

# Dental Working Hours

## 2014/15 and 2015/16 Wales Motivation Analysis Supplementary Report, Experimental Statistics

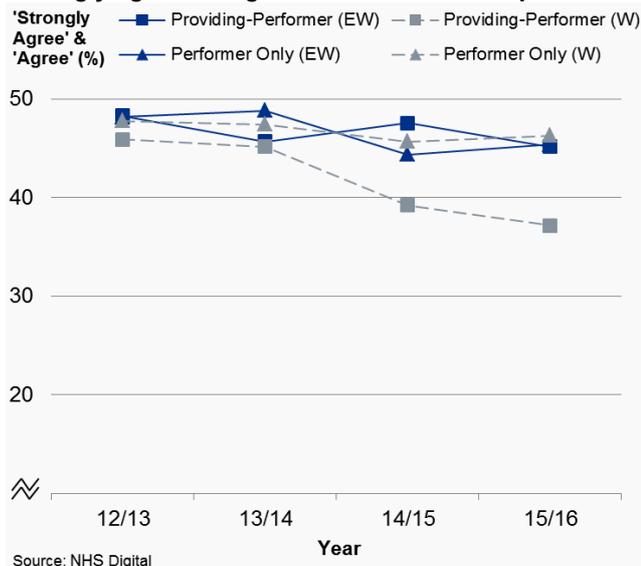
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This report explores the motivation and morale of self-employed primary care dentists in Wales. The results are a subset of the analysis published in the 2014/15 and 2015/16, Motivation Analysis report and this is the first time findings relating to Wales only have been produced separately. Figures are also presented for England & Wales combined for comparative purposes.

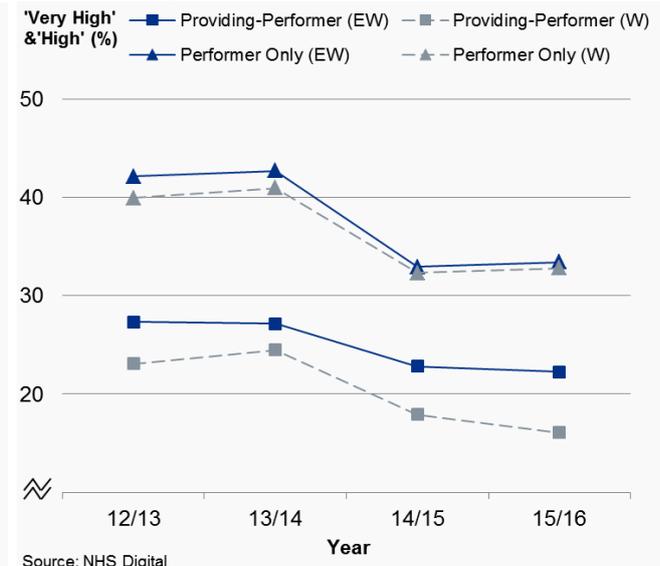
### Key findings:

- Providing-Performer dentists in Wales are less motivated and have lower morale than those in England & Wales combined.
- Performer Only dentists in Wales have similar levels of motivation and morale compared to those in England & Wales.
- Nearly three-quarters of Providing-Performer dentists in Wales reported that they often think about leaving dentistry.
- Reported motivation and morale levels have fallen for dentists in Wales since the 2014 survey which covered 2012/13 and 2013/14.

**'Overall average' percentage (%) of dentists who 'strongly agree' or 'agree' to the motivation questions**



**Percentage (%) of dentists with 'very high' or 'high' morale levels, 2012/13 to 2015/16**



# Contents

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|  |          |
|--|----------|
| <b>Introduction</b>                            | <b>4</b> |
| Report Methodology and Experimental Statistics | 4        |
| Averages, Rounding and Population Estimates    | 4        |
| Structure of the Report                        | 5        |
| <b>Wales – 2015/16</b>                         | <b>6</b> |
| 1. Motivation Questions                        | 6        |
| 2. Morale of Dentists                          | 14       |
| 3. Leaving General Dental Practice             | 17       |
| <b>Annexes</b>                                 |          |
| Annex A: Methodology                           | 19       |
| Annex B: Representativeness of the survey data | 21       |
| Annex C: Glossary of Terms                     | 25       |

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This product may be of interest to employers, stakeholders, policy officials, commissioners and members of the public. Interests will range from managing recruitment and staffing to training and prioritising commissioning.

## Introduction

This report is a supplement to the [Dental Working Hours \(DWH\) 2014/15 and 2015/16 Motivation Analysis report](#).<sup>1</sup> Whereas the main report presents motivation and morale findings for England and Wales combined, this supplement presents high-level results for dentists in Wales alone. For reference and comparative purposes, the results for England & Wales together, which are taken directly from the main report, are also shown. This analysis concentrates primarily on 2015/16 results, although time-series data are also provided back to 2012/13.

The report has been produced by NHS Digital. A joint working group with representation from NHS Digital; the Department of Health (DH); NHS England; the Welsh Government (WG); the Department of Health, Northern Ireland; the Scottish Government; the British Dental Association (BDA); the secretariat for the Review Body on Doctors' and Dentists' Remuneration (DDRB); NHS Business Services Authority Information Services (NHS BSA Information Services) and the National Association of Specialist Dental Accountants and Lawyers (NASDAL) was consulted on this study and the content of the report.

## Report Methodology and Experimental Statistics

The analysis in the report is based on answers to a series of motivation and morale questions included in the last two Dental Working Patterns (DWP) Surveys sent to all self-employed primary care dentists in the United Kingdom who conducted some NHS/Health Service work between 2012/13 and 2015/16. Please see the main [2014/15 and 2015/16 Motivation Analysis report](#) for a detailed background to the methodology underpinning this report as well as a description about the motivation and morale questions and how they were chosen. Annexes A and B in this report provide methodology specific to the publication of Wales only results.

The results are estimates based on samples. These results are then weighted up to the dental population in each country and are, therefore, subject to sampling error. Small dental populations for some sub-groups mean that extreme values can have noticeable effects on the averages and the results may be subject to greater uncertainty. Where results are based on small samples a footnote has been added to the applicable table.

This publication is designated 'Experimental Statistics' which are new official statistics that are undergoing evaluation. User engagement is crucial to support the ongoing development of these statistics and any comments or feedback are welcome at [gpanddentalpay@nhs.net](mailto:gpanddentalpay@nhs.net)

## Averages, Rounding and Population Estimates

All averages are mean averages. The majority of values within tables are rounded and as such totals and differences may appear not to sum. This includes full-year population counts where given, as these are weighted estimates calculated from the entire population and the proportion of dentists who responded to the survey who indicated they worked for the full-year (excluding any annual leave taken).

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<sup>1</sup> Dental Working Hours, 2014/15 & 2015/16 Motivation Analysis Experimental Statistics found at: [www.content.digital.nhs.uk/pubs/dentalworkinghours1416motivation](http://www.content.digital.nhs.uk/pubs/dentalworkinghours1416motivation)

## Structure of the Report

This report presents motivation and morale results for dentists in Wales (and England & Wales combined) between 2012/13 and 2015/16. The motivation results are presented first, followed by morale and then analysis of a question about leaving dentistry. A glossary of terms is provided after the methodology annexes at the end of the report.

# Wales – 2015/16

## 1. Motivation Questions

- 1.1 This chapter looks at responses to the individual motivation questions (listed in table A2 of Annex A). Results are based on the percentage of dentists who responded 'strongly agree' or 'agree' to each question and are shown by dental type. The Wales results are a subset of the combined England & Wales results, which are given as a means of comparison and are taken from the [2014/15 and 2015/16 Motivation Analysis report](#). Please see table 1.3 for sample and estimated full-year population counts for each country.
- 1.2 Table 1.1 compares results for the individual motivation questions by dental type. The 'overall average' figure at the bottom of each column is the average of individual percentage scores for each response category.

**Table 1.1: Percentage of dentists (%) that answered 'strongly agree' or 'agree' by question, dental type and country, 2015/16**

| Questions              | Providing-Performer |             |                         | Performer Only  |             |                         |
|------------------------|---------------------|-------------|-------------------------|-----------------|-------------|-------------------------|
|                        | England & Wales     | Wales       | Difference <sup>1</sup> | England & Wales | Wales       | Difference <sup>1</sup> |
| A. Feel Good           | 51.4                | 35.4        | -16.1                   | 56.8            | 54.7        | -2.1                    |
| B. Recognition         | 42.9                | 30.4        | -12.5                   | 42.7            | 41.1        | -1.5                    |
| C. Pay                 | 24.2                | 21.6        | -2.6                    | 26.9            | 28.0        | 1.1                     |
| D. Equipment           | 60.1                | 58.5        | -1.6                    | 48.4            | 51.7        | 3.3                     |
| E. Challenge           | 57.9                | 54.8        | -3.2                    | 56.4            | 57.4        | 1.0                     |
| F. Progression         | 34.2                | 22.3        | -11.9                   | 40.9            | 44.6        | 3.8                     |
| <b>Overall Average</b> | <b>45.1</b>         | <b>37.2</b> | <b>-8.0</b>             | <b>45.3</b>     | <b>46.3</b> | <b>0.9</b>              |

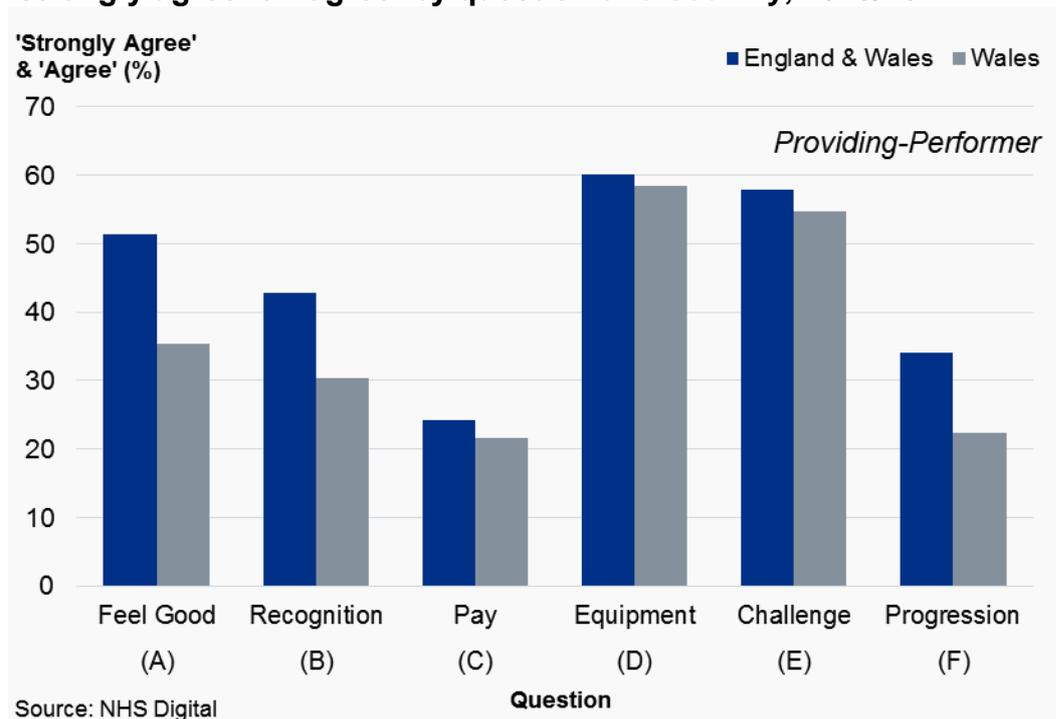
Source: NHS Digital

1. Difference column is calculated by subtracting England & Wales results from Wales results.

Note: The Wales results are a subset of the combined England & Wales results. Wales Providing-Performer results are based on small sample sizes (<100 by count and <75 percent of group population). Please see Annex B for sample and population sizes.

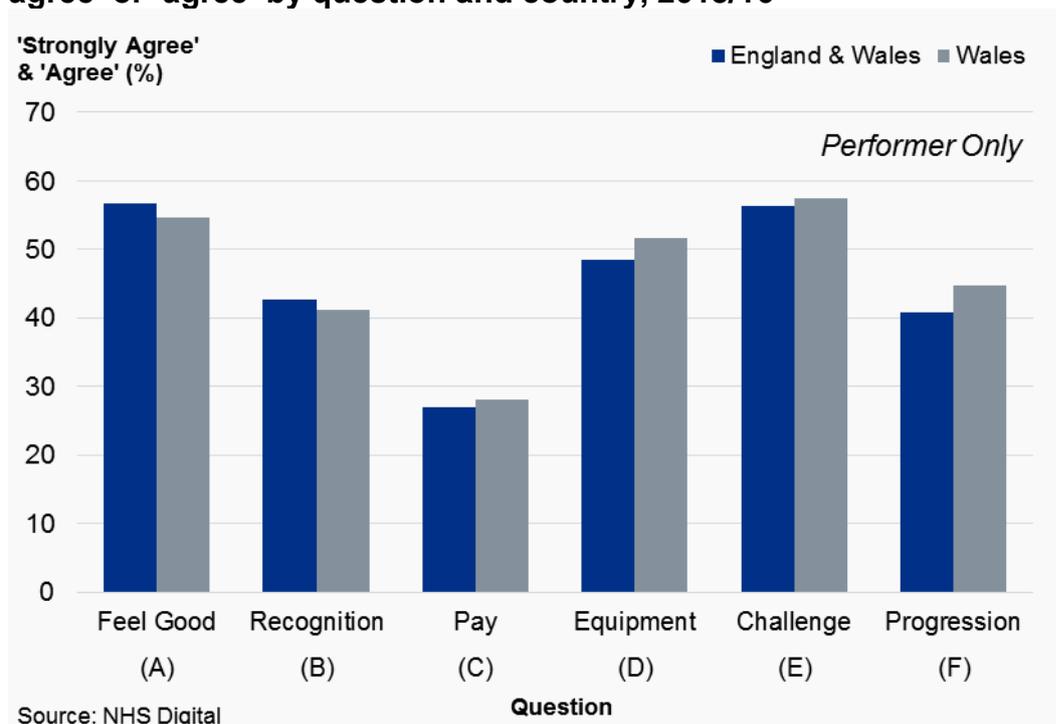
- 1.3 In terms of the 'overall average' scores, table 1.1 highlights that Providing-Performer dentists in Wales are less motivated when compared to the combined England & Wales results. The largest differences are for question (A) 'I feel good about my job as a dentist', (B) 'I receive recognition for the work I do' and (F) 'There are opportunities for me to progress in my career' with the remaining questions scoring more closely to those in England & Wales combined. Conversely, Performer Only dentists in Wales appear to have similar motivation levels to those across England & Wales combined, which might be more expected given that dentists in England & Wales work to generally the same NHS contract.
- 1.4 The individual question results are easier to compare when displayed graphically, as shown in figures 1.1 and 1.2 for each dental type.

**Figure 1.1: Percentage of Providing-Performer dentists (%) that answered 'strongly agree' or 'agree' by question and country, 2015/16**



1.5 Figure 1.1 highlights the differences in answers to each question when comparing Wales to England & Wales combined. Although the percentage scores for questions (C) on pay, (D) on equipment and (E) on challenge lie closer it is still notable that Providing-Performer dentists in Wales score lower across all six questions. This is in contrast to the results for Performer Only dentists, which are shown in figure 1.2.

**Figure 1.2: Percentage of Performer Only dentists (%) that answered 'strongly agree' or 'agree' by question and country, 2015/16**



- 1.6 =Figure 1.2 shows how much closer answers to each question are for Performer Only dentists when comparing Wales to England & Wales combined. The overall net effect is that, in terms of motivation, Performer Only dentists in Wales appear to be similar to those in England, whereas Providing-Performer dentists in each country appear quite different.
- 1.7 The disparity in how the motivation questions are answered by Providing-Performer and Performer Only dentists in Wales was not seen in the other countries across the UK in 2015/16. For England & Wales combined, Scotland and Northern Ireland both dental groups show similar levels of motivation (as measured by the 'overall average' scores) when compared to each other as shown in table 1.2.

**Table 1.2: 'Overall average' percentage of dentists (%) that answered 'strongly agree' or 'agree' to each motivation question by country and dental type, 2015/16**

| Country          | Percentage (%)                   |                             |                         |
|------------------|----------------------------------|-----------------------------|-------------------------|
|                  | Providing-Performer <sup>1</sup> | Performer Only <sup>1</sup> | Difference <sup>2</sup> |
| England & Wales  | 45.1                             | 45.3                        | -0.2                    |
| Scotland         | 41.0                             | 41.9                        | -0.9                    |
| Northern Ireland | 37.9                             | 38.0                        | -0.1                    |
| Wales            | 37.2                             | 46.3                        | -9.1                    |

Source: NHS Digital

1. Providing-Performer and Performer Only dentists relate to Principal and Associate dentists, respectively, in Scotland and Northern Ireland. 2. Difference column is calculated by subtracting Performer Only results from Providing-Performer results. Note: The Wales results are a subset of the combined England & Wales results. Wales Providing-Performer result is based on a small sample size (<100 by count and <75 percent of group population). Please see Annex B for sample and population sizes.

- 1.8 It is difficult to determine why Providing-Performer dentists in Wales show such a difference. However, when reflecting on the results it can be useful to consider the average working patterns of the dentists involved. These are shown in table 1.3 by dental type for Wales and England & Wales combined. The table also gives the sample and population sizes of dentists in each country.

**Table 1.3: Average working patterns by dental type and country, 2015/16**

| Count                      | Providing-Performer |       | Performer Only  |       |
|----------------------------|---------------------|-------|-----------------|-------|
|                            | England & Wales     | Wales | England & Wales | Wales |
| Sample                     | 1,067               | 73    | 3,862           | 273   |
| Full-Year Popln.           | 3,406               | 200   | 15,825          | 920   |
| <b>Variable (Averages)</b> |                     |       |                 |       |
| Age                        | 50.0                | 48.8  | 39.7            | 39.2  |
| Weekly Hours               | 41.4                | 40.1  | 36.0            | 35.9  |
| Annual Leave               | 4.4                 | 4.2   | 4.5             | 4.5   |
| NHS share (%)              | 60.9                | 63.2  | 72.4            | 72.7  |
| Clinical share (%)         | 73.0                | 77.8  | 79.8            | 80.5  |

Source: NHS Digital

Note: Full-year population figures are estimates based on the number of 'full-year' dentists found in the survey (i.e. those dentists who indicated they worked for a full year, regardless of annual leave). The Wales results are a subset of the combined England & Wales results. Wales Providing-Performer results are based on small sample sizes (<100 by count and <75 percent of group population). Please see Annex B for more detailed sample and population sizes.

- 1.9 Table 1.3 shows that there is little major difference in the working patterns for Providing-Performer or Performer Only dentists in Wales when compared to similar dentists in England & Wales combined. In addition, the differences between the dental groups in Wales are similar to those in England & Wales combined, and the results do not provide any strong clues for the disparity in motivation between the two dental groups in Wales. However, please see tables 1.5 and 1.6 towards the end of the next section (on time-series analysis), which show how the average working patterns have changed over time, providing a possible explanation for the drop in motivation for Providing-Performers in Wales.
- 1.10 It is also important to note the much smaller population of dentists in Wales compared to England & Wales combined as shown in table 1.3. In particular, the low sample size for Providing-Performers in Wales means that extreme values can have noticeable effects on the averages, which may therefore be subject to greater uncertainty. Please see Annex B for more detailed sample and population sizes.

### Time-Series Analysis

- 1.11 The motivation and morale questions were first included in the 2014 Dental Working Patterns (DWP) Survey, which means it is possible to make time-series comparison of results from 2012/13 to 2015/16. Table 1.4 compares results for the individual motivation questions in Wales by dental type and also gives the sample and population sizes of dentists for each year. The difference column is calculated by subtracting 2013/14 from 2015/16 results. These are referred to as 'lead-year' results because these are the years when the biennial surveys were run, and responses were current rather than retrospective.

**Table 1.4: Percentage of dentists (%) that answered 'strongly agree' or 'agree' by question and dental type, Wales, 2012/13 to 2015/16**

| Count                  | Providing-Performer |             |             |             |                   | Performer Only |             |             |             |                   |
|------------------------|---------------------|-------------|-------------|-------------|-------------------|----------------|-------------|-------------|-------------|-------------------|
|                        | 12/13               | 13/14       | 14/15       | 15/16       | Diff <sup>1</sup> | 12/13          | 13/14       | 14/15       | 15/16       | Diff <sup>1</sup> |
| Sample                 | 125                 | 111         | 79          | 73          |                   | 320            | 329         | 280         | 273         |                   |
| Full-Year Popln.       | 276                 | 238         | 235         | 200         |                   | 776            | 806         | 903         | 920         |                   |
| <b>Question</b>        |                     |             |             |             |                   |                |             |             |             |                   |
| A. Feel Good           | 57.6                | 53.3        | 37.0        | 35.4        | -17.9             | 70.1           | 64.8        | 58.0        | 54.7        | -10.1             |
| B. Recognition         | 42.4                | 43.8        | 35.7        | 30.4        | -13.4             | 43.3           | 44.7        | 39.0        | 41.1        | -3.6              |
| C. Pay                 | 28.3                | 28.5        | 20.8        | 21.6        | -6.9              | 31.1           | 32.7        | 28.7        | 28.0        | -4.7              |
| D. Equipment           | 54.4                | 54.1        | 60.4        | 58.5        | 4.3               | 50.0           | 48.6        | 51.1        | 51.7        | 3.1               |
| E. Challenge           | 58.3                | 56.2        | 56.1        | 54.8        | -1.4              | 54.7           | 54.2        | 57.9        | 57.4        | 3.2               |
| F. Progression         | 34.4                | 34.8        | 25.2        | 22.3        | -12.5             | 37.2           | 39.4        | 39.1        | 44.6        | 5.2               |
| <b>Overall Average</b> | <b>45.9</b>         | <b>45.1</b> | <b>39.2</b> | <b>37.2</b> | <b>-8.0</b>       | <b>47.7</b>    | <b>47.4</b> | <b>45.6</b> | <b>46.3</b> | <b>-1.1</b>       |

Source: NHS Digital

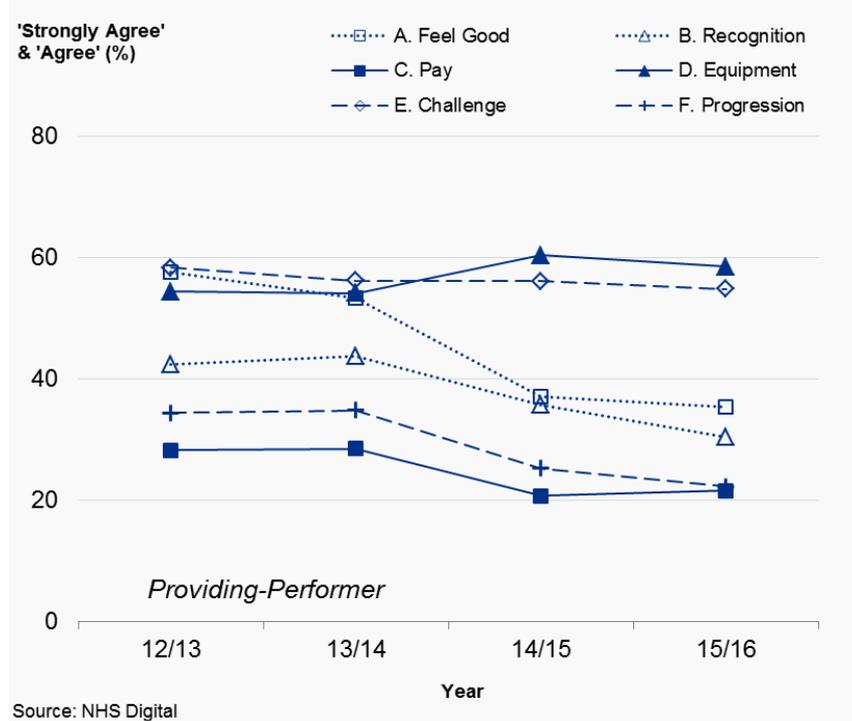
1. Difference columns are calculated by subtracting 2013/14 results from 2015/16 results.

Note: The Wales results are a subset of the combined England & Wales results. Wales Providing-Performer results are based on small sample sizes (<100 by count and <75 percent of group population). Please see Annex B for sample and population sizes.

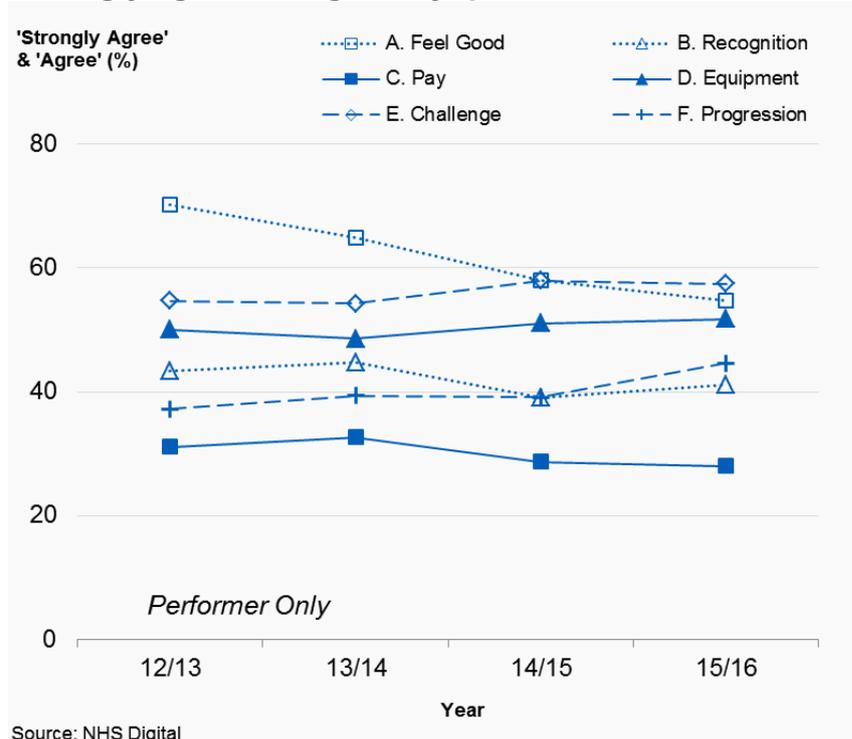
- 1.12 Based on the 'overall average' figures in table 1.4, it appears that the motivation of Providing-Performer dentists has seen a drop between 2013/14 and 2015/16 whereas there has been less change for Performer Only dentists. However, there are some notable exceptions when looking at individual questions: in terms of Providing-Performers question (E) on challenge shows only a small drop in the percentage of

'strongly agree' and 'agree' answers between 2013/14 and 2015/16 while question (D) on equipment actually shows an increase. For Performer Only dentists, question (A) on feelings shows a notable drop in percentage scores from 2012/13 through to 2015/16, whilst answers to the other questions demonstrate less variation. These changes are easier to see graphically as shown in figures 1.3 and 1.4.

**Figure 1.3: Percentage of Providing-Performer dentists (%) that answered 'strongly agree' or 'agree' by question, Wales, 2012/13 to 2015/16**



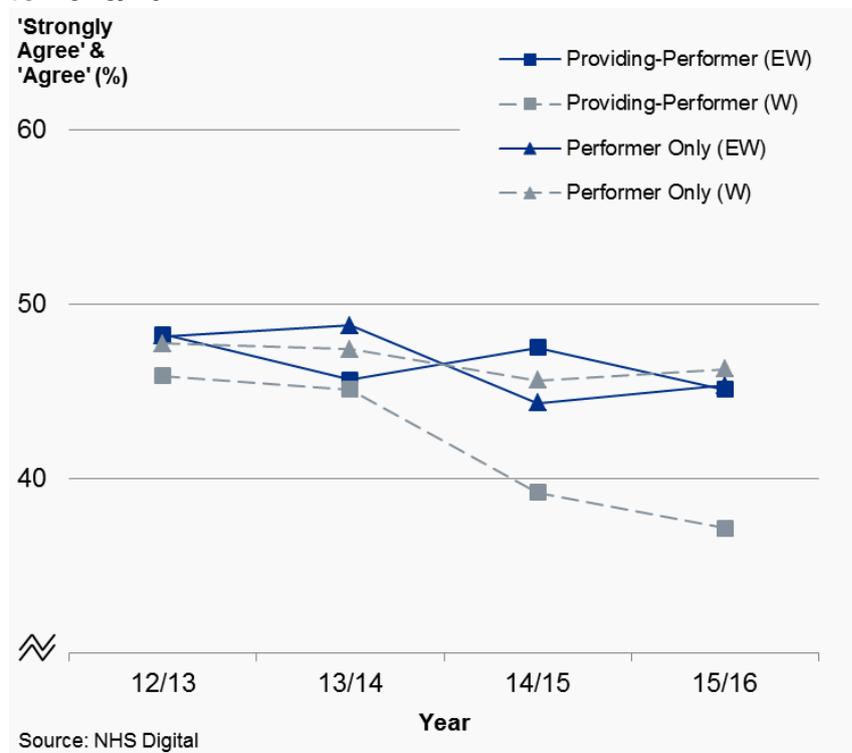
**Figure 1.4: Percentage of Providing-Performer dentists (%) that answered 'strongly agree' or 'agree' by question, Wales, 2012/13 to 2015/16**



1.13 Figure 1.3 highlights how answers to question (D) on equipment and (E) on challenge have remained fairly stable for Providing-Performer dentists in Wales over the last four years, whereas the drop in percentage scores of the other four questions is plainly visible. In figure 1.4, the decreasing scores for question (A) on feelings is clearly noticeable for Performer Only dentists, whilst responses to the other questions remain a little more stable.

1.14 Figure 1.5 shows a plot of the 'overall average' motivation scores between 2012/13 and 2015/16 for Wales and England & Wales combined. The chart suggests that the drop in the 'overall average' motivation score for Providing-Performer dentists in Wales occurred in the last two years and was barely noticeable between 2012/13 and 2013/14.

**Figure 1.5: 'Overall average' percentage of dentists (%) that answered 'strongly agree' or 'agree' to the motivation questions by dental type and country, 2012/13 to 2015/16**



1.15 As a result of these differences between 2013/14 and 2015/16, the average working patterns for the dentists in both years have been explored to see if there have been any notable changes. These are shown next for dentists in England & Wales combined (table 1.5) and for dentists in Wales alone (table 1.6).

**Table 1.5: Average working patterns by dental type, England & Wales, 2013/14 and 2015/16**

| Count                      | Providing-Performer |       |                   | Performer Only |        |                   |
|----------------------------|---------------------|-------|-------------------|----------------|--------|-------------------|
|                            | 13/14               | 15/16 | Diff <sup>1</sup> | 13/14          | 15/16  | Diff <sup>1</sup> |
| Sample                     | 1,795               | 1,067 |                   | 5,568          | 3,862  |                   |
| Full-Year Popln.           | 4,275               | 3,406 |                   | 15,115         | 15,825 |                   |
| <b>Variable (Averages)</b> |                     |       |                   |                |        |                   |
| Age                        | 49.9                | 50.0  | 0.1               | 39.1           | 39.7   | 0.6               |
| Weekly Hours               | 41.0                | 41.4  | 0.4               | 35.7           | 36.0   | 0.3               |
| Annual Leave               | 4.4                 | 4.4   | 0.0               | 4.5            | 4.5    | 0.0               |
| NHS share (%)              | 60.4                | 60.9  | 0.5               | 74.4           | 72.4   | -2.0              |
| Clinical share (%)         | 72.8                | 73.0  | 0.2               | 80.8           | 79.8   | -1.0              |

Source: NHS Digital

1. Difference columns are calculated by subtracting 2013/14 results from 2015/16 results.

**Table 1.6: Average working patterns by dental type, Wales, 2013/14 and 2015/16**

| Count                      | Providing-Performer |       |                   | Performer Only |       |                   |
|----------------------------|---------------------|-------|-------------------|----------------|-------|-------------------|
|                            | 13/14               | 15/16 | Diff <sup>1</sup> | 13/14          | 15/16 | Diff <sup>1</sup> |
| Sample                     | 111                 | 73    |                   | 329            | 273   |                   |
| Full-Year Popln.           | 238                 | 200   |                   | 806            | 920   |                   |
| <b>Variable (Averages)</b> |                     |       |                   |                |       |                   |
| Age                        | 49.3                | 48.8  | -0.5              | 38.7           | 39.2  | 0.5               |
| Weekly Hours               | 38.7                | 40.1  | 1.4               | 34.9           | 35.9  | 1.0               |
| Annual Leave               | 4.5                 | 4.2   | -0.3              | 4.6            | 4.5   | -0.1              |
| NHS share (%)              | 58.4                | 63.2  | 4.8               | 74.5           | 72.7  | -1.8              |
| Clinical share (%)         | 76.8                | 77.8  | 1.0               | 82.2           | 80.5  | -1.7              |

Source: NHS Digital

1. Difference columns are calculated by subtracting 2013/14 results from 2015/16 results.

Note: The Wales results are a subset of the combined England &amp; Wales results. Wales Providing-Performer results are based on small sample sizes (&lt;100 by count and &lt;75 percent of group population). Please see Annex B for sample and population sizes.

- 1.16 In terms of Providing-Performer dentists, it is noticeable that whilst the average working patterns for those in England & Wales show little change between 2013/14 and 2015/16 (in table 1.5), those in Wales alone show bigger differences (in table 1.6). In particular, average weekly hours of work and NHS share (%) rose by 1.4 hours and 4.8 percentage points, respectively, and annual leave decreased by 0.3 weeks. As reported in the [2014/15 and 2015/16 Motivation Analysis report](#), all these changes are generally associated with a drop in motivation for dentists, which provides some explanation for a greater drop in motivation for Wales between 2013/14 and 2015/16 when compared to England & Wales combined. However, it is important to note there are likely to be many other drivers of motivation but these changes may well be contributory factors.
- 1.17 It is also important to note that whilst there was no change in survey methodology for the 2014 and 2016 surveys, there was a drop in the return rate between 2013/14 and 2015/16 of 11.0 percentage points for dentists in Wales (please see Annex B for more details), which may also have some bearing on the results. However, a similar drop also occurred for dentists in England & Wales combined (12.4 percentage points) who

showed less variation in results for Providing-Performer dentists between the two surveys.

- 1.18 Finally, the changes in average working patterns for Performer Only dentists are similar for England & Wales combined and Wales alone, which also provides some explanation to why the motivation for these dentists are more similar. Furthermore, although weekly hours of work increased for Performer Only dentists, NHS share (%) decreased, which may account for the smaller drop in motivation for this dental group.

### **Conclusion**

- 1.19 In terms of answers to the DWP Survey motivation questions, Providing-Performer dentists in Wales show a lower 'overall average' motivation score in 2015/16 when compared to Providing-Performer dentists in England & Wales combined. Such a difference is not evident for Performer Only dentists. The change in working patterns for Providing-Performers in Wales between 2013/14 and 2015/16, explains some of the difference although there are likely to be others factors involved.

## 2. Morale of Dentists

- 2.1 Whereas motivation is usually defined as the internal drive of an individual (for behaving in a certain way), their morale generally relates to feelings of satisfaction and confidence in their life. The two are usually linked but whilst higher motivation often leads to higher morale in employees, high morale may not guarantee that employees work more effectively (even though they have a positive attitude towards their work).
- 2.2 As a result of these differences, the question on morale is considered separately in this chapter. Table 2.1 and figure 2.1 show what percentage of dentists in Wales answered question (H) ‘How would you rate your morale as a dentist?’ as ‘very high’ or ‘high’. The Wales results are a subset of the combined England & Wales results, which are taken from the [2014/15 and 2015/16 Motivation Analysis report](#).<sup>2</sup>

**Table 2.1: Percentage of dentists (%) that answered ‘very high’ or ‘high’ morale levels by dental type and country, 2015/16**

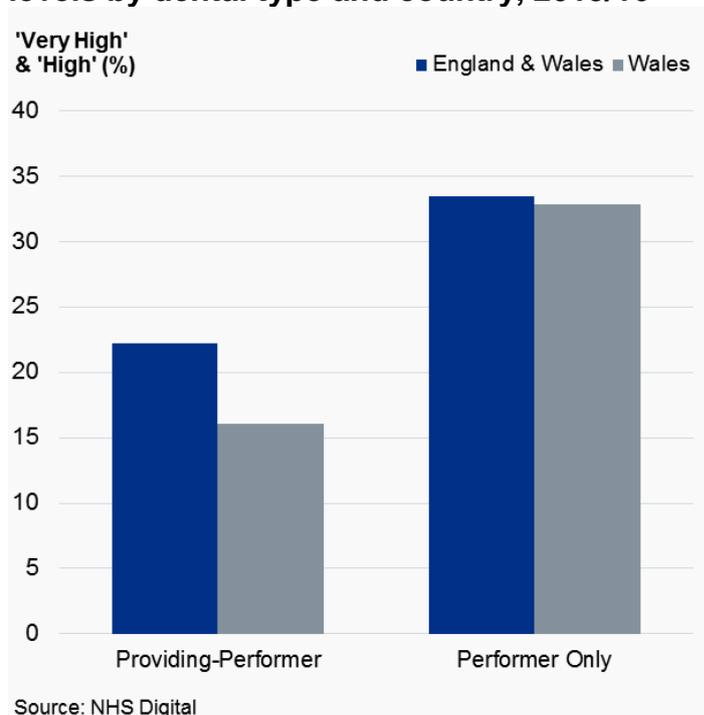
| Country                        | Percentage (%)      |                |
|--------------------------------|---------------------|----------------|
|                                | Providing-Performer | Performer Only |
| England & Wales                | 22.2                | 33.4           |
| Wales                          | 16.1                | 32.8           |
| <i>Difference</i> <sup>1</sup> | -6.1                | -0.6           |

Source: NHS Digital

1. Difference column is calculated by subtracting England & Wales combined results from Wales results.

Note: The Wales results are a subset of the combined England & Wales results. Wales Providing-Performer result is based on a small sample size (<100 by count and <75 percent of group population). Please see Annex B for sample and population sizes.

**Figure 2.1: Percentage of dentists (%) that answered ‘very high’ or ‘high’ morale levels by dental type and country, 2015/16**



<sup>2</sup> Dental Working Hours, 2014/15 & 2015/16 Motivation Analysis Experimental Statistics found at: [www.content.digital.nhs.uk/pubs/dentalworkinghours1416motivation](http://www.content.digital.nhs.uk/pubs/dentalworkinghours1416motivation)

2.3 Similar to the motivation question results in the last chapter, Providing-Performer dentists in Wales report a lower percentage of ‘very high’ and ‘high’ responses to the morale question when compared to England & Wales combined. Conversely, Performer Only dentists in Wales report similar levels of morale compared to England & Wales combined, also matching the motivation results for this dental cohort in the last chapter.

**Time-Series Analysis**

2.4 Table 2.2 and figure 2.2 show time-series results for answers to the morale question from 2012/13 to 2015/16. The difference column is calculated by subtracting the ‘lead-year’ results from each survey (i.e. 2013/14 results subtracted from 2015/16 results).

**Table 2.2: Percentage of dentists (%) that answered ‘very high’ or ‘high’ morale levels by country, 2012/13 to 2015/16**

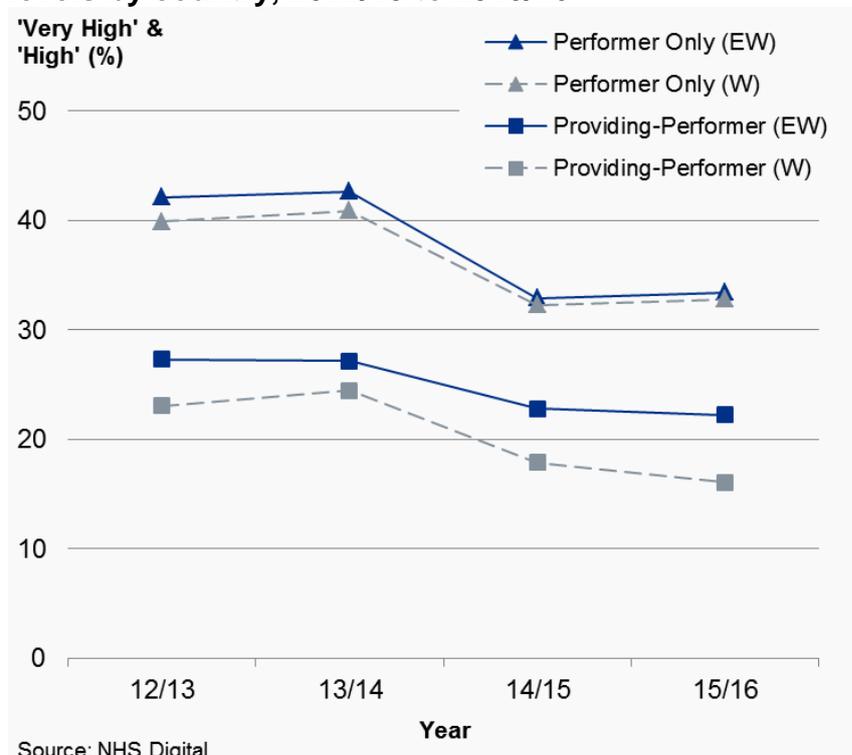
| Country                 | Providing-Performer |       |       |       | Performer Only |       |       |       |
|-------------------------|---------------------|-------|-------|-------|----------------|-------|-------|-------|
|                         | 12/13               | 13/14 | 14/15 | 15/16 | 12/13          | 13/14 | 14/15 | 15/16 |
| England & Wales         | 27.3                | 27.2  | 22.8  | 22.2  | 42.1           | 42.7  | 32.9  | 33.4  |
| Wales                   | 23.1                | 24.5  | 17.9  | 16.1  | 39.9           | 40.9  | 32.3  | 32.8  |
| Difference <sup>1</sup> | -4.3                | -2.7  | -4.9  | -6.1  | -2.2           | -1.8  | -0.6  | -0.6  |

Source: NHS Digital

1. Difference column is calculated by subtracting England & Wales combined results from Wales results.

Note: The Wales results are a subset of the combined England & Wales results. Wales Providing-Performer results are based on a small sample size (<100 by count and <75 percent of group population). Please see Annex B for sample and population sizes.

**Figure 2.2: Percentage of dentists (%) that answered ‘very high’ or ‘high’ morale levels by country, 2012/13 to 2015/16**



2.5 Figure 2.2 highlights how the morale of Providing-Performer dentists in Wales has dropped at a greater rate over the last two years when compared to England & Wales combined. Conversely, morale levels amongst Performer only dentists in Wales have

remained similar to those of England & Wales combined over the last four years. This is similar with the trend shown for the motivation results in the preceding chapter and may also reflect the changes in average working patterns for Providing-Performer (and Performer Only) dentists in Wales between 2013/14 and 2015/16 compared to those in England & Wales combined.

### 3. Leaving General Dental Practice

- 3.1 As well as the six motivation and one morale question, the Dental Working Patterns (DWP) Survey included a question on leaving; 'I often think about leaving general dental practice'. When originally asked in the 2012/13 and 2013/14 DWP Survey, this question was included as part of the list of motivation questions. However, since the question may well be considered to be a consequence of motivation (and morale), rather than a driver, it was not included in the motivation analyses of the 2012/13 and 2013/14 report.
- 3.2 In the latest DWP Survey, the question was included once again but listed separately from the motivation questions<sup>3</sup>. Table 3.1 and figure 3.1 show the percentage of dentists who answered 'strongly agree' or 'agree' to the question for Wales and England & Wales combined.

**Table 3.1: Percentage of dentists (%) that answered 'strongly agree' or 'agree' to the leaving question by dental type and country, 2015/16**

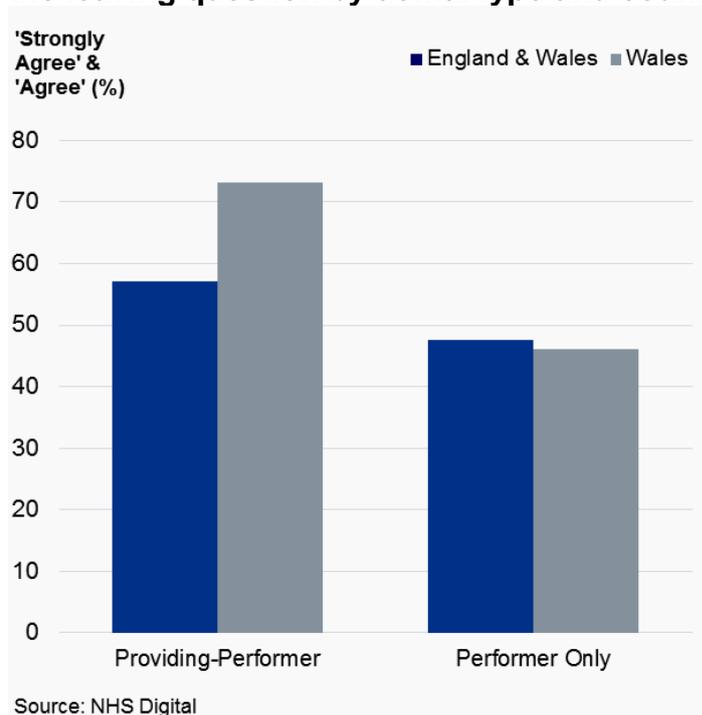
| Country                        | Percentage (%)      |                |
|--------------------------------|---------------------|----------------|
|                                | Providing-Performer | Performer Only |
| England & Wales                | 57.2                | 47.6           |
| Wales                          | 73.2                | 46.2           |
| <i>Difference</i> <sup>1</sup> | 16.1                | -1.5           |

Source: NHS Digital

1. Difference column is calculated by subtracting England & Wales combined results from Wales results.

Note: The Wales results are a subset of the combined England & Wales results. Wales Providing-Performer result is based on a small sample size (<100 by count and <75 percent of group population). Please see Annex B for sample and population sizes.

**Figure 3.1: Percentage of dentists (%) that answered 'strongly agree' or 'agree' to the leaving question by dental type and country, 2015/16**



<sup>3</sup> Please see Annex A of [Dental Working Hours, 2014/15 and 2015/16 Initial Analysis](#) for a copy of the survey.

- 3.3 Perhaps not surprisingly, given the motivation and morale results from the previous chapters (in 2015/16), the results show that more Providing-Performer dentists in Wales think about leaving general dentistry when compared to England & Wales combined. Table 3.1 shows that 73.2% of these dentists in Wales 'often think about leaving general dentistry'. This compares to just under a half (46.2%) of Performer Only dentists in Wales, which is close to the result for England & Wales combined.
- 3.4 As noted in the [Dental Working Hours, 2014/15 and 2015/16 Motivation Analysis report](#)<sup>4</sup>, however, it is important to realise that thinking about leaving a profession and actually doing so are two quite different things. Nonetheless, the fact that nearly three-quarters of Providing-Performer dentists in Wales (and almost half of Performer Only dentists) actually think along these lines is notable.

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<sup>4</sup> Dental Working Hours, 2014/15 & 2015/16 Motivation Analysis Experimental Statistics found at: [www.content.digital.nhs.uk/pubs/dentalworkinghours1416motivation](http://www.content.digital.nhs.uk/pubs/dentalworkinghours1416motivation)

## Annex A: Methodology

### Determining the population and the sample

- A.1 The analysis in this report is based on a sample determined by those dentists who completed the Dental Working Patterns (DWP) Survey. The results are weighted in order to reflect the nature of the working population, which is derived from the dataset provided by NHS Business Service Authority (BSA), Information Services. The population consists of Providing-Performer and Performer Only dentists working on General Dental Services (GDS) and/or Personal Dental Services (PDS) contracts. In order to be included in the population, dentists must have at least one Unit of Dental Activity (UDA) or Unit of Orthodontic Activity (UOA) recorded against them on an FP17 form, for the respective financial year.
- A.2 Primary Care Dentists operate under one or more contractual arrangements in England & Wales: General Dental Services (GDS); Personal Dental Services (PDS); and community/salaried services (formally Trust-led Dental Services). Those dentists working solely under a community/salaried service contract have been excluded from this report because they are not classed as self-employed primary care dentists; however, those GDS and/or PDS dentists also working under a salaried/community service contract have been included.

### Stratification and Weighting

- A.3 In order to weight the sample results to reflect the nature of the NHS BSA, Information Services population, as discussed above, dentists in England and Wales were allocated to a number of strata defined using combinations of the variables shown in table A1. Whilst full stratification by the four variables would lead to 48 strata, low sample sizes for some groups of dentists meant some were combined. So, for example, England & Wales combined results were based on dentists set to 32 strata using all four variables, whereas results for Wales were based on 15 strata using three variables.

**Table A1: Stratification variables by country**

| Variable      | Breakdown                             | England & Wales | Wales |
|---------------|---------------------------------------|-----------------|-------|
| Dental type   | Providing-Performer<br>Performer Only | Yes             | Yes   |
| Contract type | GDS, PDS, Mixed                       | Yes             | No    |
| Gender        | Male, Female                          | Yes             | Yes   |
| Age (years)   | <35, 35-44, 45-54, 55+                | Yes             | Yes   |

- A.4 Table B2 in Annex B lists the sample and population sizes of dentists in Wales based on the 15 strata used for weighting purposes. Please see annexes in the [Dental Working Hours, 2014/15 and 2015/16 Initial Analysis report](#)<sup>5</sup> for more detailed background on the methodology of the England & Wales combined results.

<sup>5</sup> Dental Working Hours, 2014/15 & 2015/16 Initial Analysis found at: <http://www.hscic.gov.uk/pubs/dentalworkinghours1416>

## Motivation, Leaving and Morale Questions

A.5 Table A2 shows the motivation, leaving and morale questions used in the DWP Survey. Please refer to chapter 1 of the [Dental Working Hours, 2014/15 & 2015/16 Motivation Analysis report](#)<sup>6</sup> for information on how the individual questions were chosen.

**Table A2: Motivation, leaving and morale questions in Dental Working Patterns Survey, 2014/15 and 2015/16**

| Motivation Questions |  |
|----------------------|--|
| A.                   | I feel good about my job as a dentist                                |
| B.                   | I receive recognition for the work I do <sup>1</sup>                 |
| C.                   | I feel my pay is fair <sup>2</sup>                                   |
| D.                   | I have all the equipment and resources I need to do my job properly  |
| E.                   | My job gives me the chance to do challenging and interesting work    |
| F.                   | There are opportunities for me to progress in my career              |
| Leaving Question     |  |
| G.                   | I often think about leaving general dental practice                  |
| Morale Question      |  |
| H.                   | How would you rate your morale as a dentist in 2014/15 (or 2015/16)? |

1. Spoken recognition or acknowledgement (i.e. not financial) from colleagues

2. Pre-tax income (after all expenses removed) for primary care dentistry

A.6 With regard to the motivation and leaving questions A-G, dentists were asked to indicate how strongly they agreed or disagreed using a five-point Likert<sup>7</sup> scale:

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree

A.7 For question (H) on morale the answers were described on a similar five point scale from 'very high' to 'very low'.

<sup>6</sup> Dental Working Hours, 2014/15 & 2015/16, Motivation Analysis Experimental Statistics report found at: [www.content.digital.nhs.uk/pubs/dentalworkinghours1416motivation](http://www.content.digital.nhs.uk/pubs/dentalworkinghours1416motivation)

<sup>7</sup> A Likert scale is a psychometric scale commonly used in research that employs questionnaires. It is the most widely used approach to scaling responses in survey research.

## Annex B: Representativeness of the survey data

- B.1 In January 2016, the ‘Dental Working Patterns Survey’ of all dentists in England and Wales, Northern Ireland and Scotland who had NHS activity recorded in 2014/15 and/or 2015/16, was conducted. Over 25,600 invitations were sent to dentists in England and Wales and by the time the survey closed in early March 2016, over 6,500 (26 per cent) returns had been collected and recorded.
- B.2 The dataset of returns was then validated. The main inclusion criterion was to ensure that dentists answered all questions and worked for the full year in question (excluding any annual leave taken). In addition, dentists who only worked under community/salaried service contractual arrangements during the year were removed. The exclusion criteria mean that the figures in each table of this report are based on a consistent group of dentists for each year. Please see table 1.3 in chapter 1 for a list of the final sample sizes used for the Analysis in this report.
- B.3 Table B1 shows the survey response rates broken down by country. Note that differences in response rates between the two years of each survey may partly be due to changes in the population.

**Table B1: Dental Working Patterns (DWP) Survey response rate by country, 2008/09 to 2015/16**

| Country                    | Response Rate (%) |             |             |             |             |             |             |             |
|----------------------------|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                            | 2008/09           | 2009/10     | 2010/11     | 2011/12     | 2012/13     | 2013/14     | 2014/15     | 2015/16     |
| England                    | 45.4              | 45.9        | 34.5        | 35.0        | 37.3        | 37.3        | 25.4        | 24.9        |
| Wales                      | 50.8              | 51.8        | 37.4        | 38.1        | 41.6        | 41.6        | 31.4        | 30.6        |
| <b>England &amp; Wales</b> | <b>45.7</b>       | <b>46.2</b> | <b>34.6</b> | <b>35.2</b> | <b>37.5</b> | <b>37.6</b> | <b>25.7</b> | <b>25.2</b> |

*Source: NHS Digital*

- B.4 Table B1 shows that dentists in Wales were more likely to respond to the survey than those in England. However, dentists in England were invited to participate in the survey by email alone while dentists in Wales received both letter and email invitations. This may explain some of the difference in response rate between England and Wales.

### Representativeness of the Survey Responder Population

- B.5 To assess whether the composition of the survey responder population in Wales is representative of the dental population, the relationship between the numbers of dentists in each weighting strata (as discussed in Annex A) was evaluated. Table B2 shows that, on the whole, the distribution of dentists in 2015/16 was similar for the dental and survey responder population: that is, the proportion of dentists in most of the 15 strata used for weighting was quite similar.

**Table B2: Number and percentage of dentists in each stratum of the dental population and survey responder sample, Wales, 2015/16**

| Strata              | Type                | Gender | Age            | Population <sup>1</sup><br>(Number) | Initial<br>Sample<br>(Number) | Population<br>(%) | Initial<br>Sample<br>(%) | Percentage<br>Point<br>Difference |
|---------------------|---------------------|--------|----------------|-------------------------------------|-------------------------------|-------------------|--------------------------|-----------------------------------|
| 1                   | Providing-Performer | Male   | <35            | 17                                  | 5                             | 1.3               | 1.3                      | 0.0                               |
| 2                   |                     |        | 35-44          | 22                                  | 8                             | 1.7               | 2.0                      | 0.3                               |
| 3                   |                     |        | 45-54          | 63                                  | 24                            | 4.8               | 6.0                      | 1.2                               |
| 4                   |                     |        | 55+            | 47                                  | 15                            | 3.6               | 3.8                      | 0.2                               |
| 5&6 <sup>2</sup>    |                     | Female | <45            | 18                                  | 3                             | 1.4               | 0.8                      | -0.6                              |
| 7                   |                     |        | 45-54          | 25                                  | 14                            | 1.9               | 3.5                      | 1.6                               |
| 8                   |                     |        | 55+            | 16                                  | 7                             | 1.2               | 1.8                      | 0.5                               |
| 9                   |                     |        | Performer Only | Male                                | <35                           | 220               | 54                       | 16.8                              |
| 10                  | 35-44               | 170    |                |                                     | 53                            | 13.0              | 13.3                     | 0.3                               |
| 11                  | 45-54               | 100    |                |                                     | 34                            | 7.6               | 8.5                      | 0.9                               |
| 12                  | 55+                 | 92     |                |                                     | 25                            | 7.0               | 6.3                      | -0.8                              |
| 13                  | Female              | <35    |                | 249                                 | 63                            | 19.0              | 15.8                     | -3.3                              |
| 14                  |                     | 35-44  |                | 162                                 | 48                            | 12.4              | 12.0                     | -0.4                              |
| 15                  |                     | 45-54  |                | 75                                  | 32                            | 5.7               | 8.0                      | 2.3                               |
| 16                  |                     | 55+    |                | 32                                  | 15                            | 2.4               | 3.8                      | 1.3                               |
| <b>All Dentists</b> |                     |        |                | <b>1,308</b>                        | <b>400</b>                    |                   |                          |                                   |

Source: NHS Digital

1. The population in covers all dentists who conducted NHS activity in 2015/16, regardless if they worked for a full year or not. For this reason, the total number is higher than the estimated full-year population in table 1.3 of chapter 1.

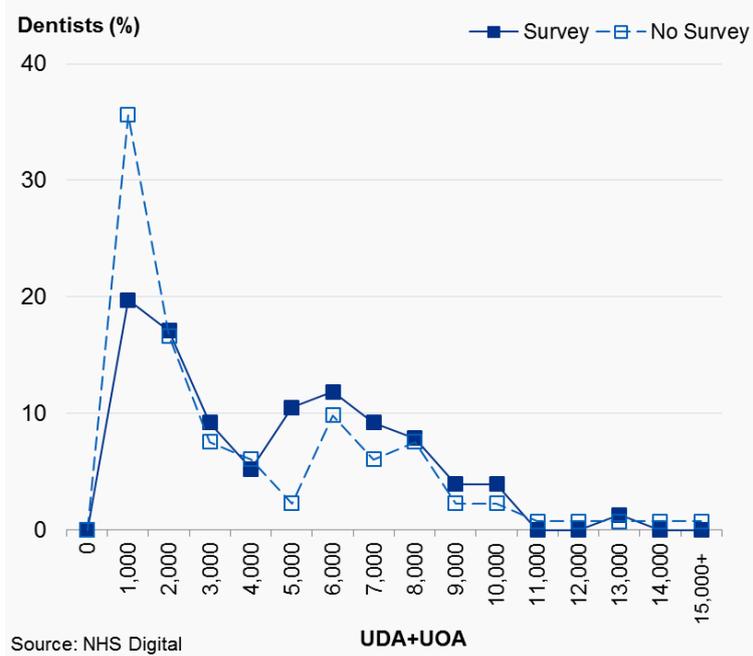
2 & 3. Strata 5 & 6 covers two age bands (i.e. <35 and 35-44 years) due to small numbers of younger female Providing-Performer dentists.

B.6 Please note, unlike the results presented in the main body of the report, the figures in this section and the next section (covering table B2 and figures B1 and B2) are based on dentists who worked for either a full or part-year. Without survey data, it is not possible to accurately define this characteristic for non-responders, hence both cohorts of dentists were used to allow more accurate comparisons between the sample and population.

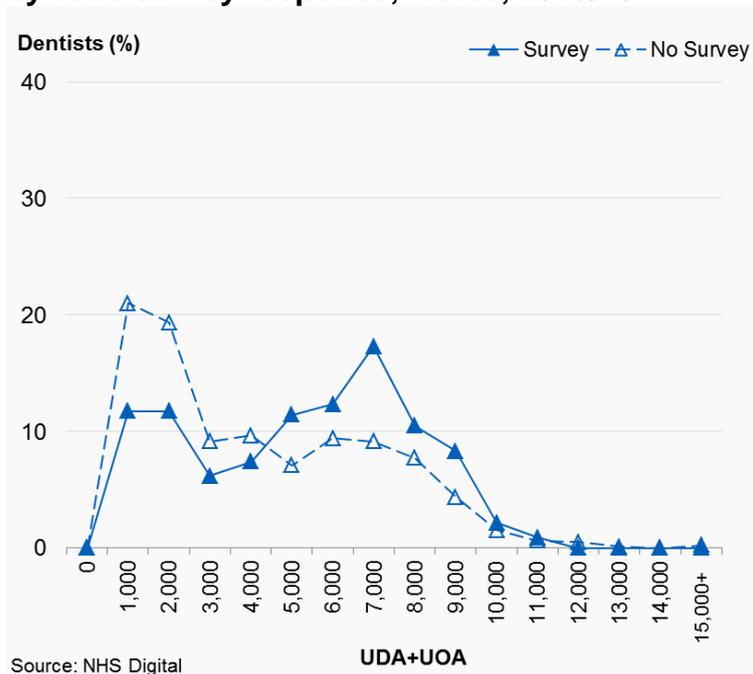
### Dental survey responders compared to non-responders

B.7 The representativeness of survey data can also be tested by considering average NHS dental activity (UDAs and UOAs combined) for those who did and did not respond to the survey. As this variable is held for the entire NHS dental population the comparison is straightforward, with the results for 2015/16 shown in figures B1 and B2.

**Figure B1: Distribution of total NHS dental activity for Providing-Performer dentists, by valid survey response, Wales, 2015/16**



**Figure B1: Distribution of total NHS dental activity for Performer Only dentists, by valid survey response, Wales, 2015/16**



B.8 Figure B1 shows a fairly similar distribution of NHS dental activity for survey responders and non-responders for Providing-Performer dentists, whilst the results for Performer Only dentists are less similar. However, overall, those who answer the survey are more likely to conduct NHS dental activity than those who do not respond. It is difficult to predict the exact effects this has on the figures reported in this report, although it is known from the [Dental Working Hours \(DWH\), 2014/15 and 2015/15 Motivation](#)

[Analysis report](#)<sup>8</sup> that there is an association between increased NHS work and lower levels of motivation and/or morale. The fact that the results in this report are based on survey responses mean that comparisons between Wales and England & Wales combined are still valid.

- B.9 Where it has been possible to account for differences in the survey responder population, which will lessen some of the effects of variable response rates to the survey, this has been done by stratifying the sample to account for the major variables of dental type, gender and age.

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<sup>8</sup> Dental Working Hours, 2014/15 & 2015/16 Motivation Analysis Experimental Statistics found at: [www.content.digital.nhs.uk/pubs/dentalworkinghours1416motivation](http://www.content.digital.nhs.uk/pubs/dentalworkinghours1416motivation)

## Annex C: Glossary of Terms

[\[Link back to start\]](#)

Table C1 provides definitions of the most common terms used in this report. Where terms relate to individual countries, this is indicated by (EW) for England & Wales, (Sc) for Scotland and (NI) for Northern Ireland.

**Table C1: Glossary of terms used in the report**

|                                       |          |   |
|---------------------------------------|----------|---|
| <b>Associate Dentist</b>              | Sc       | A dental practitioner who is self-employed and enters into an agreement with a Principal Dentist that is neither partnership nor employment. Holds a dental surgeon (DS) number and performs primary care dental services.  |
|                                       | NI       | A dental practitioner who is self-employed and enters into an agreement with a Principal Dentist that is neither partnership nor employment. Also has an arrangement with a NHS Board to provide general dental services.   |
| <b>Clinical Share</b>                 | UK       | Defined as the percentage of time dentists devote to clinical work (compared to administration). For the purpose of answering the Dental Working Patterns (DWP) Survey, clinical work is defined as all face-to-face contact with patients (including preventative care).   |
| <b>Dental Type</b>                    | EW       | For the purpose of this enquiry, a dentist is assigned a dental type based upon whether they held at least one contract with NHS England /Local Health Board (LHB) and had records of dental activity in the relevant year (i.e. Providing-Performer dentists) or if they only had records of activity but did not hold a contract with NHS England/LHB in the relevant year (i.e. Performer Only dentists). Please see the relevant glossary entries for further definitions of dentist types. |
|                                       | Sc<br>NI | For the purpose of this enquiry, a dentist is assigned a dentist type (i.e. Principal or Associate) as declared on their survey return.   |
| <b>Estimated Full-Year Population</b> | UK       | Full-year population counts (in the report) are weighted estimates calculated from the entire population and the proportion of dentists who responded to the survey who indicated they worked for the full-year (not including annual leave). The population counts may not sum due to rounding.  |
| <b>Experimental Statistics</b>        | UK       | Experimental Statistics are new official statistics undergoing evaluation. They are published in order to involve users and stakeholders in their development and as a means to build in quality at an early stage.   |
| <b>NHS/Health Service Share</b>       | UK       | Defined as the percentage of time dentists devote to NHS/Health Service dentistry (compared to private).  |
| <b>Performer Only</b>                 | EW       | A dentist that performs NHS activity on a contract, but does not hold a contract with NHS England/Local Health Board themselves.  |

|                             |    |  |
|-----------------------------|----|--|
| <b>Primary Care Dentist</b> | UK | A dentist who works in a primary care (i.e. “High Street” dentist) rather than in a secondary care (e.g. hospital) setting.  |
| <b>Principal Dentist</b>    | Sc | A dental practitioner who is also an owner, director or partner of a dental practice(s), has an arrangement(s) with a NHS Board to provide general dental services.  |
|                             | NI | A dental practitioner who is also an owner, director or partner of a dental practice, holds a Dental Surgeon number, and also performs primary care dental services.   |
| <b>Provider Only</b>        | EW | A dentist that holds a contract with NHS England/Local Health Board but does not perform dentistry on this or any other contract (i.e. all dentistry provided under the contract is sub-contracted); these dentists are excluded from the analyses in this report. |
| <b>Providing-Performer</b>  | EW | A dentist that holds a contract with NHS England/Local Health Board and also performs NHS dentistry on this or another contract.   |
| <b>Weekly Working Hours</b> | UK | Total number of hours per week spent performing primary care dentistry (includes both clinical and non-clinical work), as derived from responses to the Dental Working Patterns Survey.  |

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