

Ventilation in Dental Surgeries in Scotland

1. Summary statistics

- We received 712 valid responses to the survey out of a possible 1100 practices (65% response rate).
- The respondents are representative of the total population of dental practices in Scotland when looking at the geographic spread of practices within health board areas, Scottish Index of Multiple Deprivation (SIMD) quintiles, and urban/rural split across health board areas.
- The vast majority of respondents identified as practice owner (63%).
- The most common answers to the total number of treatment rooms are 3 rooms (31%), 2 rooms (25%), and 4 rooms (20%). On average, dental practices are using 89% of their total number of treatment rooms.
- The average percentage of treatment rooms in use that are ventilated to the minimum standard is 66%.
- A total 53% of respondents said that ventilation was one of the reasons that some of their treatment rooms are not currently in use, and 45% stated that it was the most important reason.
- When asked if they have already undertaken an upgrade to ventilation, 43% of respondents said 'yes'. The amount of money spent is varied: the most common response was £500 - £1000.
- For respondents that have not had a previous upgrade, the most common category for intended future spending is 'more than £3000'. For respondents that have had a previous upgrade, the most common category for intended future spending is '£1001 - £2000'.
- When asked about the issues they encountered in their consideration of upgrading ventilation, the most commonly cited issue was 'the costs of an upgrade' (60%), while 'the costs of a ventilation assessment' scored 39%. Other key issues were availability of guidance (59%), expertise (48%), and restrictions to buildings (33%).

2. Background

On Wednesday 31 March, the Scottish Government sent out a survey using QuestBack to 1100 dental practices in Scotland. The survey focused on the ventilation requirements for dental surgeries as a result of Covid-19. This data was collected to establish a better understanding of the readiness of the sector, to help estimate the funding required to update the ventilation systems within dental practices, and to aid in the reimbursement of dental practices that have already invested in updates to their ventilation equipment.

We received a total of 765 respondents (70% of all dental practices), out of which 712 responses (65% of all dental practices) were unique and fully completed and therefore considered in this analysis.

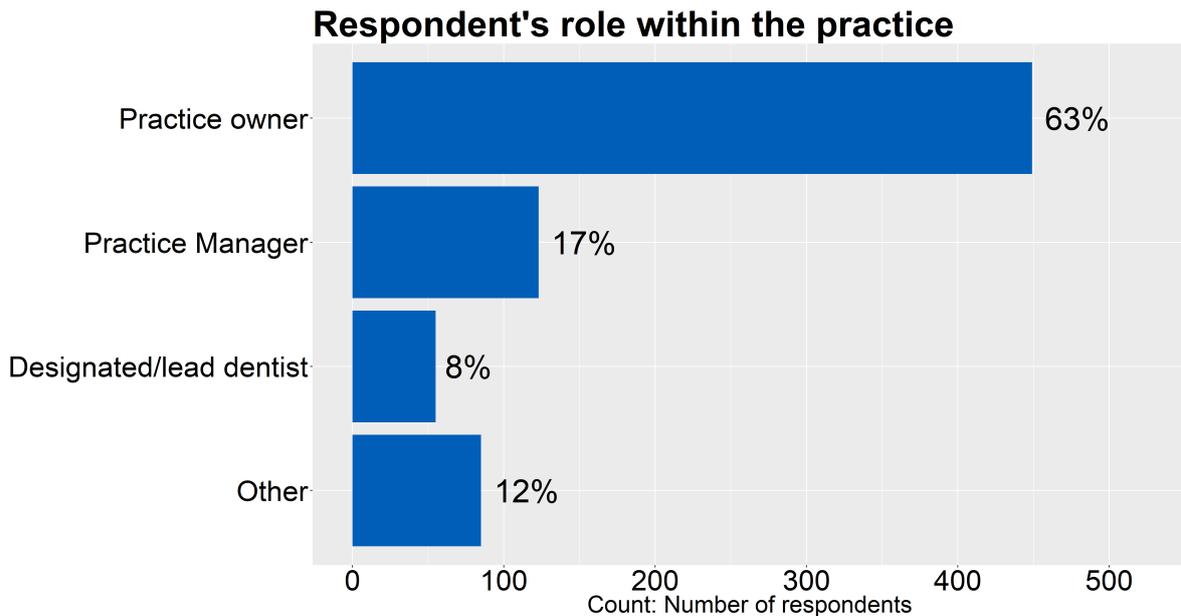
3. Location

In Question 1 respondents were asked about the location of their dental practice. We received 670 valid post codes (94% of sample) in response to this question. These post codes were used to check if the data collected is representative of the total population of dental practices in Scotland.

- Health boards: The largest groups of respondents are based within NHS Glasgow and Clyde, NHS Lothian, and NHS Lanarkshire. This is similar to the distribution of all dental practices in Scotland. Overall, the percentages of respondents based in each health board fall within a three point difference compared to the percentages calculated for the total population.
- SIMD quintiles: The Scottish Index of Multiple Deprivation (SIMD) quintiles split data zones into five groups, each containing 20% of Scotland's data zones. A score of '1' means that a dental practice is located within a data zone that belongs to the 20% most deprived areas, a score of '5' means that a dental practice is located within a data zone that belongs to the 20% least deprived areas. The number of respondents located in more deprived areas is slightly higher than the number of respondents located in less deprived areas. This again reflects the distribution of all dental practices in Scotland.
- Urban/rural areas: The Scottish Government Urban Rural Classification 2016 identifies urban and rural areas based on settlement size and drive times. The vast majority of responding dental practices are located urban areas. A smaller proportion of responding dental practices are located in small towns, and very few responding dental practices are located in rural areas. This is representative of the total population of dental practices in Scotland.

4. Respondent's role

In Question 2 respondents were asked about their role within the dental practice. A valid answer was given by 100% of the respondents. Here, 63% of respondents identify as practice owner, 17% as practice manager, and 8% as designated/lead dentist. Of the 12% that identify as 'other', the most common responses in this category were head of facilities and operations manager.



5. Operational capacity

Questions 3 to 6 of the survey assessed the operational capacity of dental practices. Respondents were asked about the total number of treatment rooms within their practice, the number of treatment rooms that are currently in use, and the number of treatment rooms in use that meet the 10 ACH (air changes per hour) minimum standard. Respondents were also asked whether any of their treatment rooms were not in use and the reasons why treatment rooms were not in use.

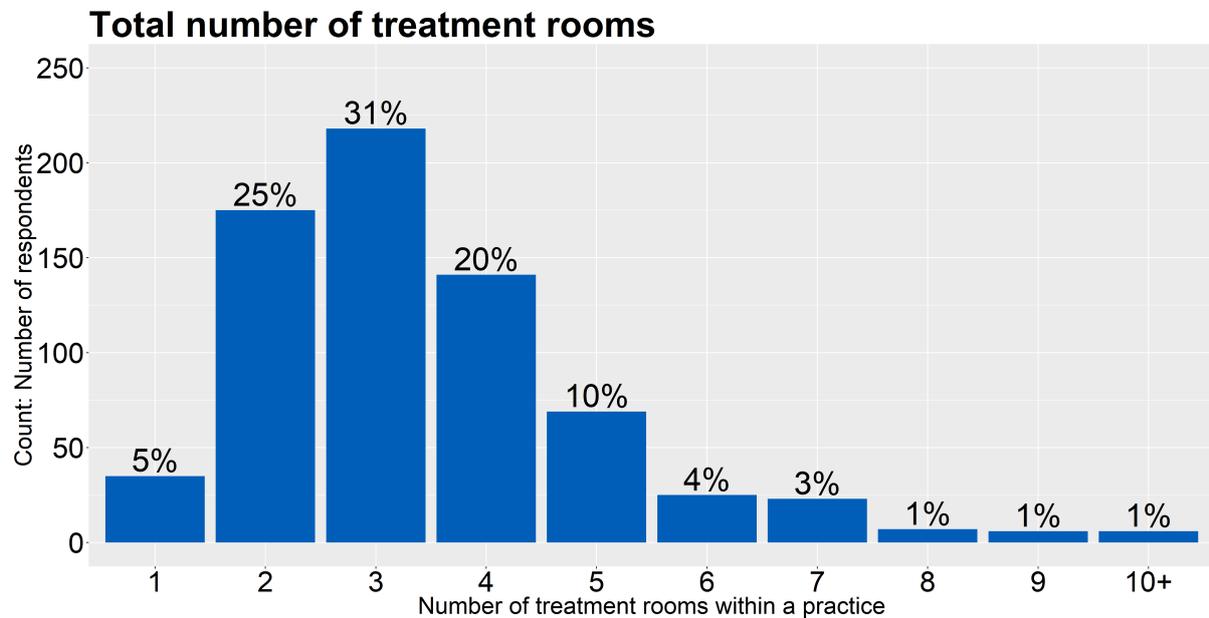
For Section 5.1 – 5.3, only those respondents that answered all three questions concerning the number of treatment rooms (the total number of treatment rooms, the number of treatment rooms that are currently in use, and the number of treatment rooms in use that meet the 10 ACH minimum standard) were used for analysis.

5.1 Total number of treatment rooms

In Question 3 respondents were asked about the total number of treatment rooms within their practice. There were 705 valid responses to this question. As can be seen in the chart below, 31% of respondents have 3 treatment rooms, 25% of

respondents have 2 treatment rooms, and 20% have 4 treatment rooms. Dental practices located in urban areas tend to have a higher average number of treatment rooms than those located in small towns and rural areas (3.58* compared to 3.11*).

* Please note that for the average, the category '10+ treatment rooms' has been converted into 10.

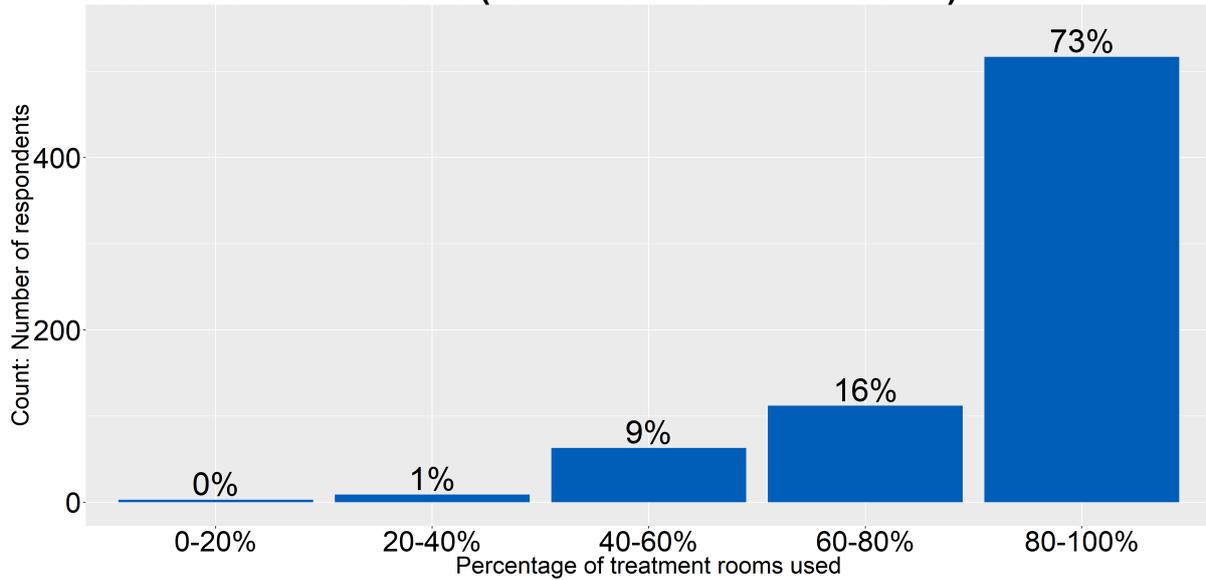


5.2 Treatment rooms currently in use

In Question 4 respondents were asked for the number of treatment rooms currently used for treatment. There were 704 valid responses to this question. The chart below shows used treatment rooms as a percentage of the total treatment rooms within a practice. Here, 73% of dental practices are currently using between 80-100% of their total treatment rooms. A further 16% are using 60-80% of their total treatment rooms, and 9% are currently using 40-60% of their total treatment rooms. On average, dental practices are currently using 89%* of their total number of treatment rooms.

*Please note that for the average, the category '10+ treatment rooms' has been converted into 10.

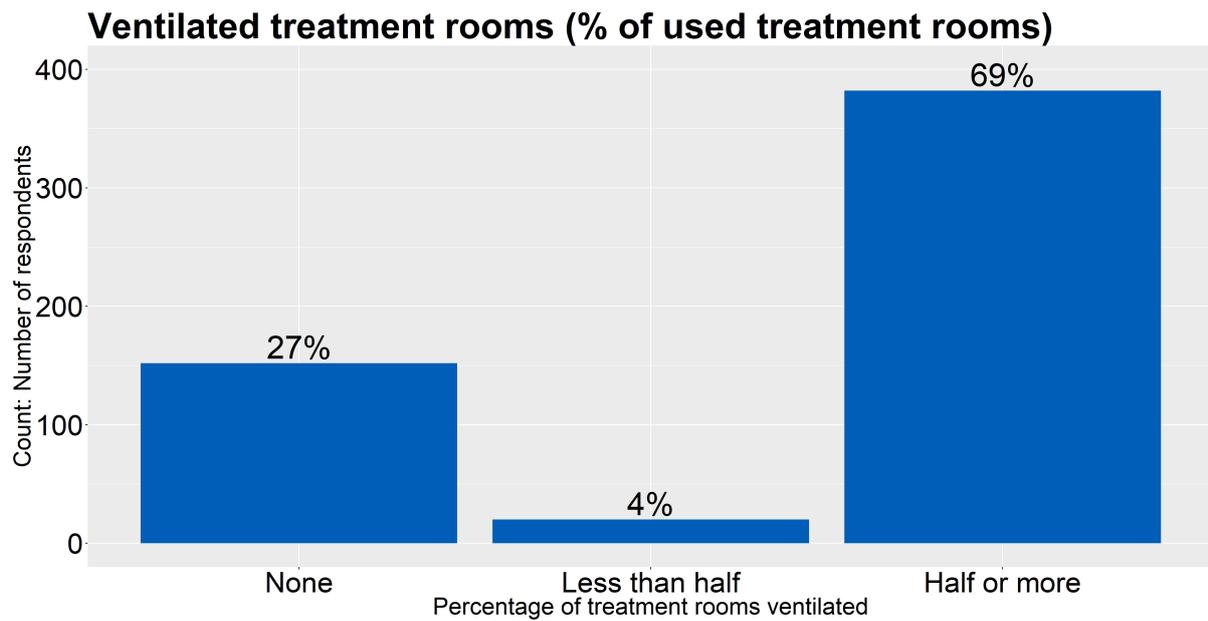
Used treatment rooms (% of total treatment rooms)



5.3 Treatment rooms that meet the 10 ACH Minimum Standard

In Question 5 respondents were asked how many of the treatment rooms in use meet the 10 ACH (air changes per hour) minimum standard. The answer 'I don't know' was given by a further 126 respondents. Responses where the number of treatment rooms in use and meeting the minimum standard exceeded the total number of treatment rooms in use were removed. Therefore only 554 of respondents (78%) provided a valid answer to this question.

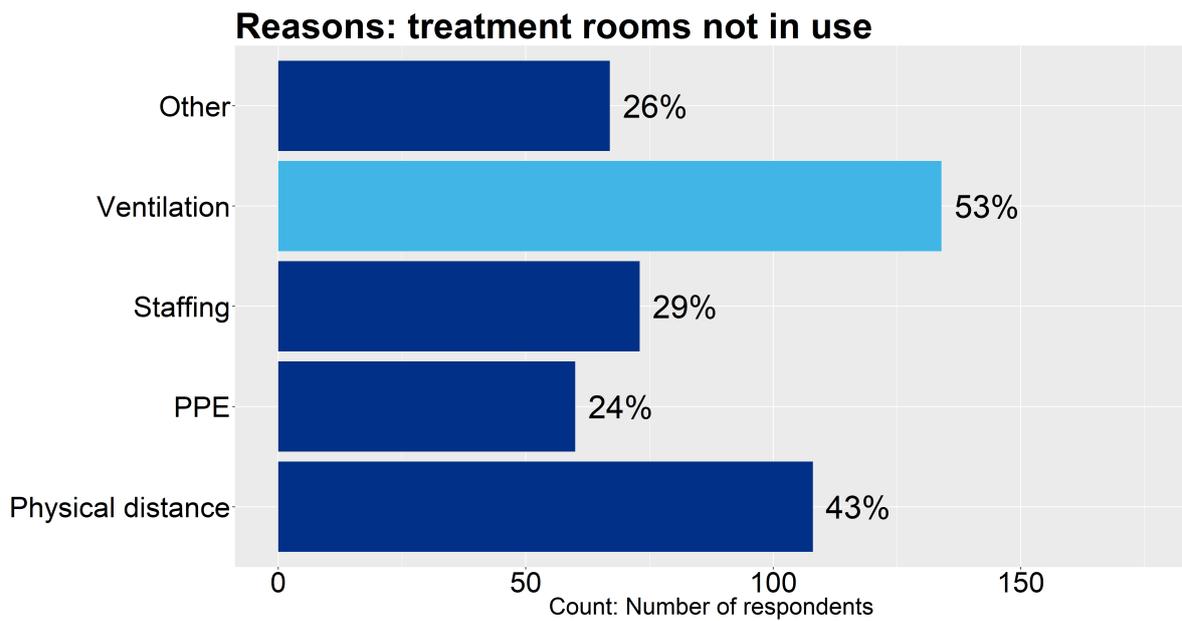
The chart below shows ventilated treatment rooms as a percentage of the number of treatment rooms in use. For those dental practices that were able to give a response to this question, 27% have zero rooms that are currently in use and ventilated to the minimum standard. Just 4% have less than half of their treatment rooms that are currently in use ventilated to the minimum standard, and 69% of dental practices have half or more than half of their treatment rooms that are currently in use ventilated to the minimum standard. On average, dental practices have 66% of their treatment rooms in use ventilated to the minimum standard. The average percentage of used treatment rooms ventilated to the minimum standard is higher in urban areas (69%) than it is in small towns and rural areas (59%).



5.4 Reasons treatment rooms not in use

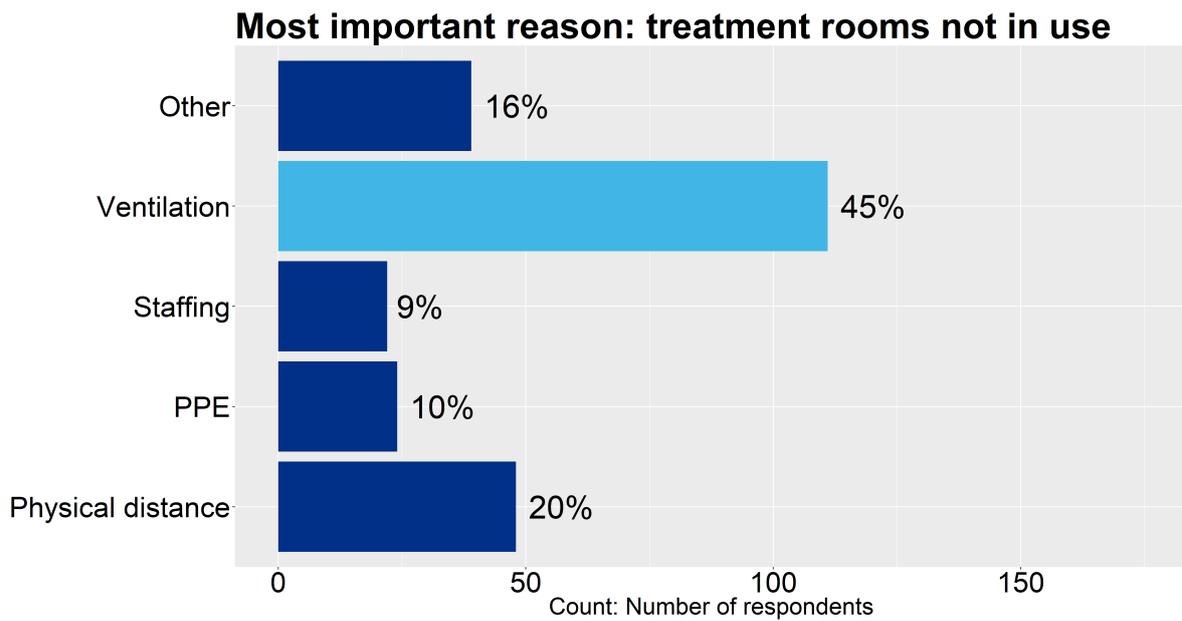
In Question 6(a) respondents were asked to give the reasons why treatment rooms were not currently in use. Here, 376 respondents (53%) said that all of their treatment rooms are currently in use, and thus the question was not applicable. Another 83 respondents did not answer this question, leaving 253 valid responses. The range of the reasons given are illustrated in the chart below.

Respondents could tick 'all that apply', so more than one reason could be given by a single practice. Approximately 53% of respondents advised that ventilation was the reason for not currently using treatment rooms, 43% stated physical distance, whilst a further 29% selected staffing as an issue and 24% mentioned issues with PPE. The box for 'other' was ticked by 26% of respondents, giving a broad range of reasons.



In Question 6(b), respondents were asked which of these reasons was the ‘most important reason’. Here, 332 respondents indicated that all of their treatment rooms are currently in use, and 103 respondents did not answer this question. A further 27 respondents indicated that all treatment rooms are currently in use in Question 6(a), but gave another ‘most important’ reason for not having all of their treatment rooms in use in Question 6(b). These have been removed due to inconsistent answers, leaving a total of 244 responses for the analysis.

Here, 45% of those respondents said that ventilation was the most important reason that (some of) their treatment rooms were not in use. A further 20% cited physical distance as the main reason, 10% said PPE, and 9% of the respondents said staffing was the most important reason. Finally, 16% indicated that there was another undefined reason why their treatment rooms are not currently in use. There was little difference between dental practices in the 1- 4th SIMD quintile, but dental practices in the 5th quintile (the 20% least deprived areas) were less likely to cite ventilation as the most important reason for not currently using all of their treatment rooms.



6. Investment

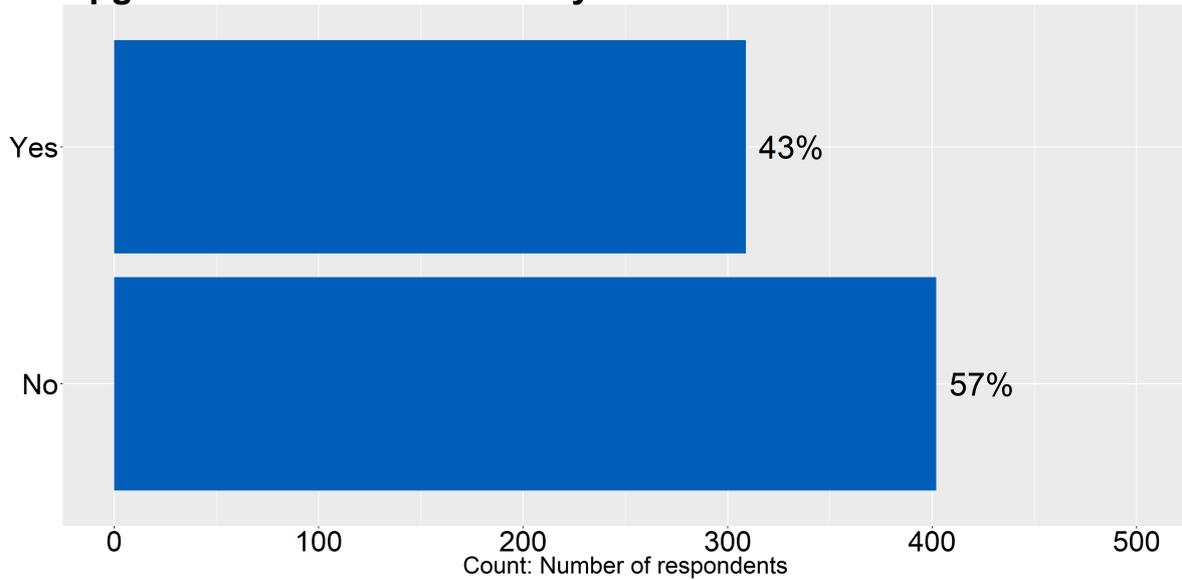
Questions 7 to 9 concern retrospective and prospective investment in ventilation equipment for dental practices. Respondents were asked if they have already undertaken an upgrade to the ventilation system, and the corresponding spend per operational treatment room. Respondents are also asked if they are considering an upgrade and how much they are planning to spend per operational treatment room.

6.1 Completed upgrades to the ventilation system

In Question 7 respondents were asked if, as a result of the Covid pandemic, they had already undertaken an upgrade to the ventilation equipment in their practice to a minimum standard of 10 ACH. There were 711 valid responses to this question. As indicated in the chart below, 43% of dental practices said that they have already undertaken an upgrade, and 57% said they have not. In considering SIMD, 39% of dental practices in the most deprived areas have undertaken an upgrade, compared to 51% of dental practices in the least deprived areas.

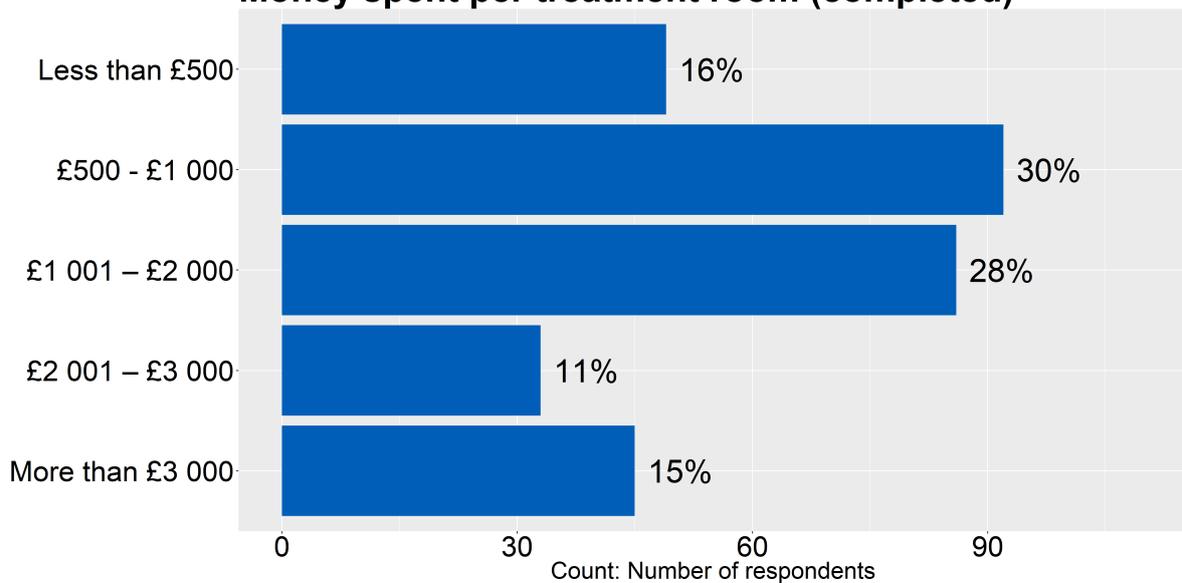


Upgrade to ventilation: already undertaken



In Question 8, the 43% of respondents that indicated they have already undertaken an upgrade were asked how much money they spent per operational treatment room on ventilation equipment to enable the provision of AGPs or reduce their post-AGP fallow time. There were 305 valid responses. As shown in the chart below, the answers were varied. A combined 58% indicated that they had spent between £500 and £2000, with the most common response being £500 – £1000 (30%).

Money spent per treatment room (completed)



6.2 Correlation between spending and rooms ventilated

When considering the correlation between spending and the percentage of rooms ventilated, the following stands out:

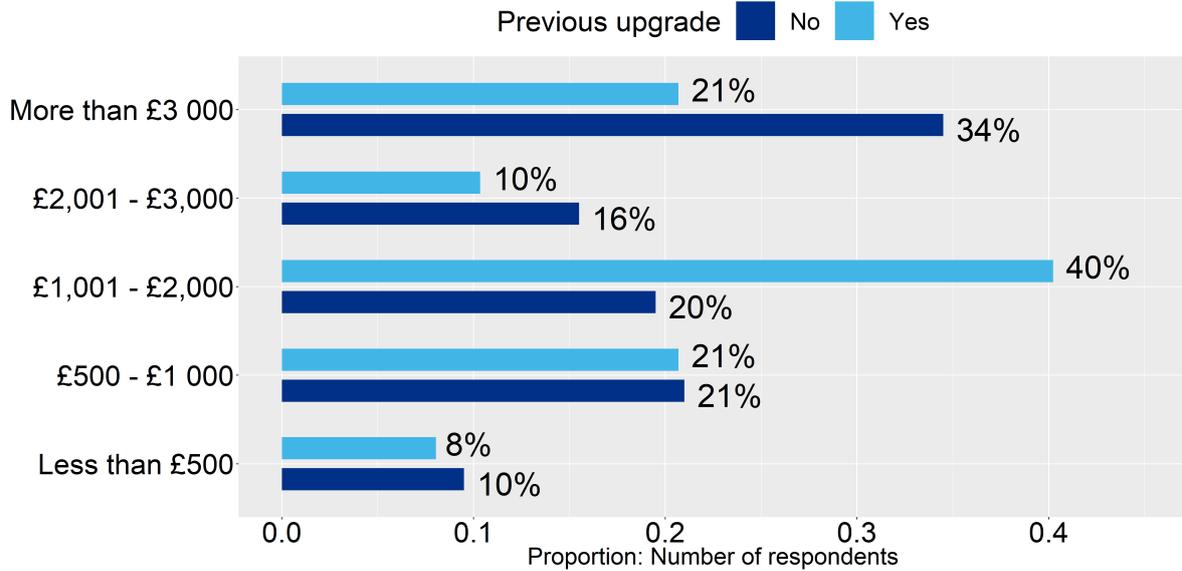
- For those dental practices that had not undertaken an upgrade to ventilation, just over half (52%) had no used treatment rooms ventilated.
- Only 4% of dental practices that had already invested in an upgrade had no used treatment rooms ventilated.
- It was impossible to ascertain a direct relationship between spend per treatment room and the number of used treatment rooms ventilated.

6.3 Future upgrades to the ventilation system

In Question 9 respondents were asked if they were currently considering an upgrade to ventilation as a result of the Covid pandemic and how much money their practice was planning to invest per operational treatment room. Of the 712 respondents to the survey, 22% did not give an answer to this question. For the 558 remaining valid responses, 48% were not considering an upgrade to the ventilation system, leaving 288 answers to be analysed.

The planned spending of the respondents that are considering an upgrade to ventilation per treatment room is summarised in the chart below. Note that respondents are split into two groups: those who have already undertaken an update and are considering further updates (light blue), and those who have not yet undertaken an update (dark blue). For respondents that have not had a previous upgrade, the most common category for intended future spending is 'more than £3000' (34%). For respondents that have had a previous upgrade, the most common category for intended future spending is '£1001 - £2000' (40%).

Intended future spending per treatment room



7. Issues

In Question 10, respondents were asked about the issues they encountered in their consideration of upgrading ventilation in the treatment rooms at their practice since the start of the Covid pandemic. In total, 86% of the respondents answered this question. Respondents could select more than one answer.

A total of 60% of respondents indicated that the costs of an upgrade, the most commonly cited issue, was an issue in the consideration of upgrading ventilation. The costs of a ventilation assessment was indicated by 39% of respondents. A large percentage of respondents also said that they were waiting on further guidance for the sector (59%), that they were having difficulty sourcing appropriate expertise for advice/upgrades (48%), or that they were restricted by building controls (33%). Less common issues were restrictions imposed by the landlord (8%) and plans to refurbish or relocate the practice within the next 12 months (5%).



Issues in the consideration of upgrading ventilation

