General Dental Council

Clinical dental technicians working patterns inferential analysis

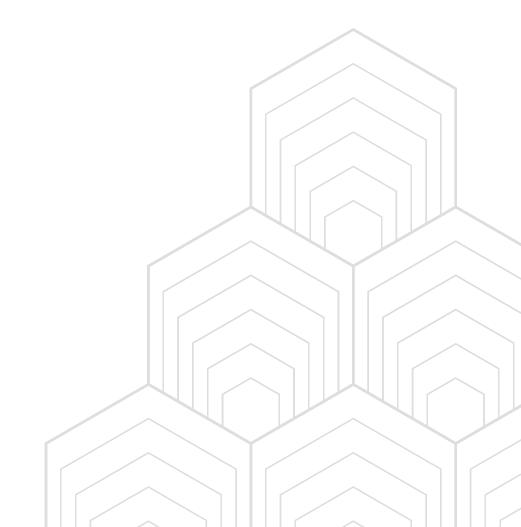


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# Glossary of terms

| Term                           | Meaning  |  |
|--------------------------------|--|--|
| Active in the UK dental sector | Whether someone is:  • Currently working in the dental sector  • Seeking work in the dental sector   |  |
| Clinical / non-clinical        | Whether someone is working in a role that is:  Clinical (fully or at least 75%)  Mix of clinical and non-clinical  Non-clinical (fully or at least 75%)  Other   |  |
| Employment status              | Whether someone works:  • Employed  • Self-employed / locum / agency  • Business owner / part owner  • In training  • On parental leave  • On sick leave  • Working unpaid / pro-bono  • Not applicable  • Prefer not to say |  |
| Healthcare sector              | Sector worked in:  NHS (fully or at least 75% of time)  Mix of NHS and private  Private (fully or at least 75% of time)  Other   |  |
| Non-response bias              | Is a bias that can happen when there is a significant difference between those who respond and those who don't respond to a survey   |  |
| Weekly hours worked            | Hours worked per week by range   |  |

| Term         | Meaning                                      |
|--------------|--|
| Work setting | Setting worked in:                           |
|              | General dental practice                      |
|              | Specialist dental practice                   |
|              | Community dental services                    |
|              | Dental hospital                              |
|              | Other hospital settings                      |
|              | Laboratory                                   |
|              | Oral public health                           |
|              | Armed forces                                 |
|              | In education / training as a student         |
|              | In education / training as a member of staff |
|              | Researcher / academic                        |
|              | • Other                                      |
|              | Not applicable                               |
|              | Prefer not to say                            |

# Acknowledgements

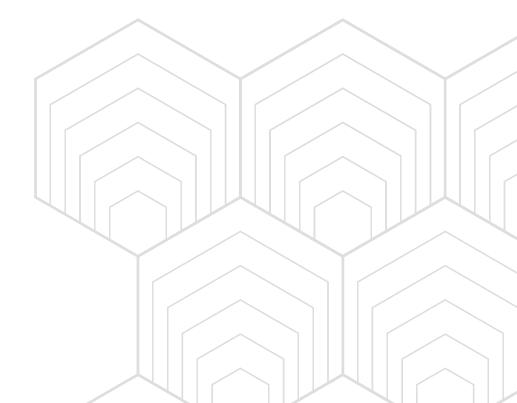
The GDC is grateful to all the dental professionals who responded to the working patterns questions. We would also like to thank the professional bodies, trade organisations, employers and other government stakeholders who supported the development of questions and encouraged dental professionals to complete this data.

Any further questions or suggestions related to the publication of working patterns data can be submitted via email at <a href="mailto:research@gdc-uk.org">research@gdc-uk.org</a>.



# Executive summary

- Since November 2023, working patterns questions have been available on the GDC's online portal, eGDC, alongside the annual renewal process. Responses from dental care professionals were requested for the first time as part of their 2024 annual renewal (June August). Following the publication of the working patterns dental care professional summary tables in October 2024¹, this report presents the results from further analysis of responses from clinical dental technicians. Only statistically significant findings are reported.
- Of the 422 clinical dental technicians who completed their annual renewal in July 2024, 229 (54%) responded to working patterns questions.
- Nearly all (98%) clinical dental technicians who completed the working patterns data were working in the dental sector.
- Most (91%) clinical dental technicians reported their primary field of practice as being clinical dental technician, and 9% identified their primary field of practice as dental technician.
- Nearly half (49%) of the clinical dental technicians who responded only worked in one setting and two-fifths (40%) worked in two dental settings.
- Clinical dental technicians who worked in three or more dental settings were more likely to work in specialist dental practices compared to those working in one or in two dental settings.



### 1 Introduction

The General Dental Council (GDC) has undertaken further analyses of our working patterns data, bringing it together with equality, diversity and inclusion (EDI), registration and Fitness to Practise (FtP) data to derive greater insight and value from our working patterns responses. This report provides further analysis of clinical dental technicians' responses to the working pattern questions.

Of the 422 clinical dental technicians who completed their annual renewal in July 2024, 229 (54%) answered the working patterns questions. This analysis includes:

- Employment status
- Where clinical dental technicians work (location and setting)
- Healthcare sector clinical dental technicians deliver care in (NHS v private)
- Weekly hours worked by clinical dental technicians
- Whether clinical dental technicians work in clinical or non-clinical roles
- Variations by equality, diversity and inclusion characteristics
- Correlations between working patterns questions and incidence of FtP cases (at the aggregate level)

#### 1.1 Methodology

Working patterns data is being collected using questions made available on the GDC's online portal (eGDC). This was done to maximise response rates, and data completeness, and was arrived at in dialogue with professional organisations, registrants and governmental stakeholders. We launched the data capture process by encouraging dental professionals to provide their data when they completed their annual renewal, beginning with dentists in 2023, and then dental care professionals in 2024. Completion of the working patterns questions is voluntary.

Analyses reported here are derived from clinical dental technicians' responses received up to 10 August 2024. Responses received after this date will be included in future outputs. Only clinical dental technicians who reported that they were either 'working in the dental sector' or 'looking for work in the dental sector' in the United Kingdom (UK) are included in these analyses.

The range of potential analysis that could be carried out for clinical dental technicians was limited by the total number of responses received<sup>2</sup>.

For the analysis of responses, we tested if a difference in results was statistically significant at a 95% confidence level and only statistically significant results are reported.

The appendices contain further details on data collection and question design (4.1 Question design and format), on data cleaning (4.2 Data cleaning), on the statistical linear models used to test hypotheses, *p* values and effect sizes<sup>3</sup> (4.3 Statistical analysis models), comparisons of the respondent numbers with the GDC's registration data across EDI characteristics and selected registration fields (4.4 Non-response bias), and notations for the statistically significant differences (4.5 Statistical notation).

- 2. Categories of less than 5 invalidate test results.
- 3. The effect size measures the strength of a relationship between two or more variables (i.e. what proportion of the difference in the data is explained by this relationship).

### 2 Results

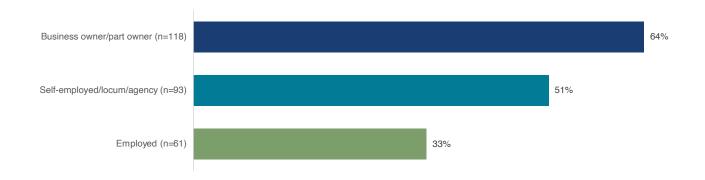
#### 2.1 Active in the UK dental sector

Of the 229 responses included in this analysis, 98% of clinical dental technicians were working in the UK dental sector and 2% were looking for work in the dental sector.

#### 2.2 Employment status

Clinical dental technicians were asked about their employment status within the dental sector (Figure 1). They could select multiple responses for this question. Four-fifths (80%) of the respondents selected only one employment status.

Figure 1 - Most common employment status<sup>4</sup>



Nearly two-thirds (64%) of clinical dental technicians were a business owner/part owner. The next largest employment status was self-employed (51%) and then employed (33%).

#### 2.3 Primary field of practice

Clinical dental technicians were asked about their primary field of practice<sup>5</sup>. Most (91%) reported their primary field of practice as being clinical dental technician, and 9% identified their primary field of practice as dental technician.

<sup>4.</sup> The employment status responses of 'not applicable', 'working unpaid', 'on parental leave', 'on sick leave' and 'in training' received fewer than 1% of responses and therefore have been omitted from the figure.

<sup>5.</sup> A dental professional may be registered under multiple titles with the GDC, but the working patterns question specifically asks for their primary field of practice.

#### 2.4 Clinical / non-clinical work

There were no correlations between clinical or non-clinical role by other working patterns questions (including whether the respondent worked in the NHS or private sectors), registration characteristics, route of qualification or time since primary qualification.

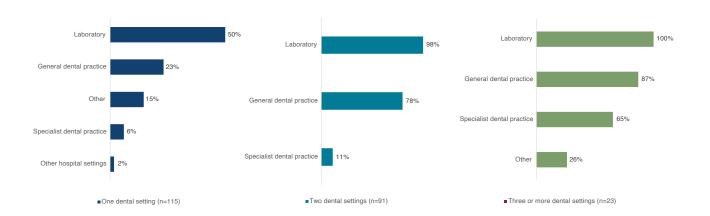
#### 2.5 Weekly hours worked by clinical dental technicians

There were no correlations between hours worked and other working patterns questions (including whether the respondent worked clinical or non-clinical, or in the NHS or private sectors), registration characteristics, route of qualification or time since primary qualification.

#### 2.6 Work setting

Nearly half (49%) of clinical dental technicians who responded to the working patterns questions worked in only one setting and two-fifths (40%) worked in two dental settings. The types of dental settings that clinical dental technicians worked in varied by the number of settings, with clinical dental technicians working in three or more dental settings more likely to work in specialist dental practices<sup>a</sup> compared to those who worked in one or two dental settings (Figure 2).

Figure 2 - Types of dental settings by number of settings<sup>6</sup>



<sup>6.</sup> Setting types which accounted for fewer than 1% of total responses were excluded from this figure. These include: 'researcher / academic', 'in education as a student', 'Armed Forces', 'oral public health', and 'not applicable'.

#### 2.7 Number of workplaces and number of countries of work

Most (97%) clinical dental technicians were working in only one UK country. More than half (55%) of clinical dental technicians had one workplace, 23% had two workplaces and 19% had three or more workplaces. There were no significant differences by EDI characteristics or registrant characteristics between the different numbers of workplaces.

#### 2.8 Fitness to Practise

The GDC does not use working patterns data in FtP case decision making. We matched our working patterns data to our FtP data to undertake pseudonymised<sup>7</sup> analysis to explore possible links to working pattern responses. We found no correlation between involvement in an FtP concern<sup>8</sup>, working patterns responses or any respondent characteristics (such as EDI characteristics, time on the register or route of qualification)<sup>9</sup>.

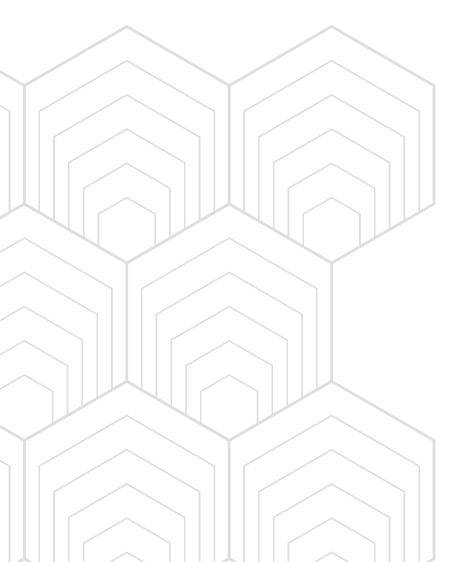
- 7. The person responding was given a dummy ID so that they could not be identified.
- 8. Which was defined as a clinical dental technician being involved in a case that had at least progressed beyond the triage stage within the previous two years.
- 9. Fewer than one percent of clinical dental technicians who respondents had an FtP case closed within the past two years.

## 3 Conclusions

Nearly all clinical dental technicians who completed the working patterns were currently working in the dental sector. Clinical dental technicians stated their primary field of practice was either clinical dental technician or dental technician. The most frequently mentioned employment status was a business owner / part owner, followed by self-employed and then employed.

The number of settings a clinical dental technician worked in influenced the work settings, with a greater proportion of those working in three or more settings working in specialist dental practices compared to those working in one or in two dental settings.

There were no correlations between any working patterns questions and involvement in an FtP concern. Although the response rates for clinical dental technicians were similar to other dental care professional titles, statistical analysis was limited by the total numbers of responses.



# 4 Technical appendix

#### 4.1 Question design and format

GDC researchers looked at existing information on working patterns data including sources from the NHS, the Office for National Statistics (ONS), the Government Statistical Service (GSS) and the Institute for Social and Economic Research. This was combined with questions previously developed from GDC primary research.

The questions were designed to minimise the burden on respondents and to capture factual data about working patterns. They were fixed response questions and took on average five minutes or less to complete. They were voluntary and every question had a 'prefer not to say' option to ensure that respondents had the possibility of avoiding answering any question which they might find to be sensitive in nature.

The working patterns questions were piloted with an external group of dental professionals.

#### 4.2 Data cleaning

Any values that were left blank or entered in an invalid format (e.g. for text entry) were coded to unknown during the data cleaning process.

#### 4.3 Statistical analysis

This analysis uses null hypothesis frequentist linear models to test for correlations in the data. The nine working patterns questions were combined with an additional 22 GDC registration fields and five fitness to practise fields. The large number of analyses has meant that only those with statistical significance (p < 0.05) and at least a small effect size have been highlighted as 'significant' (the model performance is included in 4.5 Statistical notation).

#### 4.4 Non-response bias

Tables 1 to 5 show EDI category comparisons between clinical dental technicians who completed the working patterns questions and the numbers of clinical dental technicians on the GDC's register.

The main difference between the clinical dental technician register's EDI characteristics and working patterns sample were:

**Ethnicity:** Clinical dental technicians who identified their ethic group as 'White' accounted for 83% of working patterns respondents, compared to 78% of registered clinical dental technicians (Table 2).

**Marital status:** Clinical dental technicians who identified their marital status as 'Married' represented 62% of the working patterns respondents, compared to 56% of registered clinical dental technicians (Table 3).

Table 1 - Sex from working patterns compared with register data

|                   | Clinical dental technician<br>working patterns respondents<br>(10/8/2024) (n=229) | Clinical dental technician register data (10/8/2024) (n=442) |
|-------------------|---|--|
| Female            | 14%   | 14%  |
| Male              | 83%   | 80%  |
| Prefer not to say | 4%  | 5%   |
| Total             | 101%*   | 99%*   |

<sup>\*</sup>due to rounding

Table 2 – Ethnicity from working patterns compared with register data

|   | Clinical dental technician working patterns respondents (10/8/2024) (n=229) | Clinical dental technician register data (10/8/2024) (n=442) |
|---|---|--|
| Asian or Asian British                        | 5%  | 5%   |
| Black, Black British,<br>Caribbean or African | **  | 2%   |
| Mixed or multiple ethnic groups               | **  | 2%   |
| Other ethnic group                            | 1%  | 1%   |
| White   | 83%   | 78%  |
| Unknown                                       | **  | 4%   |
| Prefer not to say                             | 6%  | 8%   |
| Total   | 100%  | 100%   |

<sup>\*\*</sup>Percentages based on counts of less than 5 individuals have been suppressed along with the next highest to prevent identification.

Table 3 - Marital status from working patterns compared with register data

|  | Clinical dental technician working patterns respondents (10/8/2024) (n=229) | Clinical dental technician register data (10/8/2024) (n=442) |
|--|---|--|
| Divorced   | 7%  | 7%   |
| Formerly in a civil partnership which is now legally dissolved | **  | 0%   |
| In a registered civil partnership                              | **  | 1%   |
| Married  | 62%   | 56%  |
| Never married and never registered in a civil partnership      | 10%   | 12%  |
| Separated, but still legally in a civil partnership            | 0%  | 0%   |
| Separated, but still legally married                           | **  | 2%   |
| Surviving partner from a registered civil partnership          | 0%  | 0%   |
| Widowed  | 2%  | 1%   |
| Unknown  | **  | 8%   |
| Prefer not to say  | 11%   | 12%  |
| Total  | 100%  | 99%*   |

<sup>\*</sup>due to rounding

<sup>\*\*</sup>Percentages based on counts of less than 5 individuals have been suppressed along with the next highest to prevent identification.

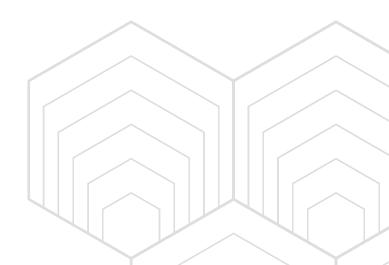


Table 4 - Sexual orientation from working patterns compared with register data

|                          | Clinical dental technician<br>working patterns respondents<br>(10/8/2024) (n=229) | Clinical dental technician register data (10/8/2024) (n=442) |
|--------------------------|---|--|
| Bisexual                 | **  | 1%   |
| Gay/Lesbian              | **  | 1%   |
| Other sexual orientation | 0%  | 0%   |
| Straight/heterosexual    | 87%   | 83%  |
| Unknown                  | 2%  | 4%   |
| Prefer not to say        | 9%  | 11%  |
| Total                    | 99%*  | 100%   |

<sup>\*</sup>due to rounding

Table 5 – Age from working patterns compared with register data

|       | Clinical dental technician working patterns respondents (10/8/2024) (n=229) | Clinical dental technician register data (10/8/2024) (n=442) |
|-------|---|--|
| 16-21 | 0%  | 0%   |
| 22-30 | 3%  | 5%   |
| 31-40 | 12%   | 13%  |
| 41-50 | 27%   | 24%  |
| 51-60 | 36%   | 34%  |
| 61-65 | 13%   | 13%  |
| 65+   | 10%   | 11%  |
| Total | 101%*   | 100%   |

<sup>\*</sup>due to rounding

#### 4.5 Statistical notation

<sup>\*\*</sup>Percentages based on counts of less than 5 individuals have been suppressed along with the next highest to prevent identification.

<sup>&</sup>lt;sup>a</sup> Pearson Chi-Square  $X^2 = 56.8$  (n=229), df = 2, p = 0.01, Cramer's V = 0.5 (strong effect size)



General Dental Council 37 Wimpole Street London W1G 8DQ 020 7167 6000