CEM) and Instrumental Variables (IV).

As this study used a very large dataset, it is possible that CEM may have been a viable alternative. However, many of the variables in use were categorical without clear options for further aggregation (or coarsening) and the process would have taken significantly longer without clear benefit. IV was discounted as no appropriate variable was identified. Moreover, IV estimates the Local Average Treatment Effect which was deemed a less

useful measure for stakeholders in this instance. If an appropriate variable is found, IV could be an approach to consider for future research.

### 4.3 Matching process

PSM was conducted independently for each level of the analysis but used similar processes, as described below and with further details in appendices B-E.

For each ‘treatment’ group – i.e., group of remote hearings or cases that had had a remote plea hearing – PSM was used to create a weighted ‘comparison’ group that is sufficiently similar in terms of measured characteristics. The comparisons then represent what would have happened if the ‘treatment’ population had not received the treatment – i.e., did not have a remote hearing.

#### **Propensity score generation**

PSM involves first calculating the conditional probability (or propensity score) of receiving the treatment based on factors associated with the likelihood of receiving treatment and the outcome. Once each unit has received a propensity score, the comparison group is created by matching treated units to ‘control’ units based on the proximity of these scores.

Discussions with subject matter experts<sup>19</sup> and exploratory analysis were used to decide which variables to use in generating the propensity scores. The selected variables included defendant characteristics, case information, details relating to offence, and other factors such as remand status and type of hearing. A full list of variables can be found in Appendix B.

Logistic regressions were used to predict the probability of the case or hearing being remote based on these variables. For each level of the analysis, numerous regressions were run to determine the most appropriate combination of variables. The final logistic regressions were selected based on a variety of factors including the Akaike information criterion and the matching quality obtained when using the propensity scores generated by the regression.

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<sup>19</sup> Subject matter experts included operational service managers and owners, product managers, HMCTS analysts and statisticians, and MoJ statistical methodologists.

Details of the selected logistic regressions can be found in Appendix C.

### **Matching using propensity score**

For each level of the analysis, various matching options were tested and the method resulting in the highest quality match was selected.<sup>20</sup> Radius and Epanechnikov Kernel matching techniques were used on both the propensity score and the logit of the propensity score with a variety of limits on the differences between the scores allowed for a match.

Full details of the matching methods selected can be found in Appendix D.

### **Matching quality**

Very few remote hearings and cases were lost through the matching process, for each matching run the proportion of treatment units lost through matching was less than 0.05%.

In most of the selected matches, the highest standardised difference was less than 5%, indicating good matching quality. For each matching, over 97.5% of the considered coefficients had good matching quality. Across all matchings, only four coefficients (all relating to court ID) had a standardised difference greater than 5%, these were all less than 10% so judged to be reasonable quality.

Full details on matching quality can be found in Appendix E.

## **4.4 Limitations**

### **Unmeasured confounders**

The PSM approach assumes that all variables which influence both the assignment of treatment and relevant outcomes have been controlled for in the matching process. Any such variables that are not accounted for would impact the results. Some potential variables not recorded in the data available that may influence both the decision to have a remote hearing and the measured outcomes have been explained below:

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<sup>20</sup> Best matching quality was determined by considering the proportion of treatment individuals matched for each method and the standardised differences between groups for each variable used in the model.

- Judges' decision-making – as it is at the judge's discretion whether a hearing is to be heard remotely.<sup>21</sup> Clark (2021)<sup>22</sup> suggests that where judges had discretion to decide whether to hold a remote hearing, four factors were particularly important: likely hearing duration and complexity, severity of the case and thus seriousness of outcome, preference of public users (such as defendants) and health considerations. Court ID was used in the analysis and may partially control for differences in judges' decision-making.
- Information on the legal counsel and disclosure of evidence – as advice given by legal counsel may vary and impact plea decisions. There were no relevant measures to use as full or partial control for these factors.
- Complexity of the case – additional factors of complexity not captured by offence type and indictable only/triable either way status,<sup>23</sup> which were the only measures for complexity in our dataset. Plea and hearing type also included as partial proxies for complexity.
- Court implementation – some court centres may be more willing or able to hold remote hearings than others. While information on overall preferences/facilities of the courts is not available in the dataset, the court ID was included in the analysis and should act as a sufficient control for court differences.

### **Effect on the treated**

As PSM works by creating a comparison untreated group, the results inform us about the average treatment effect on the treated. In this instance, this means that the results relate to the impact on the cases with remote hearings in comparison to if they had been in-person only, rather than what the impact is on the in-person hearings and cases if they changed to involve remote hearings. This is because the unmatched in-person population has different characteristics from the remote population so the observed treatment effect

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<sup>21</sup> Most recent guidance for criminal courts reiterates this by highlighting that the court may only make a live link direction if the court is satisfied it would be in the interest of justice and the parties to the proceedings had had an opportunity to make representations [Guidance for criminal courts on live links \(judiciary.uk\)](https://www.judiciary.uk/guidance-for-criminal-courts-on-live-links/)

<sup>22</sup> [Evaluation of remote hearings during the COVID 19 pandemic \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/90444/evaluation-remote-hearings-covid-19.pdf)

<sup>23</sup> The most serious offences must be heard in the Crown Court and are "indictable only" offences. Less serious offences that can be heard at either the Magistrates' or Crown Court are referred to as "triable either way".



will be different. Different results might be obtained if the matching was done based on in-person hearings and cases, matching them to remote hearings – this would give an estimate of what would happen in in-person cases had they been heard remotely.

### **Data quality**

The data used in this analysis was collected for operational purposes, so some data quality issues are to be expected. The primary issues relate to missing data, invalid entries, and lack of some desired factors. To minimise the impact on this analysis, standard procedure was followed for removing inaccurate data and subject matter experts were consulted to ensure the data was used appropriately. Full details are available in section 4.1 and Appendix A.

Secondly, as mentioned in section 4.1, the method used to identify remote hearings has some known issues. It is possible that inaccuracies here could impact the results, although this is unlikely to cause systematic differences.

### **Limited explanatory results**

PSM allows the creation of a counterfactual comparison group to explore whether the hearing or case being held remotely rather than in-person would impact outcomes, and that is the extent of the analysis conducted for this report. Further analysis would be needed to understand whether impacts vary by sub-group. In addition, further qualitative research with judiciary and legal professionals could be conducted to explain why remote hearings are opted in to, and why the use of remote hearings would impact the outcomes the way they have.

### **Variables post-treatment**

For PSM, the variables used in determining a propensity score should be observed prior to treatment. Matching on variables observed post-treatment runs the risk of introducing bias as those variables could have been impacted by the treatment. In this instance, this means that all variables should be recorded before the remote hearing takes place and ideally before the decision to use a remote hearing. This was not possible to do with the dataset used for this analysis – however as few values change between hearings this is unlikely to be a concern.

There are four relevant variables that might be observed after the relevant remote hearing takes place – hearing type, plea type, having a cracked trial and legal representation information.

These variables were judged sufficiently important and unlikely to cause much bias in the results. However, if these variables are influenced by holding a remote hearing, this can impact the accuracy of our results. The hearing level analysis is the most likely to be impacted by this issue, as three of the four variables below are only used in the hearing level. The final variable only impacts the for-trial level analysis. The four variables are as follows:

- Hearing type – recorded by Listings Officer after a hearing has been completed and reflects the content of the hearing. The general content of a hearing will usually be determined before the hearing but can change on the day. This variable is used instead of the hearing type recorded in the listings as it contains additional required information.
- Plea type – used in the hearing level matching as a proxy for complexity. If the defendant's plea was entered before the hearing in question, this value is observed pre-treatment and so not an issue. The trial level analysis indicates that there is no substantial impact on not guilty pleas, or guilty pleas entered at or before the plea hearing when plea hearings were held remotely. This suggests using a plea type as a variable is unlikely to bias results. Most other hearings take place after the plea is entered, so should not be much impacted by using plea type as a variable either. There were however small statistically significant differences in the delayed guilty pleas given after the plea hearing. It is difficult to say if this suggests that remote hearings are chosen because delayed guilty pleas were expected. Other research suggests that timely disclosure of evidence is one factor that can lead to late guilty pleas. Disclosure is where prosecution provides defence the material that can undermine prosecution case or assist the defence and is typically cited by defence as an important part influencing their advice on plead decisions.

- Has cracked trial<sup>24</sup> hearing – used in the hearing level matchings to add granularity to plea type as this indicates whether a guilty plea was entered late, after the relevant plea hearing. This has similar reasoning and potential issues as plea type.
- Legal representation information – used at the trial level to indicate whether the defendant had a solicitor for any hearing in their case is used. In some cases, if the defendant finds representation after the plea hearings this would be observed post-treatment. However, the majority of defendants who had a solicitor at any hearing also had one for their first hearing, so it is not expected to have a substantial impact.

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<sup>24</sup> Cracked trial is typically used to describe a trial in which the defendant pleads guilty on the first day of the trial, before the jury has been sworn in. The dataset uses cracked trial definition to indicate a guilty plea given after a plea hearing, so includes late guilty pleas up until the day of the trial.

## 5. Results

We used the standard 95% confidence intervals (or in other words, a significance level of 0.05) to determine statistical significance for all results.

### 5.1 Hearing duration

The mean hearing duration for a remote hearing is 23.6 minutes, while the matched comparison group of in-person hearings have a mean duration of 29.5 minutes, as shown in Table 5.1. The group of hearings which were held remotely were 6 minutes shorter, which is statistically significant.

**Table 5.1: Mean hearing duration with remote or matched in-person plea hearings**

	Hearing duration (minutes)
Remote	23.6
Matched in-person	29.5
Difference	5.9
Statistically significant (at 5% level)	Yes <sup>25</sup>

Table 5.2 shows descriptive statistics of the distribution of the hearing durations. Despite the differences in mean, the lower quartile and median are similar for the remote and matched in-person hearings, 10 and 16 minutes compared to 10 and 17 minutes respectively. The upper quartile is higher for matched in-person hearings; 33 minutes compared to 29 minutes. Maximum hearing duration is higher for matched in-person hearings as well, 6,535 minutes compared to 3,600 minutes for remote hearings.<sup>26</sup>

**Table 5.2: Descriptive statistics for hearing duration for remote and matched in-person hearings, in minutes**

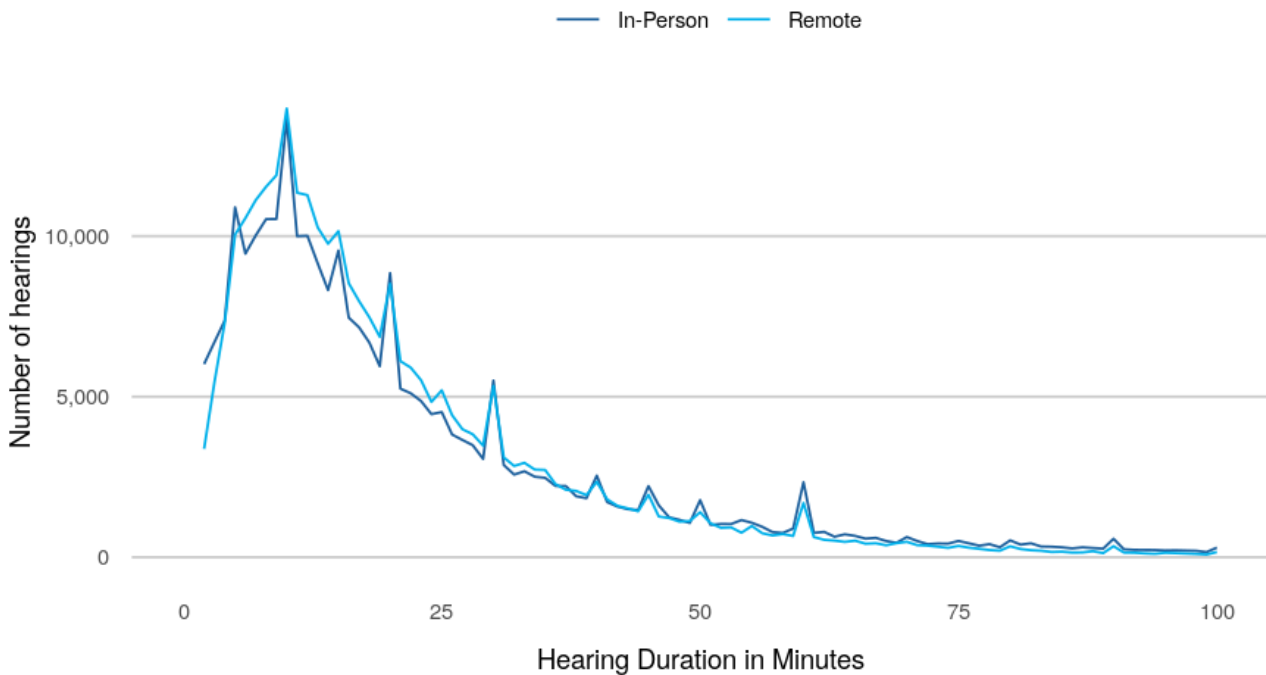
	Mean	Lower quartile	Median	Upper quartile	Maximum
Remote	23.6	10	16	29	3600
Matched in-person	29.5	10	17	33	6535

<sup>25</sup> p-value is <0.001

<sup>26</sup> There were a very small number of outliers in the data but these are not considered to bias the results. Within a dataset of over 781,000, there were only 147 hearings of over 1,000 minutes long.

The distribution of average durations of remote hearings are statistically significantly different to that of matched in-person ones. Despite this, there is little visual difference in the overall distributions of remote and matched in-person hearing lengths as can be seen in Figure 5.1.

**Figure 5.1: Distribution of hearing duration for remote and matched in-person hearings**



Hearing durations over 100 minutes were not included in the graph for clarity. This consisted of approximately 1.6% of remote hearings and 4.1% of in-person hearings.

## 5.2 Plea and Trial Preparation Hearing duration

The mean hearing duration for a remote PTPH was 22.1 minutes. The matched comparison group of in-person PTPH had a mean duration of 24.2 minutes, as shown in Table 5.3. The group of hearings which were held remotely were 2 minutes shorter, which is statistically significant.

**Table 5.3: Mean PTPH duration with remote or matched in-person plea hearings**

	<b>PTPH duration (minutes)</b>
Remote	22.1
Matched in-person	24.2
Difference	2.1
Statistically significant (at 5% level)	Yes <sup>27</sup>

Table 5.4 shows descriptive statistics of the distribution of the hearing durations for PTPH. The lower quartile, median and upper quartile are similar for the remote and matched in-person PTPH, 11, 17, and 26 minutes compared to 11, 17, and 28 minutes respectively. The maximum duration of a remote hearing was 1,800 minutes, compared to matched in-person hearing of 2,760 minutes.<sup>28</sup>

**Table 5.4: Descriptive statistics for PTPH duration for remote and matched in-person PTPH, in minutes**

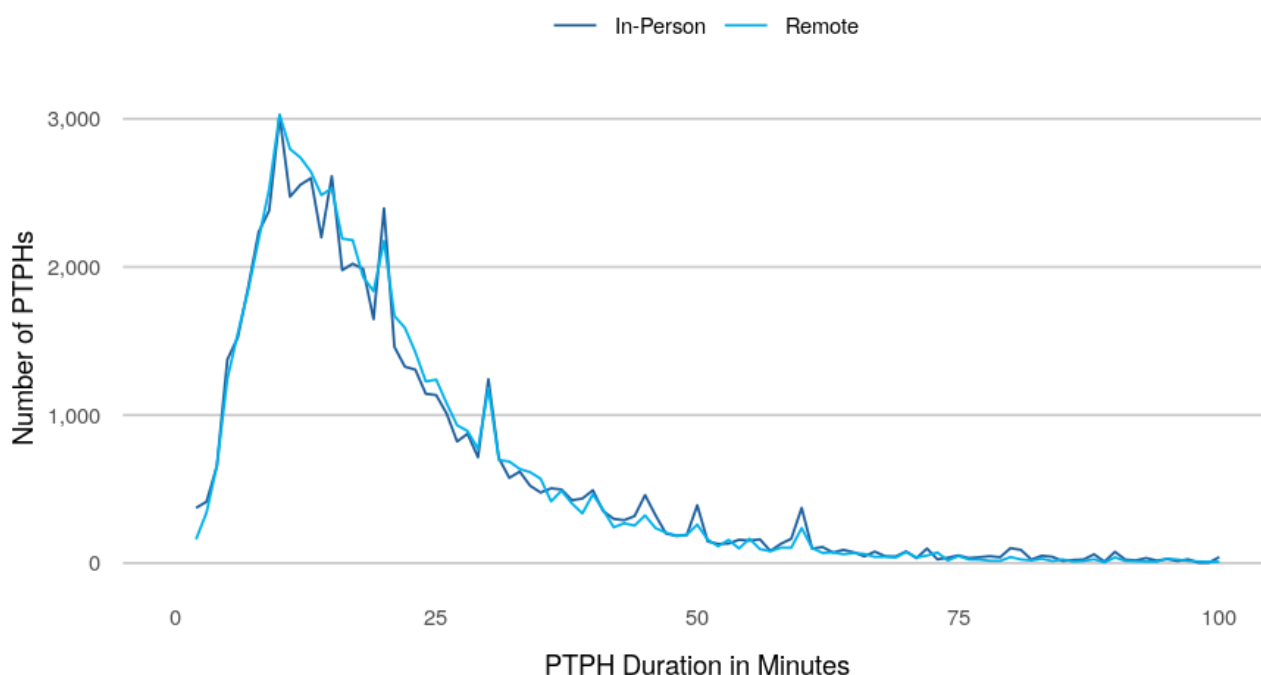
	<b>Mean</b>	<b>Lower quartile</b>	<b>Median</b>	<b>Upper quartile</b>	<b>Maximum</b>
Remote	22.1	11	17	26	1800
Matched in-person	24.2	11	17	28	2760

The distribution of durations of remote PTPH are statistically significantly different to that of matched in-person ones. Despite this, there is little visual difference in the overall distributions of remote and matched in-person PTPH lengths as can be seen in Figure 5.2.

<sup>27</sup> p-value is <0.001

<sup>28</sup> There were a very small number of outliers in the data but these are not considered to bias the results. Within a dataset of over 135,000, there were only 29 PTPHs of over 500 minutes long.

**Figure 5.2: Distribution of PTPH duration for remote and matched in-person PTPH**



PTPH durations over 100 minutes were not included in the graph for clarity. This consisted of approximately 0.9% of remote PTPHs and 1.6% of in-person PTPHs.

### 5.3 Trial case duration

This section describes analysis that has been completed on the total hearing duration of trial cases.<sup>29</sup> This refers to the total amount of court time in a trial case, calculated as the total recorded hearing time. The cases were classed as remote if they had at least one remote plea hearing and in-person if all the plea hearings were held in person.

The mean total hearing duration in a trial case where there was at least one remote plea hearing was 255.3 minutes (4 hours and 15 minutes), as shown in Table 5.5. For the matched comparison group of in-person hearings only, the total mean hearing duration in a trial case was 261.4 minutes (4 hours and 21 minutes). This difference was not statistically significant.

<sup>29</sup> Trial cases are cases which are sent to the Crown Court for trial, however they may not have a trial if the defendant pleads guilty before the trial. This excludes cases which are sent to the Crown Court for appeal or sentencing.

The mean of total number of hearings in a trial case where there was at least one remote plea hearing was 4.94, and for the matched comparison group of in-person plea hearings only was 4.92. This difference was not statistically significant.

**Table 5.5: Total hearing duration and total number of hearings for trial cases with remote or matched in-person plea hearings**

	<b>Total hearings duration (minutes)</b>	<b>Total number of hearings</b>
<b>Remote</b>	255.3	4.94
<b>Matched in-person</b>	261.4	4.92
<b>Difference</b>	-6.1	0.02
<b>Statistically significant (at 5% level)</b>	No <sup>30</sup>	No <sup>31</sup>

As shown in Table 5.6 the lower quartile and median are similar for both remote and matched in-person comparison groups. The upper quartile for total hearings durations is higher for matched in-person plea hearings, at 176 minutes (2 hours and 56 minutes) compared to 171 minutes (2 hours and 51 minutes). The maximum total hearing durations for trial cases with remote hearings was 14,753 minutes, compared to matched in-person trial cases of 13,127 minutes.<sup>32</sup>

**Table 5.6: Descriptive statistics for the total hearing durations for trial cases with remote or matched in-person plea hearings, in minutes**

	<b>Mean</b>	<b>Lower quartile</b>	<b>Median</b>	<b>Upper quartile</b>	<b>Maximum</b>
Remote	255.3	50	86	171	14,753
Matched in-person	261.4	48	87	176	13,127

The distribution of total hearings durations for trial cases are similar for both remote and matched in-person comparison groups, as can be seen in Figure 5.3.

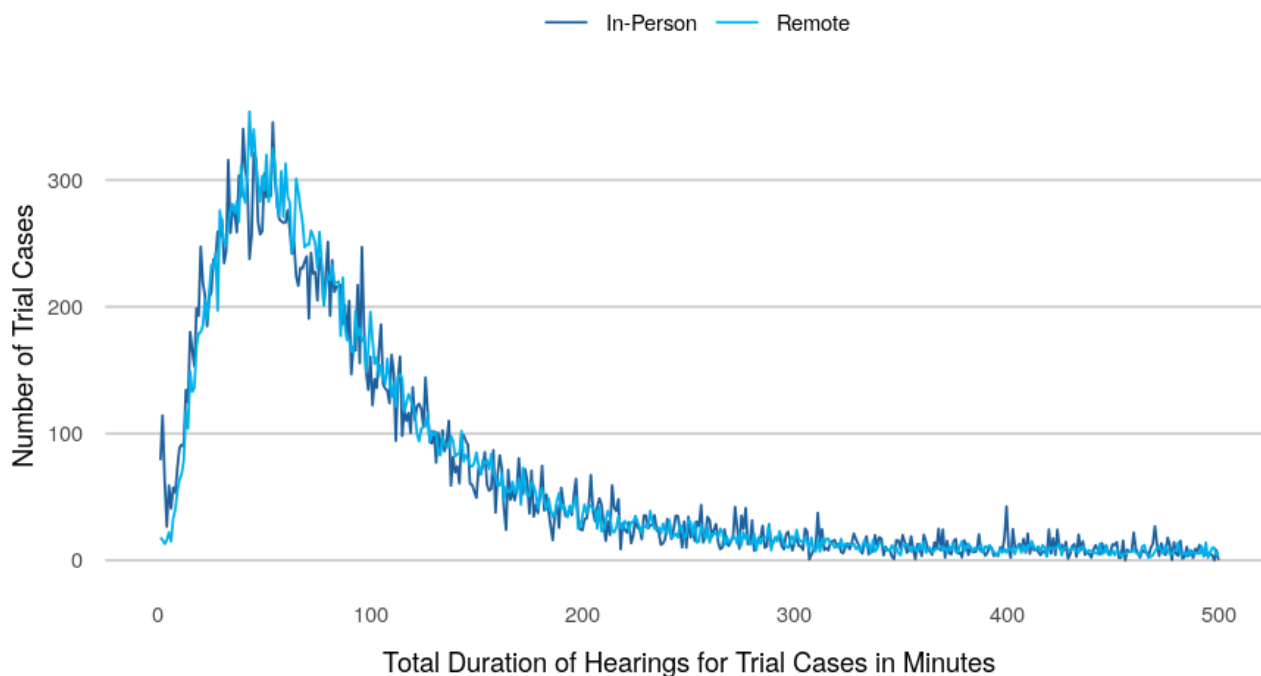
<sup>30</sup> p-value is 0.202

<sup>31</sup> p-value is 0.405

<sup>32</sup> There were a very small number of outliers in the data but these are not considered to bias the results. Within a dataset of over 80,000, there were only 312 total trial case hearing durations of over 5000 minutes long.



**Figure 5.3: Distribution of total hearings durations for trial cases with remote or matched in-person plea hearings**



Total durations over 500 minutes were not included in the graph for clarity. This consisted of 10.5% trial cases with a remote plea hearing, and of 10.6% trial cases with a matched in-person plea hearing.

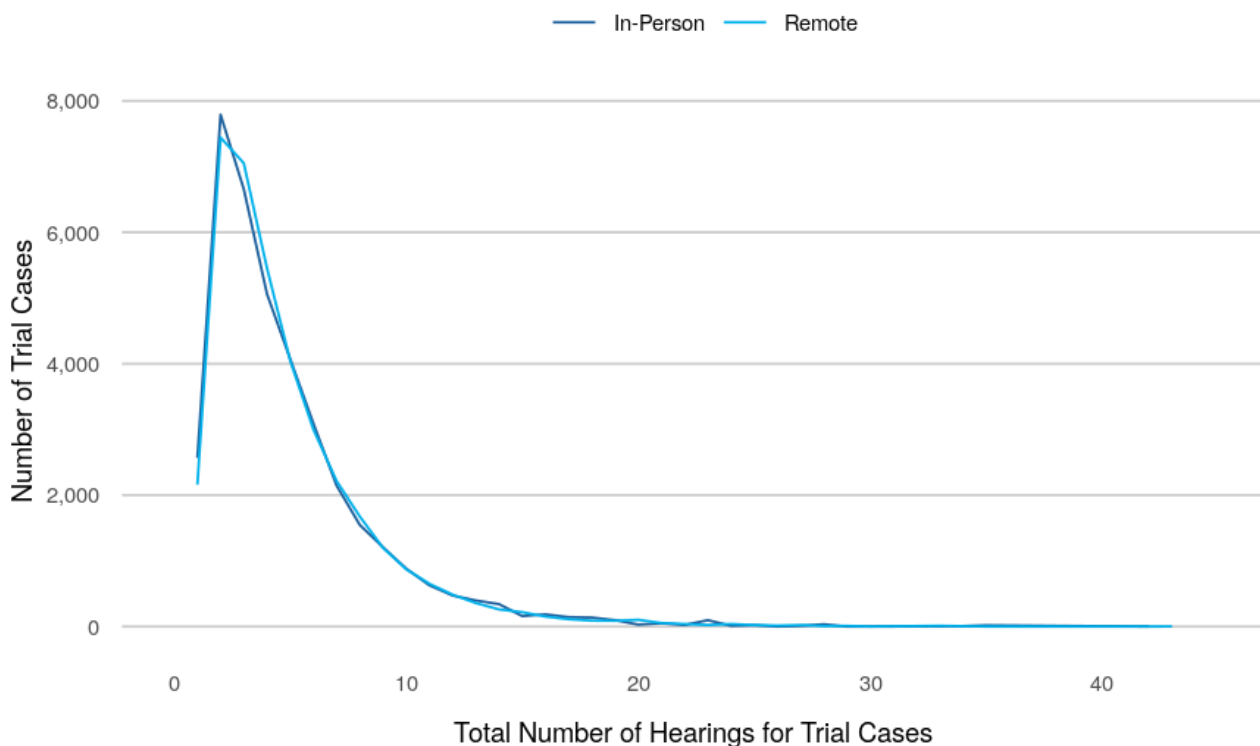
As shown in Table 5.7, the lower quartile, median and upper quartile of total number of hearings are the same for remote and matched in-person cases.

**Table 5.7: Descriptive statistics for the total number of hearings taken in trial cases with remote or matched in-person plea hearings**

	Mean	Lower quartile	Median	Upper quartile	Maximum
Remote	4.94	2	4	6	43
Matched in-person	4.92	2	4	6	42

The distribution of total number of hearings for trial cases are similar for both remote and matched in-person comparison groups, as can be seen in Figure 5.4.

**Figure 5.4: Distribution of total number of hearings for trial cases with remote or matched in-person plea hearings**



## 5.4 Trial case outcomes

This section uses the same definitions of remote as section 5.3,<sup>33</sup> but considers the differences in outcomes.

Table 5.8 shows the breakdown of plea type and stage of guilty plea. There are five outcomes in trial cases for plea types and stages of guilty – guilty plea at or before the plea hearing, guilty plea after the plea hearing, not guilty plea, dropped case and no plea entered.<sup>34</sup>

<sup>33</sup> The cases were classed as remote if they had at least one remote plea hearing and in-person if all of the plea hearings were held in person.

<sup>34</sup> Weighted chi-squared test was run to test the distributions of outcomes for the matched groups. This demonstrated that the distributions were statistically significantly different between remote and in-person groups, with a p-value of <0.001. Weighted t-tests were run to test the specific outcomes, as presented in tables 5.8 and 5.9.

There were no statistically significant differences in the not guilty pleas, or guilty pleas given at or before the plea hearing between the remote cases and matched in-person cases.

In 24.1% of cases the guilty plea was delayed, being given after the plea hearing when at least one plea hearing was remote, in comparison to 22.8% for the matched plea hearings that were all in-person only. This was a statistically significant difference.<sup>35</sup>

When at least one plea hearing was remote, 10.3% of cases were dropped, in comparison to 10.9% for the matched plea hearings that were all in-person only. This was a statistically significant difference.

When at least one plea hearing was remote 1.6% of cases had no plea entered, in comparison to 1.9% for the matched plea hearings that were all in-person only. This was a statistically significant difference.

**Table 5.8: Plea types and stages of guilty plea in for-trial cases with remote or matched in-person plea hearings**

	Dropped	Not guilty	No plea entered	Guilty plea – at or before plea hearing	Delayed guilty plea – after plea hearing
Remote	10.3%	11.8%	1.6%	52.2%	24.1%
Matched in-person	10.9%	12.0%	1.9%	52.4%	22.8%
Difference	+0.6pp	+0.2pp	+0.3pp	+0.1pp	-1.3pp
Statistically significant (at 5% level)	Yes <sup>36</sup>	No <sup>37</sup>	Yes <sup>38</sup>	No <sup>39</sup>	Yes <sup>40</sup>

<sup>35</sup> This may be an indication of selection bias – if remote hearings are chosen because delayed guilty pleas were expected. For example, timely disclosure of evidence is one factor that can lead to late guilty pleas. Disclosure is where prosecution provides defence the material that can undermine prosecution case or assist the defence and is typically cited by defence as an important part influencing their advice on plead decisions.

<sup>36</sup> p-value of 0.010

<sup>37</sup> p-value of 0.290

<sup>38</sup> p-value of <0.001

<sup>39</sup> p-value of 0.691

<sup>40</sup> p-value of <0.001

The outcome of not guilty pleas was analysed in Table 5.9. The analysis compared those that had entered not guilty pleas, and then looked at whether the case outcomes for this group differed between the cases that had at least one remote plea hearing and the matched cases that had in-person plea hearings only.<sup>41</sup> The possible outcomes were convictions, discharges,<sup>42</sup> acquittals, and not guilty verdicts.<sup>43</sup>

There were no statistically significant differences between the groups that had entered not guilty pleas in not guilty verdicts, convictions, or acquittals.

Of those cases that had at least one remote plea hearing and had given a not guilty plea, 2.1% were discharged by judge, in comparison to 2.8% for matched cases when all plea hearings were in-person only. This was a statistically significant difference. However, acquittals were found to be more common in cases that had at least one remote plea hearing, than in matched cases of in-person plea hearings only. While this difference was not statistically significant, it was of similar size to difference between discharges, but working the opposite way. Discharges and acquittals both lead to a release of the defendant from court without further action, although with discharges the defendant will get a criminal record. Opposite impacts in acquittals and discharges this analysis shows may indicate that in practical terms there are little noticeable effects overall to courts or other justice system institutions.

**Table 5.9: Outcomes for those that entered not guilty pleas for trial cases with remote or in-person plea hearings**

	Convicted	Discharged by judge	Acquittal (by judge or other reasons)	Not guilty verdict
Remote	67.5%	2.1%	5.4%	25.0%
Matched in-person	69.1%	2.8%	4.7%	23.4%

<sup>41</sup> Outcomes in the matched dataset before filtering by a plea decision were also analysed to understand if conviction rates were similar to published statistics and if there were any anomalies between remote and matched in-person groups. Crown Court conviction rate was 82.6% in the year ending June 2022 (Table Q3.1 in [Criminal Justice System statistics quarterly: June 2022 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/111111/Criminal_Justice_System_statistics_quarterly_June_2022.pdf)) which was similar to the matched dataset (84.3% in remote and 83.5% in matched in-person groups).

<sup>42</sup> Discharges are given for the least-serious offences such as petty thefts. A discharge means that the person is released from court (either conditionally or absolutely) without any further action, but they will get a criminal record.

<sup>43</sup> Weighted chi-squared test was run to test the distributions of outcomes for the matched groups. This demonstrated that the distributions were statistically significantly different between remote and in-person groups, with a p-value of <0.001. Weighted t-tests were run to test the specific outcomes, as presented in tables 5.8 and 5.9.

	<b>Convicted</b>	<b>Discharged by judge</b>	<b>Acquittal (by judge or other reasons)</b>	<b>Not guilty verdict</b>
Difference	+1.5pp	+0.8pp	-0.7pp	-1.6pp
Statistically significant (at 5% level)	No <sup>44</sup>	Yes <sup>45</sup>	No <sup>46</sup>	No <sup>47</sup>

## 5.5 Listing Officer survey

To support the analysis in this report, a survey of listings officers was conducted to understand the average listing duration<sup>48</sup> for in-person and remote listings. The survey was conducted in May 2022. The response rate was 67%, based on 79 Crown Courts being contacted and 53 of them responding to the survey. Overall, 59 complete responses were received, as some Crown Courts had more than one Listing Officer respond. Full details on the survey can be found in Appendix G.

The majority (61%) of Listing Officers reported no differences in the listing durations for remote compared to in-person hearings, 29% listed at least one type of remote hearings for a longer time and 10% listed at least one type of remote hearing for a shorter time.

The mean listing duration was longer for remote cases for all hearing types. However, this difference was very small, only 7% longer for PTPH, case management/mention and sentence/breach hearings, and 3% for pre-charge applications.

Listing durations are at the discretion of the Listing Officer, who are acting under the direction of their Resident Judge. The directions from judiciary and the discretion of the listing officer may differ in each court, and there is no clear indication of what is driving these differences. The directions and approach to remote hearings may also change as more experience of holding remote hearings is acquired by the judge or listing officer.

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<sup>44</sup> p-value of 0.104

<sup>45</sup> p-value of 0.015

<sup>46</sup> p-value of 0.129

<sup>47</sup> p-value of 0.063

<sup>48</sup> This is the amount of time Listing Officers allocate for each hearing type.

On average 5% of remote hearings were adjourned specifically due to issues with remote technology. Courts were unevenly impacted by technical difficulties with 66% reporting no adjournments for this reason.

## 6. Implications

This analysis as a whole suggests there are little meaningful differences found in efficiency or effectiveness when remote hearings are used as opposed to in-person hearings only.

Other research suggests that remote hearings can have benefits to some court users. Criminal legal aid practitioners attending MoJ focus groups have said remote hearings can help practitioners to work more efficiently, more flexibly and help manage a better work-life balance due to less travel and waiting times. They also said this could benefit defendants, as the additional time freed could improve the defendants access to solicitors and barristers (Criminal Legal Aid Review, 2021). Similar sentiments have also been expressed by professional participants in other recent research reports on remote hearings (Clark, 2021; Ryan et al, 2021).

When further groups of court users and professionals are considered, the views on benefits are more mixed. Clark (2021) for example finds that some professional users surveyed reported remote hearings to be more intensive and have an impact on their health and wellbeing – this was a factor particularly for judicial respondents. Public users, such as defendants who attended in-person hearings were more likely to consider communication with their legal representative to be good than those who attended remote hearings. This was particularly pronounced for vulnerable groups (Ibid.). Similar sentiments were raised by parents surveyed about the use of remote hearings, in family courts (Ryan et al, 2021).

### 6.1 Efficiency

On efficiency, there were some small differences in individual hearings lengths. While remote hearings and remote PTPH hearings were found to be slightly shorter in duration that matched in-person equivalent hearings, overall using remote hearings did not have an impact on the total duration of all hearings in a case or the number of hearings in a case.

Individual remote hearings were found to be on average six minutes shorter than in-person hearings. Aggregated over the whole remote hearing group, this totalled to 1,076 hours or over 200 typical court sitting days less of court time per month than the matched in-person

comparison group. While this is a useful illustrative figure, it is important to remember that these time savings from remote hearings are located across over 70 court centres and spread across different days. This means it is unrealistic to assume these time savings were reallocated to other hearings or cases or that it would be easy to do so in the future.

While it may be difficult to reallocate time savings, knowledge of remote hearings being on average shorter than matched in-person hearings may assist in more efficient running of Crown Courts. Findings from the Listing Officer survey in this report indicate that only 10% of Listing Officers currently use shorter durations for remote hearings. As the results from this analysis are circulated more widely, shorter listings durations for remote hearings may become more common and help in managing day-to-day listing pressures in Crown Courts.

## **6.2 Effectiveness**

As it currently stands, judiciary have some amount of discretion on when and whether to use remote hearings. While there are some court-based outlines and guidance on where remote hearings are appropriate, judicial respondents have explained that where discretion is applied it is usually on the basis of defendant needs (preference or health), or severity of the case and expected length of hearing. (Clark, 2021)

The analysis conducted in this report has found no evidence to suggest that holding plea hearings remotely impacts the rate of guilty pleas (given at or before plea hearing). The analysis also found no evidence to suggest that holding plea hearings remotely impacts the rate of not guilty pleas and so number of trials held. This suggests that there are no wider impacts on the wider justice outcomes when remote hearings are used as current practice stands. These findings may be reassuring to those members of judiciary who are concerned over unintended consequences of opting for a remote hearing, or to those defendants or legal practitioners who are wary of remote hearings.



## References

Clark, J. (2021). *Evaluation of remote hearings during the COVID 19 pandemic, Research report*. London: HMCTS. Retrieved Oct 2022 from

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1040183/Evaluation\\_of\\_remote\\_hearings\\_v23.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1040183/Evaluation_of_remote_hearings_v23.pdf)

Criminal Legal Aid Review (2021). *Independent Criminal Legal Aid Review, Annex E: Findings from Independent Review into Criminal Legal Aid Focus Groups for Legal Aid Practitioners*. London: Criminal Legal Aid Review. Retrieved Jan 2023 from

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1041116/clar-independent-review-2021-annexes.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1041116/clar-independent-review-2021-annexes.pdf)

Eaton, G. and Mews, A. (2019). *The impact of short custodial sentences, community orders and suspended sentence orders on reoffending*. London: Ministry of Justice.

Retrieved October 2022 from

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/814177/impact-short-custodial-sentences.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/814177/impact-short-custodial-sentences.pdf)

Fielding, N., Braun, S., Hieke, G. and Mainwaring, C. (2020). *Video Enabled Justice Evaluation*. Sussex Police & Crime Commissioner and University of Sussex. Retrieved November 2022 from <https://www.sussex-pcc.gov.uk/media/4862/vej-final-report-ver-12.pdf>

Mews, A., Hillier, J., McHugh, M., & Coxon, C. (2015). *The impact of short custodial sentences, community orders and suspended sentence orders on re-offending*. London: Ministry of Justice. Retrieved October 2022 from

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/399389/impact-of-short-custodial-sentences-on-reoffending.PDF](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/399389/impact-of-short-custodial-sentences-on-reoffending.PDF)

Ministry of Justice. (2021). *HMCTS Management Information -March 2022*. London:

Ministry of Justice. Retrieved Sept 2022 from <https://www.gov.uk/government/statistical-data-sets/hmcts-management-information-march-2022>

- Rossner, M. and McCurdy, M. (2018). *Implementing Video Hearings (Party-to-State): A Process Evaluation*. London: Ministry of Justice. Retrieved November 2022 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/740275/Implementing\\_Video\\_Hearings\\_web\\_.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/740275/Implementing_Video_Hearings_web_.pdf)
- Rossner, M. and McCurdy, M. (2020). *Video Hearings Process Evaluation (Phase 2) Final Report*. London: HMCTS. Retrieved November 2022 from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/905603/HMCTS391\\_Video\\_hearings\\_process\\_evaluation\\_phase\\_2\\_v2.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/905603/HMCTS391_Video_hearings_process_evaluation_phase_2_v2.pdf)
- Ryan, M., Rothera, S., Roe, A., Rehill, J., and Harker, L. (2021). *Remote hearings in the family court post pandemic*. London: Nuffield Family Justice Observatory. Retrieved November 2022 from <https://www.nuffieldfjo.org.uk/wp-content/uploads/2021/07/remote-hearings-in-the-family-court-post-pandemic-report-0721.pdf>
- Terry, M., Johnson, S. and Thompson, P. (2010) *Virtual Court pilot: Outcome evaluation*. London: Ministry of Justice. Retrieved November 2022 from <https://www.justice.gov.uk/downloads/publications/research-and-analysis/moj-research/virtual-courts.pdf>

## Appendix A

### Data filters

This appendix contains details on the filters used for each level of the analysis, and an overview of the impact of each filter on the final population size.

For the hearing level, the following were removed:

- Hearings which could not be joined to listings information
- Hearings with unclear remote status from listings information
- Hearings that were stood out or paper-based
- Hearings with no information on hearing type
- All trial hearings as these were not held remotely
- Hearings with a duration of under 2 minutes

**Table A1: Breakdown of filters for hearing level**

Filtering step	Number of rows remaining	Number of rows removed	Percentage removed
0. Base data	850,943		
1. No listings information	823,413	27,530	3.2%
2. Unclear remote status	780,127	43,286	5.1%
3. Inappropriate hearing types	771,608	8,519	1.0%
4. No hearing type information	770,736	872	0.1%
5. No trial hearings	745,467	25,269	3.0%
6. Duration <2 minutes	718,846	26,621	3.1%

For the trial level, hearings related to an individual trial case and defendant were aggregated after all hearings listed below were removed.

- All cases with a first hearing before 2020
- All uncompleted cases
- Hearings that were stood out or paper-based
- Cases which do not have a known point of guilty plea or crack
- Hearings which were not the plea hearing
- Cases where it was unclear if they had a remote hearing
- Cases with a total hearing duration of 0

**Table A2: Breakdown of filters for trial level**

Filtering step	Number of rows remaining (from original hearing data set)	Number of unique defendants-on-case	Defendants-on-case removed	Percentage of defendants-on-case removed
0. Hearing level data	850,943	262,732	-	-
1. Trial cases only	697,175	182,079	80,653	30.7%
2. Removing cases before 2020	569,657	147,757	34,322	13.1%
3. Removing cases that had not been disposed	403,216	98,144	49,613	18.9%
4. Remove cases that only had a paperwork hearing	399,304	98,132	12	0.0%
5. Remove hearings which are not plea hearings	101,704	88,627	9,505	3.6%
6. Remove cases that were unclear if they had remote aspect or not	92,475	80,383	8,244	3.1%
7. Remove cases with null total hearing duration	92,475	80,383	0	0.0%

### Population breakdowns

The following tables contain information on the population breakdown before and after filters are applied at the hearing level, and some filters at the trial level. These tables show how applying these filters impacts the population breakdown.

All substantial changes in percentage are expected given the choice of filters, and so these filters do not appear to bias the population. For the hearing population, trial hearings were excluded as these are rarely held remotely; this results in some expected changes like a decrease in the rate of in-person hearings and guilty pleas (as trial hearings will normally have both of these).

**Table A3: Hearing breakdown by key factors before and after filters**

Filtering step	Before filtering percentage	Before filtering relevant percentage	After filtering percentage	Difference (pp)
<b>Remote status</b>				
In-person	56.7%	61.8%	59.6%	-2.2
Remote	35.0%	38.2%	40.4%	2.2
Mixed/Unknown	8.3%	-	-	-
<b>Case Type</b>				
Appeal	2.3%	2.3%	2.4%	0.1
Sentencing	15.8%	15.8%	15.7%	-0.1
Trial	81.9%	81.9%	81.9%	0.0
<b>Hearing Type</b>				
Appeal	1.2%	1.3%	1.3%	0.0
Breach	1.1%	1.2%	1.1%	-0.1
Case management	46.9%	49.0%	49.0%	0.0
Cracked trial	5.4%	5.7%	5.9%	0.2
Other	7.4%	7.7%	7.1%	-0.7
PTPH & pleas	17.8%	18.6%	18.9%	0.3
Sentence	15.9%	16.6%	16.7%	0.1
Trial	3.1%	-	-	-
Missing	1.1%	-	-	-
<b>Plea Submitted</b>				
Dropped	6.7%	6.7%	6.8%	0.1
Guilty	45.3%	45.3%	46.9%	1.6
Not guilty	14.2%	14.2%	12.1%	-2.1
Other	31.5%	31.5%	31.8%	0.3
Unknown	2.3%	2.3%	2.4%	0.1
<b>Remand status</b>				
Bail	56.6%	56.6%	56.6%	0.1
Custody	42.5%	42.5%	42.5%	0.0
Unknown	0.9%	0.9%	0.9%	0.0
<b>Triable either way status</b>				
0	53.7%	53.7%	53.4%	-0.3
1	46.3%	46.3%	46.6%	0.3

The table A4 below shows the breakdown for the trial level before and after final filters were implemented; Previous filters were required to obtain the relevant trial case population – i.e., trial cases which took place entirely within the relevant time period and which had at least one PTPH

**Table A4: Trial case breakdown by key factors before and after filters**

Filtering step	Before filtering percentage	Before filtering relevant percentage	After filtering percentage	Difference (pp)
<b>Remote status</b>				
All in-person	47.9	52.8	52.8	0.0
Any remote	42.8	47.2	47.2	0.0
Unknown	9.3	-	-	-
<b>Conviction result</b>				
Convicted	82.6	82.6	82.3	-0.3
Discharged by judge	11.4	11.4	11.6	0.2
Not guilty – jury verdict	3.3	3.3	3.4	0.1
Other or acquittal	2.7	2.7	2.7	0.0
<b>Plea Submitted</b>				
Dropped	11.4	11.4	11.6	0.2
Guilty	75.1	75.1	74.6	-0.5
Not guilty	11.8	11.8	12.1	0.3
Other	1.8	1.8	1.8	0.0
<b>Remand status</b>				
Bail	54.1	54.1	55.3	1.3
Custody	45.8	45.8	44.5	-1.3
Unknown	0.1	0.1	0.1	0.0
<b>Triable either way status</b>				
0	36.2	36.2	35.8	-0.4
1	63.8	63.8	64.2	0.4

## Appendix B

### Variable list

This appendix details the variables used in the matching process. Table B1 below specifies where these variables were used and provides a brief description of each variable.

**Table B1: List of variables used in model**

Variable <sup>49</sup>	Data type	Analysis levels used in	Description
Age	Ordinal	<ul style="list-style-type: none"> <li>Hearing</li> <li>Trial</li> </ul>	Age at receipt date grouped into the following categories: <ul style="list-style-type: none"> <li>Under 18</li> <li>18-29</li> <li>30-39</li> <li>40-49</li> <li>50-59</li> <li>60-69</li> <li>70 and older</li> <li>unknown</li> </ul>
Hearing type	Nominal	<ul style="list-style-type: none"> <li>Hearing</li> </ul>	Grouping of hearing code to identify the kind of hearing that was held. <ul style="list-style-type: none"> <li>Appeal</li> <li>Breach</li> <li>Trial</li> <li>Cracked Trial</li> <li>Other</li> <li>PTPH &amp; Pleas</li> <li>Sentence</li> <li>Case Management - broken into further subgroups groups based on listings information</li> </ul>
Case type	Nominal	<ul style="list-style-type: none"> <li>Hearing</li> </ul>	<ul style="list-style-type: none"> <li>Appeal conviction</li> <li>Appeal sentence</li> <li>Appeal sentence and conviction</li> <li>Sentence</li> <li>Trial</li> </ul>
Court ID	Nominal	<ul style="list-style-type: none"> <li>Hearing</li> <li>Trial</li> </ul>	ID numbers to identify the court. 70 values between 1 and 84

<sup>49</sup> All diversity characteristics are of the defendant.

Variable <sup>49</sup>	Data type	Analysis levels used in	Description
Ethnicity self-defined group	Nominal	<ul style="list-style-type: none"> <li>Hearing</li> <li>Trial</li> </ul>	<ul style="list-style-type: none"> <li>White</li> <li>Black or Black British</li> <li>Asian or Asian British</li> <li>Chinese or Other Ethnic Group</li> <li>Missing/Not stated</li> </ul>
Has a cracked trial hearing	Dichotomous	<ul style="list-style-type: none"> <li>Hearing</li> </ul>	<ul style="list-style-type: none"> <li>1 if yes</li> <li>0 otherwise</li> </ul>
Legal representative and solicitor information	Nominal	<ul style="list-style-type: none"> <li>Hearing</li> <li>Trial</li> </ul>	<p>Information on whether the defendant has a legal representative, the type of representative and whether they had a solicitor at an individual hearing. This can then be used to generate information on case level.</p> <p>Values used at hearing level:</p> <ul style="list-style-type: none"> <li>No legal representative and no solicitor: 0_0</li> <li>No legal representative and has a solicitor: 0_1</li> <li>Has advocate as legal representative, but no solicitor: 1_A_0</li> <li>Has advocate as representative and has solicitor: 1_A_1</li> <li>Has solicitor as legal representative, but no solicitor: 1_S_0</li> <li>Has solicitor as legal representative and has solicitor: 1_S_1</li> <li>Unknown</li> </ul> <p>At trial level, only information on whether defendant had a solicitor at any point in case.</p>
Number of offences	Ordinal	<ul style="list-style-type: none"> <li>Hearing</li> <li>Trial</li> </ul>	<p>Values as follows:</p> <ul style="list-style-type: none"> <li>1-10 are ungrouped</li> <li>11-14</li> <li>15-19</li> <li>20+</li> </ul>
Offence type	Nominal	<ul style="list-style-type: none"> <li>Hearing</li> <li>Trial</li> </ul>	<p>Most serious offence categorised into 12 broad groups:</p> <ul style="list-style-type: none"> <li>Criminal damage and arson</li> <li>Drug offences</li> <li>Fraud offences</li> <li>Misc. crimes against society</li> </ul>



Variable <sup>49</sup>	Data type	Analysis levels used in	Description
			<ul style="list-style-type: none"> <li>• Possession of weapons</li> <li>• Public order offences</li> <li>• Robbery</li> <li>• Sexual offences</li> <li>• Summary motoring</li> <li>• Theft offences</li> <li>• Violence against the person</li> </ul>
Plea type	Nominal	<ul style="list-style-type: none"> <li>• Hearing</li> </ul>	<ul style="list-style-type: none"> <li>• Guilty</li> <li>• No Plea Entered</li> <li>• Not Guilty</li> <li>• Dropped</li> <li>• Unknown</li> </ul>
Receipt from magistrate	Dichotomous	<ul style="list-style-type: none"> <li>• Hearing</li> <li>• Trial</li> </ul>	<ul style="list-style-type: none"> <li>• 1 if received from Magistrate's Court</li> <li>• 0 otherwise (i.e., transferred from another Crown Court)</li> </ul>
Remand status	Nominal	<ul style="list-style-type: none"> <li>• Hearing</li> <li>• Trial</li> </ul>	<ul style="list-style-type: none"> <li>• Custody</li> <li>• Bail</li> <li>• Unknown</li> </ul>
Remote status	Dichotomous	<ul style="list-style-type: none"> <li>• Hearing</li> <li>• Trial</li> </ul>	<ul style="list-style-type: none"> <li>• 1 if remote</li> <li>• 0 otherwise</li> </ul>
Sex	Nominal	<ul style="list-style-type: none"> <li>• Hearing</li> <li>• Trial</li> </ul>	<ul style="list-style-type: none"> <li>• Male</li> <li>• Female</li> <li>• Company</li> </ul>
Triable either way	Dichotomous	<ul style="list-style-type: none"> <li>• Hearing</li> <li>• Trial</li> </ul>	<ul style="list-style-type: none"> <li>• 1 if triable either way</li> <li>• 0 otherwise</li> </ul>
Total defendants in case	Ordinal	<ul style="list-style-type: none"> <li>• Hearing</li> <li>• Trial</li> </ul>	<ul style="list-style-type: none"> <li>• 1</li> <li>• 2-4</li> <li>• 5</li> </ul>

## Appendix C

### Propensity score generation

This appendix contains information on the selected logistic regression models used to generate propensity scores. These logistic regressions were selected based on a variety of factors including the Akaike information criterion and the matching quality obtained when using the propensity scores generated by the regression.

**Table C1: Overview of selected logistic regressions**

Analysis level	Logistic regression formula	Variable type	Number of coefficients
Hearing level	Dependent variable: <ul style="list-style-type: none"> <li>Whether the hearing is remote</li> </ul> Independent variables: <ul style="list-style-type: none"> <li>age group</li> <li>assigned hearing type</li> <li>case type,</li> <li>court ID,</li> <li>self-declared ethnicity,</li> <li>if a case has a late guilty plea,</li> <li>hearing representative, type and solicitor,</li> <li>number of offences group,</li> <li>offence code</li> <li>defendants' plea to case,</li> <li>whether receipt came from the magistrates' court</li> <li>remand status</li> <li>sex</li> <li>whether the offence is indictable only</li> <li>total defendants in case group</li> </ul>	All variables categorical	145
Hearing level – PTPH only	Dependent variable: <ul style="list-style-type: none"> <li>Whether the hearing is remote</li> </ul> Independent variables: <ul style="list-style-type: none"> <li>age group</li> <li>case type</li> <li>court ID</li> <li>self-declared ethnicity,</li> <li>if a case has a late guilty plea,</li> </ul>	All variables categorical	131

Analysis level	Logistic regression formula	Variable type	Number of coefficients
	<ul style="list-style-type: none"> <li>• hearing representative, type and solicitor</li> <li>• number of offences group</li> <li>• offence code</li> <li>• defendants' plea to case,</li> <li>• whether receipt came from the magistrates' court</li> <li>• remand status</li> <li>• sex</li> <li>• whether the offence is indictable only</li> <li>• total defendants in case group</li> </ul>		
Trial level	<p>Independent variable: Whether the hearing is remote</p> <p>Dependent variables:</p> <ul style="list-style-type: none"> <li>• age group</li> <li>• court ID</li> <li>• whether the offence is indictable only</li> <li>• self-declared ethnicity</li> <li>• number of offences group</li> <li>• sex</li> <li>• offence code</li> <li>• remand status</li> <li>• whether receipt came from the magistrates' court</li> <li>• any hearing solicitor</li> <li>• total defendants in case _group</li> </ul>	All variables categorical	117

## Appendix D

### Matching techniques

This appendix contains further description of the matching techniques used and a list of the final matching options selected for each level.

At each analysis level, multiple matching approaches were tested. These involved using Radius and Kernel matching on the generated propensity score and the logit transformation of the propensity score with multiple calipers or bandwidths (limits on the differences between the scores allowed for a match).

Radius Matching involves matching each treatment unit to all comparison units within a certain tolerance (the caliper). These matched units are weighted equally such that their weights sum to one.

Kernel matching also matches each treatment unit to all comparison units within the defined tolerance, but the matched units are weighted proportionally to their distance from the treatment unit – i.e., the comparison units with the closest scores to that of the treatment unit will have the highest weight.

The following matching methods were selected for use in the analysis by considering the number of treated units left unmatched and standardised mean differences for each coefficient.

**Table D1: Matching methods selected**

Analysis level	Matching technique	Score used	Caliper/ Bandwidth
1 Hearing level	Radius	Logit of propensity score	0.3
1.1 PTPH level	Kernel	Logit of propensity score	0.1
2 Trial case level	Radius	Logit of propensity score	0.2

## Appendix E

### Matching quality

This appendix contains details about matching quality for each of the matching options selected.

Table E1 shows a summary of the overall matching quality tests for this analysis. As the table demonstrates, no selected matching options resulted in a significant loss of treated units, and the distribution of propensity scores in each matching is well balanced between the remote and in-person units. The distribution of propensity scores has been examined using Rubin's B and R. In a well-balanced matching, Rubin's B should be close to 0 and Rubin's R close to 1. The three matchings produced for this analysis all show well-balanced matching based on Rubin's B and R.

**Table E1: Overall matching quality summary**

Analysis Level	Number of unmatched treated units (per cent of total)	Rubin's B (bias)	Rubin's R (ratio)
1 Hearing level	0 (0.00%)	0.03	1.01
1.1 PTPH level	27 (0.04%)	0.00	1.00
2 Trial case level	5 (0.01%)	0.01	1.00

Another key aspect of matching quality is whether each coefficient is well matched. To test this, the standardised mean difference for each coefficient was calculated.

At the initial hearing level, all coefficients were closely matched (i.e., had a standardised mean difference less than or equal to five per cent).

For the PTPH sub analysis, 99.3% of coefficients were closely matched. The only remaining coefficient was one specific court, which had a standardised mean difference of 5.4%.

At the trial level, 97.7% of coefficients were closely matched. The three remaining coefficients were three specific court values (with a maximum standardised mean difference of 7.3%).

**Table E2: Matching quality summary – standardised mean difference (std diff)**

<b>Analysis Level</b>	<b>Maximum std diff</b>	<b>Mean std diff</b>	<b>Closely matched (std diff &lt;5%)</b>	<b>Reasonably matched (std diff 5%-10%)</b>	<b>Poorly matched (std diff &gt;10%)</b>
1 Hearing level	4.1%	0.7%	157	0	0
1.1 PTPH level	5.4%	1.1%	141	1	0
2 Trial case level	7.3%	1.4%	126	3	0

## Appendix F

### Results

This appendix contains details of the statistical tests carried out to reach the conclusions discussed in the main body of the report.

#### Hearing level

A weighted t-test was used to compare the mean hearing duration for remote and in-person hearings. A standard R package `wtd.t.test` with default setting on standard errors was used – this calculated standard errors as standard deviation divided by square root of sample size.

**Table F1: Hearing level duration comparison**

	Treatment group (remote hearings)	Control group (in- person hearings)
Size of group (before matching)	290,555	428,291
Size of group (after matching, unweighted)	290,555	428,226
Mean duration (minutes)	23.6	29.5
Statistical significance of impact estimate (p-value)	<0.001	

A weighted Kruskal Wallis test<sup>50</sup> was performed to compare the distribution of hearing durations. This estimated a difference in mean rank score of -0.0202 significant at the 0.01 level.

#### Hearing level – PTPH

**Table F2: PTPH duration comparison**

	Treatment group (remote hearings)	Control group (in- person hearings)
Size of group (before matching)	60,110	75,883
Size of group (after matching, unweighted)	60,083	75,869
Mean duration (minutes)	22.1	24.2
Statistical significance of impact estimate (p-value)	<0.001	

<sup>50</sup> The test used defines the ranks as quantiles of the distribution instead of going from 1 to N (where N is the number of items in the sample).

A weighted Kruskal Wallis test<sup>51</sup> was performed to compare the distribution of hearing durations. This estimated a mean rank score of -0.0108 which is significant at the 0.01 level.

## Trial level

**Table F3: Trial level duration comparison**

	<b>Treatment group (remote hearings)</b>	<b>Control group (in- person hearings)</b>
Size of group (before matching)	37,902	42,481
Size of group (after matching, unweighted)	37,897	42,470
Mean duration (minutes)	255.28	261.38
Statistical significance of impact estimate (p-value)	0.20	0.20
Mean number of hearings	4.94	4.92
Statistical significance of impact estimate (p-value)		0.41

<sup>51</sup> The version used defines ranks as quantiles of the distribution instead of going from 1 to N (where N is the number of items in the sample).



## Appendix G

### Survey of Crown Court Listing Officers on remote hearing listings

The Ministry of Justice surveyed Crown Court Listing Officers on how their practices differed between remote and in-person hearings.

#### Methodology

Crown Court Listing Officers were asked to provide an average time estimate in minutes for different types of hearings when they were conducted as in-person and when conducted as audio/video remote hearings. The survey was open from 11<sup>th</sup> May 2022 to 2<sup>nd</sup> June 2022 and received a total of 103 (some incomplete) responses. After removing duplicates and incomplete responses the mandatory questions received 59 responses from 53 courts. The response rate based on 79 Crown Courts, was 67%. The free text questions received 50 responses as these were more frequently left incomplete.

#### Results

##### *Listed Hearing durations*

Table G1 shows the mean hearing durations reported for both in-person and remote hearings. Pre-charge applications had the shortest hearing length, with mean lengths of 17 minutes for both in-person and remote hearings. Sentencing/breach hearings had the longest at 38 and 41 minutes where the remote hearings were longer.

For all case types the mean hearing durations for in-person hearings were slightly longer than for remote hearings. This difference was small - around 7% for PTPH, case management/mention and sentencing/breach hearings.

**Table G1: Mean Lengths for in-person and remote hearings, by hearing type**

	In-person Listing Length (minutes)	Remote Listing Length (minutes)	Proportional Difference
Pre-charge applications	17	17	3%
PTPH (All cases)	22	23	7%
Standard case management hearing/mention hearing	19	20	7%
Sentence/Breach	38	41	7%

Although the increase in mean listing lengths were small for remote hearings, some Listing Officers also listed remote hearings for shorter times than in-person. Table G2 shows the numbers of Listing Officers who had longer, shorter, and equal listing lengths for remote cases by hearing type. As no Listing Officer gave more time for remote hearings for one case type and less for another, the figures could be aggregated to show how many Listing Officers had any case types with listing length differences.

The majority of Listing Officers, 36 or 61% gave the same listing times for remote and in-person cases, 29% gave longer remote listing times for at least one hearing type and the remaining 10% gave shorter remote listing times for at least one hearing type.

Sentencing/breach hearings and PTPH had the highest proportion of longer listing times - 25% and 20% respectively.

**Table G2: Differences in listing times by hearing type**

	Equal remote and in-person listing lengths		Longer remote listing lengths		Longer in-person listing lengths	
	Count	(%)	Count	(%)	Count	(%)
Pre-charge applications	50	85	5	8	4	7
PTPH (All cases)	44	75	12	20	3	5
Standard case management hearing/mention hearing	47	80	10	17	2	3
Sentence/Breach	42	71	15	25	2	3
Any hearing	36	61	17	29	6	10

### Adjournment rate

On average 5% of remote hearings were adjourned specifically due to issues with remote technology. This was based on the 47 Listing Officers reporting on 1700 remote hearings over a week. The rates of adjournments due to technical issues varied by court, 66% had no adjournments in the week asked about, whereas 1 court had to adjourn almost half of their remote hearings. This implies the problem was specific to certain courts rather than a general issue with the remote process.

### **Key messages**

The majority (61%) of Listing Officers reported no differences in the listing lengths for remote or in-person hearings, 29% listed some types of remote hearings for a longer time and 10% listed some types of remote hearings for a shorter time.

The mean hearing duration was longer for remote cases for all hearing types. However, this difference was very small, only 7% longer for PTPH, case management/mention and sentence/breach hearings, and 3% for pre-charge applications.

On average 5% of remote hearings were adjourned specifically due to issues with remote technology. Courts were unevenly impacted by technical difficulties with 66% reporting no adjournments for this reason.

## Appendix H

### Summary of XHBIT data used

XHBIT is the existing Crown Court administrative system which was rolled out during 2019 as part of the reforms to the administration of the Crown Courts. XHBIT is a case management system which is used by court staff for administrative purposes and to ensure operations at court can proceed. This system contains information about the incidences and dates of major events in a case as it progresses in the Crown Court. As an administrative system, data is subject to clerical and input errors. The volume of these errors is believed to be low and assumed to be random across all cases.

This section outlines the five different data tables of XHBIT that were used to compile data variables for this analysis. These tables are the commonly used outputs of the XHBIT database, the data has undergone some processing from the raw data. They were:

- a) **def\_hearing\_summary**: The granularity of this data table is on a per defendant, per hearing basis.
- b) **disposal\_summary**: the granularity of this data table is on a per defendant, per disposal basis.
- c) **all\_offence**: the granularity of this data table is on a per defendant per offence basis.
- d) **all\_offence\_disp**: the granularity of this data table is on a per defendant, per offence basis.
- e) **defendant\_summary**: the granularity of this data table is on a per defendant, per case basis.

This table below provides a list of data categories, their explanations and data tables they link to.

**Table H1: XHIBIT Data Categories**

<b>Name of Category</b>	<b>Explanation (what is contained)</b>	<b>Data Tables</b>
Appeal Outcome	Details of appeal outcomes, such as codes, descriptions, lesser offence, and change in sentence.	disposal_summary, defendant_summary
Appeal Type	Type and description of appeal.	all_offence, all_offence_disp, defendant_summary
Bail Status	Details of bail status and its change.	def_hearing_summary defendant_summary
Bench Warrant	First and last bench execution dates, issue dates and withdrawn status.	defendant_summary
Case Details	Types, status and other details of cases.	disposal_summary all_offence all_offence_disp defendant_summary
Case Efficiency Metrics	The total number and duration of hearings for each case.	defendant_summary
Case Timeline	Key dates involved with the case including appeal outcome dates, transfer and export dates, and case disposal dates.	disposal_summary all_offence_disp defendant_summary
Charge	Charge ID and type to link hearings to charges.	disposal_summary all_offence all_offence_disp
Convicted	Description of conviction method, which is the combination of plea and verdict.	all_offence all_offence_disp defendant_summary
Conviction Outcome Details	Details of the conviction outcome for the defendant.	disposal_summary, all_offence all_offence_disp defendant_summary
Court	Court ID, name and type.	disposal_summary, all_offence, all_offence_disp, defendant_summary
Defendant Personal Information	Age, gender and ethnicity data of defendants.	defendant_summary
Hearing Efficiency Metrics	Duration of hearings.	def_hearing_summary defendant_summary

<b>Name of Category</b>	<b>Explanation (what is contained)</b>	<b>Data Tables</b>
Hearing Timeline	Dates for start and end of all hearings and key hearings dates.	def_hearing_summary, defendant_summary all_offence
Hearing Type	Details of hearings including types and descriptions.	def_hearing_summary defendant_summary
Identifiers + Data Management	Case, offence and hearing IDs, crest case key and MoJ Analytical Platform related fields.	def_hearing_summary, disposal_summary, all_offence, all_offence_disp, defendant_summary
Offence Details	Initial, final and most serious offence class, description, Home Office code priority, group and description, and law broken.	all_offence, all_offence_disp defendant_summary
Offence Identifier	Offence ID, code, Home Office code and description.	disposal_summary all_offence all_offence_disp
Pleas Details	Plea description.	all_offence all_offence_disp defendant_summary
Triable Either Way	Receipt type and description, and whether came from magistrates' court as triable either way case or indictable only.	all_offence all_offence_disp defendant_summary
Verdict	Verdict description and details of agreement from juries.	all_offence all_offence_disp