

University of Dundee

Universal Health Visiting Pathway evaluation - phase 1: report - routine data analysis - workforce

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Evaluation of the Universal Health Visiting Pathway in Scotland Phase 1 Report - Routine Data Analysis - Workforce



CHILDREN, EDUCATION AND SKILLS



Contents	
List of figures	3
Introduction	5
Methods	8
Years of available data	8
Data source	8
Health Visitor staffing.....	8
Descriptive statistical analyses	9
Staff in post	9
Health Visitor Students.....	10
Vacancies.....	11
Turnover	11
Absence	11
Additional AfC sub job families	12
Missing data	12
Results.....	12
Health visitor staff in post.....	12
Students	19
Vacancies	22
Turnover	27
Absence.....	32
Conclusions	35
References	36
Appendix	37
Additional job sub families.....	37

List of figures

Figure 1 Number of health visiting staff in post (WTE) at the end of each quarter in NHS Scotland, between March 2011 and March 2019	14
Figure 2 Number of health visiting staff in post (head count) at the end of each quarter in NHS Scotland, between March 2011 and March 2019	17
Figure 3 Number of HV students training in NHS Scotland each academic year (including those funded by the Scottish Government <i>and</i> Health Boards), between March 2011 and March 2019	20
Figure 4 Number of vacancies for health visiting staff (WTE) in NHS Scotland at the end of each quarter, between March 2011 and March 2019.....	23
Figure 5 Vacancy rate for WTE HV staff in NHS Scotland at end of each quarter, between March 2011 and March 2019	25
Figure 6 Numbers of HV staff (WTE) joining or leaving NHS Scotland each financial year, between March 2011 and March 2019.....	28
Figure 7 Turnover of WTE HV staff leaving NHS Scotland as a percentage of WTE HV staff in post for each financial year, between March 2011 and March 2019.....	30
Supplementary Figure 1 Number of staff in post (WTE) in additional AfC sub job families at the end of each quarter in NHS Scotland, between March 2011 and March 2019: Public Health Nursing sub family.....	38
Supplementary Figure 2 Number of staff in post (WTE) in additional AfC sub job families at the end of each quarter in NHS Scotland, between March 2011 and March 2019: Community Nursing General sub family	39
Supplementary Figure 3 Number of staff in post (WTE) in additional AfC sub job families at the end of each quarter in NHS Scotland, between March 2011 and March 2019: Staff Nursery sub family	40
Supplementary Figure 4 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Ayrshire & Arran.....	42
Supplementary Figure 5 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Borders.....	43
Supplementary Figure 6 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Dumfries & Galloway.....	44
Supplementary Figure 7 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Fife	45
Supplementary Figure 8 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Forth Valley	46
Supplementary Figure 9 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Grampian	47
Supplementary Figure 10 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Greater Glasgow & Clyde.....	48
Supplementary Figure 11 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Highland (Please see Note 6 in Notes to Supplementary Figures 4-17)	49

Supplementary Figure 12 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Lanarkshire	50
Supplementary Figure 13 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Lothian	51
Supplementary Figure 14 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Orkney.....	52
Supplementary Figure 15 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Shetland.....	53
Supplementary Figure 16 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Tayside.....	54
Supplementary Figure 17 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Western Isles	55

Introduction

The early years of life have a profound impact on an individual's long-term health and wellbeing. Children's emotional, cognitive, linguistic, social and physical development, including the bond they form with parents, can significantly affect their future health and wellbeing as adults.¹ Investing in early years therefore creates opportunities for the future lives of children.²

In 2013, the Chief Nursing Officer's Directorate, Scottish Government, undertook a scoping exercise of health visiting practice in Scotland. The findings demonstrated that there was a significant degree of variation across the service in terms of assessment, resources and visiting patterns being delivered by health visitors to families in Scotland. A refocused approach to health visiting was published by the Scottish Government in 2013. The changes took into account the changing policy landscape relating to the early years and children and families, and sought to ensure that workforce capability and capacity would be equipped to successfully deliver these policies. Following substantial investment in the service, the Universal Health Visiting Pathway (UHVP) was introduced in 2015.³

The Universal Health Visiting Pathway

The UHVP refocuses the role of the health visitor and includes changes to caseload weighting and management; intervention delivery; education, training and resources; and visiting patterns.

The UHVP sets out a structured home visit programme for all families⁵, which includes an increased number of visits from what was previously delivered. All families are entitled to receive at least eleven routine visits from health visitors, eight within the first year of life and three child health reviews between 13 months and 4-5 years. Additional support is also provided according to the level of need in line with a proportionate universalism approach, where the service is provided to all families, but more of the service is provided to those with a greater need. The home visits begin from pre-birth until the child is five years old (or enters school).

The Evaluation of Health Visiting in Scotland

Following the review of health visiting and introduction of the health visiting pathway an evaluation of the service was commissioned by the Scottish Government in 2018. This evaluation of the Universal Health Visiting Pathway will be conducted in two phases. Phase 1 commenced in 2018 and will provide baseline outcomes data and early learning in regard to the processes of implementing the Health Visiting Pathway. Phase 2 will provide evidence in regard to the outcomes that health visiting

is contributing towards and to provide further information for the development of the processes health visitors use.

The evaluation is comprised of five key components:

- Review of the health visiting logic model and associated desired outcomesⁱ
- Analysis of the routine data collected as part of the health visiting role
- Survey of parents and health visitors
- Case note review
- Qualitative research with parents, health visitors and stakeholders

Aims of the evaluation

The aim of this study is to examine the extent to which the UHVP is implemented and delivered across Scotland and to assess any associated impacts. To achieve this, a robust mixed-methods realist evaluation proposal has been developed to understand 'what works for whom, why and in what circumstances'.

The key aims of the evaluation are:

- 1) to examine what elements of the UHVP are being implemented in which areas, when and how.
- 2) to determine the extent to which the UHVP is implemented and delivered across Scotland and assess any associated impacts over the longer term.
- 3) to identify and explain to what extent recommendations to fill gaps in the UHVP are delivered and their impacts on services, staff and children and families.

Reporting of the evaluation

The following four reports will be produced as part of the Phase 1 evaluation:

- Phase 1 Report – Primary Research with Health Visitors and Parents and Case Note Review (Published)
- Phase 1 Report – Routine Data Analysis – Workforce (this report)
- Phase 1 Report – Routine Data Analysis – Outcomes (Due to publish 2022)
- Phase 1 Report – Routine Data Analysis – Implementation and Delivery (Due to publish 2022)

Analysis of the routine data

As a key part of their role health visitors are required to routinely collect data about the families and children they visit over the course of the first five years of the child's

ⁱ The revised logic model with desired outcomes is detailed in appendix 2 of the report - Phase 1 Report – Primary Research with Health Visitors and Parents and Case Note Review
<https://www.gov.scot/isbn/9781802018455>

life. The routine data gathered provides an invaluable source of evidence about children in their earliest years in Scotland.

At present, national data is collected at the four formal assessment points via the Child Health Systems Programme (CHSP)ⁱⁱ; however, the only record of any further visits is within the clinical notes completed by the health visitor. Data for the 6-8 week and 27-30 months assessments have been collected since 2013, and data for the 13-15 month and pre-school assessments have been more recently added.

Alongside the CHSP data, other data sources, such as workforce data, are collected by health boards to monitor the health visiting workforce employed to deliver the Universal Health Visiting Pathway. Data collected in educational settings and by social work services in Scotland were also considered as part of this evaluation. The analysis plan for the routine data analysis was published in 2020.⁶

Workforce Routine Data Analysis

This report presents the findings of the analysis of the workforce routine data for the evaluation of the Universal Health Visiting Pathway. Within this report data relating to the workforce are analysed and presented: in particular, the report looks at the number of staff in post, vacancies and recruitment, turnover, staff absence and student numbers.

The changes brought about by the new pathway, which included additional visits to all families, meant that the health visiting workforce needed to be increased in order to ensure the pathway could be delivered effectively. Alongside the development of the pathway, a caseload weighting tool was developed. This tool aimed to ensure consistency in determining the number of health visitors required to deliver the health visiting pathway across Scotland.

In June 2014 the Scottish Government pledged to create an additional 500 new qualified health visitor posts by the end of 2018. This report examines routine data in order to explore the extent to which this pledge has been implemented. To do this it examines the number of health visitors in post and the number of students in training. Other aspects of the workforce, such as vacancies, turnover and absences are also explored to gain a better understanding of the health visiting workforce overall.

Research questions

The full research context is set out in Phase 1 Report - Primary Research with Health Visitors and Parents and Case Note Review. The specific intended outcomes of the UHVP have also been set out in a programme logic model.

In this report, the following specific research questions are addressed:

ⁱⁱ The Child Health Systems Programme (CHSP) can be found on Public Health Scotland's Website <http://www.isdscotland.org/Health-Topics/Child-Health/Child-Health-Programme/Child-Health-Systems-Programme-Pre-School.asp>

- What is the extent to which additional staff have been recruited to Health Visiting teams to support delivery of the UHVP?
- Are there any associated changes in indicators of staff wellbeing, such as absence and turnover rates?

Methods

Years of available data

For the first phase of the UHVP Evaluation RDA, in which workforce data have been analysed, nationally available data relating to health visitor staffing for the period January 2011 to March 2019 were used. This sought to cover the period prior to the investment in additional qualified health visitors by Scottish Government, to the period of time that the pledge of creating an additional 500 posts was due to be met (by December 2018). The time point of up to March 2019 is included as it can take some time for new health visitors to gain their registration and subsequently be included on the workforce data system at the correct band, the additional three months allows for this process to be accomplished. January 2011 was selected as the start date, as children born in January 2011 were the first group eligible to receive the 27-30 month review in April 2013.

Data source

Routine data for the Phase 1 workforce data analyses have been provided by NHS National Services Scotland (NSS) Information Services Division (ISD) (now Public Health Scotland) in the form of disclosure-controlled aggregate bespoke data extracts. The workforce data are mainly SWISS (Scottish Workforce Information Standard System) quarterly workforce census data (extracted from NHS Board HR systems and returned to ISD). Additional data on vacancies (returned by NHS Boards to ISD) and health visitor students (returned by NHS Education for Scotland (NES) to ISD) have also been explored. Data for phase 2 will be provided by NES Digital Data Group, which is now responsible for sourcing workforce data, following the creation of Public Health Scotland (PHS).

Health Visitor staffing

A national exercise to improve the quality of workforce data relating to community nursing was undertaken during 2014. Updated national guidance on assignment of staff to community nursing sub job families (including health visiting) was provided by ISD to health boards, and health boards systematically cleaned data on the SWISS national NHS HR system to ensure existing staff were assigned to the correct category. Consequently, data for the periods up to September 2014 and from March 2015 onwards are not directly comparable. However, this time period coincides with the recruitment of the additional 500 health visitors pledged by Scottish Government and therefore needs to be considered in this analysis.

In order to provide an estimate of health visitors in post at 31 March 2014, ISD produced retrospectively adjusted figures to provide a baseline that could be compared to data for March 2015 onwards (Information Services Division (ISD) Scotland 2016)⁴. ISD estimated that, at 31 March 2014, the whole-time equivalent (WTE) number of health visitors was between 1,047.9 (lower estimate) and 1,114.7 (higher estimate) (Information Services Division (ISD) Scotland 2016). For the purposes of the implementation evaluation, the higher estimate has been used as a baseline, with the lower estimate referred to additionally where appropriate.

Descriptive statistical analyses

The analyses are as follows: in the main text of this report, the results for Scotland as a whole are provided; supplementary figures displaying the number of (WTE) staff in post for individual NHS Boards are included in the appendix; and raw data (including additional data for individual Boards) are also provided through a set of supplementary data tables for transparency.

The analysis of workforce data is descriptive. Data around health visitor staffing have been presented using bar and line charts. In particular, we aimed to establish the extent to which additional staff have been recruited to HV teams to support delivery of the UHVP. Indicators of staff wellbeing, such as turnover and absence, and the profile of health visiting workforce are also presented. The number of staff in post and recruitment rate by health board were also detailed (see the appendix and supplementary tables respectively).

Staff in post

Staff are allocated to specific job and sub job families on the SWISS system, indicating the clinical area in which they work. The results in this report relate to staff allocated to the Health Visiting sub job family, which includes qualified HVs, HV students, and other staff working in HV teams. Within this, staff are allocated to different bands, known as Agenda for Change bands.

There are nine Agenda for Change (AfC) bands:

- AfC band 1-2 includes healthcare assistants
- AfC band 3-4 includes early years workers, family support workers, nursery nurses
- AfC band 5 includes staff nurses, health visitor students
- AfC band 6-9 includes health visitors, team leaders, practice teachers, HV managers, family nurses, family nurse supervisors.

As shown above, qualified health visitors are included in AfC band 6-9. The inclusion of additional roles within bands 6-9 means that we cannot be entirely clear that any increase shown in this band is solely down to an increase in HVs alone, and should therefore be treated with caution.

Student health visitors employed by a host health board while undertaking the health visiting programme are also included in the health visiting staff in post data as band 5s. It should be noted that registration as a health visitor following the end of training can take 2-3 months. Thus immediately at the end of training a HV might be working as a fully qualified HV but may not have been moved over to the HV job family, and would not have been counted in the reporting period up to December 2018 (when the Scottish Government had pledged to provide an additional 500 health visitor posts). For this reason, the December 2018 workforce figures are likely to be a slight underestimate, due to the January 2018 intake of HV students having just completed their course and likely waiting on their final registration to allow the post to be correctly categorised on the system to the appropriate AfC band and job family. For this reason the workforce data within the subsequent data extract (March 2019) is also shown in the results.

Results, for Scotland, are presented for health visitor staff in post, both in terms of whole-time equivalent (WTE) and head count, and vacancies; they are broken down into band and year quarter. Analyses of the WTE staff in post data, stratified by health board, are included in the appendix. In the appendix, we have also included plots for WTE staff in post in three additional sub job families (public health nursing, community nursing general, and staff nursery), solely to understand the degree of misclassification.

It should be noted that Highland Health Board has a different model for employing HVs, whereby the majority of HVs are employed by Highland Council rather than NHS Highland. This means that, although Highland HVs were included in the 500 additional HV posts commitment, they are not included in the workforce figures, either for the whole of Scotland or for Highland Health Board.

In terms of timelines, SWISS and vacancy quarterly census data are available for 31 March 2011 to 31 March 2019 (phase 1); HV student data are available for academic years (September to August) 2011/12 to 2018/19 (phase 1).

Health Visitor Students

Students have been categorised into three mutually exclusive states, based on their training record: active, inactive (i.e. discontinued) or complete. The results in this report shows the status of HV students at 30 August 2019 (the end of the academic year that included December 2018 – the date by which the 500 new HV posts should be in place). As would be expected, more recent cohorts of HV students show higher percentages of active students and lower percentages of complete students than earlier cohorts, as earlier cohorts have had more time in which to complete their course. Time to completion is also affected by whether the student is studying full or part time.

The courses that those studying to be health visitors can undertake include; Registered Specialist Community Public Health Nurse – Health Visitor (R_HV) and Specialist Practitioner Public Health Nursing – Generic (R_PHN), where students studied at Glasgow Caledonian University, Queen Margaret University, University of Edinburgh, Robert Gordon University, University of Stirling, or University of the

West of Scotland. These are the courses included in the analysis. Those studying outwith Scotland are not included in the data.

Vacancies

Vacancies are defined as health visiting posts that have been cleared for advertisement by the local NHS health board. There are graphs displaying the number of vacancies at each quarter, and the vacancy rate, which has been calculated as follows:

$$\text{Vacancy rate} = \frac{\text{WTE vacancies}}{\text{WTE establishment}}$$

where

$$\text{Establishment} = \text{WTE staff in post} + \text{WTE vacancies.}$$

Before the review of nursing roles 'Transforming nursing, midwifery and health professionals roles' in 2014, WTE vacancies were not collected at AfC band level, and thus overall Scotland totals for WTE vacancies are provided between March 2011 and September 2014. From March 2015, vacancies are displayed as AfC band 1-2, 3-4, 5 and 6-9; the total numbers of vacancies during this period have also been calculated to enable comparison with the earlier period.

Turnover

When exploring turnover, the number of leavers and joiners in each financial year were examined, and then the turnover rate was calculated as follows:

$$\text{Turnover} = \frac{\text{Number of leavers in financial year } n \text{ to } n+1}{\text{Staff in post as at 31 March year } n}$$

Leavers are defined as employees who were in post as a health visitor (band 1-5 or 6-9, HV sub job family) as at 31 March year n , and not in post at 31 March year $n + 1$; joiners are defined as employees who were in post as a health visitor (band 1-5 or 6-9, HV sub job family) as at 31 March year $n + 1$, but not in post at 31 March year n . HV team members that moved location within Scotland, but remained employed as a HV team member (at band 1-5 or 6-9), were not counted as a 'leaver' or 'joiner'. Turnover is a snapshot for each year: any staff member who joined the HV team and left within the same financial year would not be included in the turnover.

Absence

Sickness absence is defined as normal sick leave, unpaid sick leave, industrial injury, accident involving a third party, and injury resulting from a crime of violence. The sickness absence rate is calculated as follows:

$$\text{Absence rate} = \frac{\text{Total hours lost through sickness absence}}{\text{Total contracted hours}}$$

Absence rate is displayed for AfC band 1-5 and 6-9.

Additional AfC sub job families

There are three additional AfC sub job families: public health nursing, community nursing general, and staff nursery nurses. The community nursing general sub job family was no longer in use after the Nursing review in 2014. Analyses relating to these three sub job families were conducted only to understand the degree of misclassification (e.g. if health visitor numbers went up, did they appear to be associated with a drop in numbers from another sub job family due to original misclassification), and a figure for each sub family is included in the appendix.

Missing data

As the analyses in this part of the evaluation are descriptive, instances of missing data will be reported, but multiple imputation will not be performed.

Descriptive analyses have been conducted in the Statistical package R, version R3.6.2.

Results

Health visitor staff in post

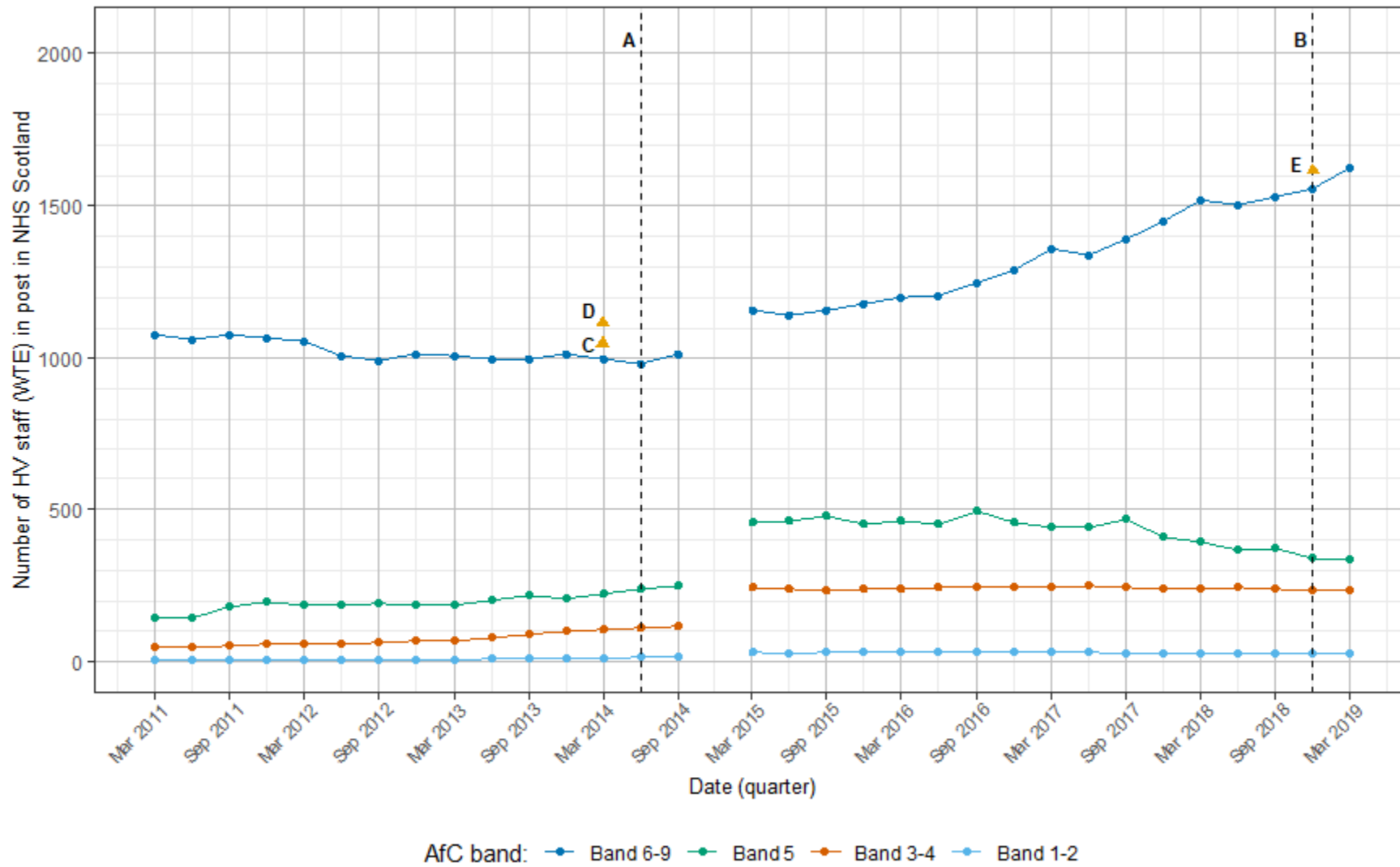
In order to support the delivery of the UHVP, an increase in health visitor numbers was required to effectively deliver the pathway. In June 2014 the Scottish Government committed to creating an additional 500 (WTE) qualified health visitors (AfC bands 6-9) posts by the end of December 2018. Due to the time taken to register as a health visitor following the completion of training (see notes on Staff in Post), some new HVs may not be included in these figures as band 6-9 until March 2019. In addition, figures should be treated with caution due to the banding being grouped across bands 6, 8 and 9 (in December 2018, it was announced that HVs would move to band 7), and Highland posts not all being included in these data. As can be seen from Figure 1, the numbers of qualified health visitors had been relatively static between 2012 and 2014, when the commitment was made by the Scottish Government to create more health visitor posts. It should be noted that national guidance was given on the AfC categories in order to improve these data, and a national exercise to clean these data was then undertaken. For this reason, data from March 2015 are not directly comparable with data before 2015.

The Information Services Division created an adjusted lower and upper estimate of the number of health visitors in post in March 2014, of 1047.9 and 1,114.7, respectively. From 2015, a clear upwards trajectory of numbers of AfC Band 6-9 is evidenced in the data, reaching 1,554.7 health visitors recruited by December 2018. Using the upper and lower estimates this equates to between 506.8 and 440 additional posts (point 'E' on Figure 1 being the higher estimate). Student numbers are not included in this figure and are examined in the next section of the report.

Alongside this, the number of WTE band 5 staff in post (staff nurses, health visitor students) fell somewhat, due to the fact that some staff moved from band 5 to band 6; numbers of band 1-4 staff in post remained consistent.

The majority of Health Boards followed clear upward trends in recruiting additional staff in Bands 6-9. Patterns by Health Board can be viewed in Supplementary Figures 4-17.

Figure 1 Number of health visiting staff in post (WTE) at the end of each quarter in NHS Scotland, between March 2011 and March 2019



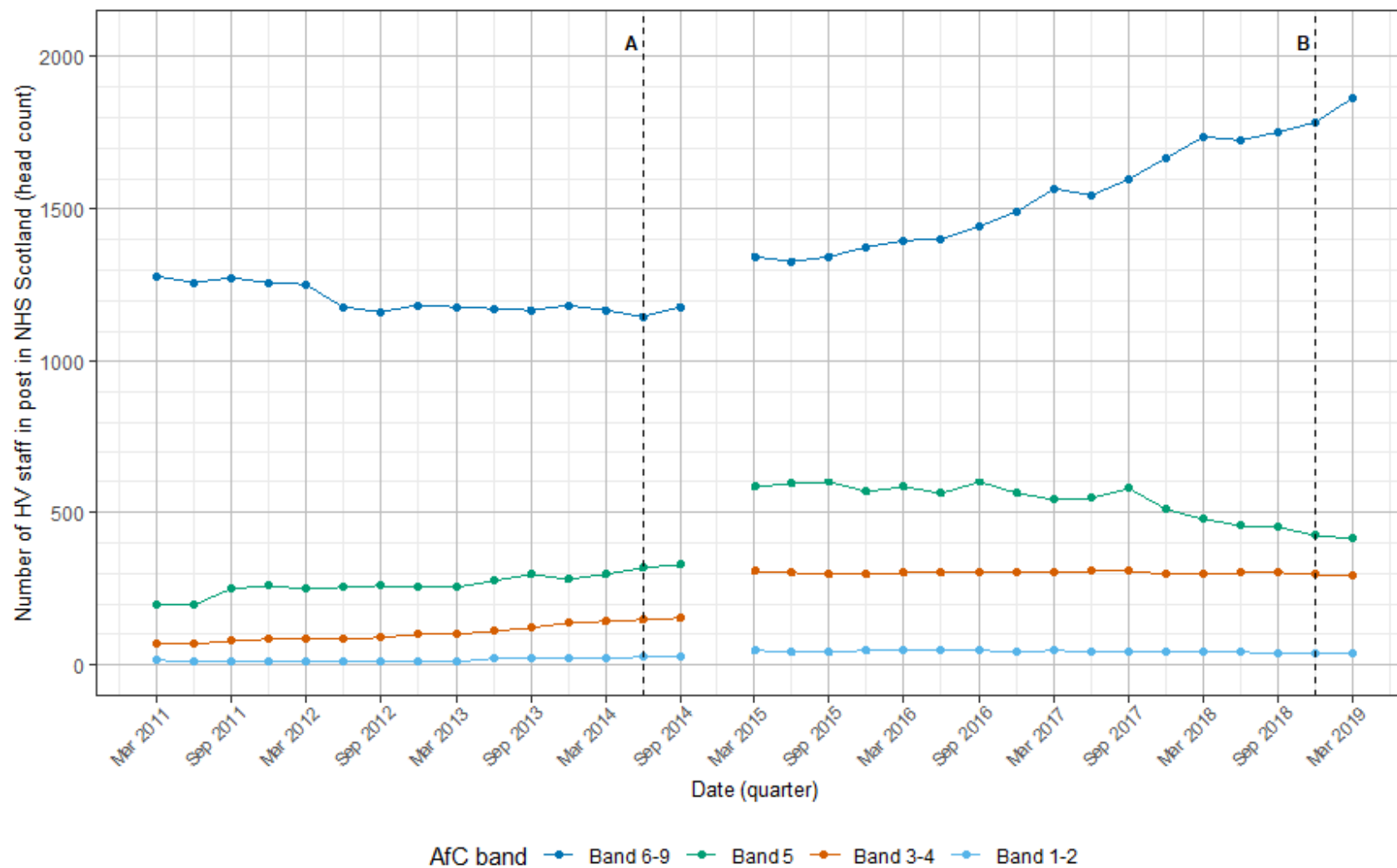
Notes to figures

- A June 2014: date when the Scottish Government announced a commitment to fund an additional 500 health visitor posts (WTE, AfC band 6-9) by the end of 2018.
- B December 2018: target date when 500 extra health visitor posts (WTE, AfC band 6-9) should be in place.
- C, D Lower and upper revised estimates of the number of qualified HVs in post (WTE, AfC band 6-9) in Scotland at 31 March 2014 (1,047.9 and 1,114.7 respectively) (see Note 6 below).
- E Target WTE number of qualified health visitors (AfC band 6-9) to be in post by 31 December 2018 (1,614.7) (Higher Estimate).

1. These data relate to individuals recorded against the Health Visiting sub job family in the Scottish Workforce Information Standard System (SWISS).
2. AfC bands:
 - AfC band 1-2 include healthcare assistants
 - AfC band 3-4 include early years workers, family support workers, nursery nurses
 - AfC band 5 include staff nurses, health visitor students
 - AfC band 6-9 include health visitors, team leaders, practice teachers, HV managers, family nurses, family nurse supervisors.
3. No AfC Band 1 health visiting staff are recorded, and the numbers recorded in band 5 include interns.
4. Data for health visiting staff in post are presented as both head count and whole time equivalent (WTE). An employee may hold more than one appointment in NHS Scotland. In the head count figure (displayed in Figure 2 below), the employee is counted under each area (i.e. post and/or Health Board) in which they work. Health visiting staff in post (WTE, displayed in Figure 1 above) adjusts head-count figures to take account of part-time working (i.e. one person may work 20 hours a week, so head count could make the workforce appear inflated).
5. Workforce data for health visiting staff in post are not available for 31 December 2014. A national exercise to improve the quality of workforce data relating to community nursing was undertaken in 2014. Updated national guidance on assignment of staff to community nursing AfC sub job families (including health visiting) was provided to Health Boards, and Boards systematically cleaned data to ensure existing staff were assigned to the correct category between October and December 2014. Data before this period (September 2014 and earlier) are not directly comparable with data from March 2015 onwards.
6. In Highland, health visitors are mainly employed by Highland Council, rather than NHS Highland. These posts are included in the additional 500 places to be recruited, but not included in the workforce data displayed in these figures.

7. In June 2014, the Scottish Government announced a commitment to increasing HV numbers (WTE, AfC band 6-9) by 500. The baseline date was taken as 31 March 2014, and the baseline number of WTE qualified HVs in March 2014 used for the target is between 1,047.9 (lower estimate) and 1,114.7 (higher estimate). These figures were provided by ISD in 2016 and represent a lower and a higher estimate for the number of health visitors in post in March 2014, adjusted for assumed undercounting based on the data-cleaning exercise undertaken later in 2014 (Information Services Division (ISD) Scotland 2016). The target WTE number of qualified health visitors to be in place by 31 December 2018 is therefore between 1,547.9 and 1,614.7. Due to the time taken to register as health visitors, the data are displayed with a three-month additional window up to March 2019.

Figure 2 Number of health visiting staff in post (head count) at the end of each quarter in NHS Scotland, between March 2011 and March 2019



Notes

See Notes to Figure 1 above.

Students

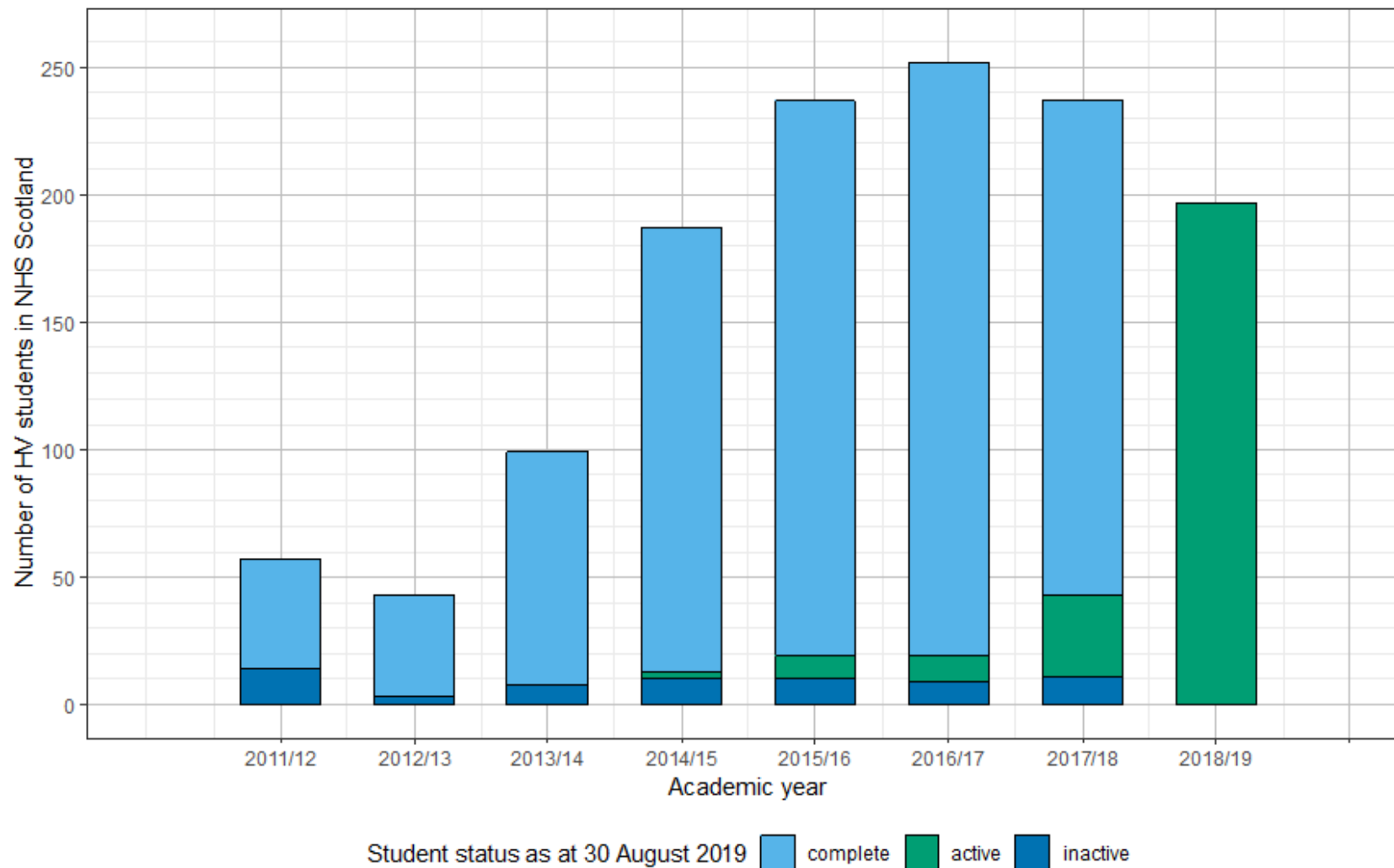
In line with the requirement for increased recruitment of health visitors, from the academic year 2014/15, a substantial increase in the number of health visiting students can be seen (Figure 3). Numbers rose from 99 in 2013/14 to 252 starting courses in 2016/17. This includes students funded by both the Scottish Government and individual Health Boards.

The Scottish Government funded a total of 862 additional new health visiting students over five academic years, split as follows:

- 181 students in 2014/15;
- 217 students in 2015/16;
- 162 students in 2016/17;
- 182 students in 2017/18; and
- 120 students in 2018/19.

The vast majority of students are seen to complete their course and qualify as a health visitor; of students who began their course between 2011/12 and 2017/18, 89.3% completed their course and qualified as a health visitor. It should be noted that more than 500 HVs are required to be trained to account for those that do not complete the course and to accommodate part time working.

Figure 3 Number of HV students training in NHS Scotland each academic year (including those funded by the Scottish Government *and* Health Boards), between March 2011 and March 2019



Notes

1. These data were extracted from National Education for Scotland (NES) on 30 August 2019.
2. When a student starts, discontinues, restarts or completes a course, NES receives information from the provider university about the student, their course and associated training dates and course outcome.
3. A cohort is based on the academic year and runs from September to August inclusive.
4. Students are assigned to a cohort based on their earliest start date and remain with that cohort regardless of any subsequent change of course or provider. Assigning students to cohorts allows standardised comparisons on intakes and outcomes across years and providers.
5. Students can be categorised into one of three mutually exclusive states, based on their training record: active, inactive (i.e. discontinued) or complete. More recent cohorts may show higher proportions of active students and lower proportions of complete students than earlier cohorts, as earlier cohorts have had more time in which to complete their training.
6. Time to completion will also be affected by whether a student studies full or part time.
7. Courses included in the analysis as 'Registered specialist CPH nurse – health visitor' (R_HV) and 'Specialist pract. public health nursing – generic' (R_PHN) at all providers. Three students on the R_PHN course have been removed from the data after being identified by their university as school nurses rather than health visitors.
8. Cohort numbers may occasionally be slightly lower than the number of students beginning a course in a given year, since a student who started the course in an earlier year, but subsequently re-started or changed university will remain counted as part of an earlier cohort.
9. In June 2014, the Scottish Government announced a commitment to create an additional 500 health visitor posts by the end of 2018.

Vacancies

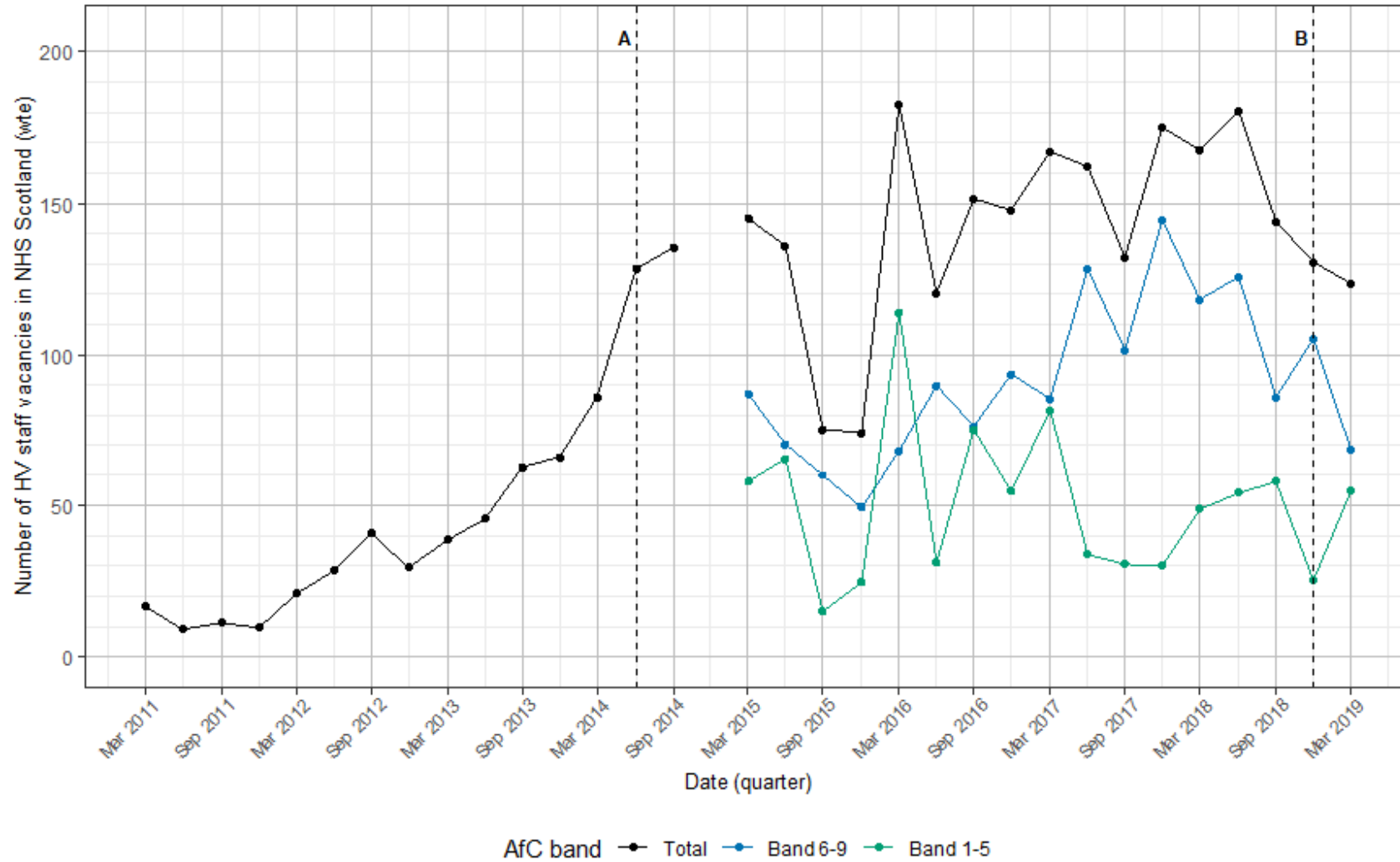
The number of vacancies for health visiting staff over time can be seen to fluctuate somewhat, particularly when broken down by AfC band (see Figure 4). Data were not collected at AfC band level before the Nursing review in 2014, and thus only total vacancies are available until March 2015. After 2015, vacancies were recorded as occurring in two groups: bands 1-5 or bands 6-9.

The number of vacancies increased sharply between 2012 and September 2014. A clear pattern can be seen for bands 6-9, mirroring the increases in health visitor numbers seen in Figure 1 and

Figure 2 above. Increases in levels of vacancies at bands 6-9 occur between the start of 2016 and the end of 2017, before falling sharply in 2018. By contrast, levels of vacancies for bands 1-5 remain lower than bands 6-9, with the exception of an isolated peak at 31 March 2016.

Figure 5 displays the vacancy rate and demonstrates a similar, albeit flatter, pattern. Vacancies at a Health Board level fluctuated widely, due to small numbers.

Figure 4 Number of vacancies for health visiting staff (WTE) in NHS Scotland at the end of each quarter, between March 2011 and March 2019

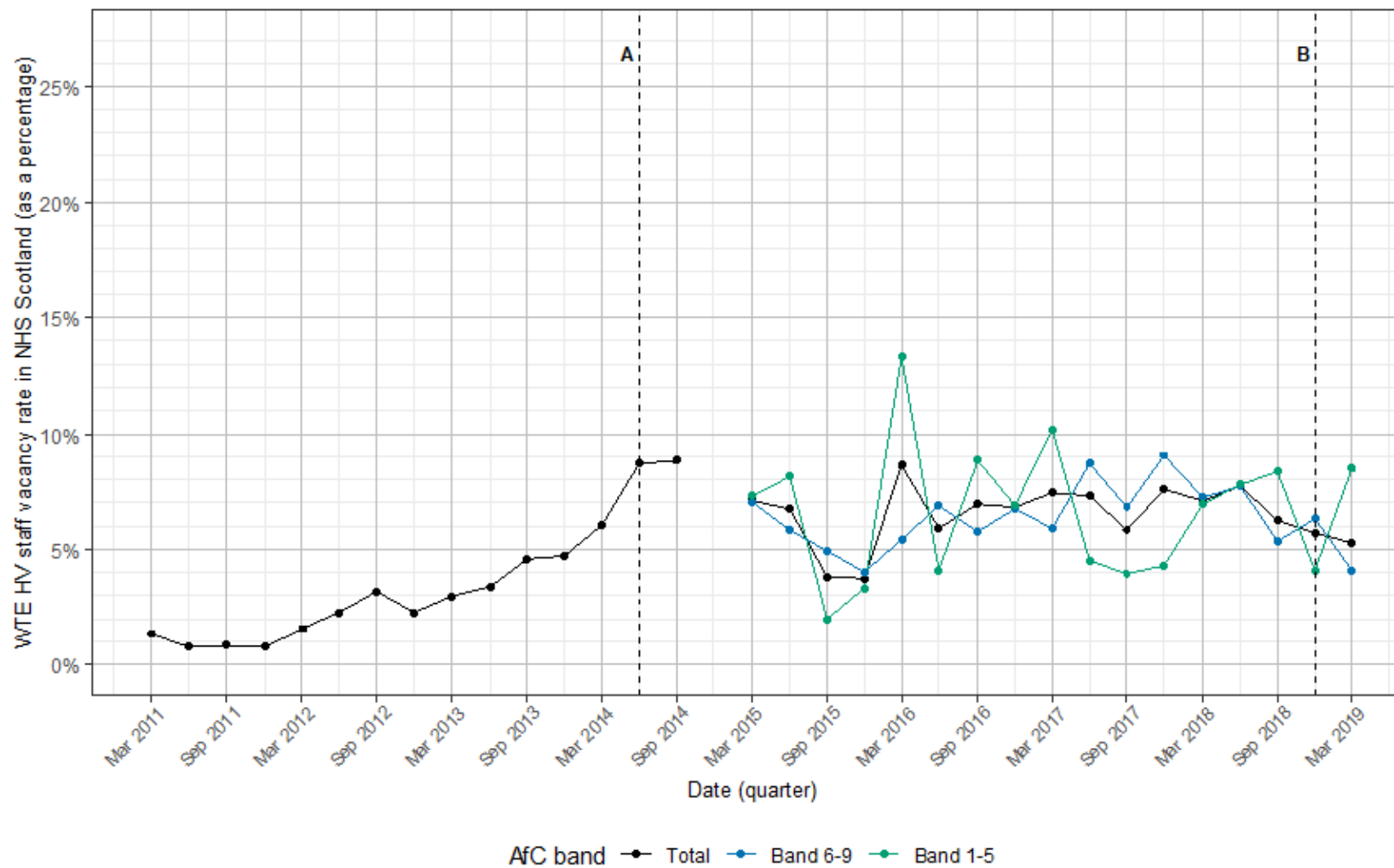


Notes

See Notes to Figure 1 above.

1. Vacancies are posts that have been cleared for advertisement by the local Health Board. Vacancies prior to the Nursing review in 2014 were not collected at individual AfC band level; vacancies for this time-period are presented as a total for the sub job family. To aid comparison, total vacancies have been calculated from March 2015 onward and added to Figure 4.
2. No data were recorded for AfC band 1-2 for several quarters after March 2015.
3. Establishment is calculated as WTE staff in post + WTE vacancies.
4. Vacancy rate is calculated as $\text{WTE vacancies} / \text{WTE establishment}$.

Figure 5 Vacancy rate for WTE HV staff in NHS Scotland at end of each quarter, between March 2011 and March 2019



Notes

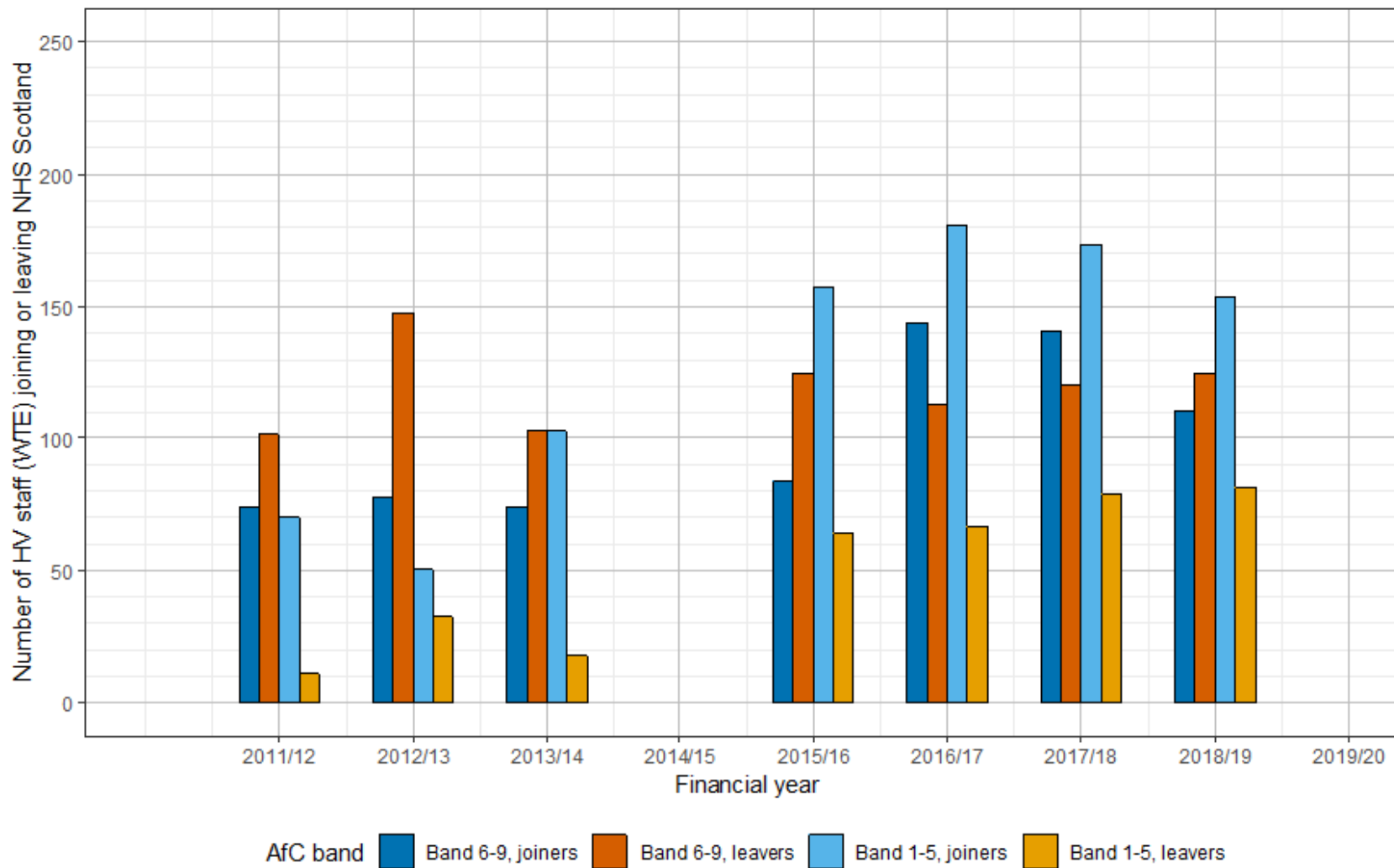
See Notes to Figure 1 and Figure 4 above.

Turnover

Clear changes can be seen before and after 2014/15 in relation to the levels of staff joining and leaving the health visiting profession (Figure 6). Prior to 2014/15, and also in 2015/16, the number of health visiting staff (WTE) at bands 6-9 leaving NHS Scotland far outweighed the numbers of staff joining NHS Scotland at this level. Note, however, that leavers may have left the profession or moved outwith Scotland; health visitors who moved position within NHS Scotland are not included in this figure. This trend continued in 2015/16, but in 2016/17 and 2017/18, the numbers of joiners outweighed the numbers of leavers in bands 6-9. For bands 1-5, the numbers of joiners were consistently higher than the numbers of leavers.

Figure 7 explores turnover of staff as a proportion of health visiting staff in post each year: between 2015/16 and 2018/19, turnover for bands 6-9 fell from around 11% to just over 8%. By contrast, turnover for bands 1-5 increased from almost 9% to just over 12%, some of which may related to staff upskilling and moving from band 5 to band 6/7 positions. At a Health Board level, it was difficult to come to any firm conclusions around patterns in turnover due to fluctuations in the figures associated with the relatively low numbers involved.

Figure 6 Numbers of HV staff (WTE) joining or leaving NHS Scotland each financial year, between March 2011 and March 2019



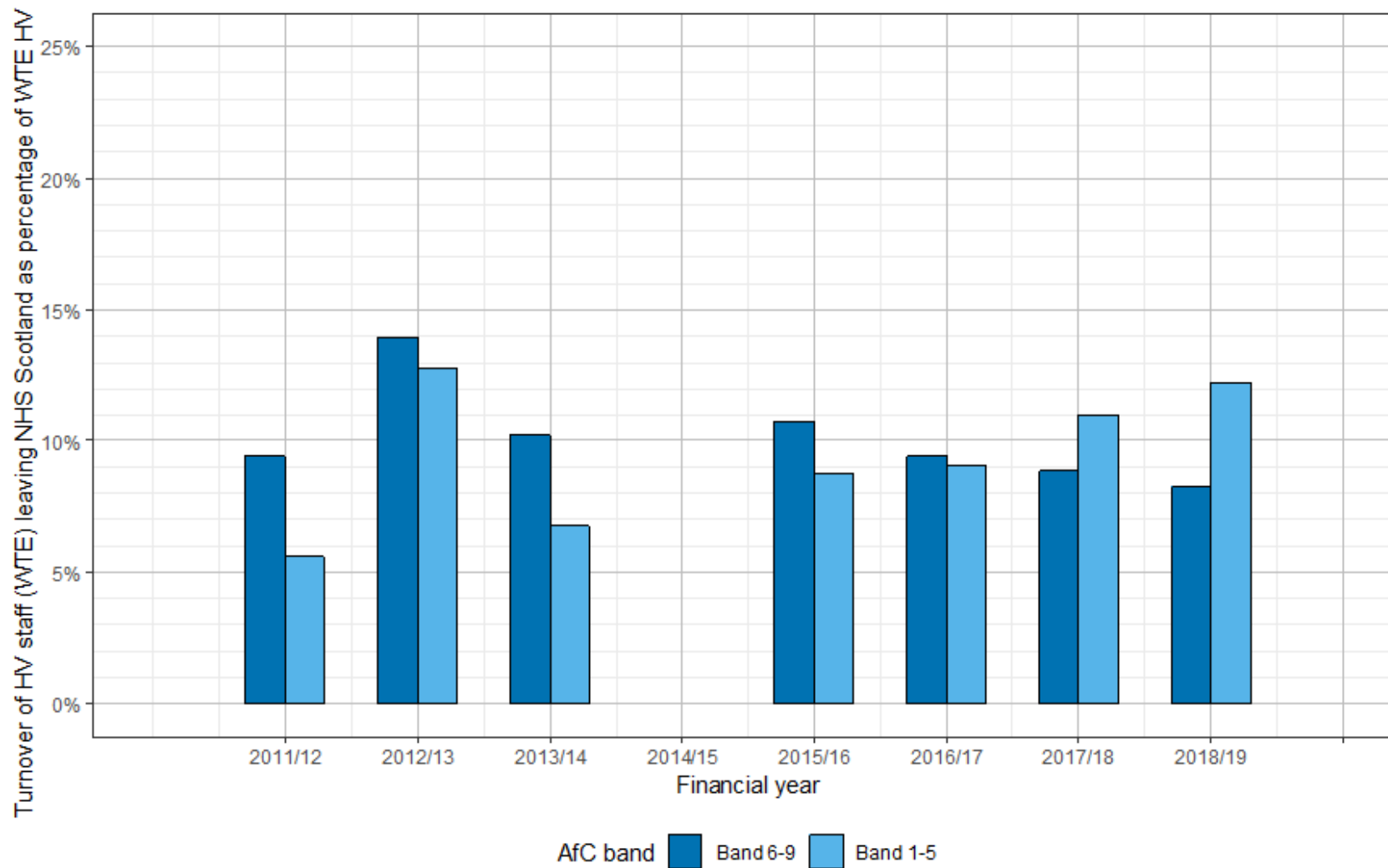
Notes

See Notes to Figure 1 above.

1. Turnover is a snapshot as at each financial year; any staff member who joined and left within the financial year is not included. The following assumptions have been made in calculating the number of leavers and joiners:
 - a. A joiner is defined as an employee who is in post X (band 1-5 or 6-9, HV sub job family) in NHS Scotland on 31 March year $n + 1$, but was not in post at 31 March year n
 - b. A leaver is defined as an employee who was in post X (band 1-5 or 6-9, HV sub job family) in NHS Scotland on 31 March year n , but is not in post in year $n + 1$

i.e. joiners and leavers are only measured by sub jobs, and changing an AfC band is not considered to be a sub job. HV team members who move location within Scotland, but remain employed as a HV team member (at band 1-5 or 6-9) will not be counted as a 'leaver' or 'joiner'.
2. Data for employees leaving or joining the health visiting team are not displayed for the financial year 2014/15. A national exercise to improve the quality of workforce data relating to community nursing was undertaken in 2014. Updated national guidance on assignment of staff to community nursing AfC sub job families was provided to Health Boards, and Boards systematically cleaned data to ensure existing staff were assigned to the correct category between October and December 2014. Data before this period (September 2014 and earlier) are not directly comparable with data from March 2015 onwards; therefore we were unable to display data for leavers and joiners during that financial year, since a proportion of the 'joiners' in 2014/15 are actually employees staying in the same post, but whose job was reclassified into the HV sub job family.

Figure 7 Turnover of WTE HV staff leaving NHS Scotland as a percentage of WTE HV staff in post for each financial year, between March 2011 and March 2019



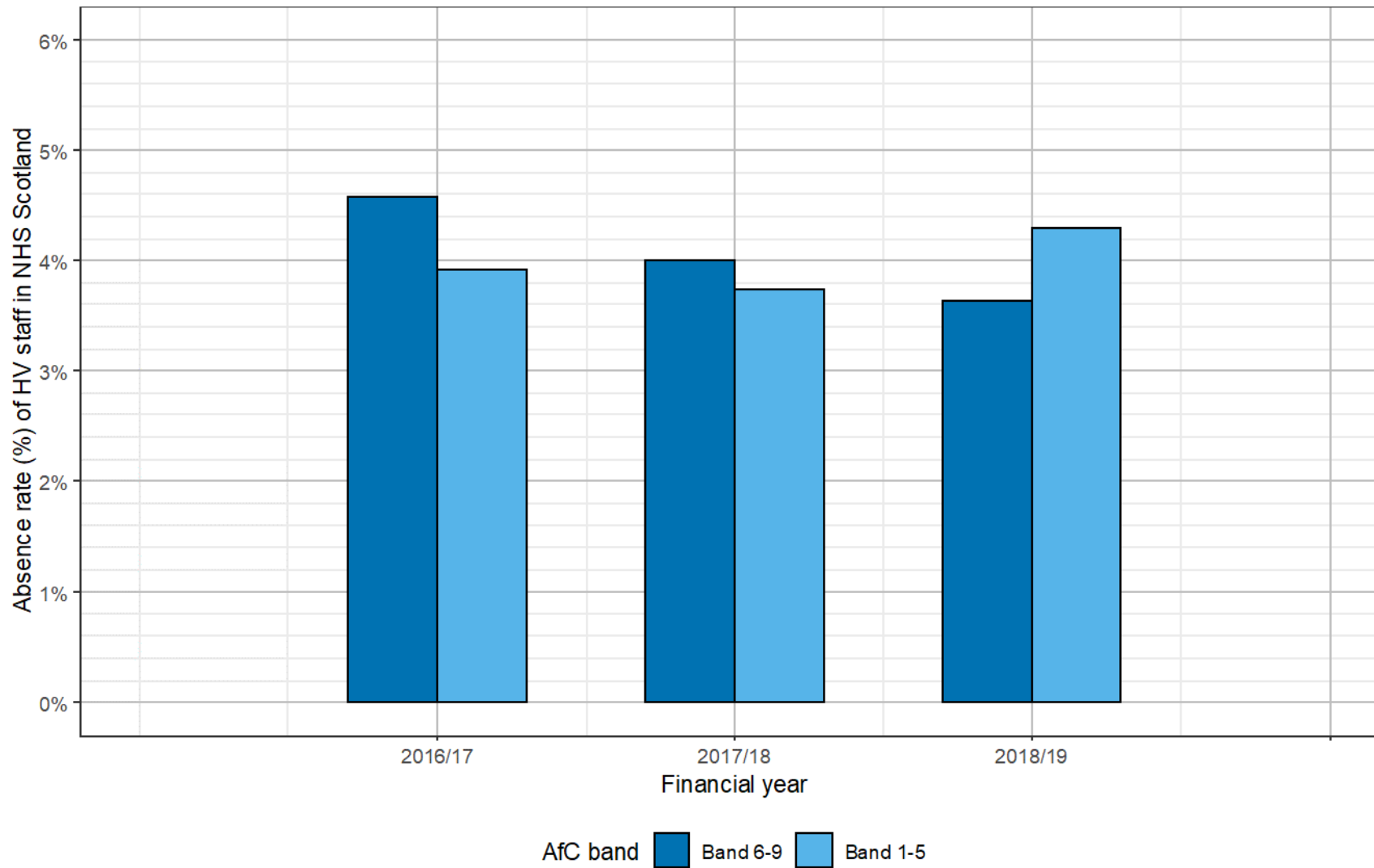
Notes

See Notes to Figure 1 and Figure 6 above.

Absence

Figure 8 displays the absence rate for different AfC bands. Data are only available from the 2016/17 financial year. Between 2016/17 and 2018/19, the absence rate for bands 6-9 (health visitors and supervisors) was seen to fall slightly from 4.6% to 3.6%, with lower bands fluctuating somewhat.

Figure 8 Absence rate of HV staff in NHS Scotland in each financial year, between April 2016 and March 2019, as a percentage of total contracted hours



Notes

See Notes to Figure 1 above.

1. The number of contracted hours includes the hours of permanent staff, staff on fixed term contracts or fixed/temporary contracts.
2. Sickness absence is defined as the following codes: Normal Sick Leave (SL), Unpaid Sick Leave (US), Industrial Injury (II), Accident involving a third party (AC), Injury resulting from a crime of violence (CV).
3. Sickness absence rate is calculated as hours lost due to sickness absence divided by total contracted hours.
4. These data include health visitor nursing sub job family only.

Conclusions

In order to support the delivery of the new Universal Health Visiting Pathway, in June 2014 the Scottish Government committed to creating an additional 500 WTE health visitor posts by the end of 2018. As the baseline date of 31 March 2014 occurred before the Nursing review, ISD provided two estimates of the WTE number of health visitors in post at that date (Information Services Division (ISD) Scotland 2016): the lower estimate was 1,047.9 and the higher estimate was 1,114.7.

Data from phase 1 of the evaluation indicates that at 31 December 2018, there were 1554.7 WTE health visitors (bands 6-9) in post, an increase of between 440 (WTE) from the upper bound or 506.8 (WTE) from the lower bound, of the number estimated at 31 March 2014. Figures should be interpreted with caution due to time taken to register new health visitors, missing data on Highland Council employed health visitors, and the grouped nature of the Agenda for Change bands. On the whole, however, a clear upward trajectory in terms of the creation of additional posts and recruitment of student health visitors can clearly be seen.

In line with this recruitment strategy, increases in vacancy rates in the years leading up to this point were highlighted. Few discernible patterns were found by Health Board, probably due to smaller numbers involved at this level. Potential detrimental impacts associated with indicators of staff wellbeing, such as higher levels of turnover, or decreases in completion rates for students, have not materialised, and, indeed, both absences and turnover have decreased in recent years.

This Workforce report, is the first part of three phase 1 routine data analysis reports. These findings in relation to the workforce should be read in the context of supporting the delivery of the UHVP.

References

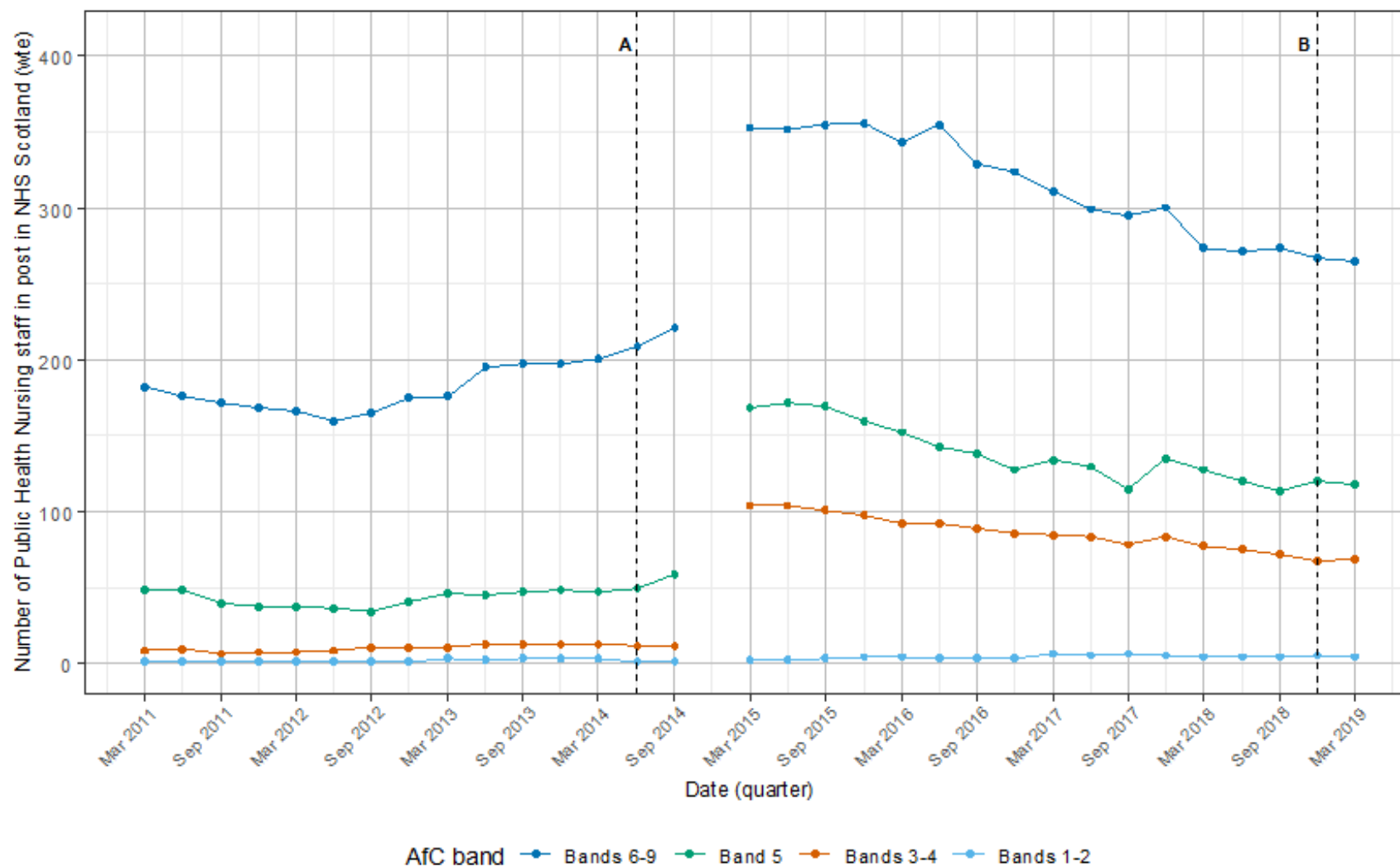
1. Roberts H (2012) *What Works in Reducing Inequalities in Child Health?* The Policy Press, Chicago.
2. Marmot M (2020) Health equity in England: the Marmot review 10 years on. *BMJ*; 368:m693 doi:10.1136/bmj.m693
3. CEL 13 (2013). Public health nursing services: future focus. Edinburgh, Scottish Government. Available at: http://www.sehd.scot.nhs.uk/mels/CEL2013_13.pdf (Accessed: 19 Feb 2021).
4. Information Services Division (ISD) Scotland (2016). Methodology to produce a revised estimate of health visitor staff in post as at 31 March 2014. N. S. S. N. ISD Scotland, NHS Scotland. Edinburgh.
5. Scottish Government (2015). *Universal Health Visiting Pathway in Scotland: pre-birth to pre-school*. Children and Families Directorate. Edinburgh, Scottish Government.
6. Horne, M., R. Wood, L. Marryat and J. Norrie (2020). *Evaluation of the Universal Health Visiting Pathway (UHVP): Evaluation of the implementation of the UHVP (Process evaluation) - Statistical analysis plan*. OSF, University of Edinburgh.

Appendix

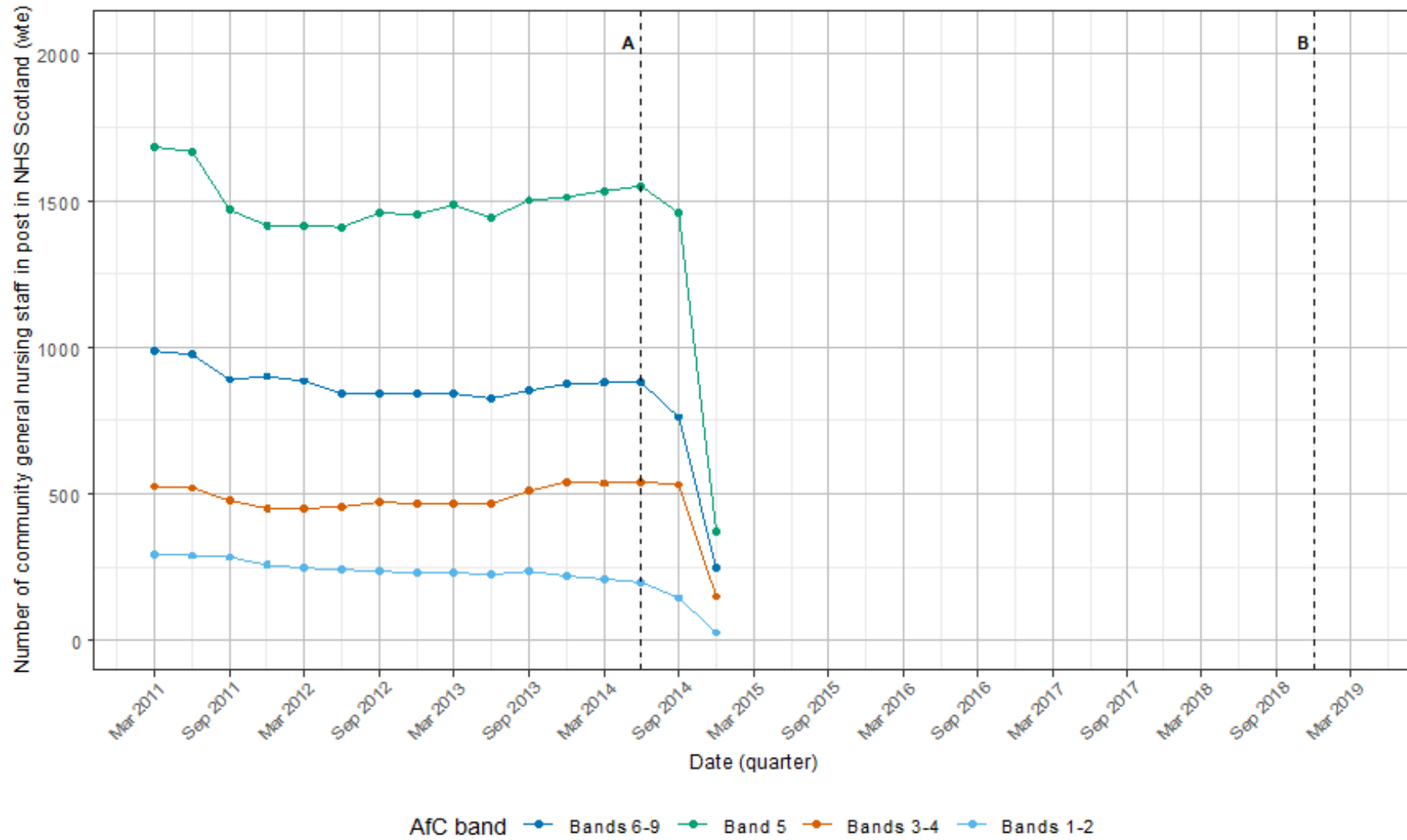
Additional job sub families

In Supplementary Figure 12 below, the number of staff in post (WTE) in three additional job sub families – public health nursing, community nursing general and staff nursery - between March 2011 and March 2019 are explored. The community nursing general job sub family was withdrawn from October 2014 as part of the Community Nursing review, and as a result about 850 WTE band 6-9 staff were therefore reclassified to other sub job families. There may also have been reclassification between similar specialties, in particular health visiting and public health nursing. Overall, the reclassification exercise led to an increase of around 150 WTE band 6-9 staff in both the health visiting and public health nursing categories. The remainder of the community nursing general staff were presumably therefore allocated to other community-based specialties. There are very small numbers of staff in the staff nursery sub job family, and these were not impacted by the reclassification. It is unclear exactly what is included in this category, but probably staff working in nurseries or child care facilities within health care settings.

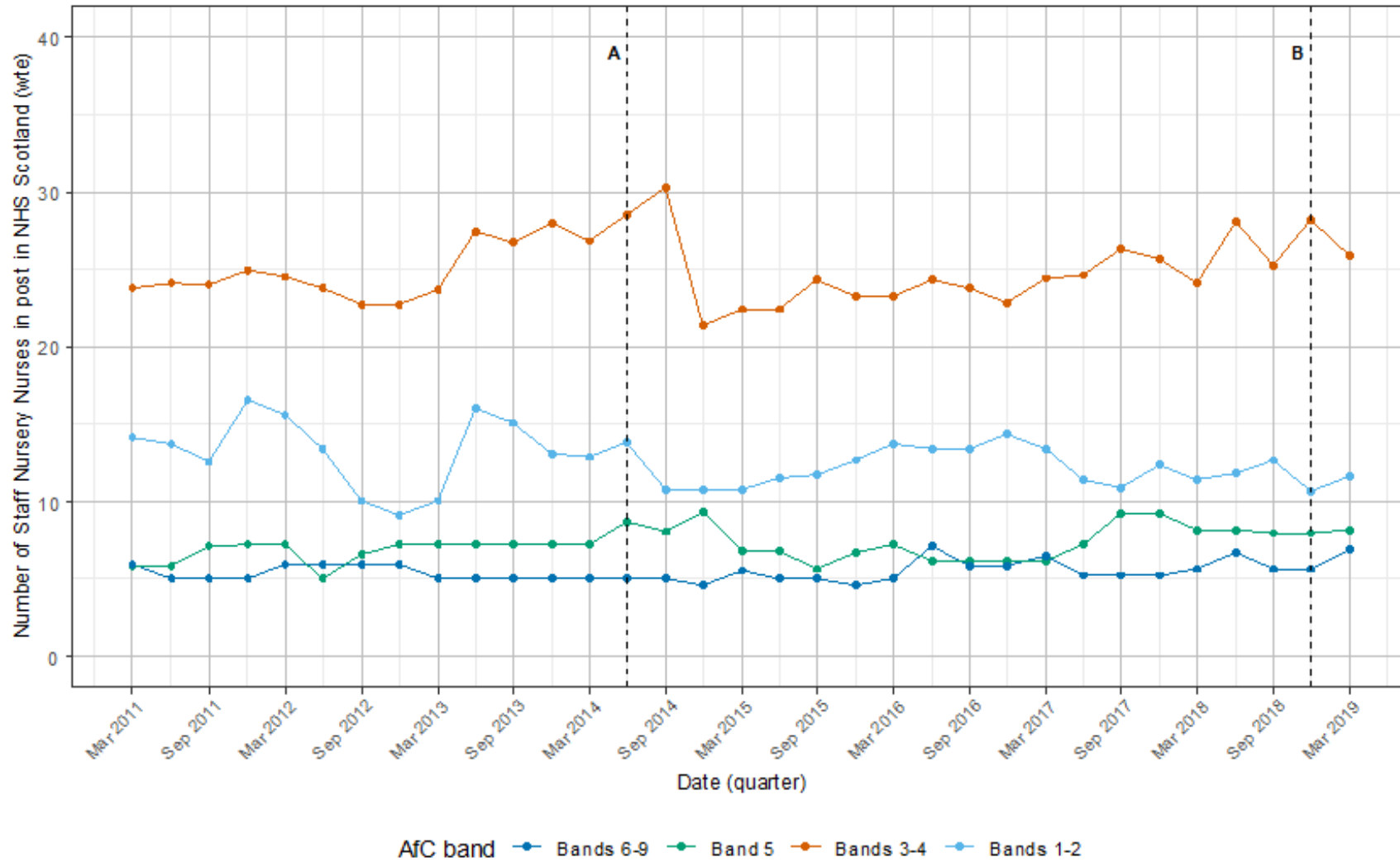
Supplementary Figure 1 Number of staff in post (WTE) in additional AfC sub job families at the end of each quarter in NHS Scotland, between March 2011 and March 2019: Public Health Nursing sub family



Supplementary Figure 2 Number of staff in post (WTE) in additional AfC sub job families at the end of each quarter in NHS Scotland, between March 2011 and March 2019: Community Nursing General sub family



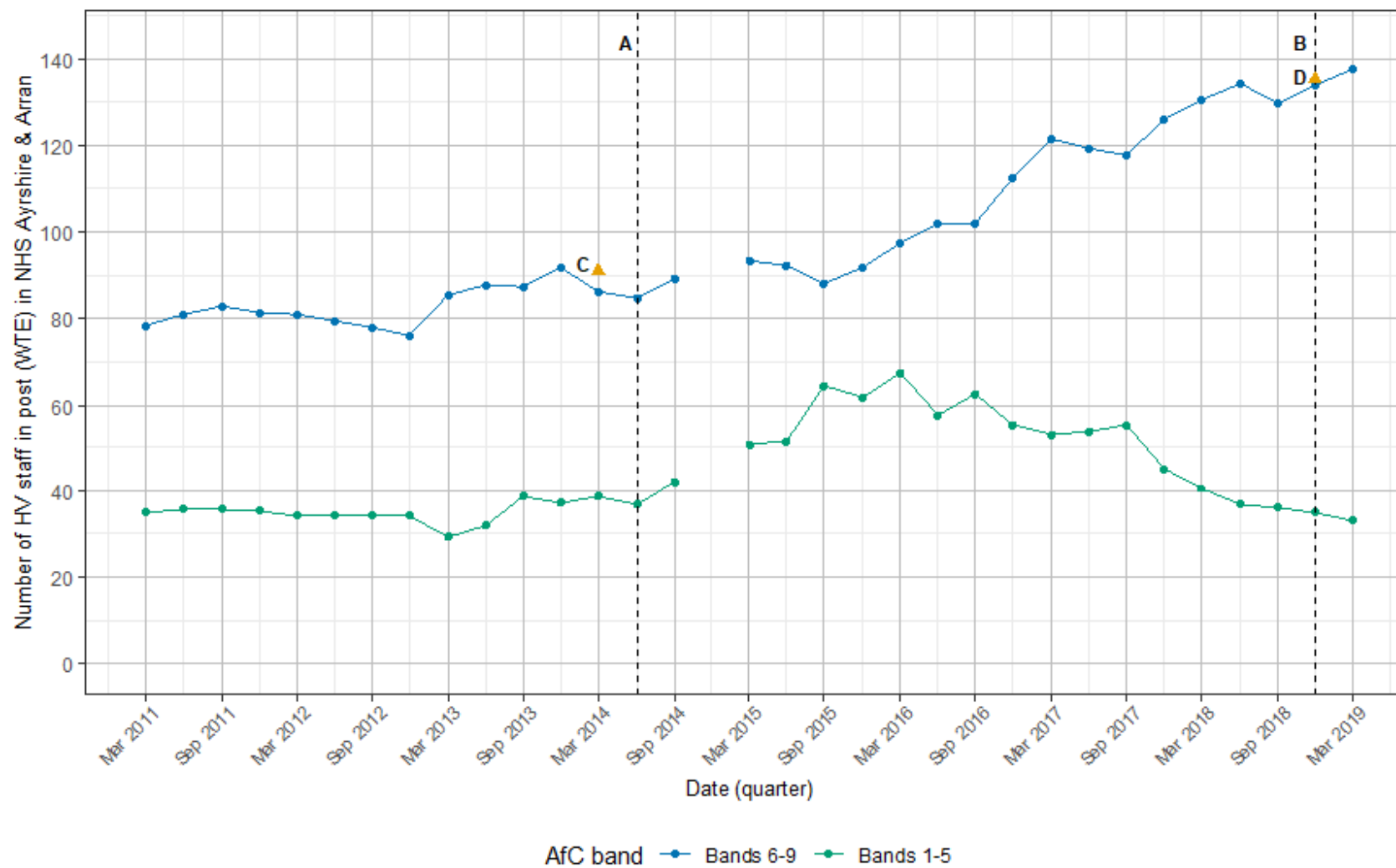
Supplementary Figure 3 Number of staff in post (WTE) in additional AfC sub job families at the end of each quarter in NHS Scotland, between March 2011 and March 2019: Staff Nursery sub family



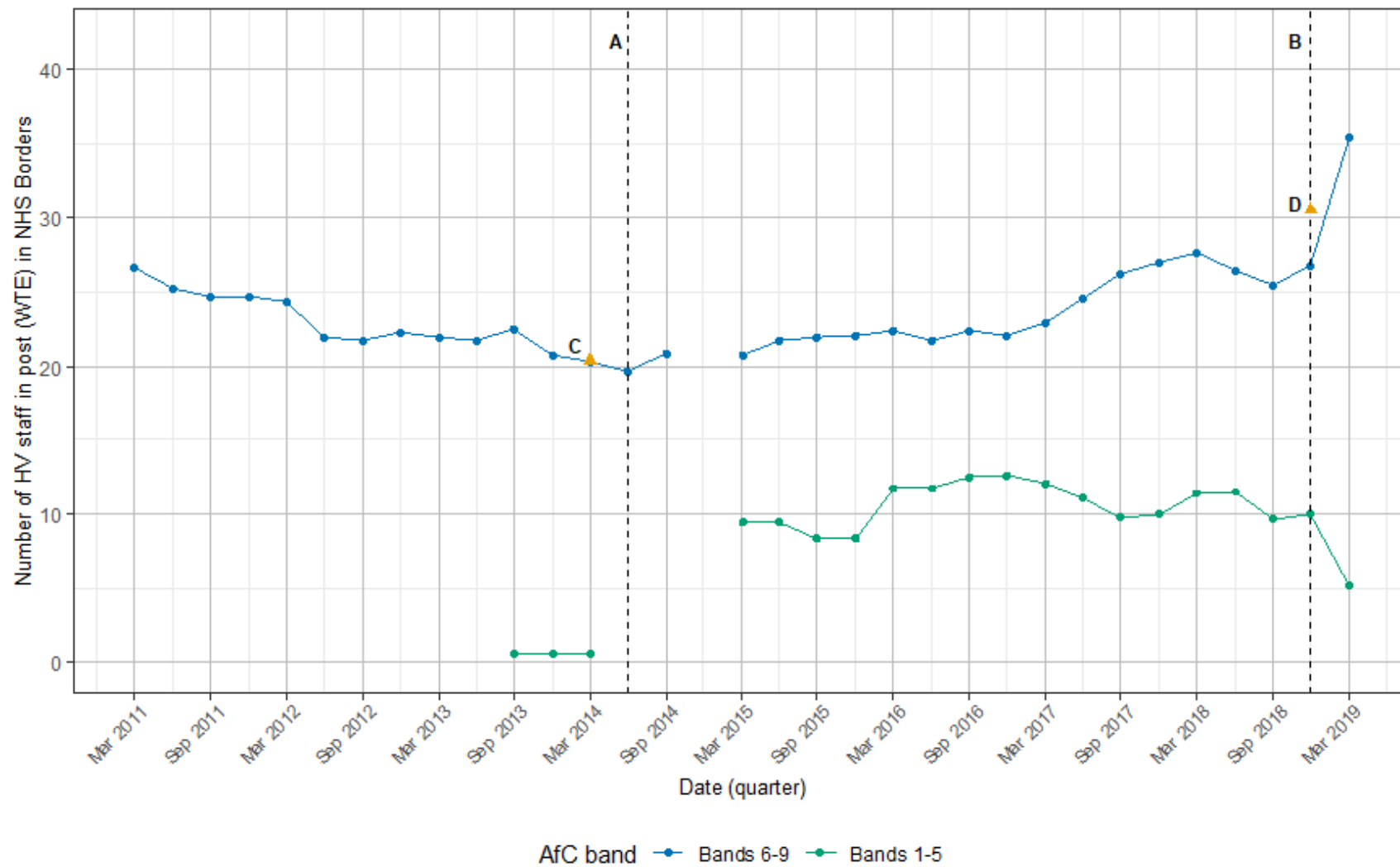
Notes to Supplementary Figures 1-3

- A June 2014: date when the Scottish Government announced a commitment to create an additional 500 health visitor posts (WTE, AfC band 6-9) by the end of 2018.
- B December 2018: target date when 500 extra health visitor posts (WTE, AfC band 6-9) should be in place.
1. These data relate to individuals recorded against the Public Health Nursing, Community General Nursing and Staff Nursery sub job families in the Scottish Workforce Information Standard System (SWISS).
 2. AfC bands: AfC band 1-2 include Healthcare assistants
AfC band 3-4 include Early years workers, Family support workers, Nursery nurses
AfC band 5 include Staff nurses, health visitor students
AfC band 6-9 include Health Visitors, Team leaders, Practice teachers, HV managers, Family nurses, Family nurse supervisors.
 3. No AfC Band 1 health visiting staff are recorded, and the numbers recorded in Band 5 include interns.
 4. Workforce data for Public Health Nursing staff in post are not available for 31 December 2014. A national exercise to improve the quality of workforce data relating to community nursing was undertaken in 2014. Updated national guidance on assignment of staff to community nursing AfC sub job family categories (including health visiting) was provided to Health Boards, and Boards systematically cleaned data to ensure existing staff were assigned to the correct category between October and December 2014. Data before this period (September 2014 and earlier) are not directly comparable with data from March 2015 onwards.
 5. The Community General Nursing sub job family was withdrawn from October 2014 as part of the Community Nursing review.

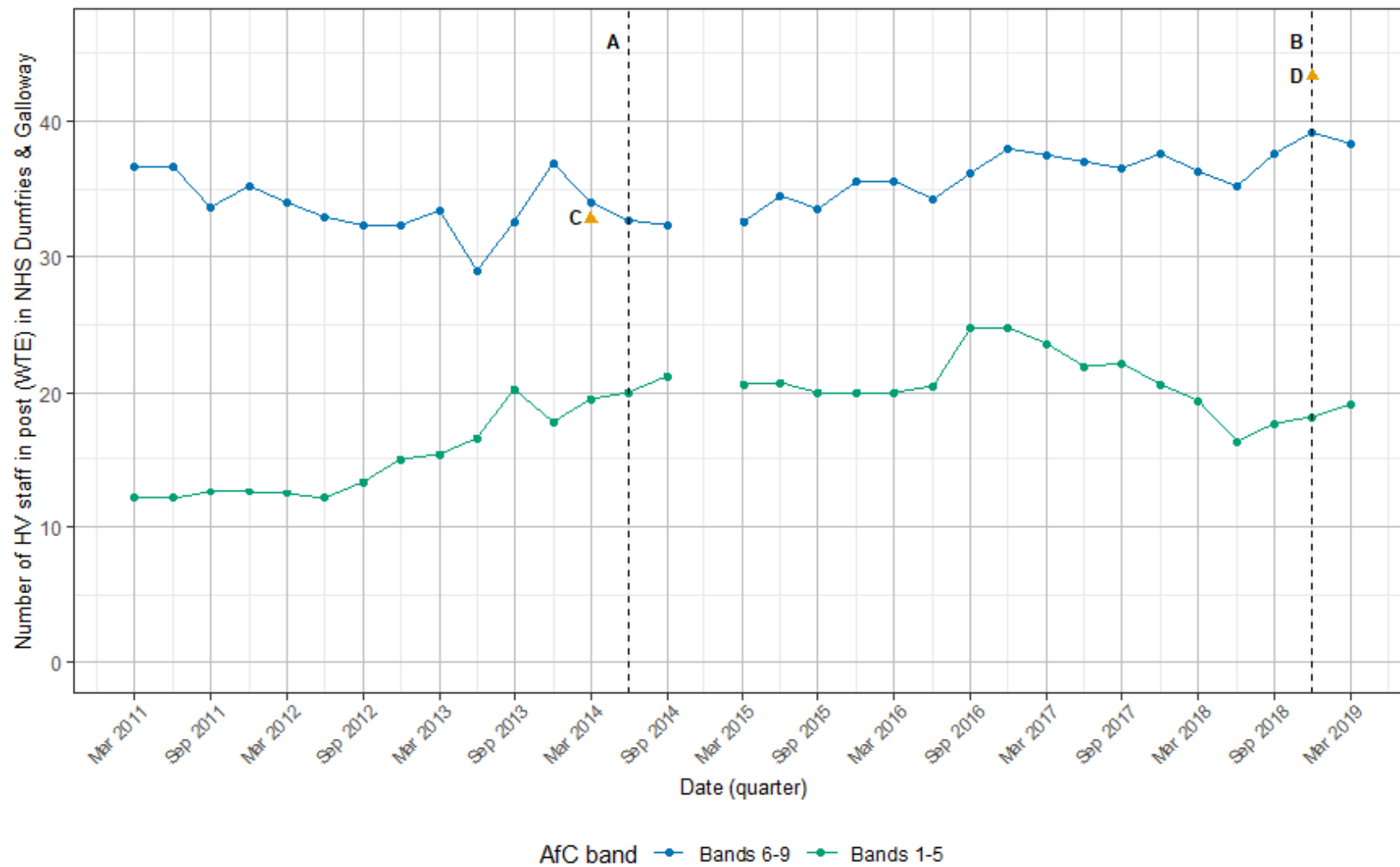
Supplementary Figure 4 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Ayrshire & Arran



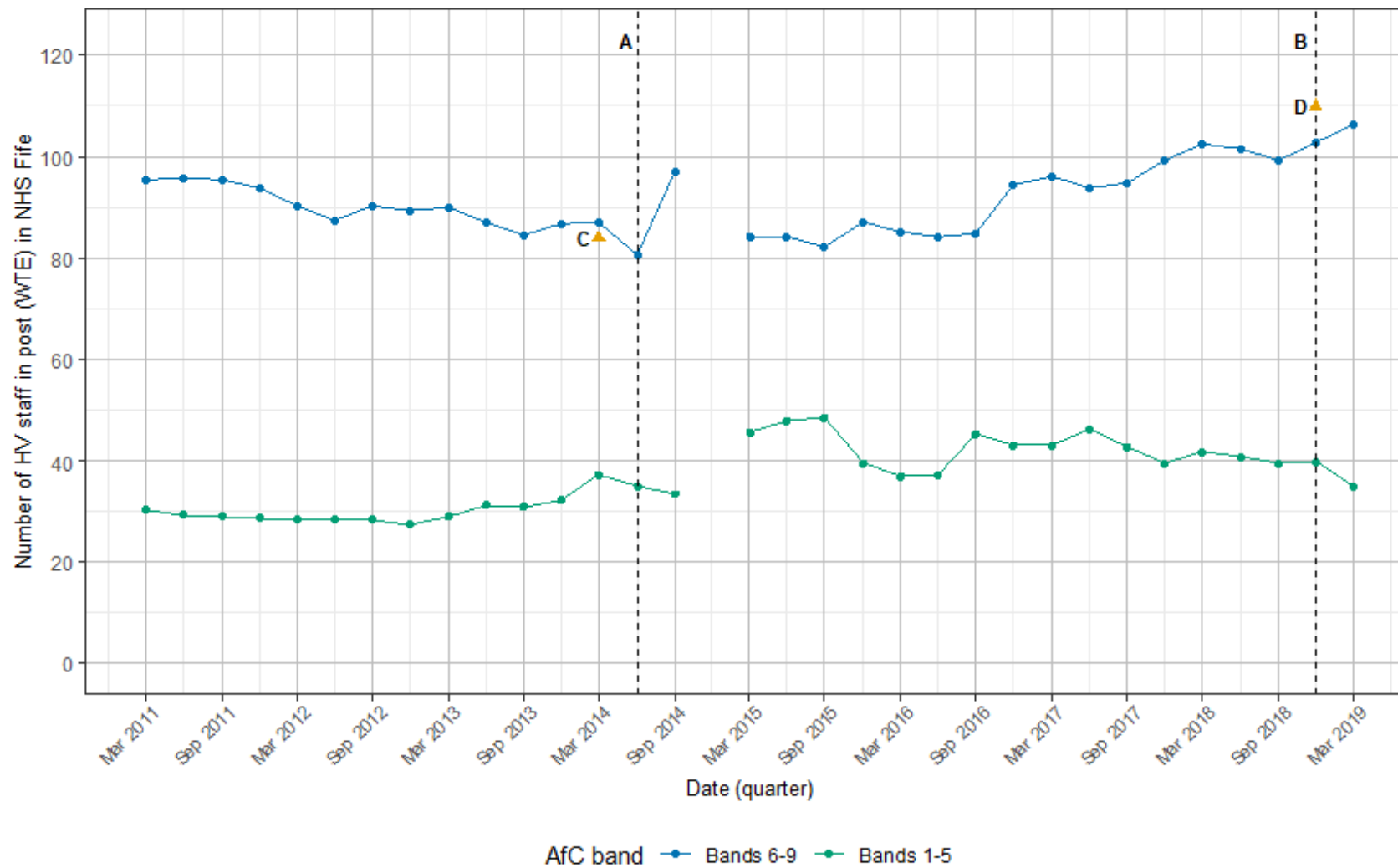
Supplementary Figure 5 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Borders



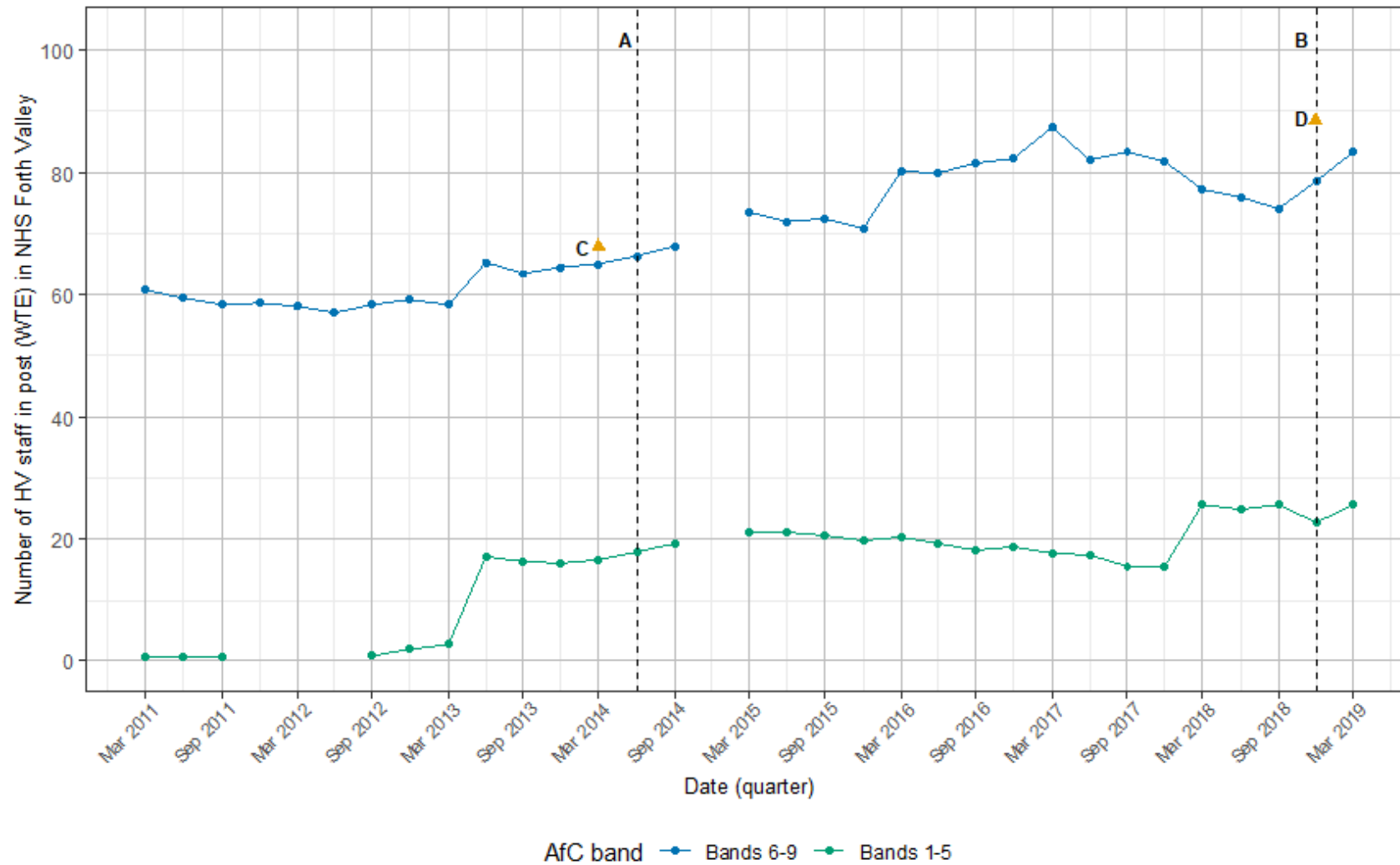
Supplementary Figure 6 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Dumfries & Galloway



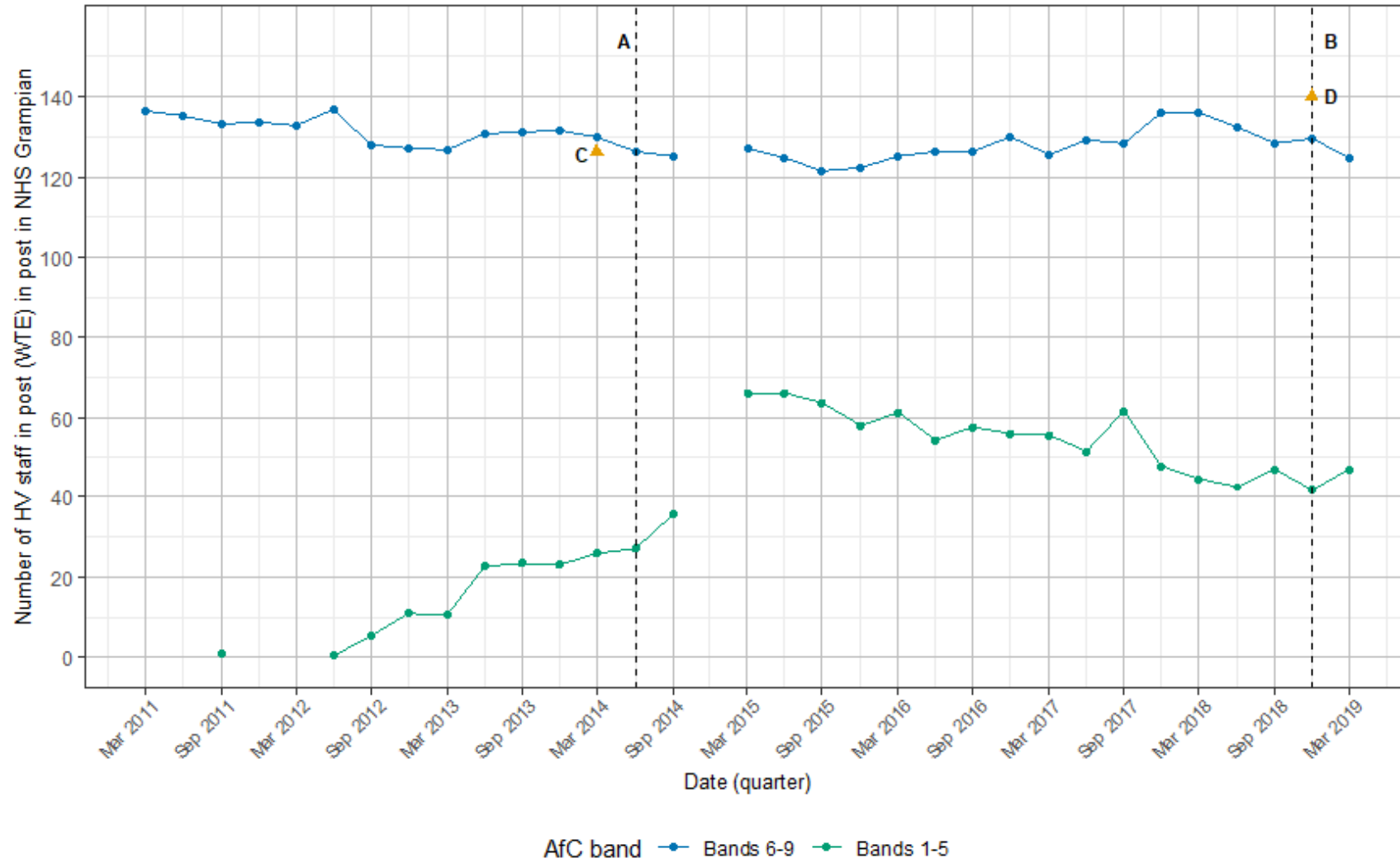
Supplementary Figure 7 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Fife



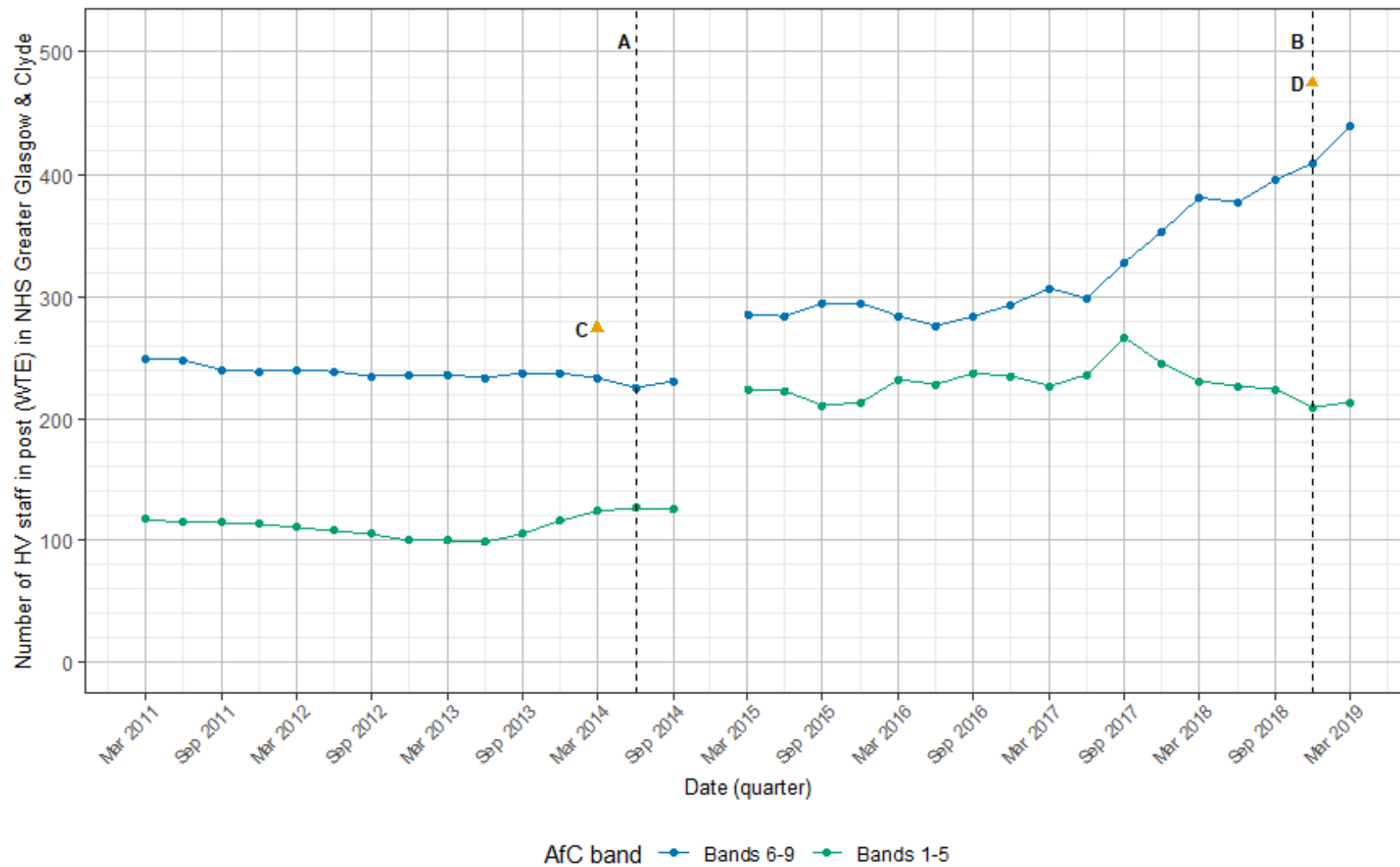
Supplementary Figure 8 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Forth Valley



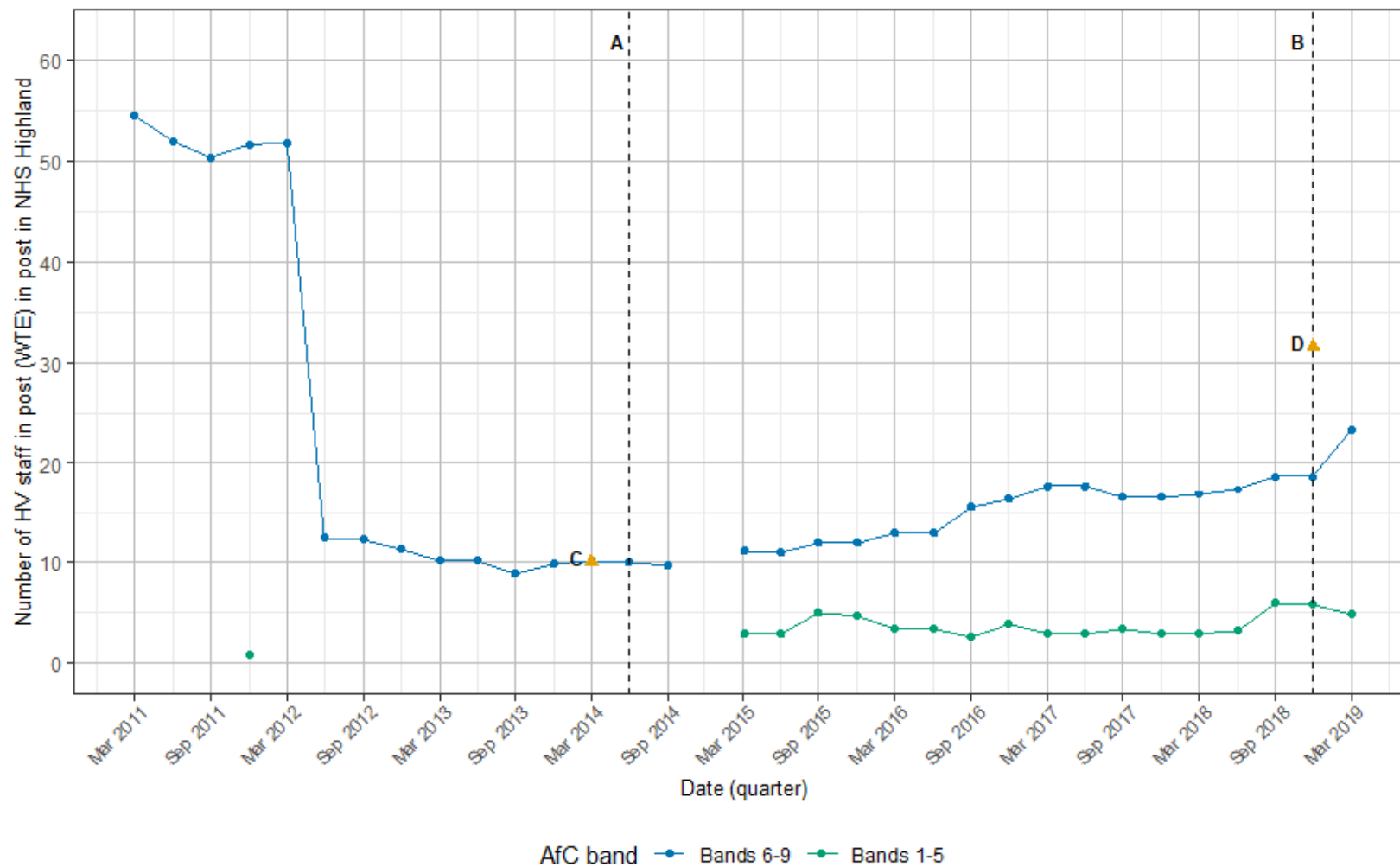
Supplementary Figure 9 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Grampian



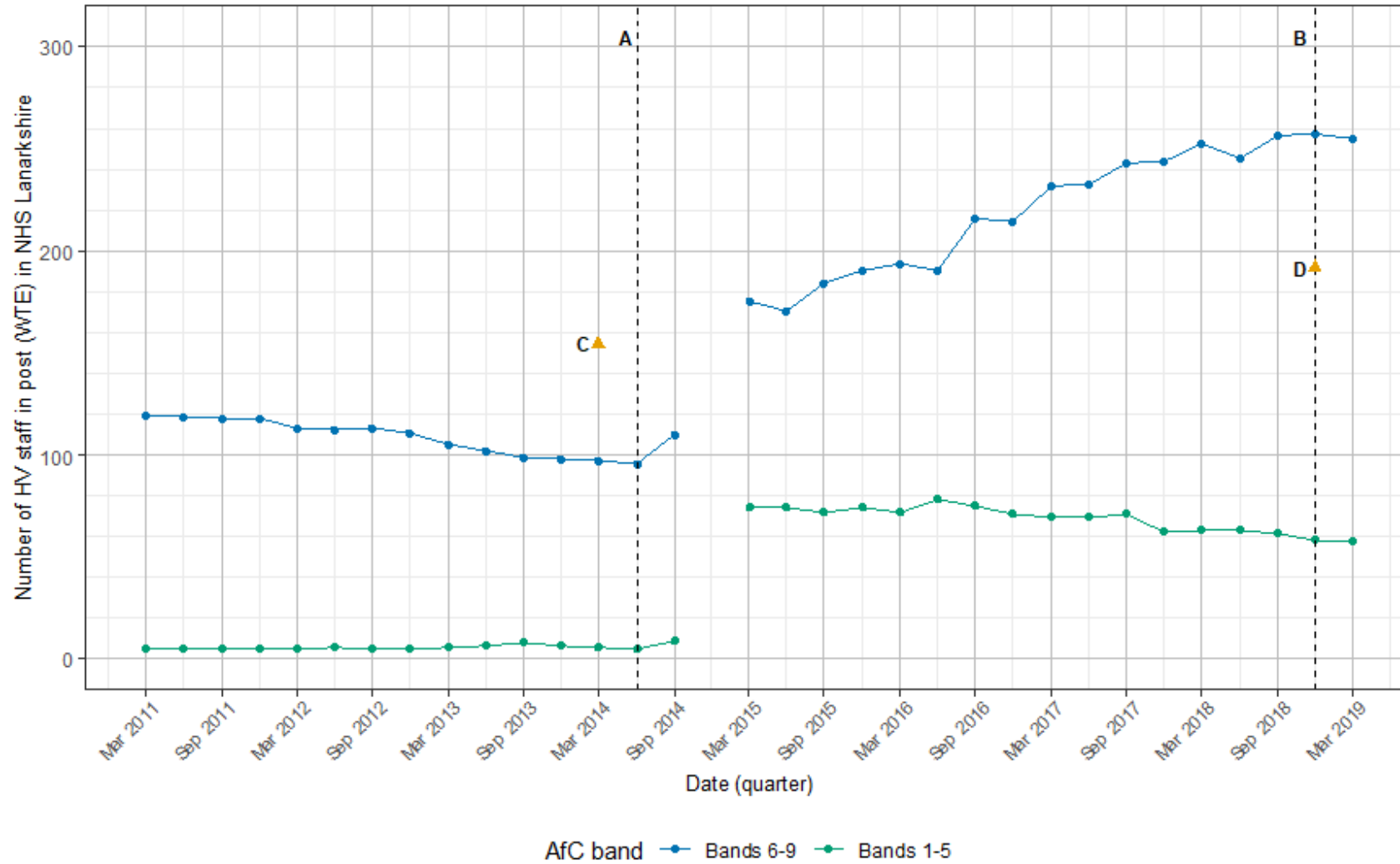
Supplementary Figure 10 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Greater Glasgow & Clyde



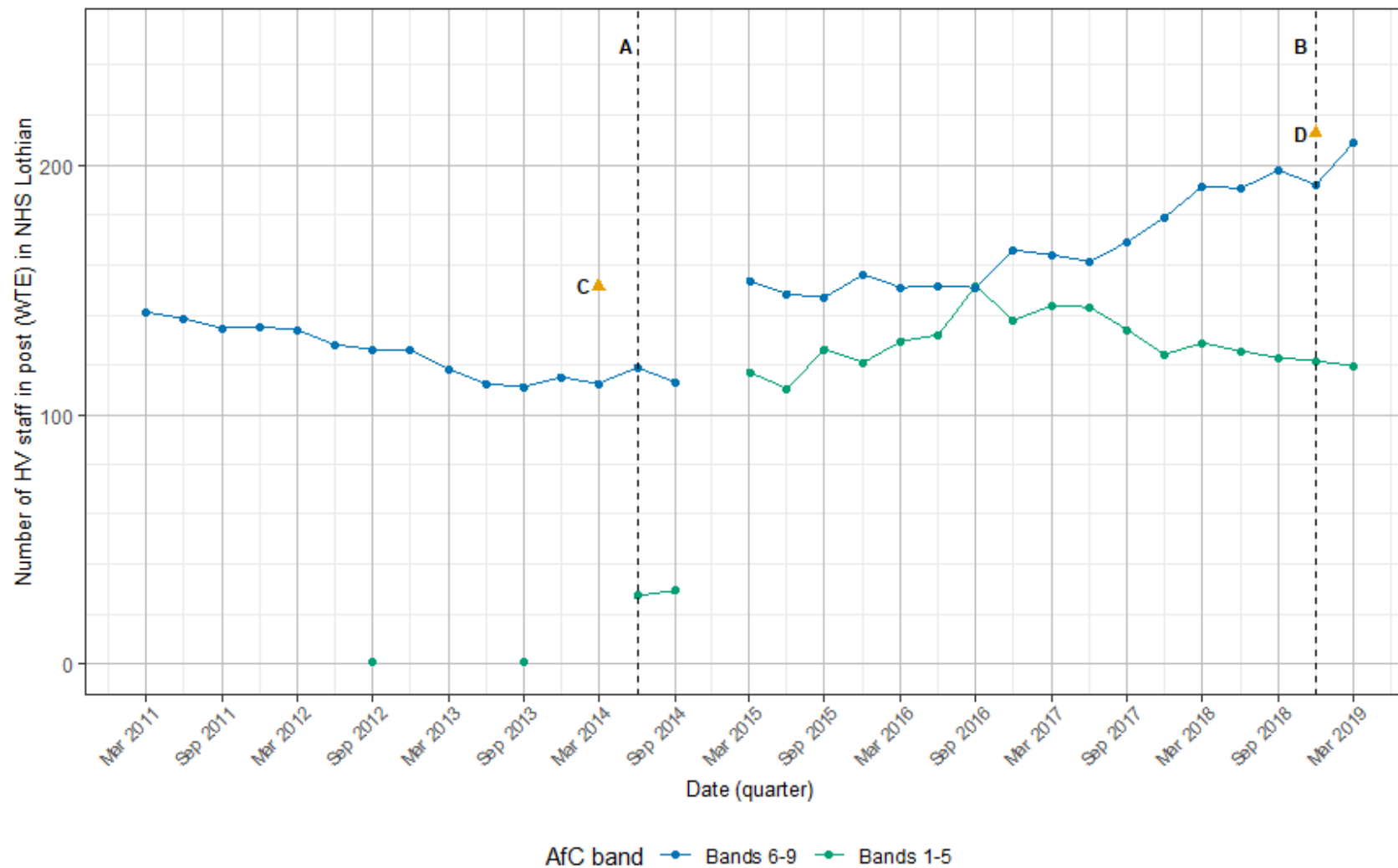
Supplementary Figure 11 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Highland (In Highland, health visitors are mainly employed by Highland Council, rather than NHS Highland. These posts are included in the additional 500 places to be recruited, but not included in the workforce data displayed below)



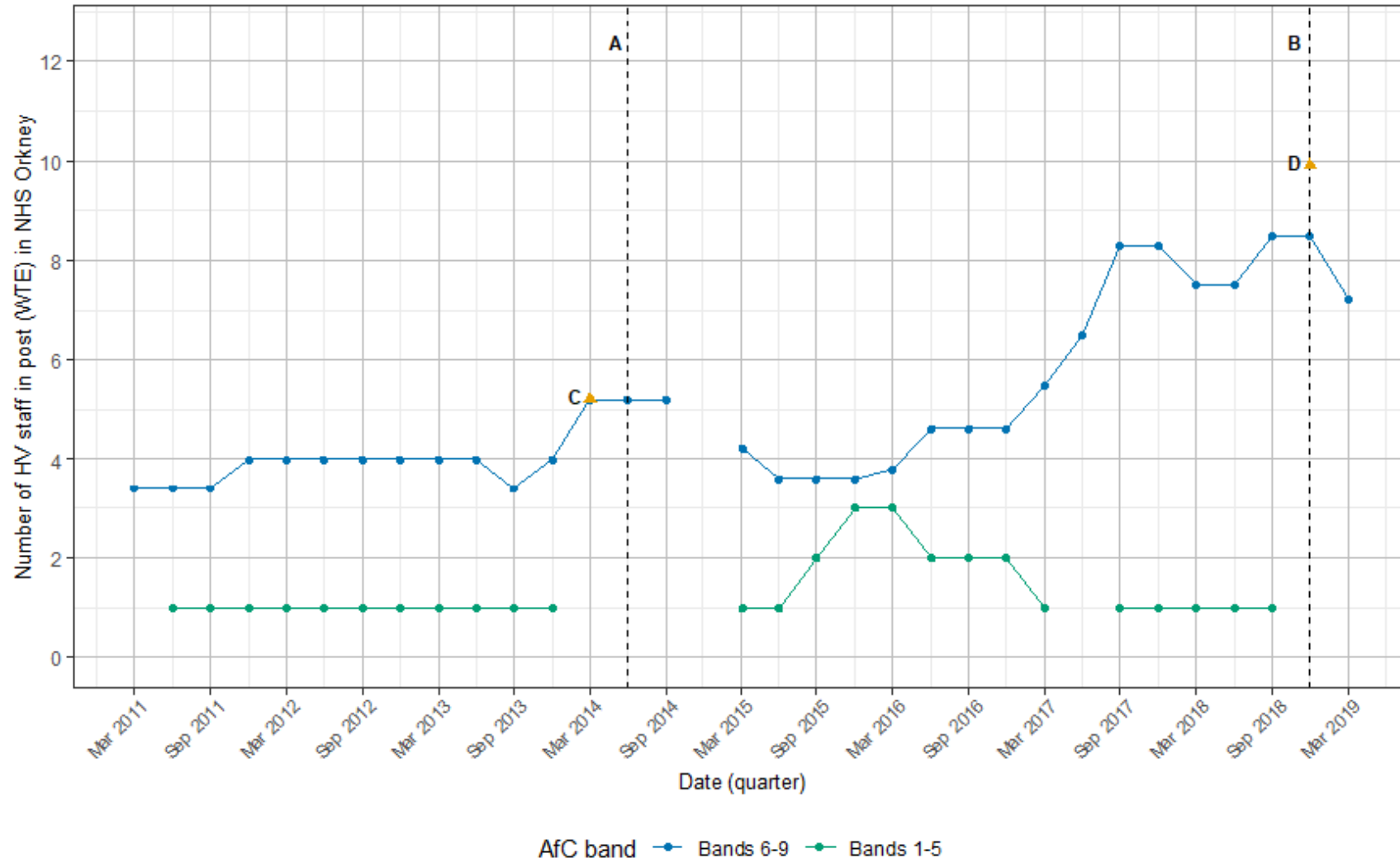
Supplementary Figure 12 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Lanarkshire



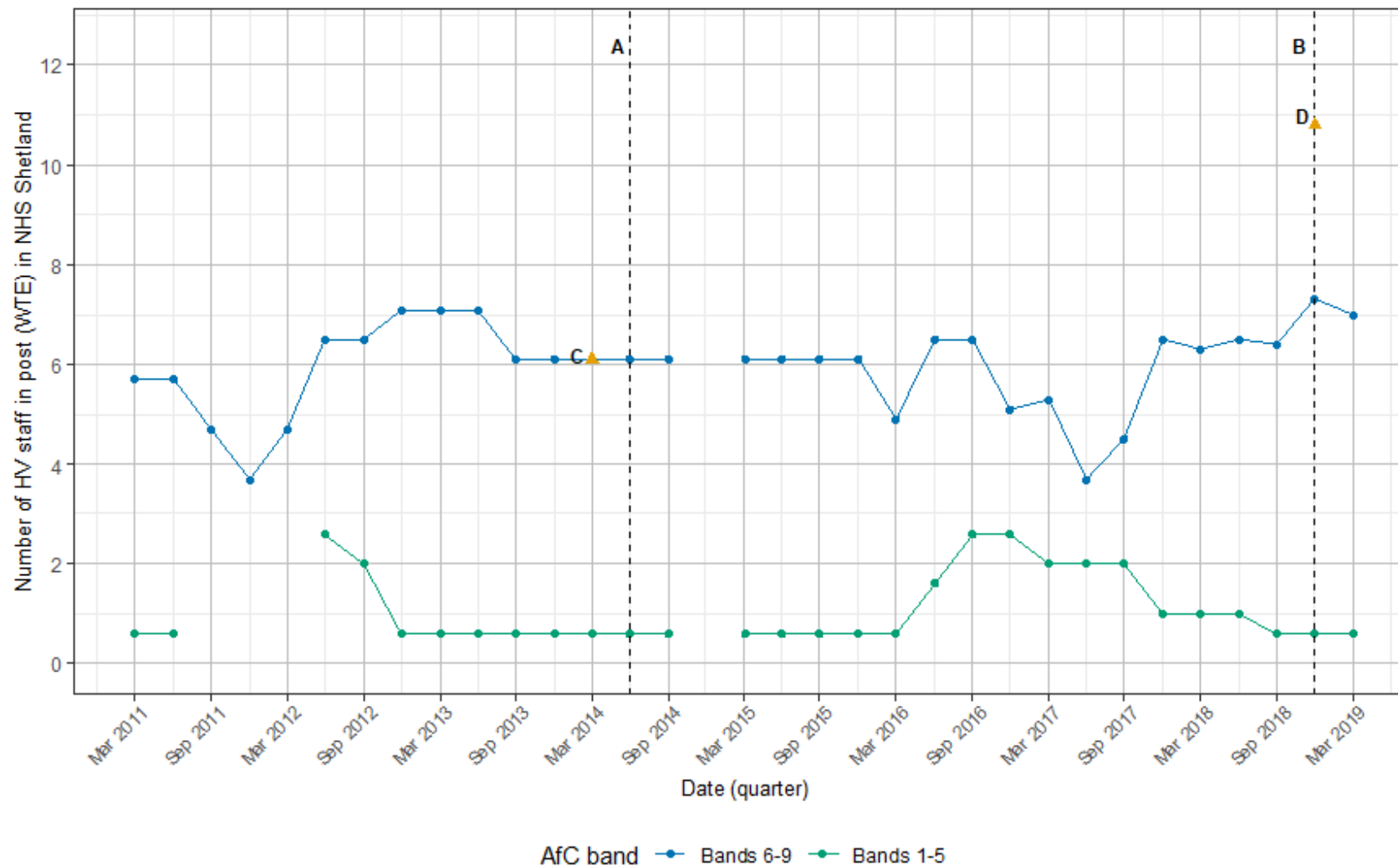
Supplementary Figure 13 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Lothian



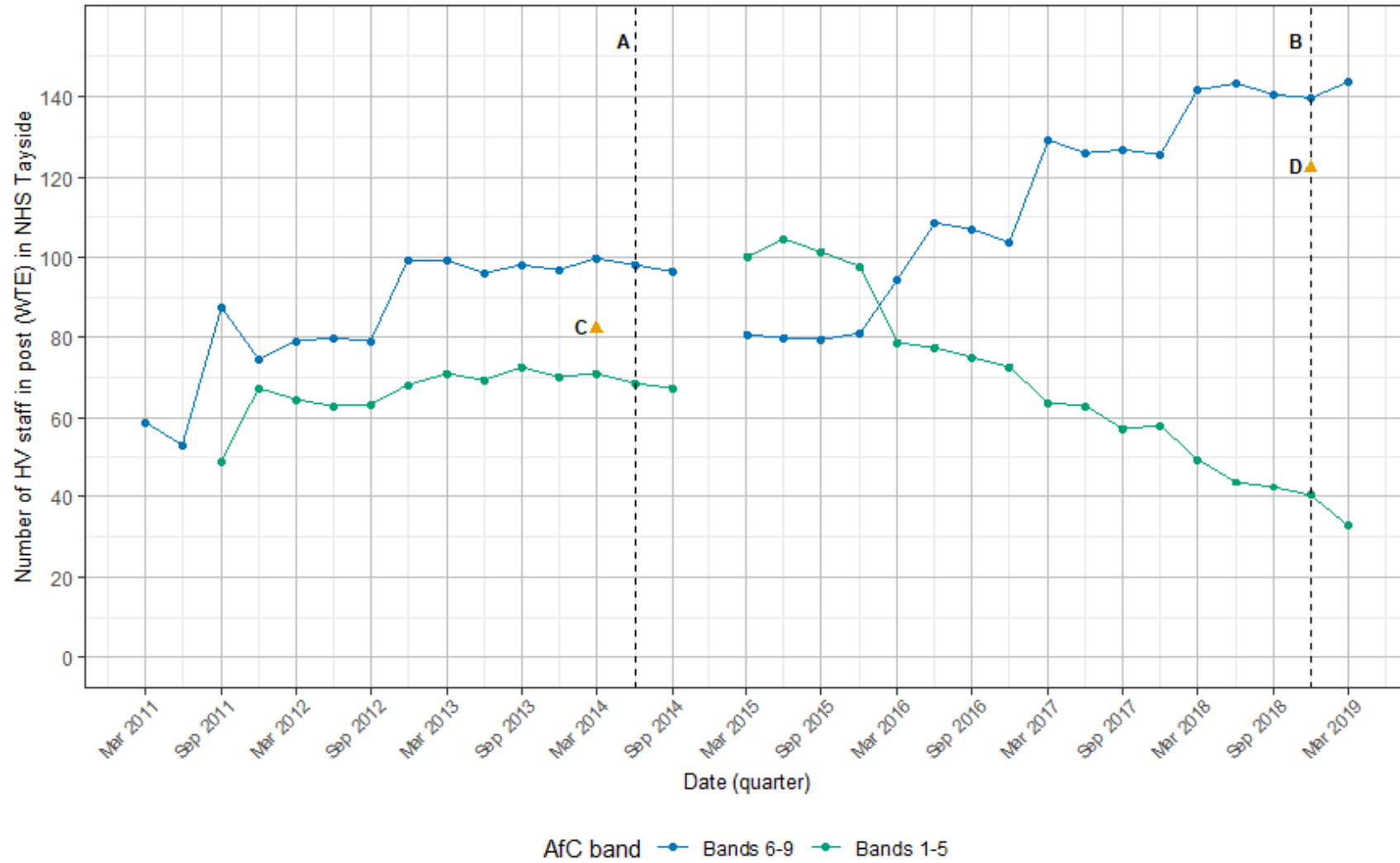
Supplementary Figure 14 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Orkney



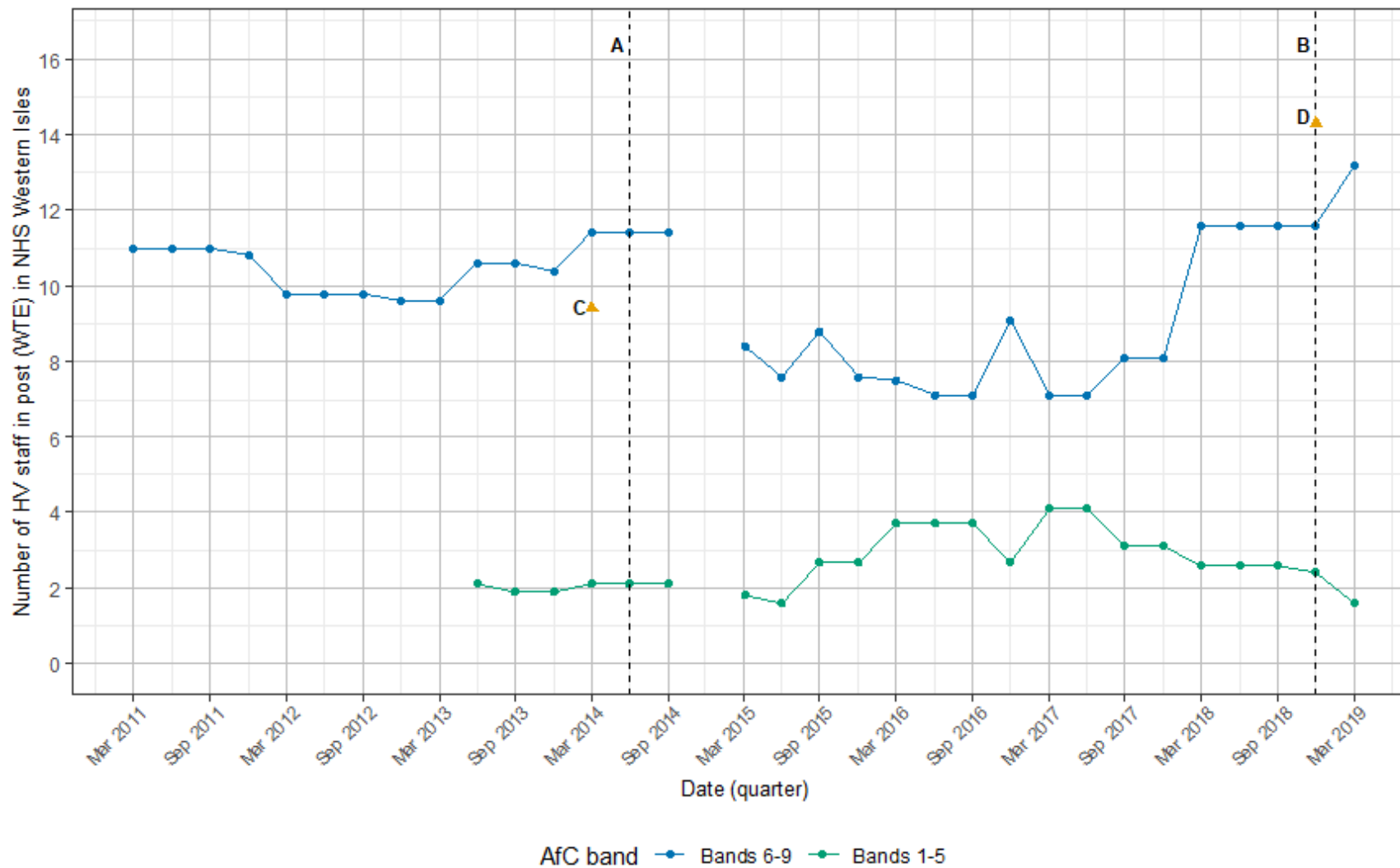
Supplementary Figure 15 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Shetland



Supplementary Figure 16 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Tayside



Supplementary Figure 17 Number of HV staff in post (WTE) at the end of each quarter in each HB within NHS Scotland, between March 2011 and March 2019: NHS Western Isles



Notes to Supplementary Figures 4-17

- A June 2014: date when the Scottish Government announced a commitment to create an additional 500 health visitor posts (WTE, AfC band 6-9) by the end of 2018.
 - B December 2018: target date when 500 extra health visitor places (WTE, AfC band 6-9) should be in existence.
 - C Revised upper estimates of the number of qualified HVs in post (WTE, AfC band 6-9) in each health board at 31 March 2014
 - D Target WTE number of qualified health visitors (AfC band 6-9) to be in post in each health board by 31 December 2018 (Upper estimate).
1. These data relate to individuals recorded against the Health Visiting sub job family in the Scottish Workforce Information Standard System (SWISS).
 2. AfC bands:
 - AfC band 1-2 include healthcare assistants
 - AfC band 3-4 include early years workers, family support workers, nursery nurses
 - AfC band 5 include staff nurses, health visitor students
 - AfC band 6-9 include health visitors, team leaders, practice teachers, HV managers, family nurses, family nurse supervisors.
 3. No AfC band 1 health visiting staff are recorded, and the numbers recorded in band 5 include interns.
 4. Data for health visiting staff in post are presented as whole time equivalent (WTE). An employee may hold more than one appointment within NHS Scotland. Health visiting staff in post (WTE, displayed in Supplementary Figure 4-17) adjusts head-count figures to take account of part-time working (i.e. one person may work 20 hours a week, so head count could make the workforce appear inflated).
 5. Workforce data for health visiting staff in post are not available for 31 December 2014. A national exercise to improve the quality of workforce data relating to community nursing was undertaken in 2014. Updated national guidance on assignment of staff to community nursing AfC sub job family categories (including health visiting) was provided to Health Boards, and Boards systematically cleaned data to ensure existing staff were assigned to the correct category between October and December 2014. Data before this period (September 2014 and earlier) are not directly comparable with data from March 2015 onwards.
 6. In Highland, health visitors are mainly employed by Highland Council, rather than NHS Highland. These posts are included in the additional 500 places to be recruited, but not included in the workforce data displayed in these figures.

7. In June 2014, the Scottish Government announced a commitment to increase HV numbers (WTE, AfC band 6-9) by 500. The baseline date was taken as 31 March 2014, and the baseline number of WTE qualified HVs in March 2014 used for the target is between 1,047.9 (lower estimate) and 1,114.7 (higher estimate). These figures were provided by ISD in 2016 and represent the estimate for March 2014, adjusted for assumed undercounting based on the data-cleaning exercise undertaken later in 2014 (Information Services Division (ISD) Scotland 2016). The target WTE number of qualified health visitors to be in place by 31 December 2018 is therefore between 1,547.9 and 1,614.7. Due to the time taken to register as health visitors, the data are displayed with a three-month additional window up to March 2019.

How to access background or source data

The data collected for this social research publication:

- are available in more detail through Scottish Neighbourhood Statistics
- are available via an alternative route
- may be made available on request, subject to consideration of legal and ethical factors.
- cannot be made available by Scottish Government for further analysis as Scottish Government is not the data controller.



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