Menopause and the NHS workforce

Quantitative analysis

The Strategy Unit.

NHS
Midlands and Lancashire
Commissioning Support Unit

Methodology

This report provides analysis of the NHS workforce, specifically for females of menopausal age but also how this group compares to others such as male employees of the same age and both younger and older female employees.

The data underpinning this analysis covers the four years 2018 – 2021. Data was available for the demographic characteristics of the workforce, leavers from the NHS, joiners to the NHS and sickness absences. Data was received from the Workforce and Estates Analysis Team at NHS Digital[1] but the ultimate source was information collected via the Electronic Staff Record[2].

In this analysis females are deemed to be in the menopausal group when their age is between 45-54. We recognise that not all females in this age group will be experiencing menopausal symptoms throughout and that only a certain proportion will be experiencing symptoms at any one point in time. We also recognise that menopause may be earlier for some females, or they may experience symptoms past the age of 54. However, we focus on the age range 45-54 as the majority of females usually experience the menopause during this time.

This report is one element informing the Strategy Unit's report Menopause and the NHS work force. Other elements, available elsewhere, are the economic evaluation and qualitative study.

Notes on data

Workforce data is for all staff directly employed by the NHS; it does not include agency or bank staff, those working in private practice or in primary care. The data is a one-off cross section of the NHS workforce and doesn't include longitudinal data for the same cohort. Therefore, it is not possible to meaningfully compare the demographic or employment characteristics of females aged 45-54 with older and younger females or males of the same age, as over time there will have been changes in the ethnicity and gender balance of those entering different professions. For example, you may expect less female doctors in the 55-64 age group since proportionally less females trained as doctors over 30 years ago.

Data for those leaving or joining the NHS does not include staff who change roles within the NHS. It does include people leaving or returning to active service, for example it includes those going on, or returning from, a career break. However, those going on or returning from maternity leave are specifically excluded to allow fairer comparison between females in different age groups.

Sickness data is available solely for the number of days taken in a year and there is no data available on the number of occurrences or length of absence per occurrence of sick leave.

In all datasets NHS staff may be counted more than once if they work in more than one role.

Unless otherwise stated all data is based on headcount and not full time equivalent (FTE).

Notes on groupings

Where data was at a granular level, it has been grouped to help with analysis and interpretation. The following groups have been used/derived:

Grouping of data by profession
Grouped based on staff type.
Managers & infrastructure support - includes managers/senior managers/central functions/ hotel, property & estates.
Support to clinical staff - includes support to ambulance staff/support to nurses & midwives/ support to scientific, therapeutic & technical staff. Both clinical support staff e.g. HCAs and admin staff are included.
Many of the clinical profession groups such as nurses, health visitors & midwives include some senior staff whose roles are more managerial e.g. Band 8/9 chief nurses.

Grouping of data by pay band
Derived from band information.
Pay information was not directly available. Therefore, pay band information is derived from the grade (which is available in the dataset). The expected minimum and maximum salaries for each grade were based on a variety of sources, including Agenda for Change[3], the Personal Social Services Research Unit[4] and the British Medical Association[5]. The salary mid-point, between the minimum and the maximum, was then used to assign employees to salary bands as used in the analysis. All pay bands are for the full time equivalent (FTE) with no adjustments (London weighting, over-time etc)

The workforce

Overview of NHS workforce by age and gender

The NHS in England is the largest employer in Europe, with currently over 1.3 million employees[6]. This means that in England one in every 25 adults of working age is directly employed by the NHS.

Total staff numbers by age group

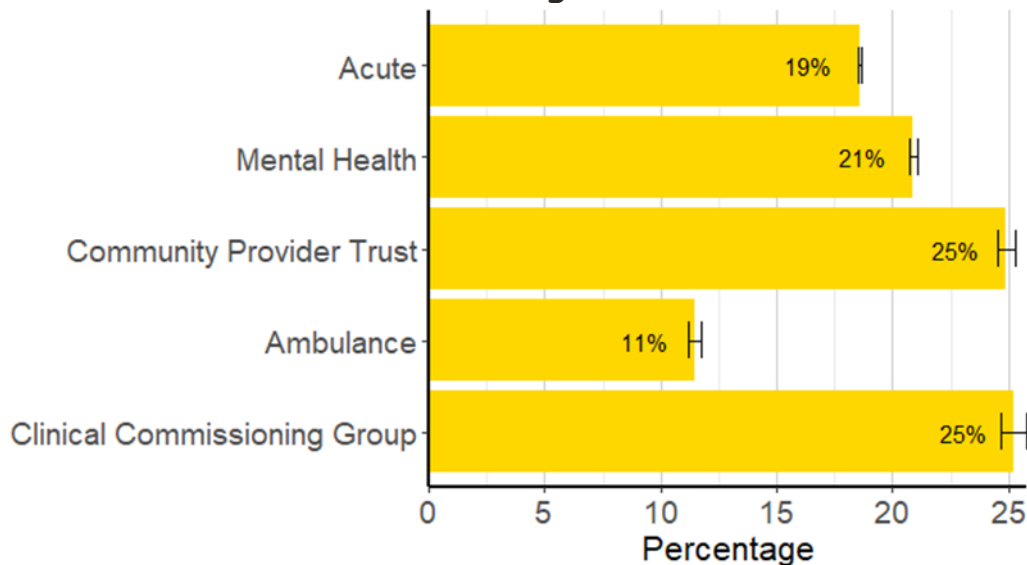**Gender split by age group**
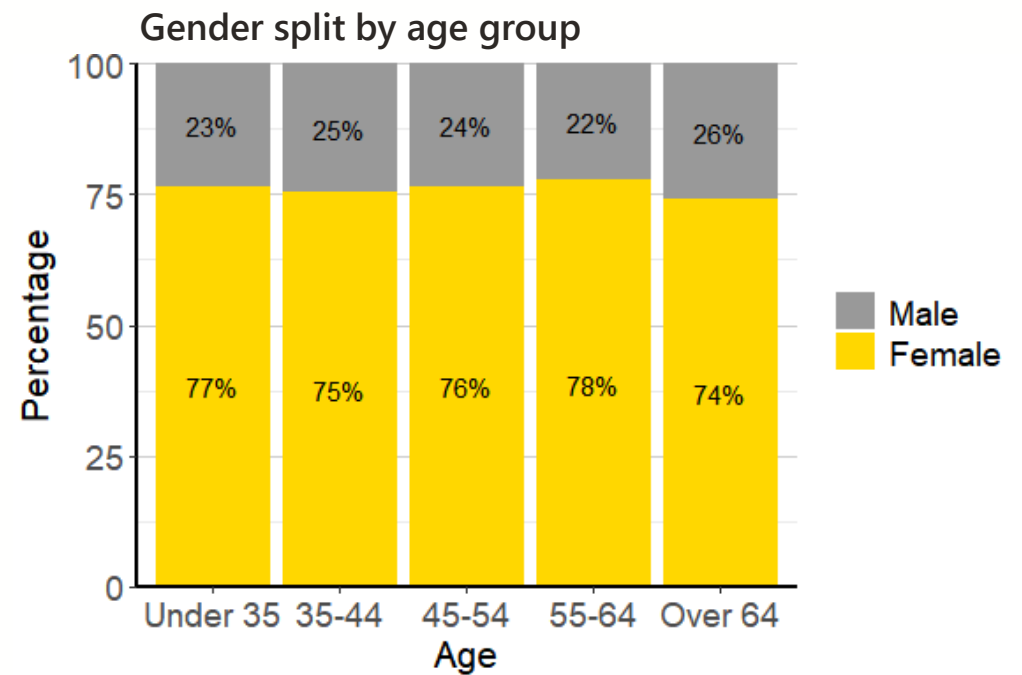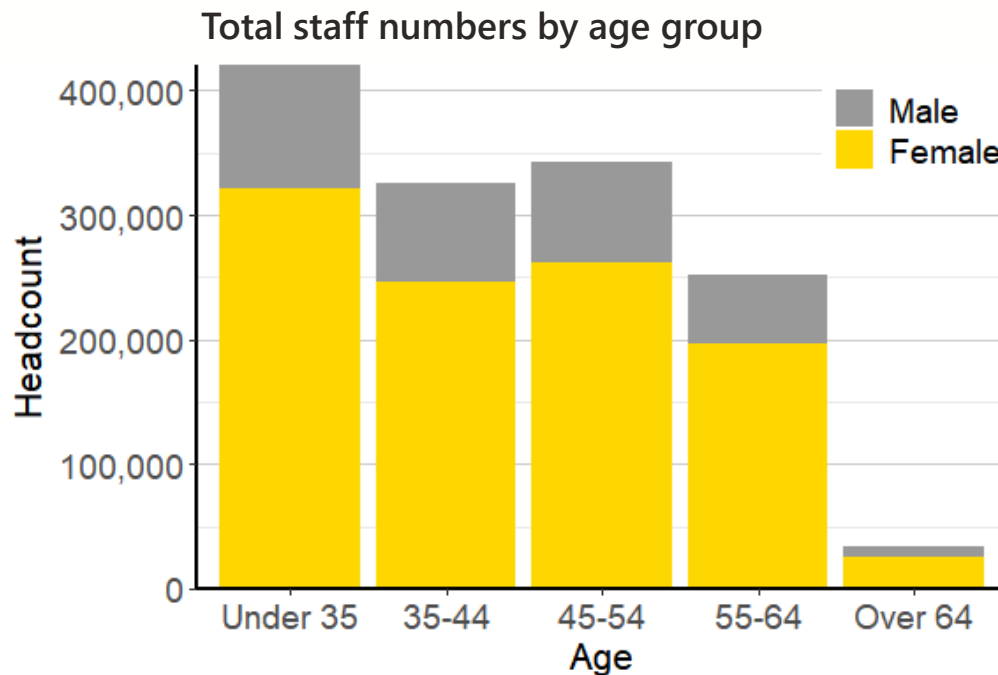
Generally females are three quarters of the NHS workforce and by themselves females aged 45-54 are a fifth of the NHS workforce. Assuming females may experience menopause symptoms for a 5-8 year period[7], then it may be expected that between 1 in 10, to 1 in 6 of all NHS employees will be experiencing menopause symptoms at any one time.

Workforce data as of 31st Dec 2021
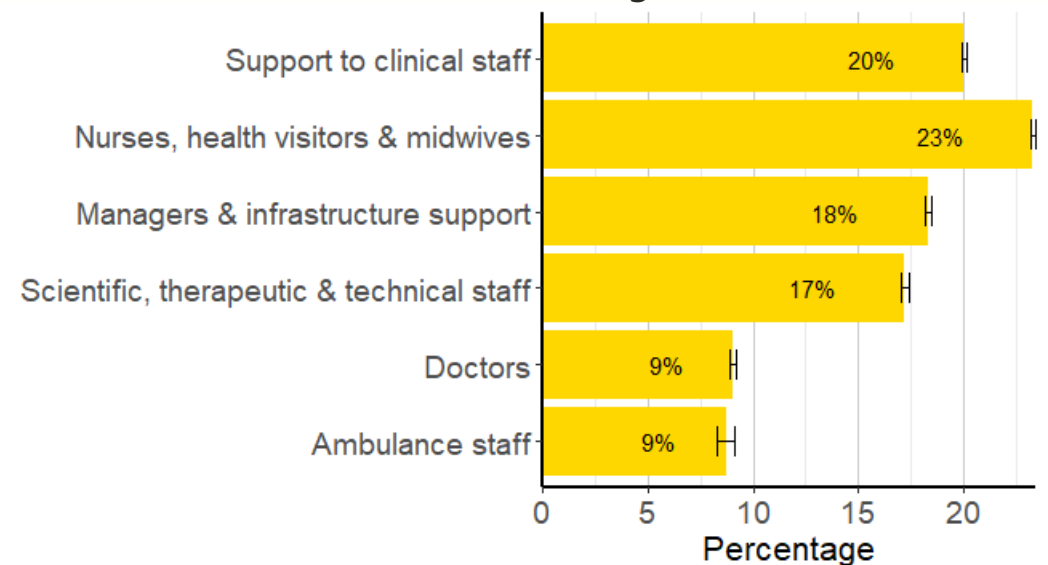
Females aged 45-54 within the NHS workforce

Overall 1 in 5 NHS employees are females aged 45-54 but proportions differ by characteristic. For example, females in this age group are a greater share of employees at community provider trusts and clinical commissioning groups (CCGs), where they are 1 in 4 of all employees, and a lesser share at ambulance trusts where they are only 1 in 10 employees.

Proportions also differ by profession. Females aged 45-54 are a much smaller proportion of employees when it comes to both doctors and ambulance staff.

Females aged 45-54 as % of all staff

Category	Percentage
Acute	19%
Mental Health	21%
Community Provider Trust	25%
Ambulance	11%
Clinical Commissioning Group	25%

Females aged 45-54 as % of all staff

Category	Percentage
Support to clinical staff	20%
Nurses, health visitors & midwives	23%
Managers & infrastructure support	18%
Scientific, therapeutic & technical staff	17%
Doctors	9%
Ambulance staff	9%

Workforce data as of 31st Dec 2021. Whiskers denote 95% confidence interval
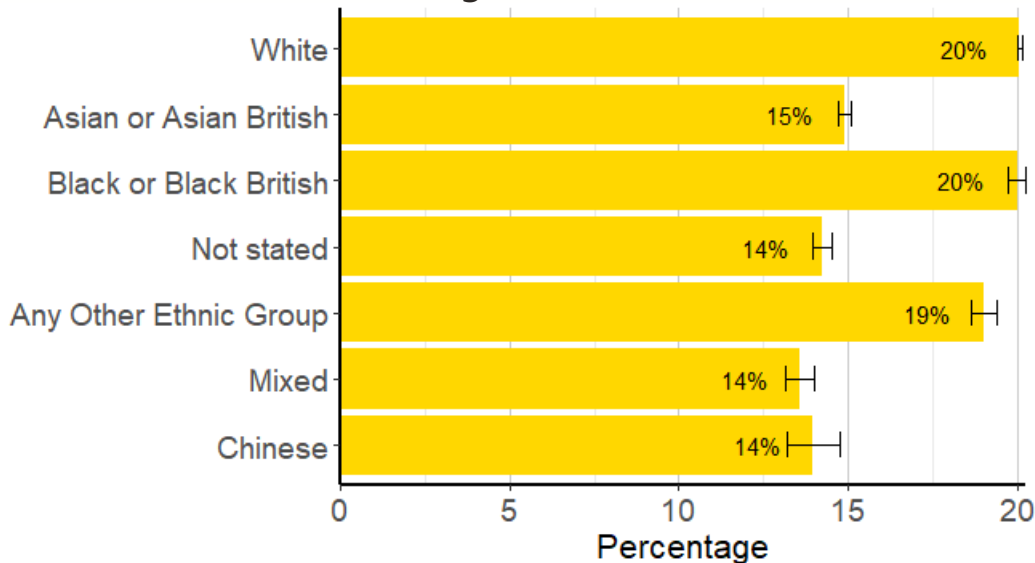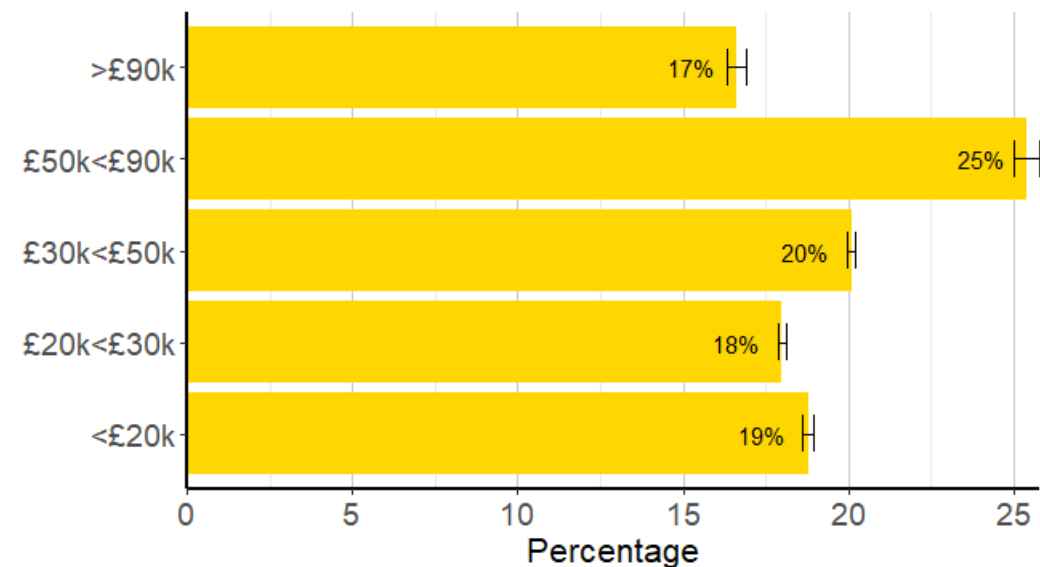
Females aged 45-54 within the NHS workforce

The proportion of staff who are females aged 45-54 are lower in most non-White ethnic groups, apart from Black or Black British and those in the any other ethnic group.

Of NHS staff who are in a role with a mid-point pay band of £50,000 - £90,000, females aged 45-54 account for 1 in 4, a higher proportion than in other pay bands. The proportion reduces noticeably to 17%, the lowest share, at the highest pay band.

Females aged 45-54 as % of all staff

Ethnic group	Percentage
White	20%
Asian or Asian British	15%
Black or Black British	20%
Not stated	14%
Any Other Ethnic Group	19%
Mixed	14%
Chinese	14%

Females aged 45-54 as % of all staff

Pay band	Percentage
>£90k	17%
£50k<£90k	25%
£30k<£50k	20%
£20k<£30k	18%
<£20k	19%

Workforce data as of 31st Dec 2021. Whiskers denote 95% confidence interval
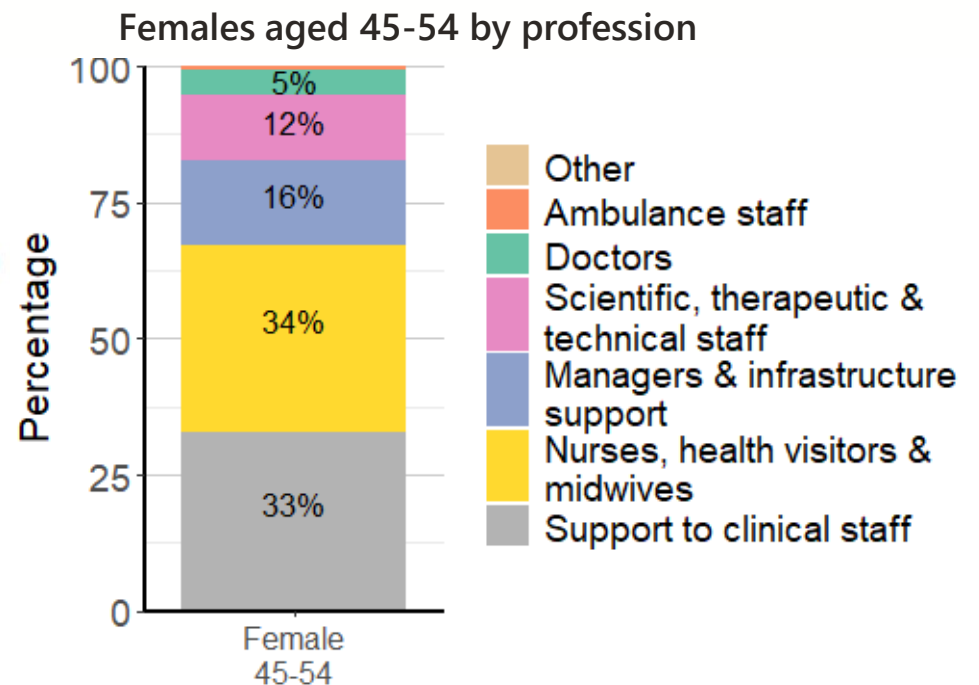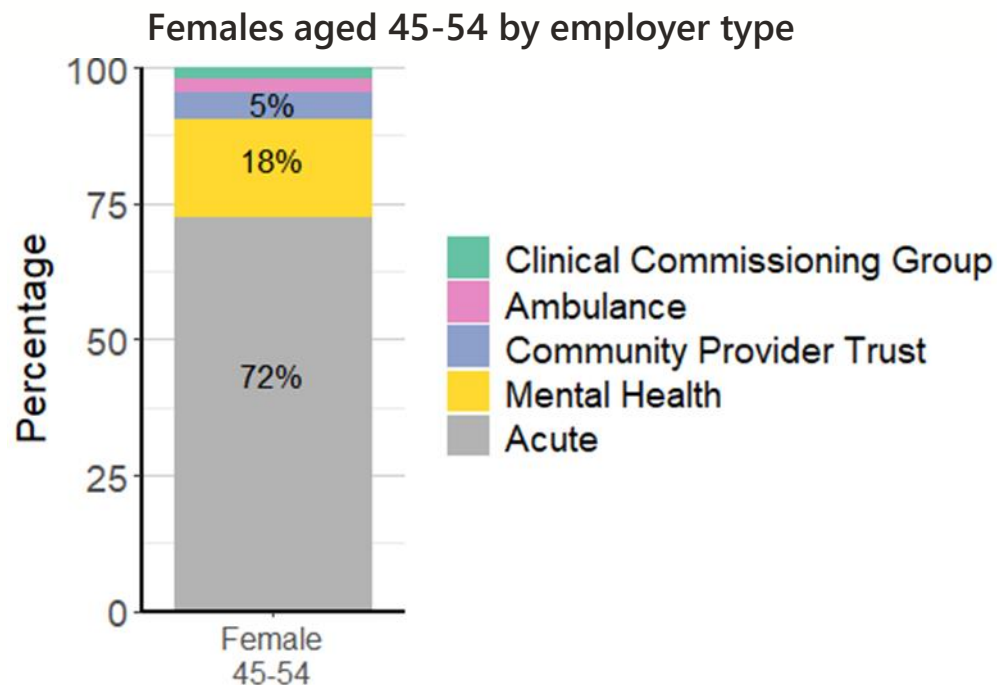
Females aged 45-54 by employer and profession

For females aged 45-54 the majority, nearly three quarters, are employed by acute trusts. There is also a significant proportion, nearly a fifth of the group, employed by mental health trusts. Together these two types of employer account for 90% of all females in this age group.

Around a third of females aged 45-54 work in support roles to clinical staff and another third work as nurses, health visitors and midwives. Only a small proportion of females aged 45-54 work as doctors or ambulance staff.

Females aged 45-54 by employer type

- Clinical Commissioning Group
- Ambulance
- Community Provider Trust
- Mental Health
- Acute

(values: 5%, 18%, 72%)

Females aged 45-54 by profession

- Other
- Ambulance staff
- Doctors
- Scientific, therapeutic & technical staff
- Managers & infrastructure support
- Nurses, health visitors & midwives
- Support to clinical staff

(values: 5%, 12%, 16%, 34%, 33%)

Workforce data as of 31st Dec 2021

Comparisons by employer type and profession

Proportions by employer type are similar for females aged 45-54 compared to females in the younger and older decades. However, compared to males aged 45-54 there are noticeably more males at ambulance trusts.

By profession, proportions for females alter somewhat with age but differences to males aged 45-54 are more substantial. Females aged 45-54 have smaller proportion who are managers and infrastructure support, doctors or ambulance staff. Compared to males they are more often working as nurses, health visitors and midwives, or in roles supporting clinical staff.

Staff groups by employer type

Staff groups by profession
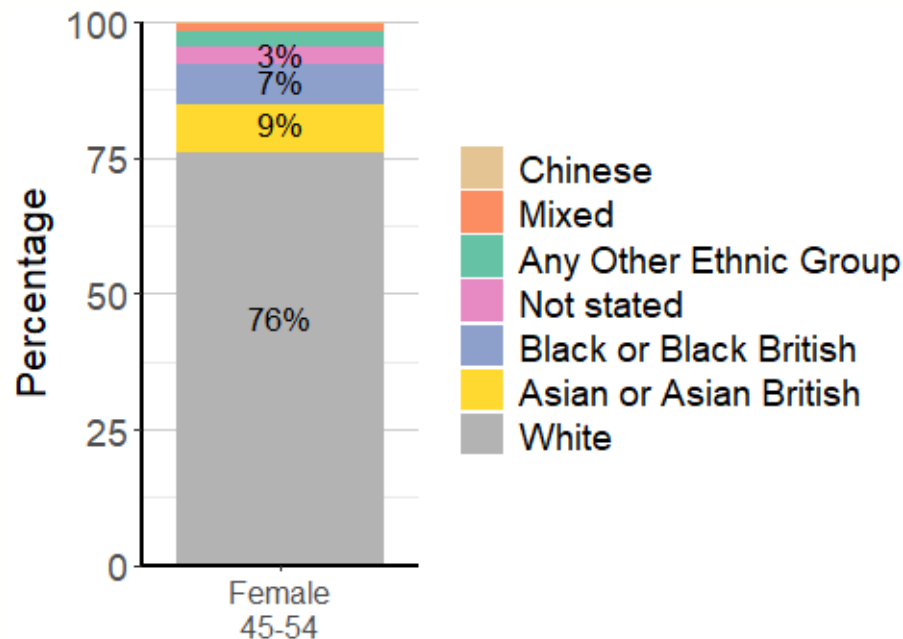
Workforce data as of 31st Dec 2021
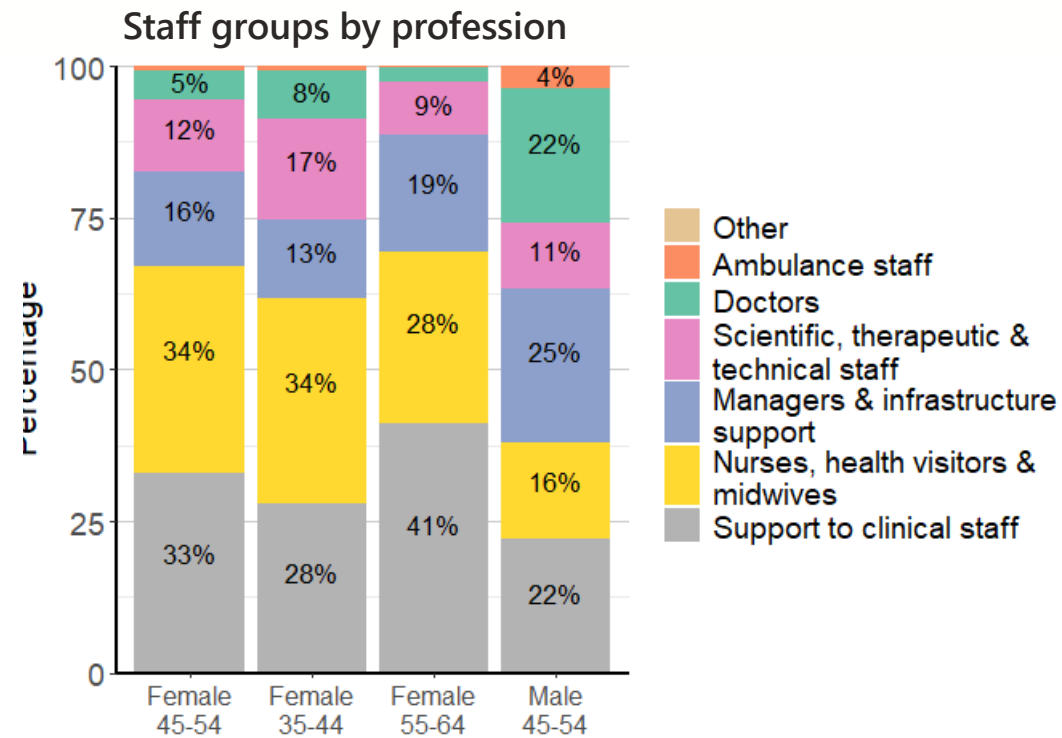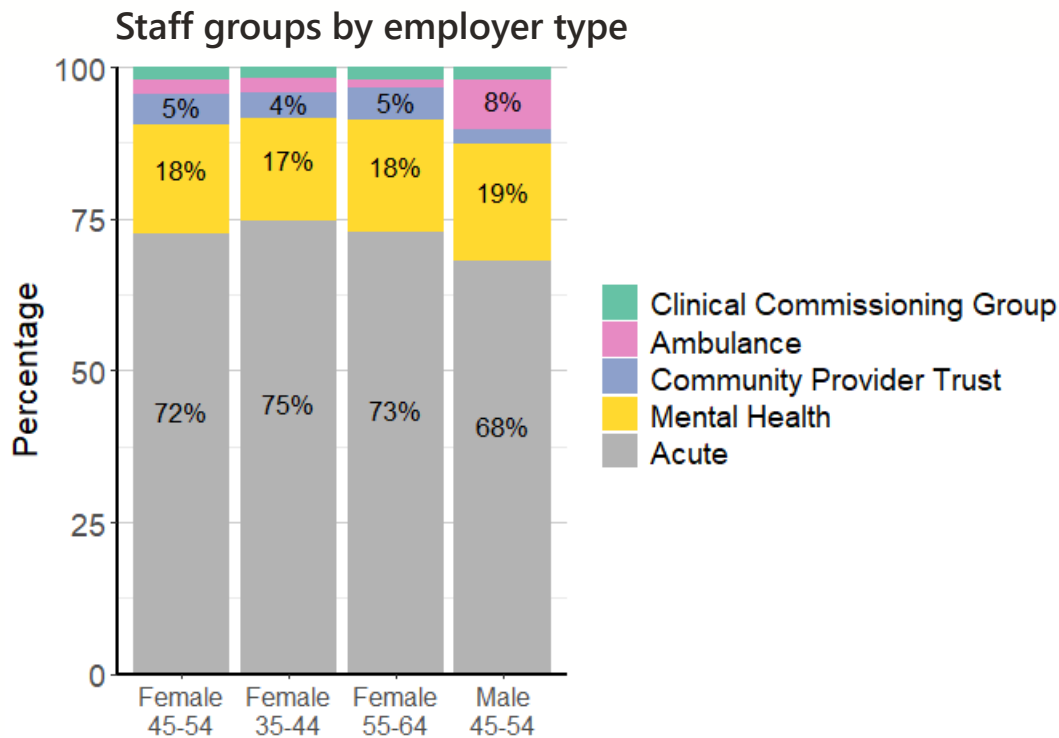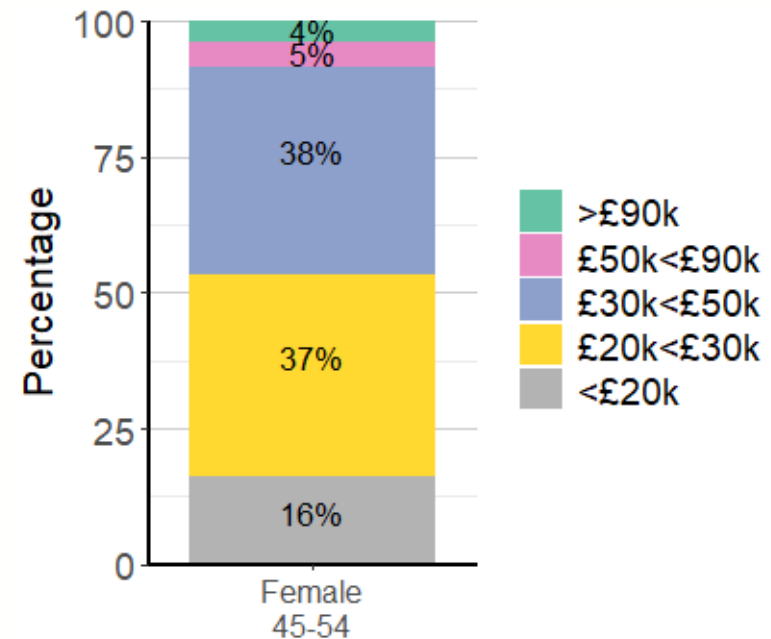
Females aged 45-54 by ethnicity and pay band

The majority of females aged 45-54 state their ethnicity as White whilst a quarter classify their ethnicity as non-White. Within non-White ethnicities the predominant ethnic groups are Asian or Asian British and Black or Black British.

Over half of all females in this group are in roles with a mid-point pay band of less than £30,000, but it should be remembered that pay will be significantly influenced by the professions of the females within this group.

Females aged 45-54 by ethnicity

Legend:
- Chinese
- Mixed
- Any Other Ethnic Group
- Not stated
- Black or Black British
- Asian or Asian British
- White

Bar (Female 45-54):
- White 76%
- Asian or Asian British 9%
- Black or Black British 7%
- Not stated 3%

Females aged 45-54 by pay band

Legend:
- >£90k
- £50k<£90k
- £30k<£50k
- £20k<£30k
- <£20k

Bar (Female 45-54):
- >£90k 4%
- £50k<£90k 5%
- £30k<£50k 38%
- £20k<£30k 37%
- <£20k 16%

Workforce data as of 31st Dec 2021

Comparisons by ethnicity and pay band

Proportions by ethnicity are similar to females in the younger decade but in older females there are a greater proportion who are White. Compared to males aged 45-54 there is a much larger proportion of males who are from an Asian or British Asian background.

Whilst 53% of females aged 45-54 are in roles with a mid-point pay band of less than £30,000 for males aged 45-54, the proportion is much smaller at only 41%. Nearly 1 in 5 males aged 45-54 are in the highest pay band, earning £90,000 or above, but only 1 in 25 females aged 45-54 are in this pay band.

Staff groups by ethnicity

Staff groups by pay band

Workforce data as of 31st Dec 2021
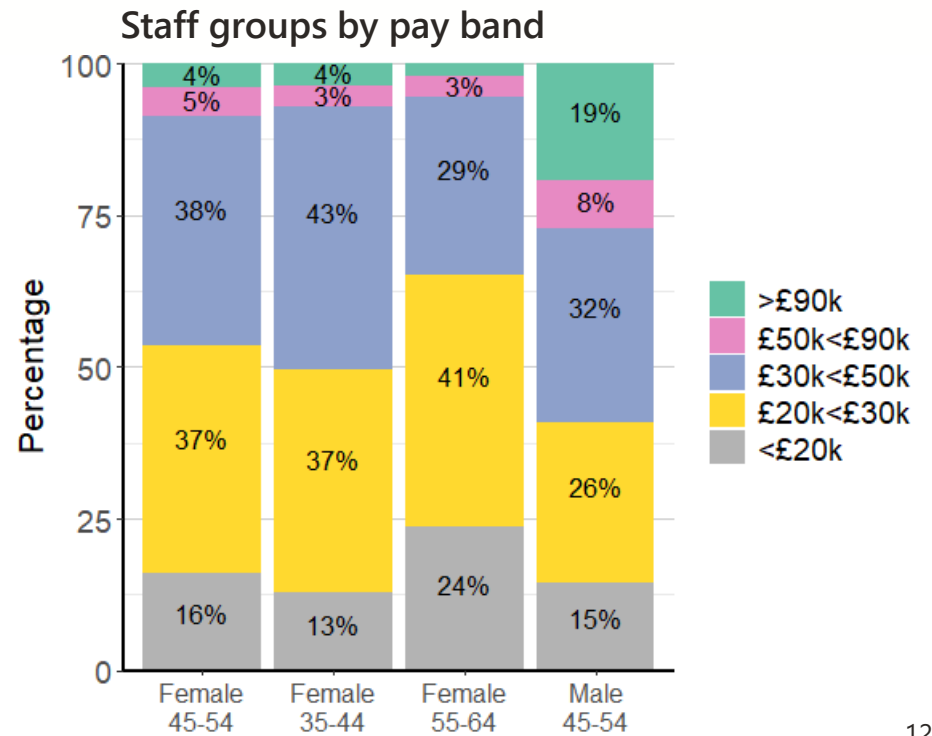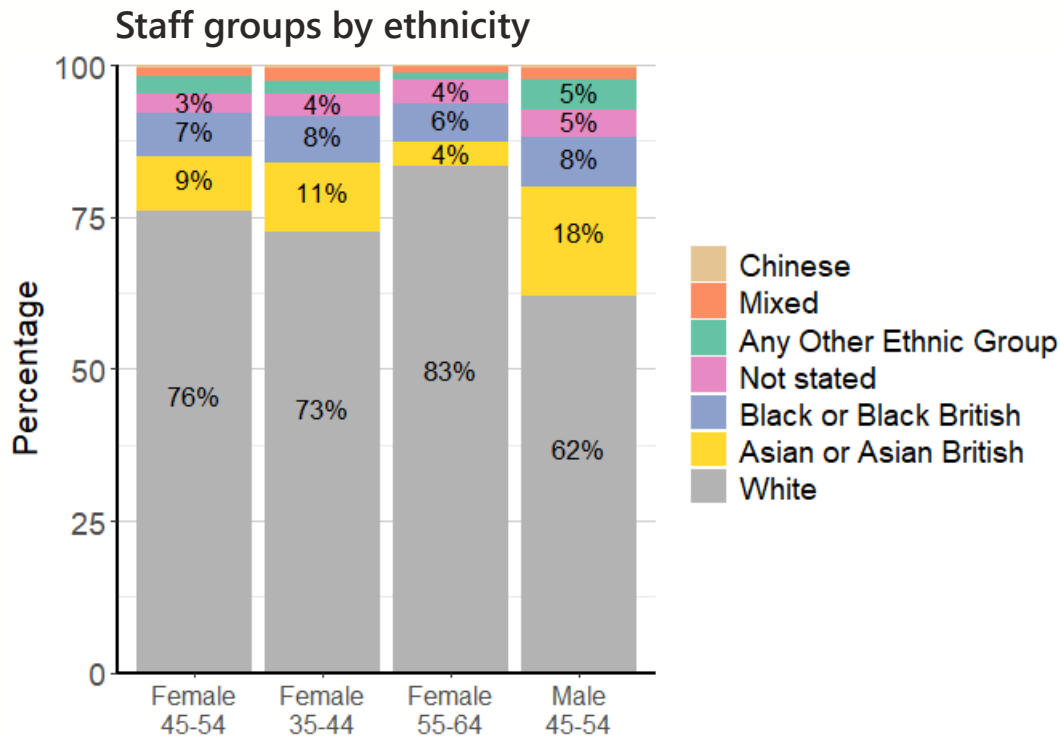
Investigating differences in pay bands within professions

It is thought that females experiencing menopause related symptoms may be less likely to progress within their careers.

Since the data available is a one-off snapshot of the NHS workforce and does not include longitudinal data following the same cohort, it is not possible to directly analyse career progression. However, within each profession it is possible to determine the percentage of staff at each pay band and to investigate any differences in pay band between females aged 45-54 and males of the same age, as well as make comparisons to older and younger females.

Having done this for all professions there are interesting differences in two of the professions, doctors and those working as managers and infrastructure support. For all other professions no clear differences in pay bands were seen between females aged 45-54 and the other groups.

Differences in pay bands for doctors

Cumulative percentage of staff at each band or above: Doctors
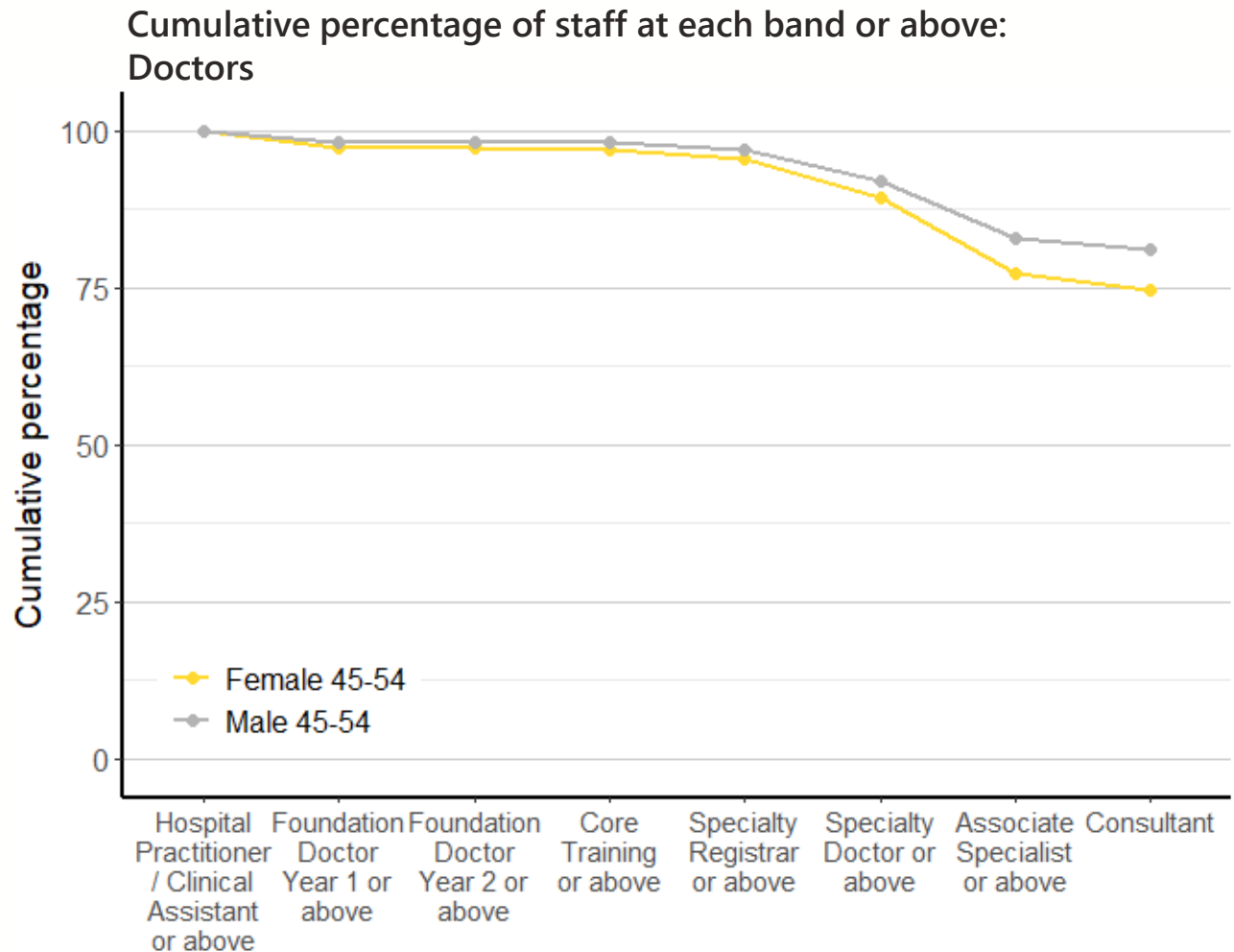
75% of female doctors aged 45-54 have reached consultant level.

However, a significantly greater proportion of males aged 45-54 (81%, p<0.001) have reached consultant level.

Workforce data as of 31st Dec 2021

Differences in pay bands for doctors

Cumulative percentage of staff at each band or above: Doctors
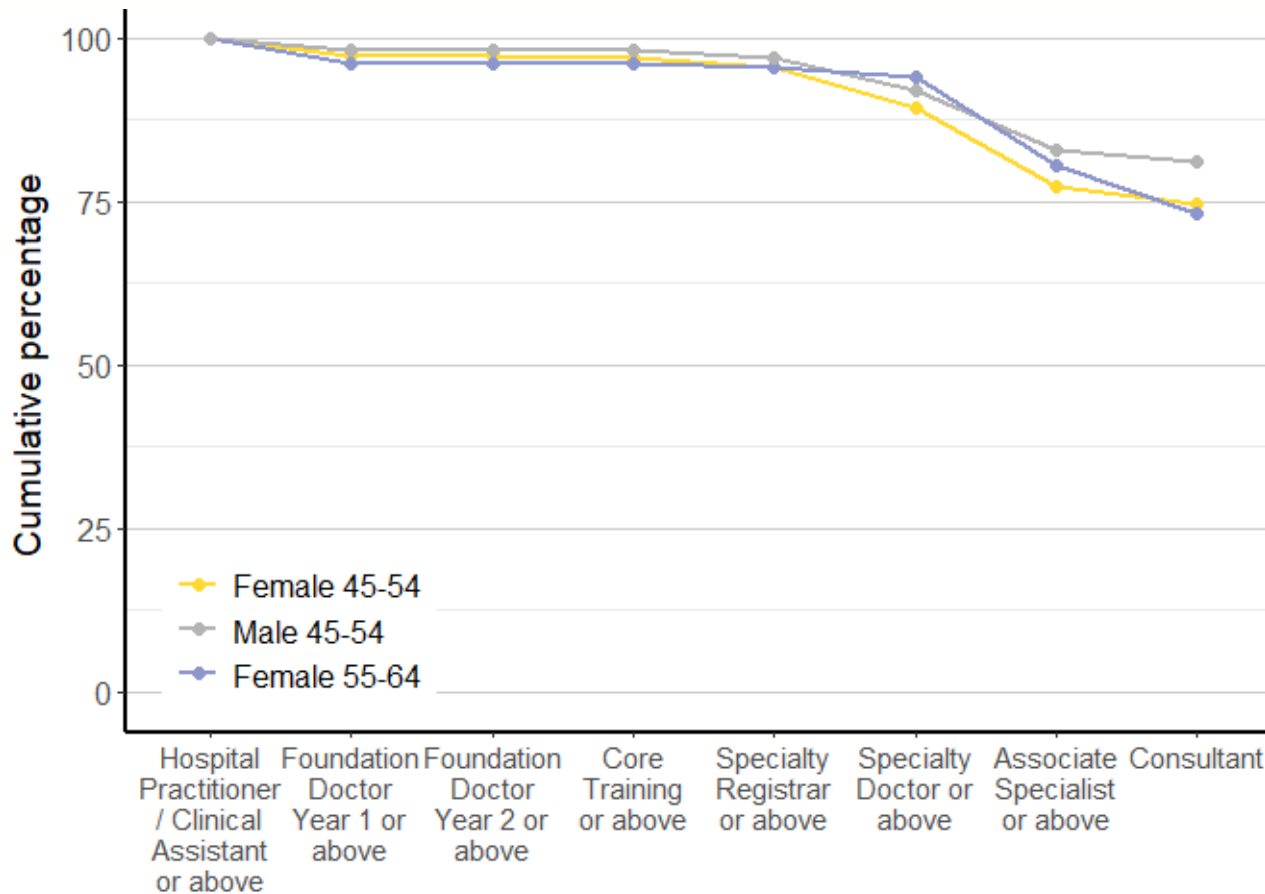
Once past the age of 54 older post-menopausal women (aged 55-64) do not 'catch up' to the same level as men. Potentially suggesting that for female doctors career progression largely stops when they are in the age range 45-54.

Workforce data as of 31st Dec 2021

Differences in pay bands for managers & infrastructure

Cumulative percentage of staff at each band or above: Managers & infrastructure support
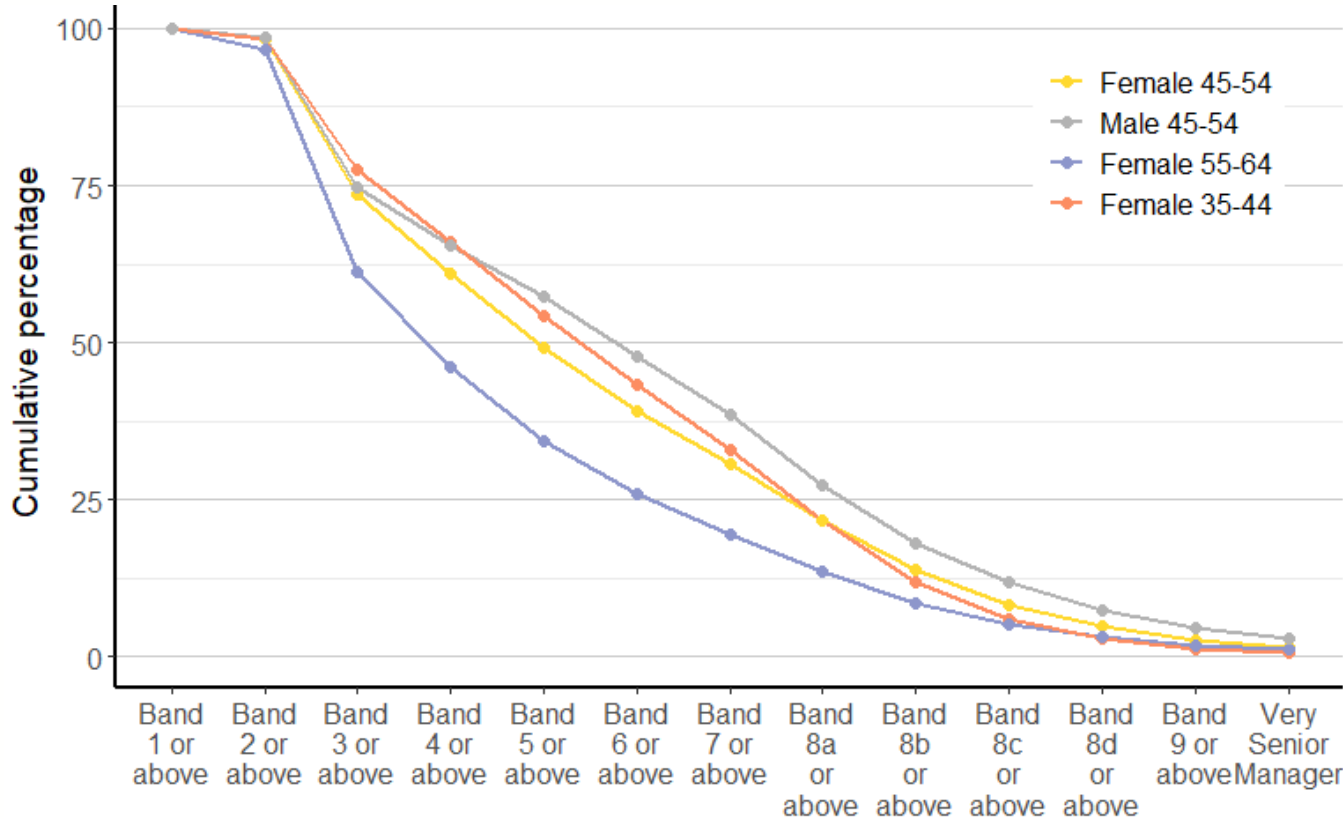
Fewer females aged 45-54 in manager & infrastructure roles are on Band 5 or above (49%) compared to males of the same age (57%).

In manager & infrastructure roles more older females (55-64) are on lower pay bands compared to all other groups. These roles, being non-clinical, are more open to new starters from other industries; indeed, 24% of female new joiners in the 55-64 age group join in these roles, with the majority joining in lower paid roles.

Workforce data as of 31st Dec 2021

Females aged 45-54 working part time

Part-time working is more common for females than for males. However, females aged 45-54 have a lower rate of part time working compared to both younger and older females. Potentially this may reflect how the needs of females change during the ages of 45-54. A period when they may be less likely to have childcare commitments but also prior to the age when part-time working is more financially viable. When working part-time, females aged 45-54 work a similar number of hours compared to other groups.

% of staff working part time

Female 35-44	Female 45-54	Female 55-64	Male 45-54
48%	43%	55%	14%

Average FTE for part time staff

Female 35-44	Female 45-54	Female 55-64	Male 45-54
0.67	0.69	0.65	0.67

Workforce data as of 31st Dec 2021. Whiskers denote 95% confidence interval
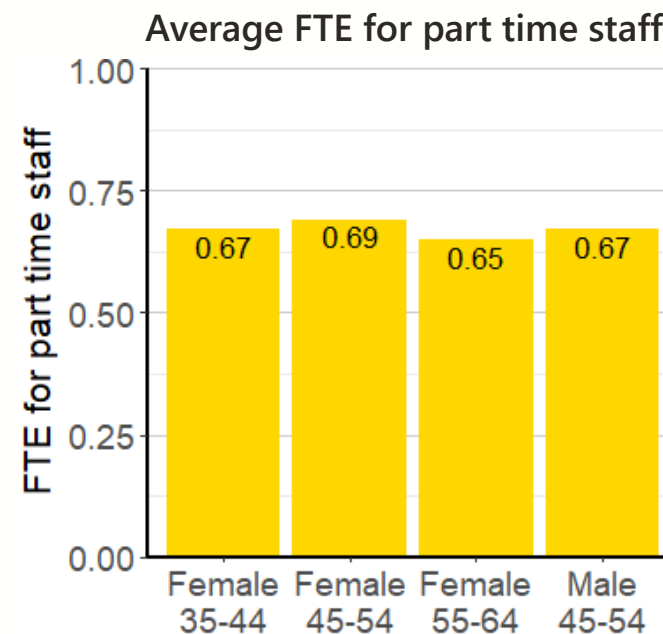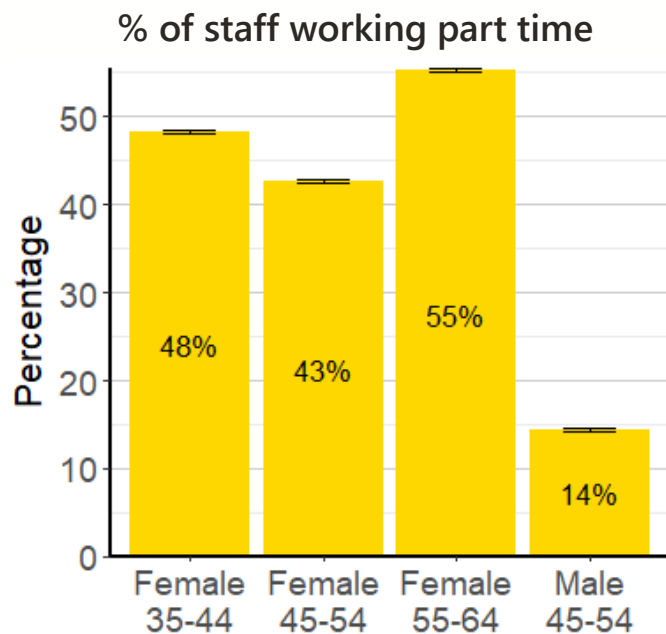
Changes over time

Between 2018 and 2021 the total number of females aged 45-54 in the NHS workforce has remained very stable. However, during this period the size of the overall NHS workforce has increased. Mainly due to an increase in younger employees, particularly those aged 35 and under. Therefore, females aged 45-54 now make up a smaller proportion of the NHS workforce, reducing from 21% in 2018 to 19% in 2021. We investigate this issue in more detail in the following section where we examine NHS workforce joiners and leavers in more detail.

Number of females aged 45-54 over time
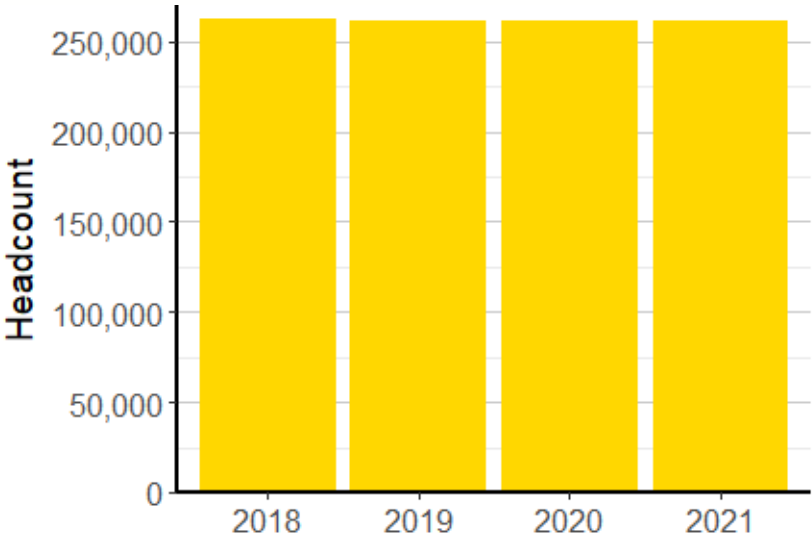
Percentage of females aged 45-54 in the workforce over time
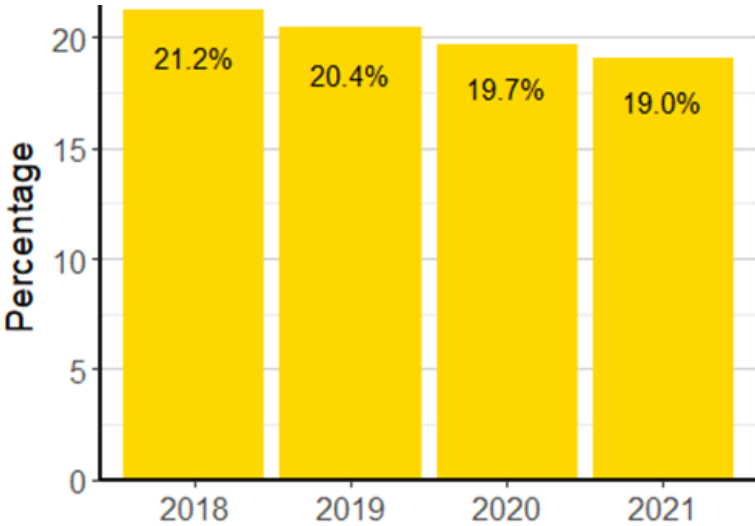
General practice workforce

The general practice workforce is not included as part of NHS workforce data but information is available[8] for those working in this area. Similar, but slightly higher, to the NHS workforce the majority of staff are female (84%) and females aged 45-54 are a quarter of the general practice workforce.

Total staff numbers by age group

Gender split by age group

General practice workforce as of Dec 2021
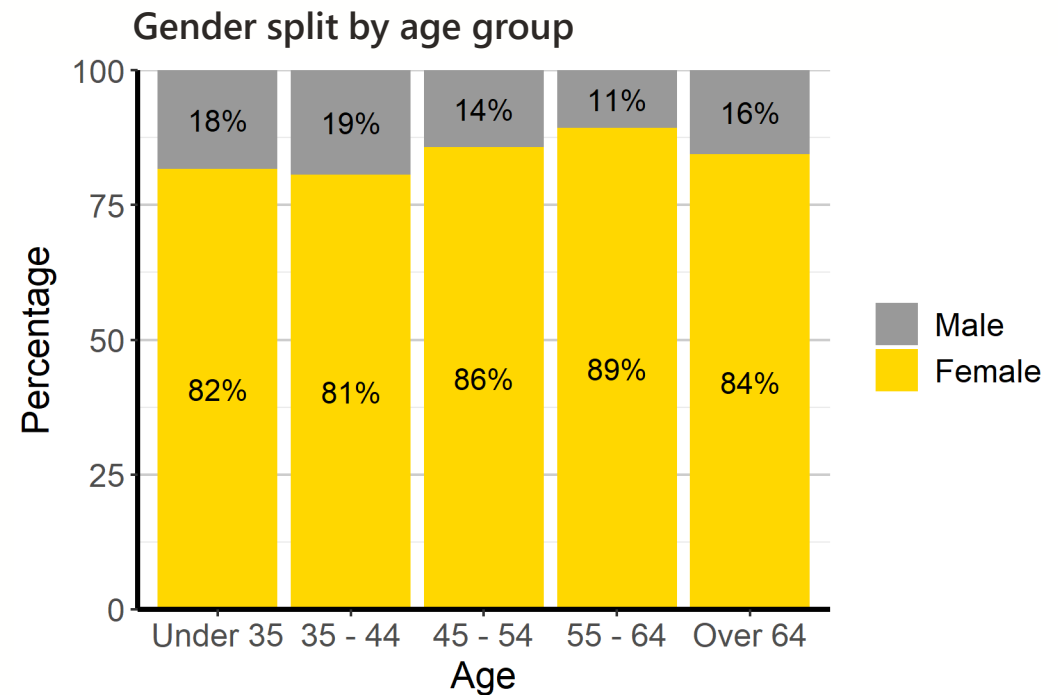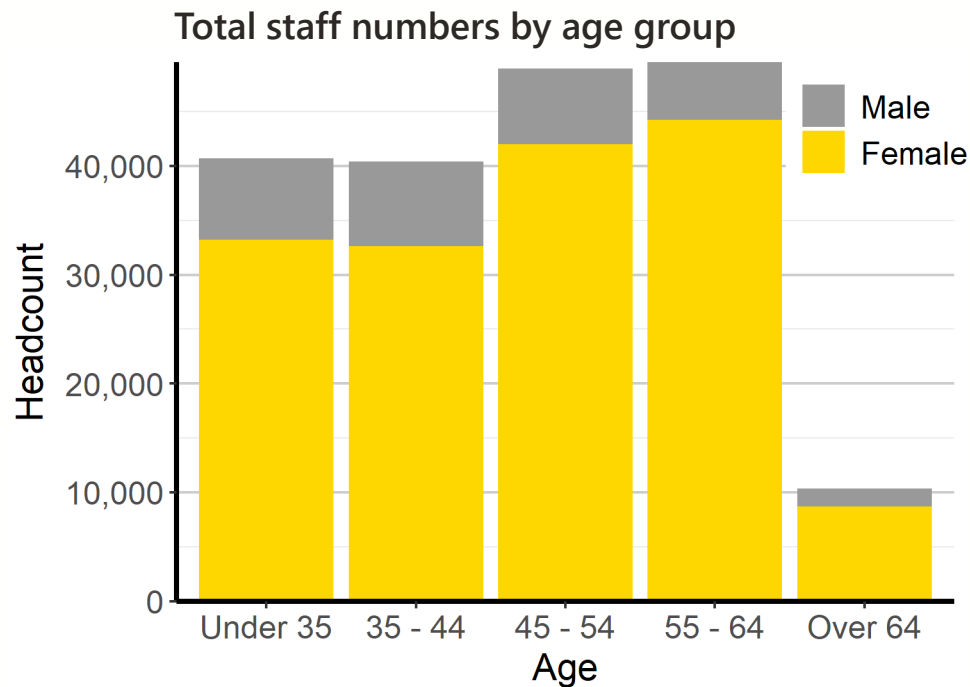
Females aged 45-54 within the general practice workforce

Overall 1 in 4 general practice staff are females aged 45-54 but proportions differ by role. For example, females in this age group are a greater share of nurses, where they are 1 in 3 of all employees, and a lesser share of GPs where they are 1 in 7 employees.

Females aged 45-54 as % of all staff

General practice workforce as of Dec 2021. Direct Patient Care category includes professions such as Healthcare assistants, phlebotomists, Physiotherapists, Pharmacists, Dispensers, Podiatrists, Therapists, Support workers and Paramedics.
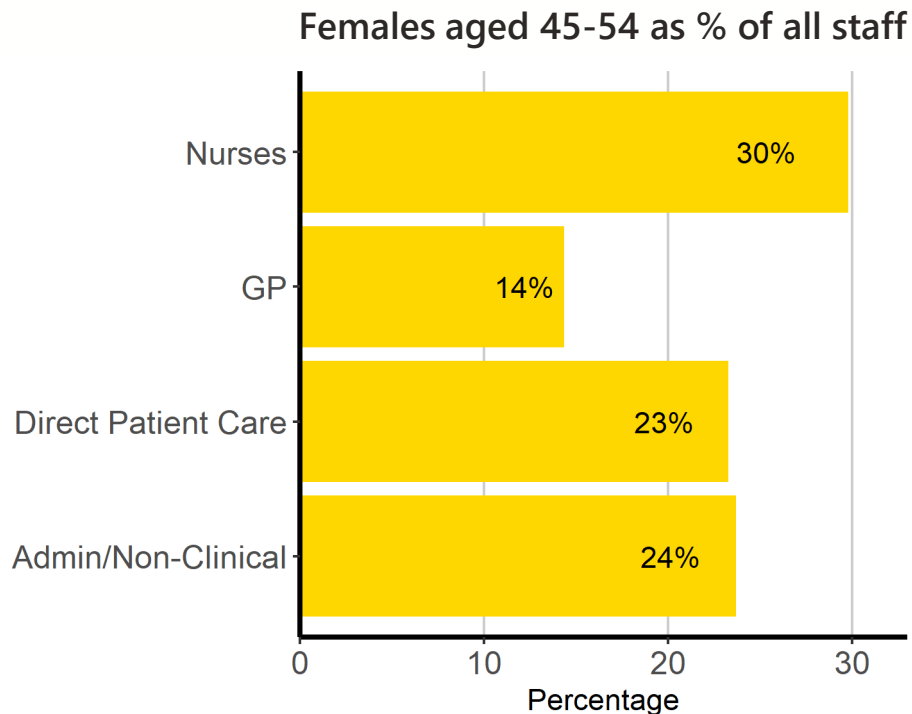
Summary

- Females aged 45-54 are a substantial share of the NHS and primary care workforce. On average in the NHS they account for 1 in 5 staff and in primary care they account for 1 in 4 staff

- The share of NHS staff who are females aged 45-54 is higher than average in CCGs and community provider trusts but much lower than average in ambulance trusts, where they account for only 1 in 10 staff

- Within females aged 45-54, the majority work in acute trusts (72%) and mental health trusts (18%). A third work as nurses, midwives & health visitors and another third in roles as support to clinical staff

- Half of females aged 45-54 work in roles earning under £30,000 per year. For males in the same age group far fewer, only a third, are in roles earning under £30,000 per year

- Male employees aged 45-54, compared to female employees in the same age group, are five times more likely to be in roles earning more than £90,000 per year

- Females aged 45-54 working as doctors or in manager & infrastructure support roles tend to be on lower pay bands compared to males of the same age

- 43% of females aged 45-54 work part time. This is slightly less than younger females aged 34-44 (45%) and substantially less than older females aged 55-64 (55%). Where staff in all these age groups do work part-time, their full time equivalents are similar

Joiners and leavers

Overview on joiners and leavers

Numbers of staff leaving and joining the NHS workforce
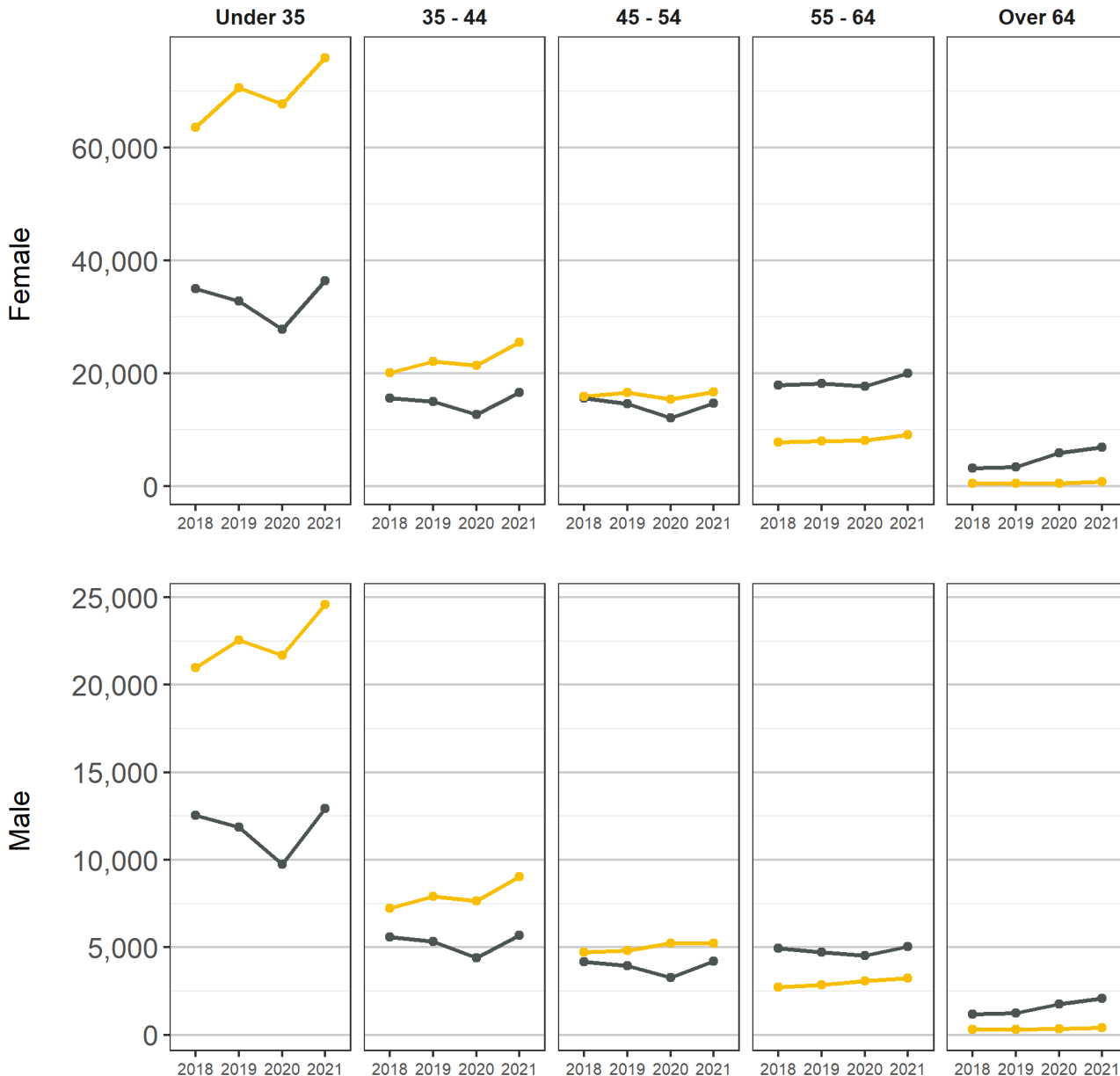
Numbers of joiners and leavers for both females and males show the number joining the NHS is higher for employees who are younger. This difference narrows until age 55, where there are more leavers than joiners.

For most groups there is a noticeable dip in both joiners and leavers in 2020. It is assumed this is an impact of the pandemic - a point in time when other careers were often furloughed and job opportunities outside the NHS were limited. Levels rebound in 2021, and for many reach a 4-year high.

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Scale of the change between 2018 and 2021

Investigating the change in joiners to the NHS between 2018 and 2021 shows that number of female joiners aged 45-54 increased (by 5%) but that this was small when compared to other groups of staff. The increase was over twice as large in males of the same age (11%) and over five times larger for females in the decade younger group 35-44 (27%).

% change in number of joiners from 2018 to 2021
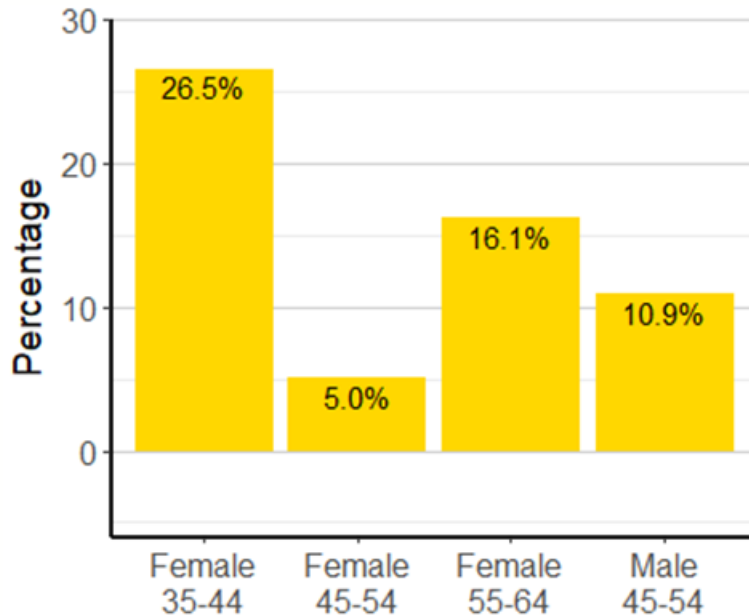
% change in number of leavers from 2018 to 2021
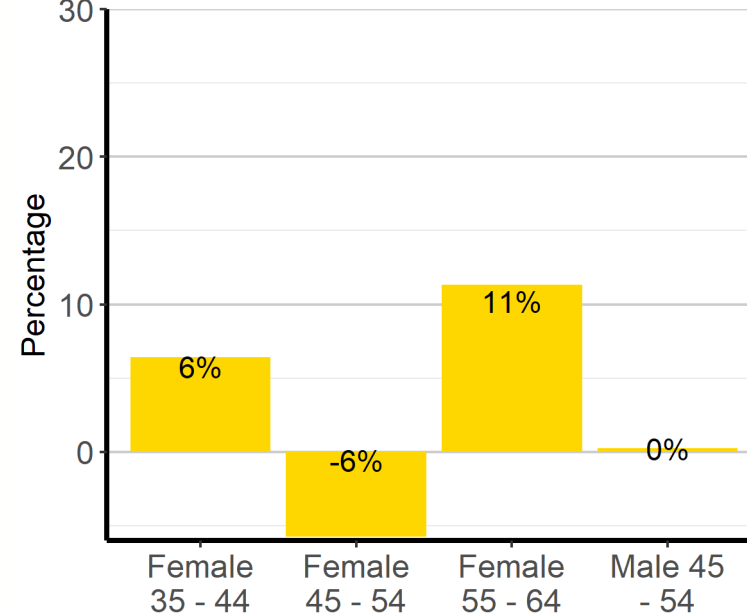
Although somewhat negated by the reduction in leavers from the NHS, the low growth in joiners results in the decreasing share of the NHS workforce who are females aged 45-54. If these females had joined at the same rate as younger females then an additional 3,420 females aged 45-54 would have been recruited in 2021; if growth was the same as males aged 45-54 then an additional 920 females of this age would have been recruited in 2021.

How have female joiners aged 45-54 changed?

The different levels of growth in joiners has resulted in females aged 45-54 becoming a smaller proportion of all joiners. Between 2018 and 2021 the proportion of joiners to the NHS who are females aged 45-54 has fallen from 11.1% to 9.8%.

% of joiners who are females aged 45-54
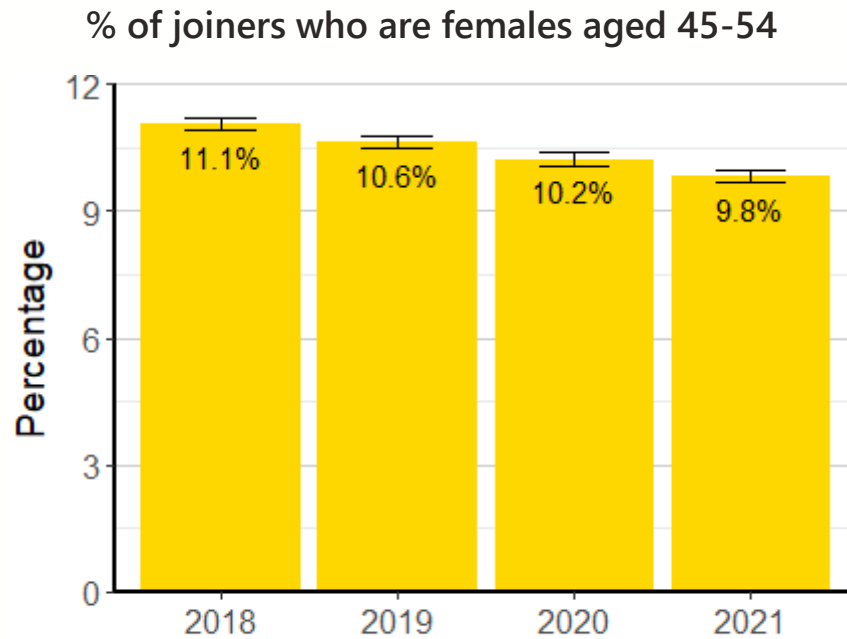
This drop is further investigated by characteristics in the following slides.

Whiskers denote 95% confidence interval

How have female joiners aged 45-54 changed?

% of joiners who are females aged 45-54 by employer type
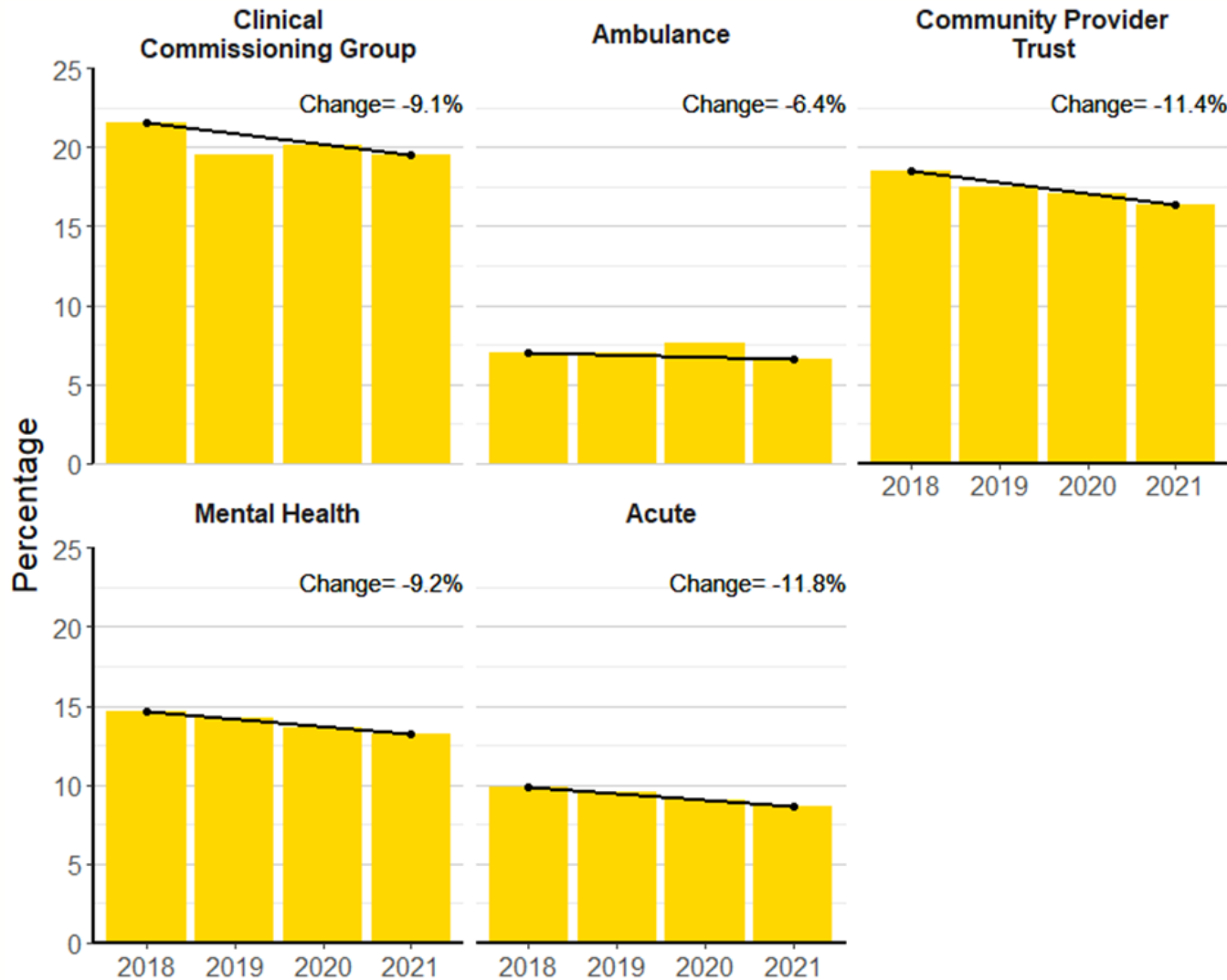
The percentage of joiners who are females aged 45-54 has decreased across all employer types. The greatest decrease was seen at acute trusts (-12%) and the smallest decrease at ambulance trusts (-6%).

How have female joiners aged 45-54 changed?

% of joiners who are females aged 45-54 by profession
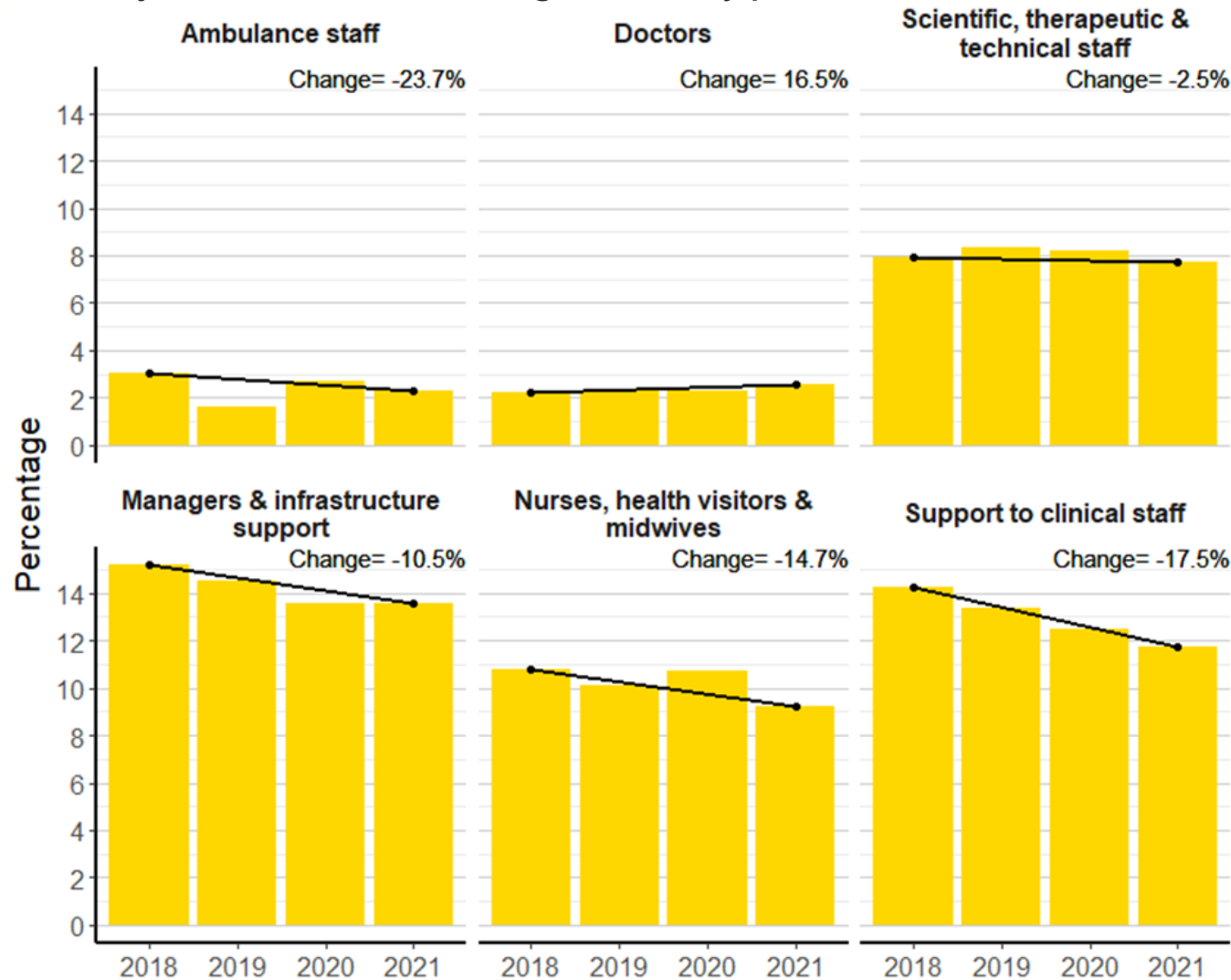
The percentage of joiners who are females aged 45-54 has increased between 2018 and 2021 for doctors (by 17%) but reduced for all other professions.

The largest decrease in the percentage of joiners who are females aged 45-54 is seen in ambulance staff (-24%) followed by support to clinical staff (-18%) and nurses, health visitors & midwives (-15%). Only scientific, therapeutic & technical roles have remained relatively stable.

How have female joiners aged 45-54 changed?

% of joiners who are females aged 45-54 by ethnicity

The percentage of joiners who are females aged 45-54 and who are Chinese or White, has remained relatively stable with only a slight reduction – although numbers in the Chinese group are very small when making comparisons.

For all other ethnic groups the percentage of joiners who are females aged 45-54 have decreased more noticeably. This seems to suggest a trend where females aged 45-54, who are also from an ethnic minority, are now much less likely than White females of the same age to join the NHS workforce.

How have female joiners aged 45-54 changed?

% of joiners who are females aged 45-54 by pay band

For females aged 45-54 the lower the pay band, the greater the reduction in joiners.
For joiners with mid-point pay band of £50,000 and over proportions have actually increased, particularly in the £90,000+ group.

Who leaves the NHS?

% of workforce leaving the NHS
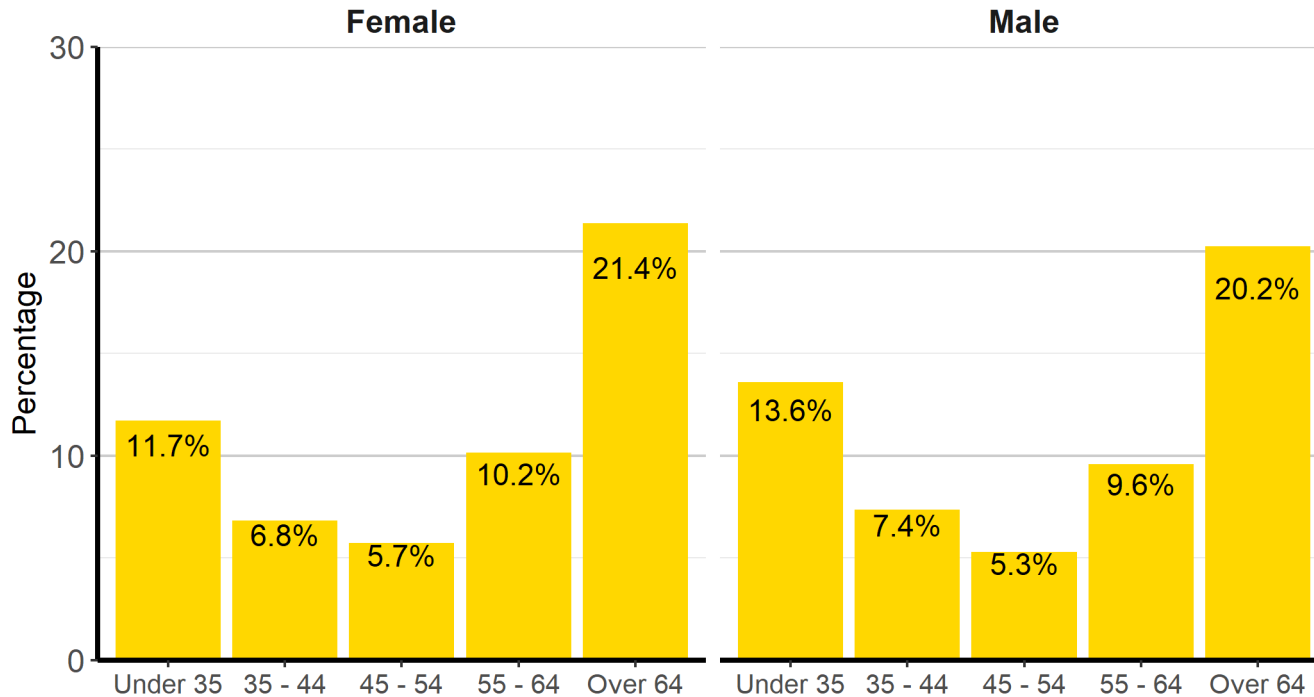
Leaving rates, the proportion leaving the NHS workforce each year, are on average low for females aged 45-54. When compared to males in the same age group, leaving rates are marginally higher (by 0.4%). When compared to females in the younger decade age group, leaving rates are slightly lower (by 1.1%).

Although overall leaving rates between females aged 45-54 to both males of the same age and younger females are similar, we now investigate leaving rates further by characteristic and reason for leaving.

Leavers data averages based on 2018, 2019 and 2021.

Leaving rates by employer and profession

For females aged 45-54 leaving rates are highest for those who work in CCGs. They are also significantly higher for females aged 45-54 working in community or mental health trusts. Rates are noticeably lowest for those females aged 45-54 who work at acute trusts. However, as seen in the profession analysis this is not due to nurses, health visitors and midwives – these professions have significantly higher than average leaving rates. Profession leaving rates for females aged 45-54 are also significantly higher for those who work as support to clinical staff and ambulance staff. They are significantly lower for doctors and scientific, therapeutic and technical staff.

% female leavers aged 45-54

% female leavers aged 45-54

Leavers data averages based on 2018, 2019 and 2021. Whiskers denote 95% confidence interval

31
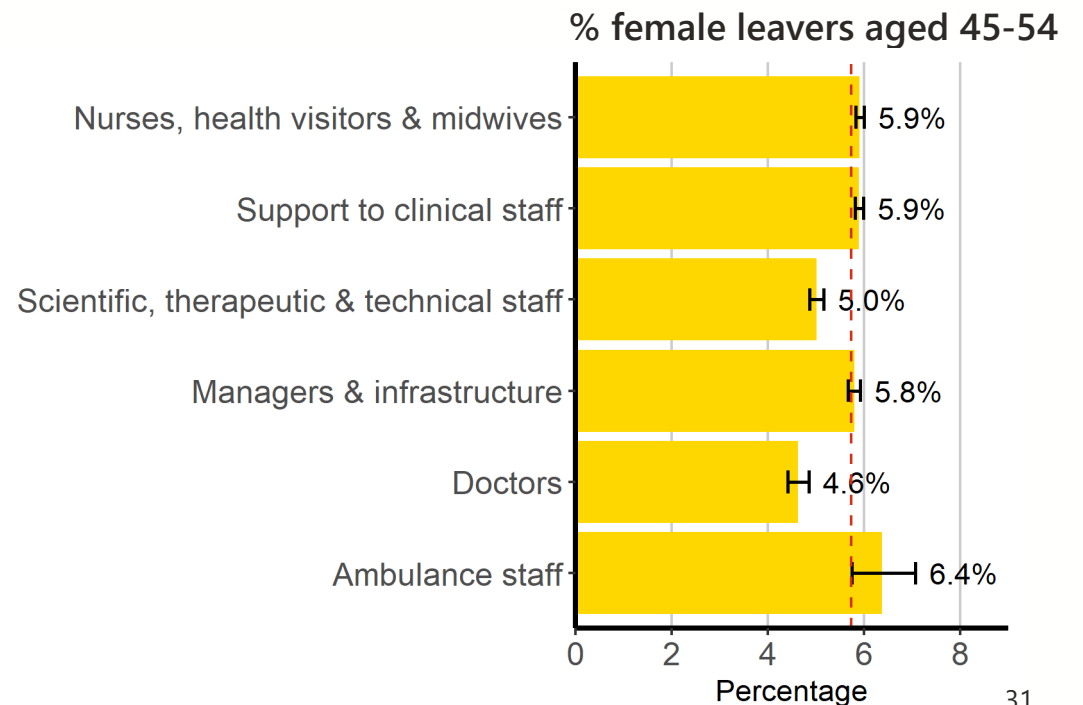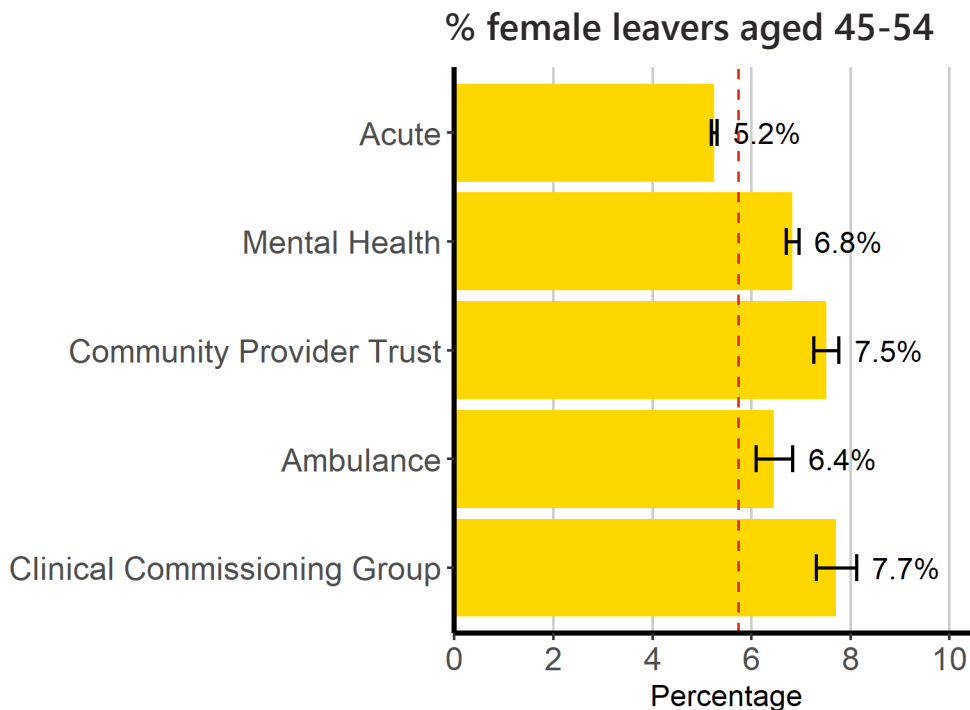
Leaving rates by ethnicity and pay band

Leaving rates for females aged 45-54 are significantly higher than average for those who state their ethnicity as White, Black or Black British, Not Stated and Mixed. They are significantly lower for Asian or Asian British, Any Other Ethnic Group and Chinese.

Within females aged 45-54, leaving rates are generally higher the lower the pay band.

% female leavers aged 45-54

Ethnicity	Percentage
White	5.9%
Asian or Asian British	3.3%
Black or Black British	6.4%
Not Stated	6.5%
Any Other Ethnic Group	3.3%
Mixed	6.5%
Chinese	4.3%

% female leavers aged 45-54

Pay band	Percentage
£90k+	3.4%
£50<£90k	5.4%
£30<£50k	5.3%
£20<£30k	6.1%
<£20k	6.3%

Leavers data averages based on 2018, 2019 and 2021. Whiskers denote 95% confidence interval
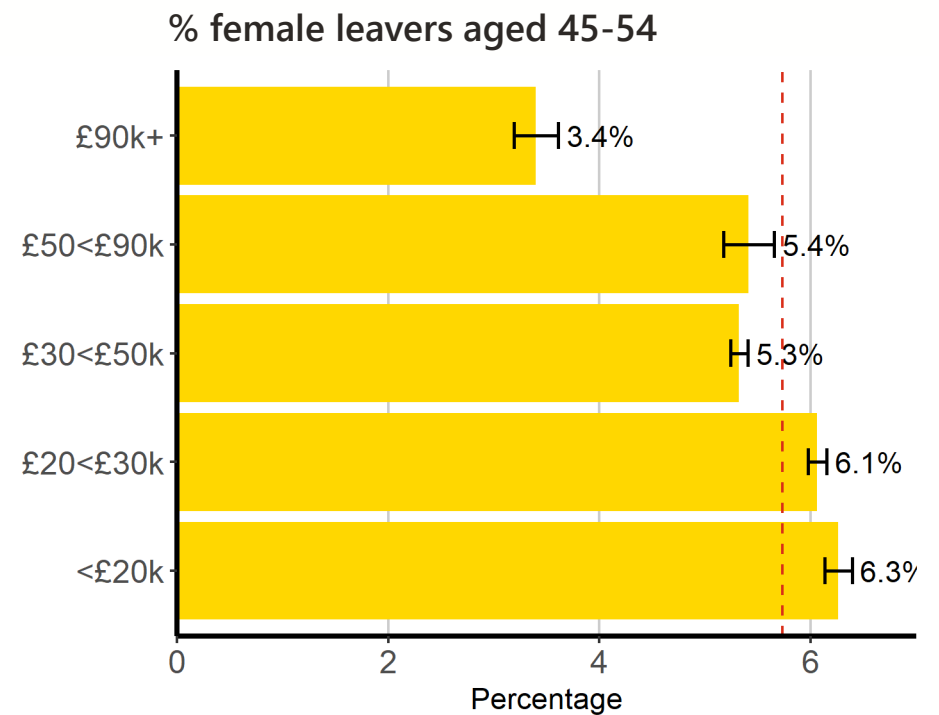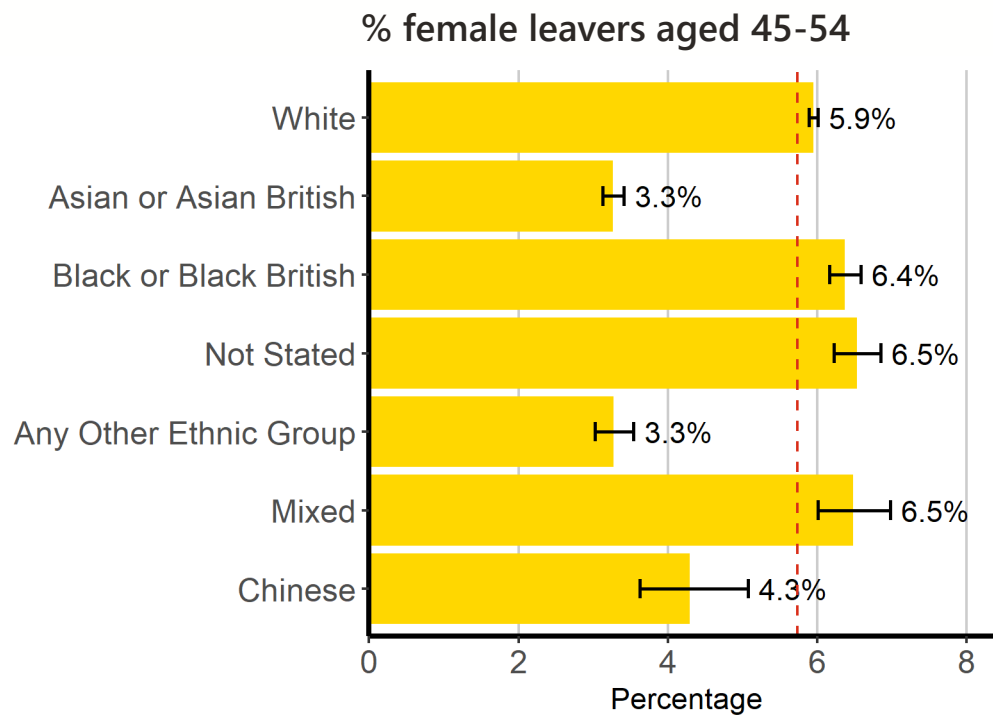
Leaving rates by reason group

% females aged 45-54 leaving NHS by reason group

Reason group	Percentage
Voluntary Resignation	54%
Unknown	17%
Retirement	14%
Dismissal	5%
Employee Transfer	4%
End of Fixed Term Contract	3%
Death in Service	1%
Redundancy	1%
Muttually Agreed Resignation	0%
Other	0%

Percentage (x-axis: 0, 20, 40, 60)
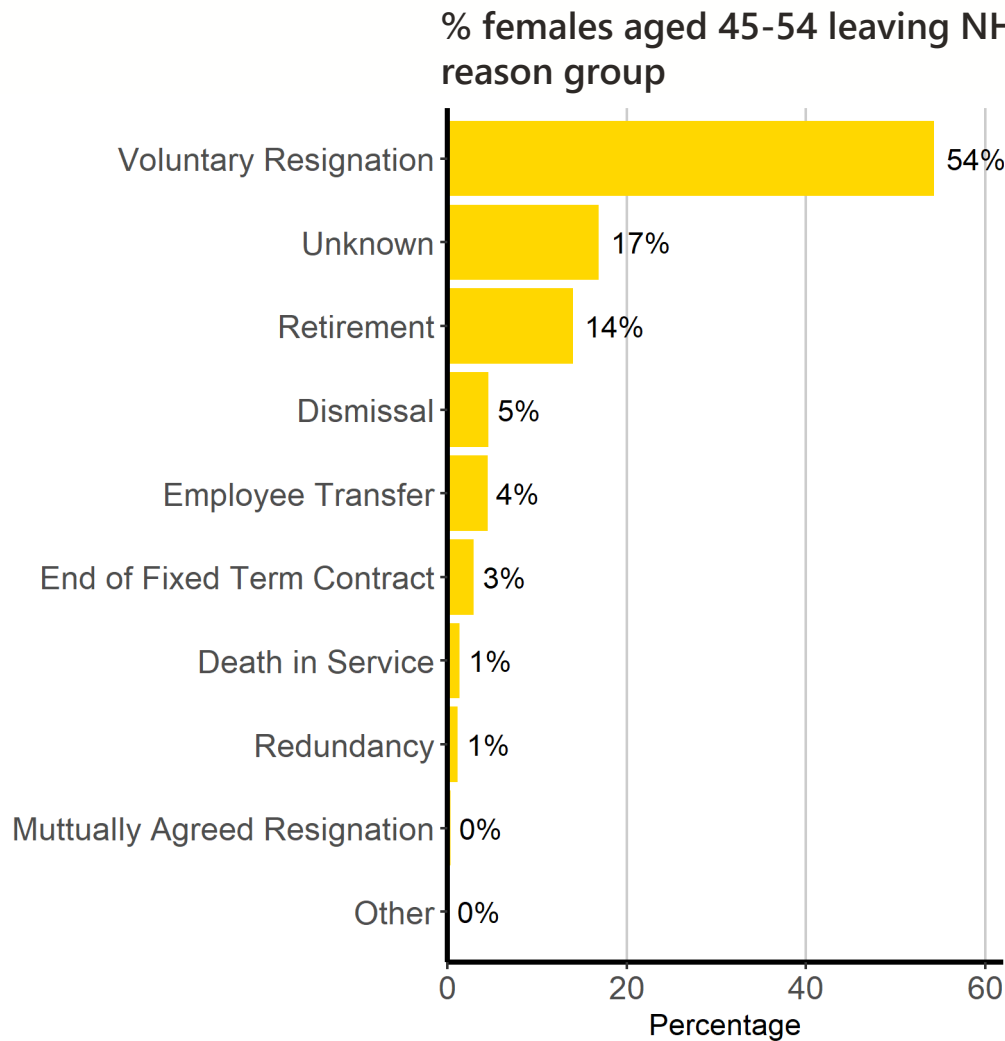
Top 3 reasons for leaving covers reason for 85% of female leavers aged 45-54

For females aged 45-54 the reason for leaving the NHS is most often a voluntary resignation – over half have this as their reason. Other frequent reasons are those related to unknown reasons and also to retirement. Together, these top three groups account for 85% of all female leavers aged 45-54.

Leavers data averages based on 2018, 2019 and 2021. Whiskers denote 95% confidence interval

Leaving rates by detailed reason

% females aged 45-54 leaving NHS by reason (for top 3 reason groups)

Reason	Percentage
Voluntary Resignation - Other/Not Known	16%
Voluntary Resignation - Work Life Balance	13%
Voluntary Resignation - Relocation	7%
Voluntary Resignation - Promotion	5%
Voluntary Resignation - Health	4%
Voluntary Resignation - Better Reward Package	2%
Voluntary Resignation - Lack of Opportunities	2%
Voluntary Resignation - Incompatible Working Relationships	1%
Voluntary Resignation - Adult Dependants	1%
Voluntary Resignation - To undertake further education or training	1%
Voluntary Resignation - Child Dependants	1%
Unknown reason	17%
Retirement Age	9%
Retirement - Ill Health	2%
Voluntary Early Retirement - with Actuarial Reduction	1%
Voluntary Early Retirement - no Actuarial Reduction	1%
Flexi Retirement	1%

X-axis: Percentage (0, 5, 10, 15, 20, 25)

By detailed reason; within the voluntary resignation group the other/not known is the largest single reason for females aged 45-54 voluntarily resigning. This is closely followed by reasons related to work life balance.

Leavers data averages based on 2018, 2019 and 2021. Whiskers denote 95% confidence interval

How leaving rates compare to males of the same age

Difference in leaving rate for females aged 45-54 compared to males aged 45-54
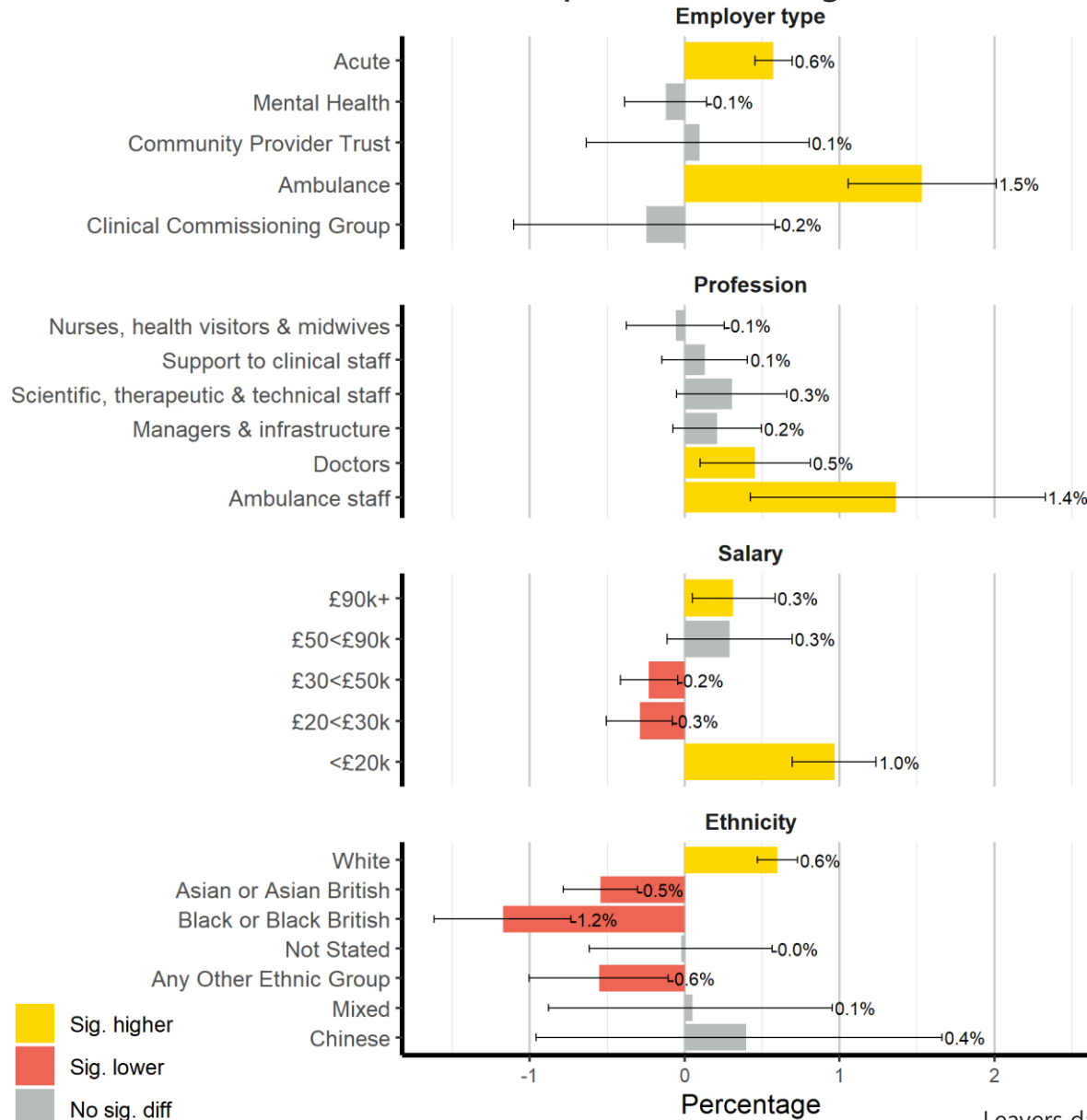
Females aged 45-54 are significantly more likely to leave the NHS compared to males of the same age at acute or ambulance trusts.

Rates of leaving the NHS are significantly higher than males aged 45-54 when working as doctors or ambulance staff.

Females aged 45-54 in the highest pay band have low leaving rate but compared to males of the same age who are also in highest pay band, they are significantly more likely to leave.

White females aged 45-54 are significantly more likely to leave the NHS than White males of the same age. However, Asian or Asian British and Black or Black British females are significantly less likely to leave.

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Leavers data averages based on 2018, 2019 and 2021. Whiskers denote 95% confidence interval

How leaving reasons compare to males of the same age

Difference in leaving reasons for females aged 45-54 compared to males aged 45-54

Reason group

Reason	Percentage Difference
Voluntary Resignation	2.2%
Unknown	0.6%
Retirement	3.8%
Redundancy	-0.6%
Other	0.0%
Muttually Agreed Resignation	-0.0%
End of Fixed Term Contract	-3.1%
Employee Transfer	0.6%
Dismissal	-2.6%
Death in Service	-0.8%

Reason

Reason	Percentage Difference
Voluntary Resignation - Other/Not Known	-1.6%
Voluntary Resignation - Work Life Balance	4.0%
Voluntary Resignation - Relocation	-1.1%
Voluntary Resignation - Promotion	0.1%
Voluntary Resignation - Health	1.2%
Voluntary Resignation - Better Reward Package	-1.1%
Voluntary Resignation - Lack of Opportunities	0.1%
Voluntary Resignation - Incompatible Working Relationships	-0.1%
Voluntary Resignation - Adult Dependants	0.3%
Voluntary Resignation - To undertake further education or training	0.1%
Voluntary Resignation - Child Dependants	0.2%
Unknown reason	0.6%
Retirement Age	2.7%
Retirement - Ill Health	0.3%
Voluntary Early Retirement - with Actuarial Reduction	0.1%
Voluntary Early Retirement - no Actuarial Reduction	0.4%
Flexi Retirement	0.4%

Legend:
- Sig. higher
- Sig. lower
- No sig. diff

Overall females aged 45-54 have a very similar leaving rate to males of the same age (0.4% higher). However, reasons for leaving do differ. Compared to males females are significantly more likely leave by voluntary resignation or retirement – even though retirement is not usual in the age range 45-54. They are significantly less likely to leave due to redundancy, end of fixed term contract, dismissal or death in service.

By detailed reason within top 3, females aged 45-54 who voluntarily resign significantly more often cite issues of work life balance and health. Compared to males of the same age they are significantly less likely to resign for relocation or a better reward package.

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Leavers data averages based on 2018, 2019 and 2021.
Whiskers denote 95% confidence interval.

How leaving rates compare to decade younger females

Difference in leaving rate for females aged 45-54 compared to females aged 35-44

Employer type

Acute	-1.3%
Mental Health	-0.7%
Community Provider Trust	-0.8%
Ambulance	-0.3%
Clinical Commissioning Group	-0.9%

Profession

Nurses, health visitors & midwives	0.0%
Support to clinical staff	-1.7%
Scientific, therapeutic & technical staff	-0.8%
Managers & infrastructure	-1.3%
Doctors	-5.5%
Ambulance staff	0.5%

Salary

£90k+	-0.3%
£50<£90k	-0.4%
£30<£50k	-0.8%
£20<£30k	-1.3%
<£20k	-2.1%

Ethnicity

White	-0.6%
Asian or Asian British	-2.8%
Black or Black British	-3.2%
Not Stated	-1.9%
Any Other Ethnic Group	-2.6%
Mixed	-2.1%
Chinese	-2.9%

Percentage

Sig. higher
Sig. lower
No sig. diff
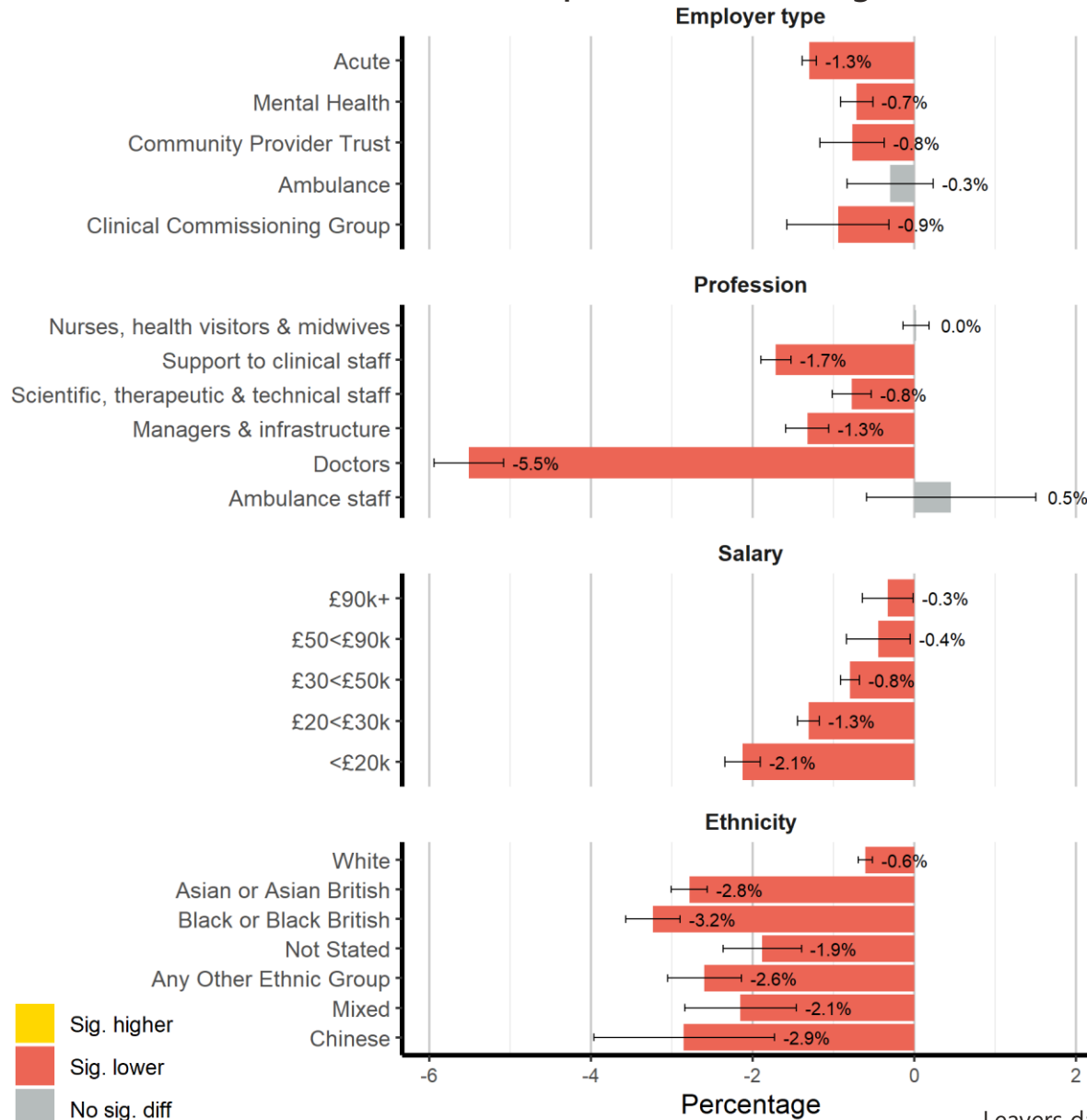
Females aged 45-54 are significantly less likely to leave the NHS compared to younger females for all employer types - except ambulance trusts, where result is unclear.

Although significantly lower in several professions, it is noticeable how female doctors aged 45-54 are much less likely to leave than younger female doctors.

Compared to younger females, females aged 45-54 are significantly less likely to leave when in lower pay bands; and, the lower the band the less likely they are to leave. Potentially reflecting a lack of career confidence in females aged 45-54.

Across all ethnicities females aged 45-54 leave significantly less compared to younger females but the scale does differ between White and non-White ethnic groups.

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Leavers data averages based on 2018, 2019 and 2021. Whiskers denote 95% confidence interval

How leaving reasons compare to decade younger females

Difference in leaving reasons for females aged 45-54 compared to females aged 35-44

Reason group

Reason	Percentage Difference
Voluntary Resignation	-9.5%
Unknown	-5.6%
Retirement	13.7%
Redundancy	0.6%
Other	-0.1%
Muttually Agreed Resignation	0.2%
End of Fixed Term Contract	-3.0%
Employee Transfer	1.0%
Dismissal	1.8%
Death in Service	0.9%

Legend:
- Sig. higher (yellow)
- Sig. lower (red)
- No sig. diff (grey)

Reason

Reason	Percentage Difference
Voluntary Resignation - Other/Not Known	-0.2%
Voluntary Resignation - Work Life Balance	-1.6%
Voluntary Resignation - Relocation	-2.9%
Voluntary Resignation - Promotion	-1.9%
Voluntary Resignation - Health	0.9%
Voluntary Resignation - Better Reward Package	-0.3%
Voluntary Resignation - Lack of Opportunities	-0.1%
Voluntary Resignation - Incompatible Working Relationships	0.4%
Voluntary Resignation - Adult Dependants	0.5%
Voluntary Resignation - To undertake further education or training	-1.4%
Voluntary Resignation - Child Dependants	-3.0%
Unknown reason	-5.6%
Retirement Age	9.2%
Retirement - Ill Health	1.4%
Voluntary Early Retirement - with Actuarial Reduction	1.2%
Voluntary Early Retirement - no Actuarial Reduction	1.0%
Flexi Retirement	0.8%

Leavers data averages based on 2018, 2019 and 2021.
*Whiskers denote 95% confidence interval.*

Compared to females a decade younger females aged 45-54 are significantly more likely leave through retirement. A small but significant number are also more likely to leave through redundancy, employee transfer, dismissal or death in service. They are significantly less likely to leave through voluntary resignation, unknown reasons or end of fixed term contracts.

By detailed reason within top 3, females aged 45-54 who voluntarily resign significantly more often cite reasons related to health, incompatible working relationships and care of adult dependants. Compared to younger females they are significantly less likely to voluntarily resign for issues of work life balance, relocation, promotion, to undertake further education or training or care of child dependants.

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How have female leavers aged 45-54 changed?

% females leavers aged 45-54 profession
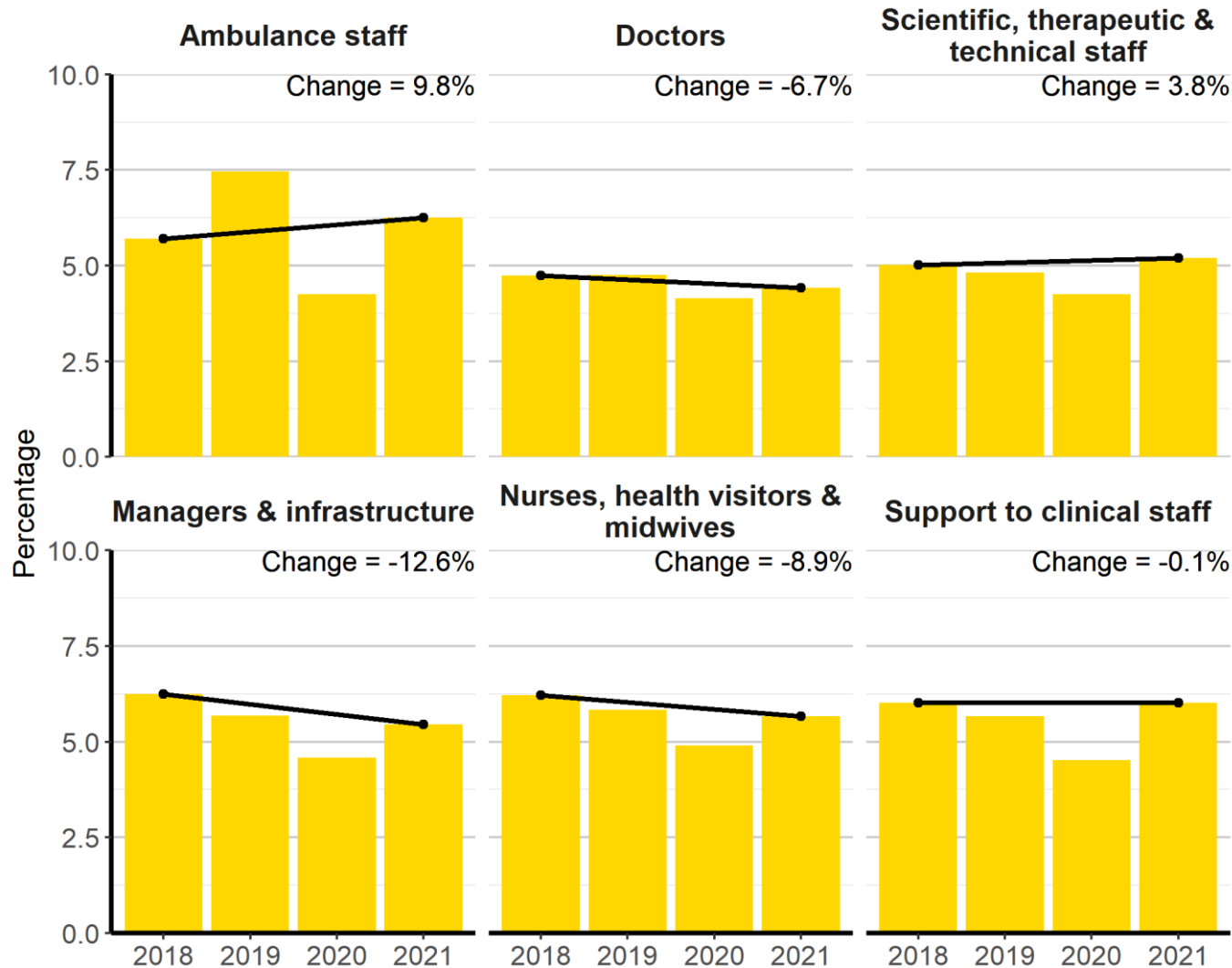
We have seen a reduction of 6% in the number of leavers between 2018 and 2021 who were females aged 45-54 – but other staff groups actually showed increases in the number of leavers. Analysis of changes in leaving rate over time for females aged 45-54 indicates reductions are greatest for staff who work as managers and infrastructure staff. Here the leaving rate in 2018 fell from 6.2 to 5.5, a 12.6% reduction. Potentially this could suggest some benefits to certain professions arising from changes in working practice associated with the pandemic, namely the ability of working from home to help manage symptoms.

How have female leavers aged 45-54 changed?

% females leavers aged 45-54 by employer type
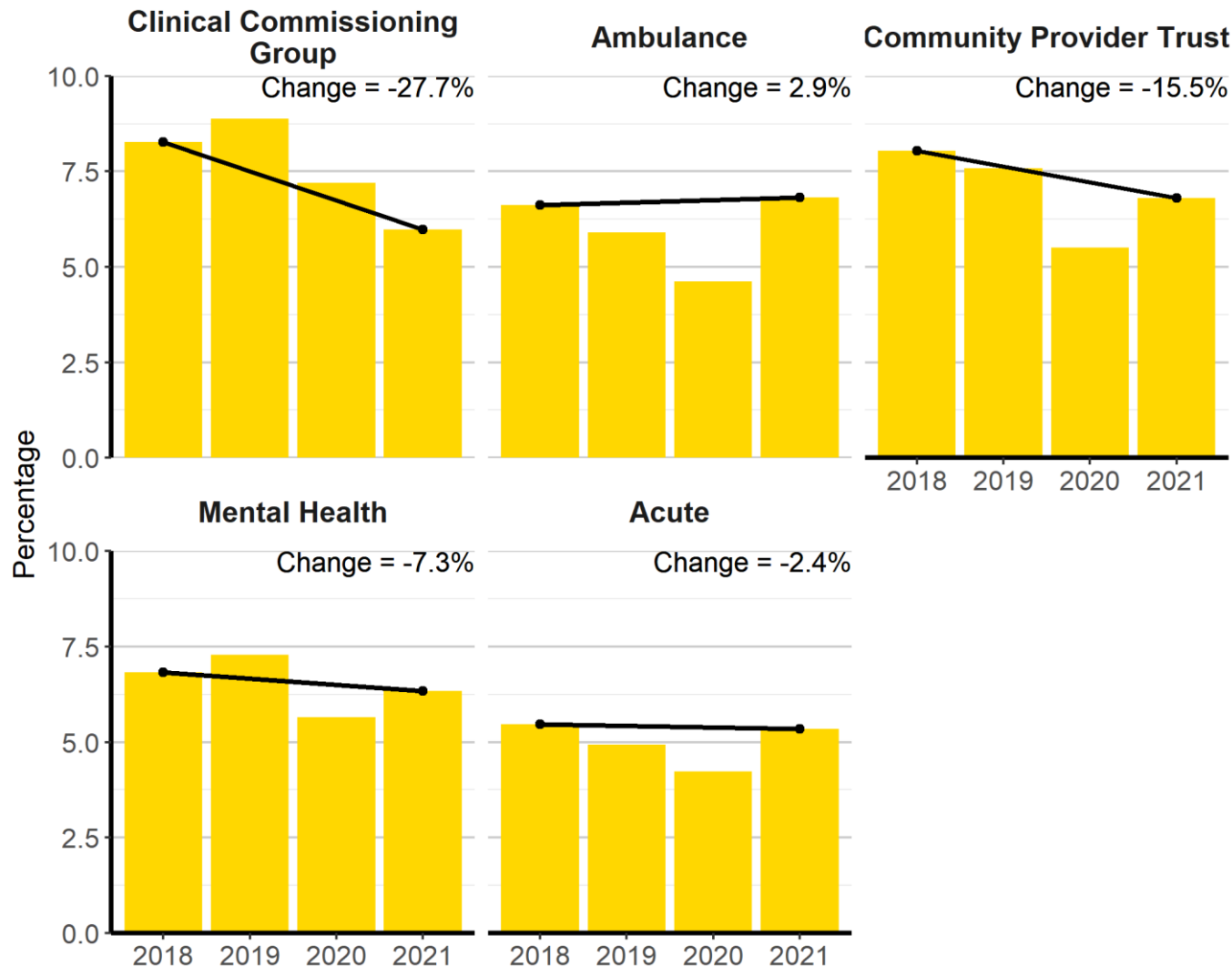
Analysis of changes in leaving rate over time by employer type for females aged 45-54 also indicates that reductions are greatest for staff who, post-pandemic, may be more likely to be able to work from home. The leaving rate for females aged 45-54 who work in clinical commissioning groups fell by over a quarter between 2018 and 2021.

Summary

- Between 2018 and 2021 the number of those joining the NHS workforce has increased for almost all age groups and genders. However, for females aged 45-54 the increase has been minimal, only 5%. This is a much lower increase than younger women aged 35-44 (27% increase) or males also aged 45-54 (11% increase)

- Due to the relatively lower increase in joiners who are females aged 45-54, this group now make up a lesser share of joiners to the NHS. They were 11.1% of all joiners in 2018, falling to 9.8% by 2021.

- This reduction in joiners who are females aged 45-54 seems to occur across most employer types and professions with few exceptions. It is particularly noticeable in ethnicity, comparing non-White ethnic groups with joiners who are White. Also in pay band where the lower the pay band ,the greater the decrease in the proportion joiners who are females aged 45-54

- If females aged 45-54 joining the NHS had increased at the same rate as younger females or males of the same age, then a substantial number of additional staff would have joined the NHS
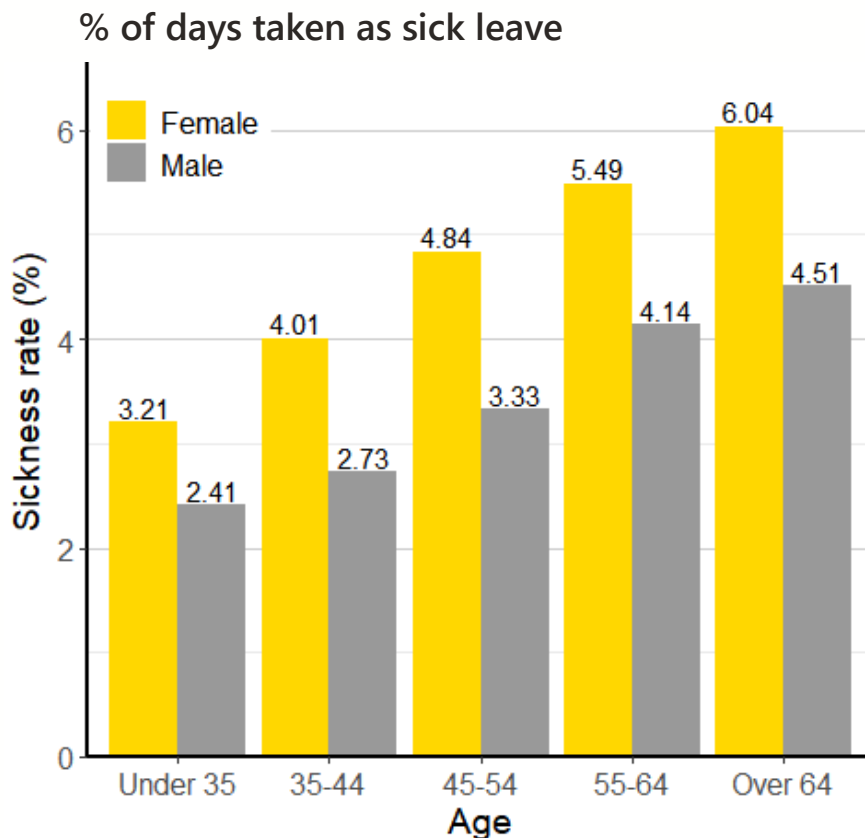
Summary

- Leaving rates for females aged 45-54 are generally low (5.8%) and between 2018 and 2021 the number of female leavers in this age group dropped by 6%. It was the only one of the staff groups investigated to reduce

- Leaving rates appear linked to pay band with general picture being; the higher the pay band, the lower the leaving rate

- Females aged 45-54 are more likely than males of the same age to voluntarily resign from the NHS citing reasons related to work life balance or health

- Females aged 45-54 are also more likely than males of the same age to retire. This is much younger than statutory retirement age and may suggest resigning by 'the backdoor'. Although some professions do have special class retirement age this is slightly later on at age 55

- The leaving rate has reduced in some professions and employer types where working from home would reasonably be expected to be more prevalent. This may suggest benefits to certain professions arising from the ability to work from home
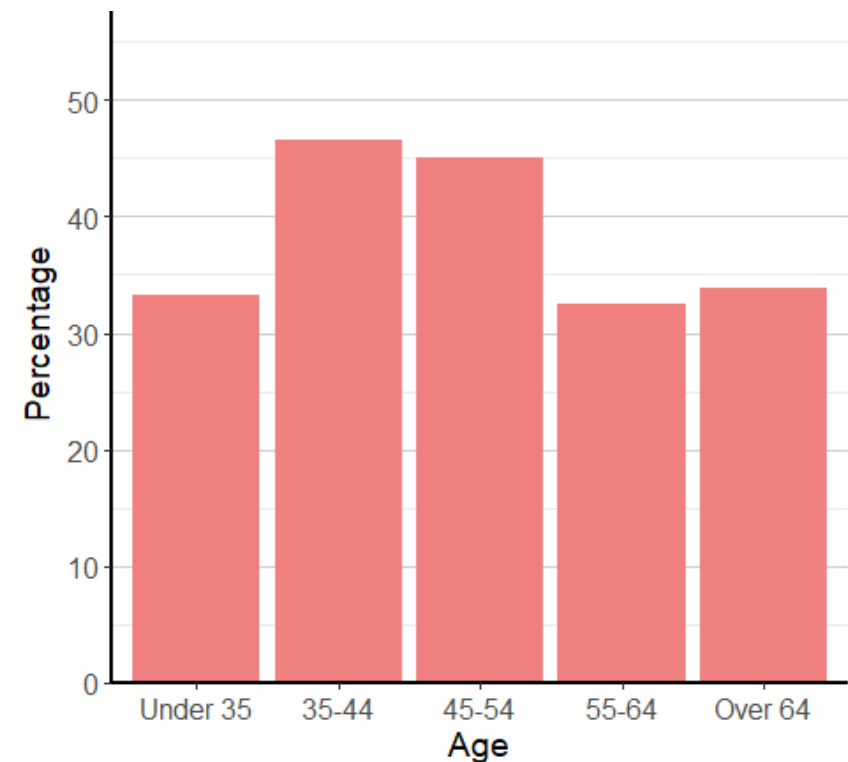
Sickness absence

Sickness rate by age and gender

Sickness rate is the number of sickness absent days as a proportion of available days[9]. For both genders sickness rate increases steadily with age. For all age groups the sickness rate is higher for females than for males. Therefore, female NHS employees aged 45-54 do not have an unusual pattern of sickness absence. This may suggest that females in this age group are presenting at work even when suffering from menopausal symptoms.

% of days taken as sick leave

% difference in sickness rate between males and females

Sickness data is taken from 2019 to exclude the impact of COVID-19 on sickness rates. Pregnancy related sickness absences have been removed

Understanding factors independently associated with sickness rates

When looking at the sickness rate data for employer type, profession, ethnicity and pay band it is not clear which of these factors is having a significant impact on the sickness rate. For example, doctors appear to have lower sickness rates, this could be due to their profession as doctors or it could be related to being on a higher pay band, and that being on a higher pay band is itself associated with lower sickness rates.

Regression analysis is a method that allows us to determine which variables are independently associated with the topic of interest. In this case to understand the relationships between employer type, profession, ethnicity, pay band and gender and estimate their effects on sickness rate.

For count data, such as this, a negative binomial regression can be used; we are interested in the number of sickness absence days, while taking into account the number of available days for each group.

The negative binomial regression gives Incidence Rate Ratios (IRR) with the reference group having an IRR of 1. If the IRR is less than 1 then the group will have a lower sickness rate compared to the reference group. Conversely an IRR greater than 1 indicates a higher sickness rate than the reference group. A p value <0.05 is taken to indicate a significant effect.

Regression conclusion

Females aged 45-54 have sickness rates 45% higher than males of the same age but the structure of staff (aged 45-54) within each gender group is very different. Regression analysis for all staff in the 45-54 age group adjusts for the different staff structures and results show that females do not actually have significantly higher sickness than males. Instead, significant factors in sickness rates are; salary band - the higher the pay band, the lower the sickness rate; profession - lower for doctors and managers and infrastructure support staff, higher for nurses, health visitors and midwives; employer type - higher for ambulance trusts, community provider trusts and mental health trusts.

As part of regression analysis the interactions between gender and the characteristics of profession and ethnicity were also examined. This investigates how these combinations interact to affect sick leave. It showed that, although doctors have a lower sickness rate this is due to the fact that male doctors have a particularly low sickness rate. In fact, for females aged 45-54 when sickness is adjusted, it is clearly comparable across professions.

Interactions also showed that males who are Black or Black British have lower sickness but for Black or Black British females sickness rates are comparable across other ethnicities.

Negative binomial regression analysis to determine factors independently associated with sickness rate in those aged 45-54

	Incidence Rate Ratio	Confidence Intervals	P value
Gender			
Male	1.00		Reference
Female	1.02	0.68-1.53	0.915
Profession			
Nurses, health visitors & midwives	1.00		Reference
Ambulance staff	1.05	0.66-1.74	0.826
Doctors	0.44	0.31-0.63	<0.001*
Scientific, therapeutic & technical staff	0.78	0.54-1.11	0.159
Managers & infrastructure support	0.70	0.51-0.95	0.022*
Support to clinical staff	0.86	0.61-1.21	0.37
Ethnicity			
White	1.00		Reference
Chinese	0.91	0.61-1.4	0.661
Mixed	1.10	0.78-1.55	0.597
Any Other Ethnic Group	1.04	0.74-1.48	0.827
Not stated	1.20	0.88-1.64	0.258
Black or Black British	0.68	0.49-0.95	0.022*
Asian or Asian British	1.03	0.75-1.41	0.863
Employer			
Acute	1.00		Reference
Clinical Commissioning Group	1.11	0.89-1.39	0.36
Ambulance	1.37	1.08-1.74	0.009*
Community Provider Trust	1.25	1.03-1.52	0.022*
Mental Health	1.44	1.2-1.73	<0.001*
Pay band			
£30k<£50k	1.00		Reference
>£90k	0.48	0.38-0.62	<0.001*
£50k<£90k	0.61	0.5-0.74	<0.001*
£20k<£30k	1.21	1.01-1.44	0.036*
<£20k	1.33	1.03-1.74	0.027*
Interactions			
Female:Ambulance staff	1.50	0.76-2.97	0.24
Female:Doctors	2.07	1.3-3.3	0.002*
Female:Scientific, therapeutic & technical staff	1.17	0.73-1.89	0.503
Female:Managers & infrastructure support	1.21	0.8-1.82	0.362
Female:Support to clinical staff	1.32	0.84-2.08	0.225
Female:Chinese	1.09	0.63-1.89	0.753
Female:Mixed	1.30	0.81-2.07	0.272
Female:Any Other Ethnic Group	1.05	0.64-1.71	0.847
Female:Not stated	0.86	0.56-1.33	0.509
Female:Black or Black British	1.63	1.04-2.55	0.035*
Female:Asian or Asian British	1.01	0.65-1.57	0.949

Adjusting for other factors females aged 45-54 do not have higher sickness rates compared to males of the same age.

Staff in ambulance trusts, community provider trusts and mental health trusts have higher sickness rates than those in acute trusts.

Staff on higher pay bands have lower sickness rates, while those on the lower pay bands have higher sickness rates.

No significant interactions found between profession and employer type.

Sickness data is taken from 2019 to exclude the impact of COVID-19 on sickness rates. Missing pay or professions have been removed

Understanding the interactions of gender with profession & ethnicity

Interaction: Gender and Profession

Adjusted sickness rate

Nurses, HV's, midwives | Ambulance | Doctors | Scientific therapeutic technical | Managers, infra-structure | Support to clinical staff
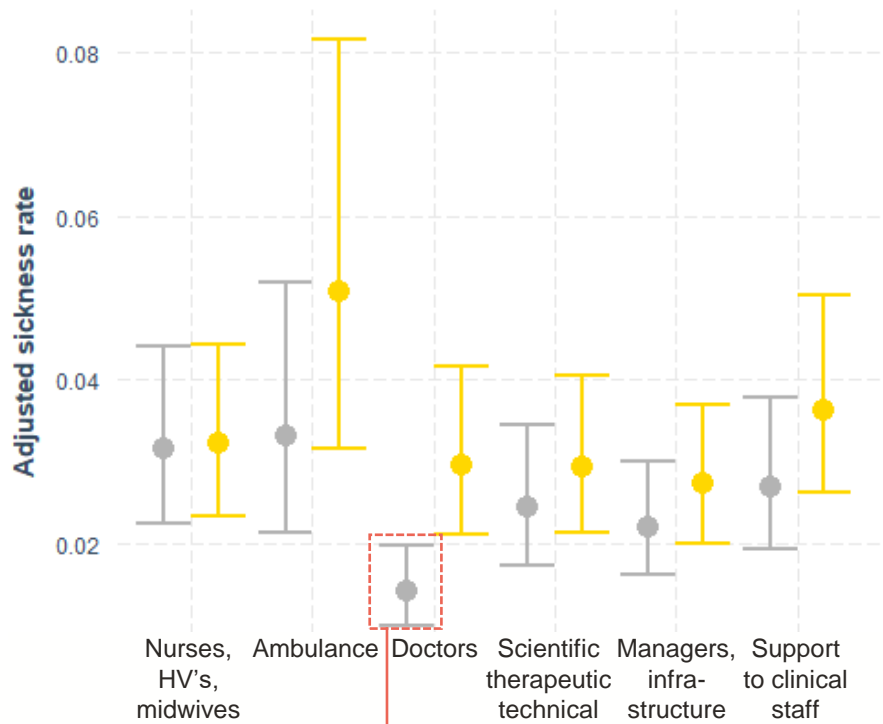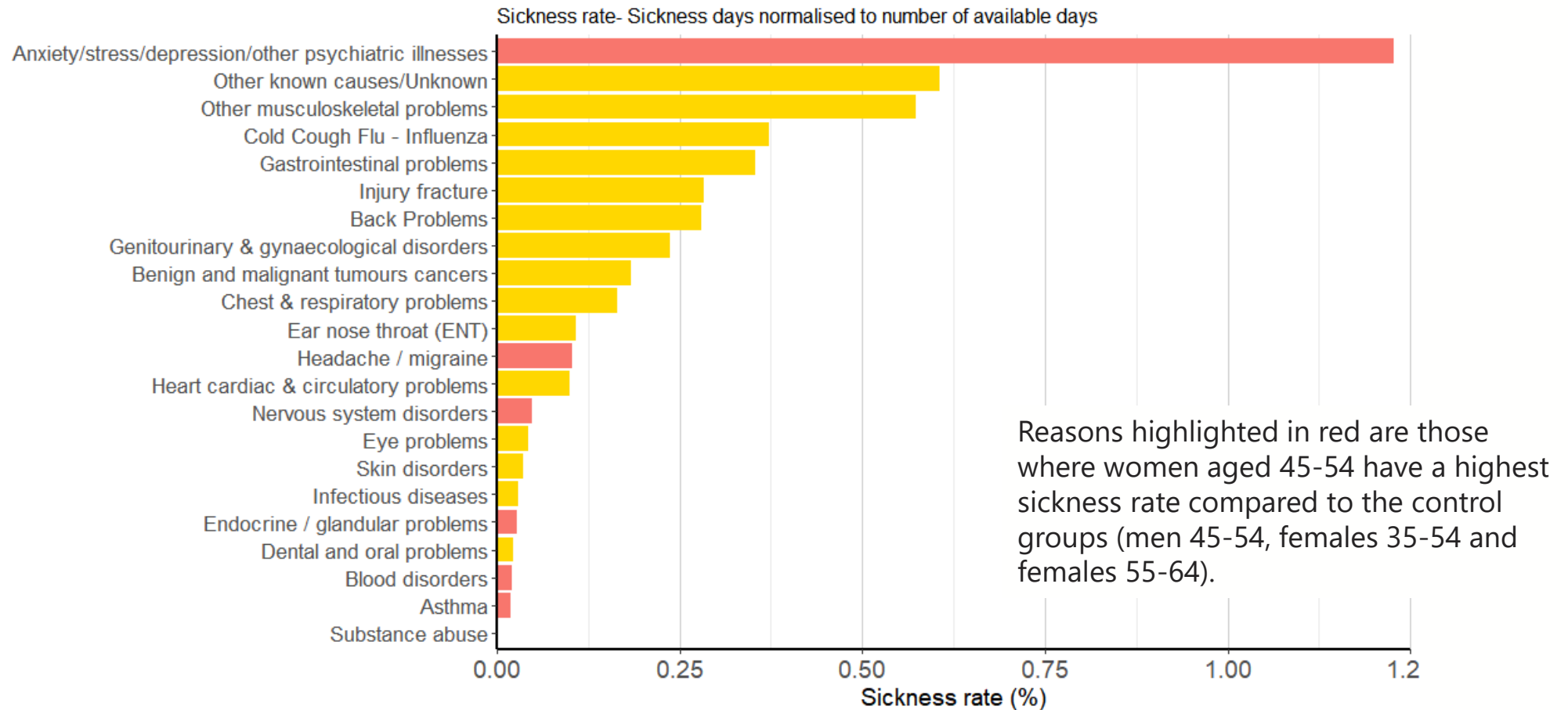
Adjusted sickness for male doctors lower than other genders/professions

Interaction: Gender and Ethnicity

Adjusted sickness rate

White | Chinese | Mixed | Other | Not stated | Black/Black British | Asian/Asian British
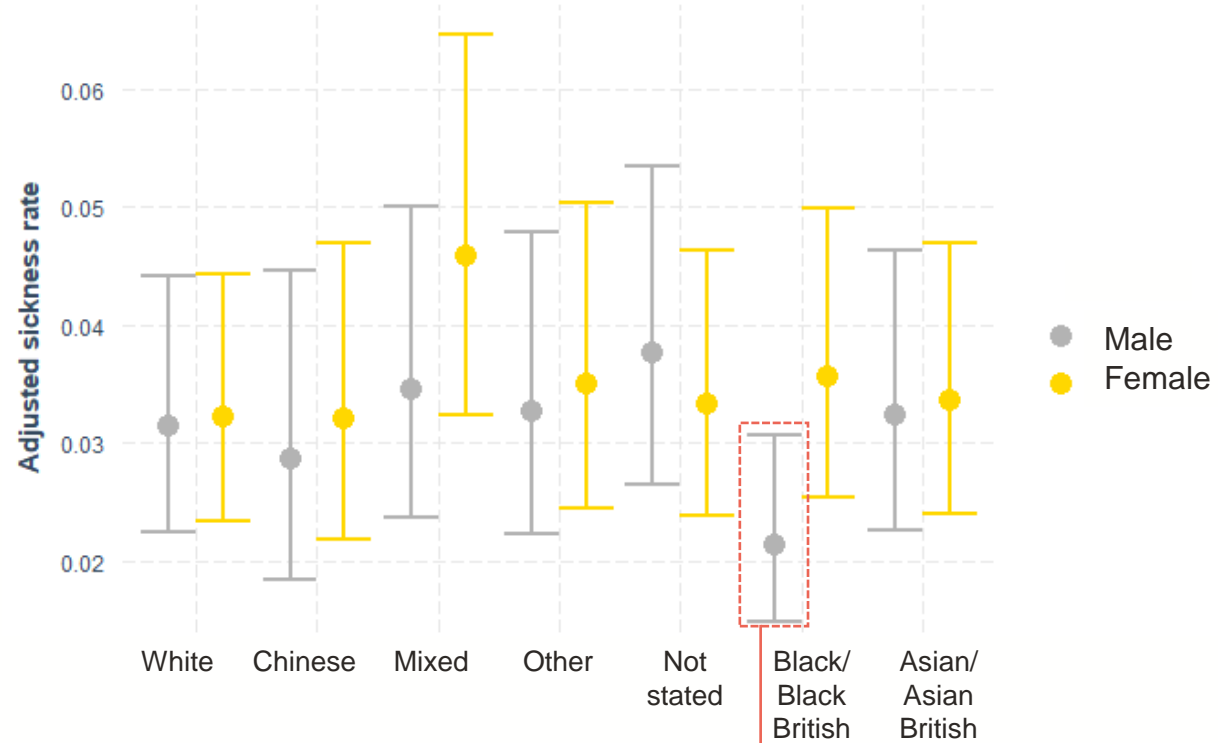
Male
Female

Adjusted sickness for Black or Black British males lower than other genders/ethnicities

Sickness rate by reason in women aged 45-54 yrs

Sickness rate- Sickness days normalised to number of available days

Reason	
Anxiety/stress/depression/other psychiatric illnesses	
Other known causes/Unknown	
Other musculoskeletal problems	
Cold Cough Flu - Influenza	
Gastrointestinal problems	
Injury fracture	
Back Problems	
Genitourinary & gynaecological disorders	
Benign and malignant tumours cancers	
Chest & respiratory problems	
Ear nose throat (ENT)	
Headache / migraine	
Heart cardiac & circulatory problems	
Nervous system disorders	
Eye problems	
Skin disorders	
Infectious diseases	
Endocrine / glandular problems	
Dental and oral problems	
Blood disorders	
Asthma	
Substance abuse	

Sickness rate (%): 0.00, 0.25, 0.50, 0.75, 1.00, 1.2

Reasons highlighted in red are those where women aged 45-54 have a highest sickness rate compared to the control groups (men 45-54, females 35-54 and females 55-64).
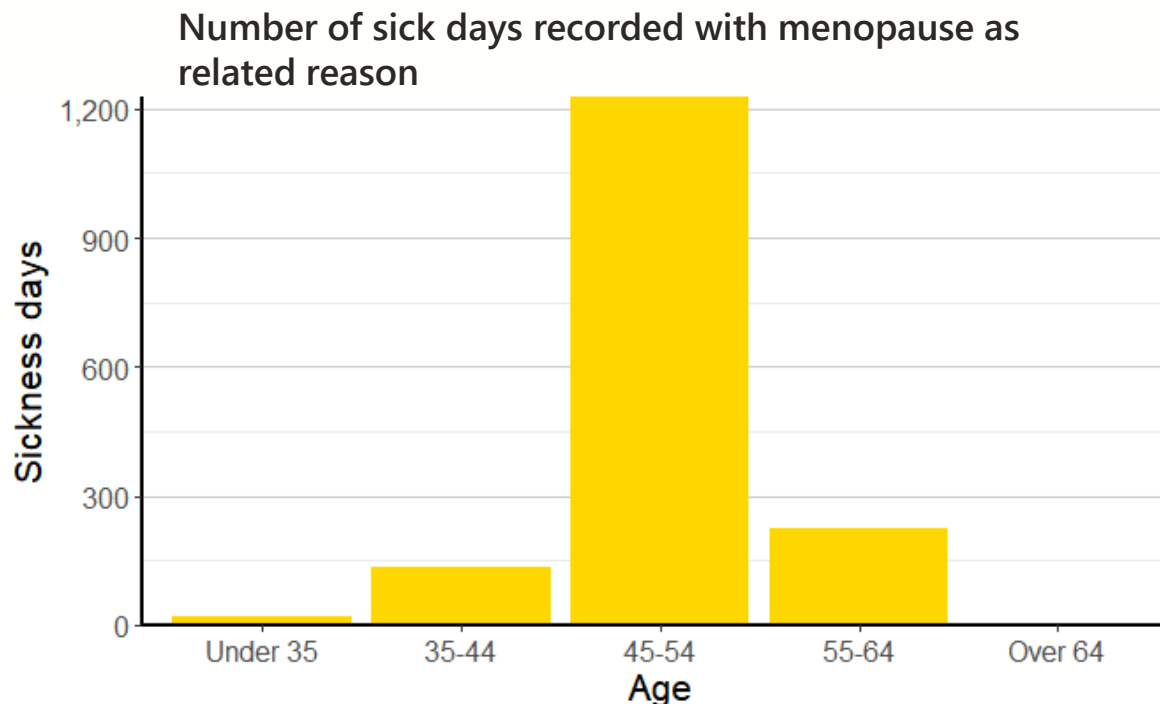
By all sickness reasons, females aged 45-54 most commonly take sick leave because of mental health issues (anxiety/stress/depression/other psychiatric reasons). This is also a common reason in other staff groups but is higher in females aged 45-54 than any other staff group. Females aged 45-54 are also highest in headache/migraine, nervous system disorders, endocrine/glandular disorders, blood disorders and asthma.
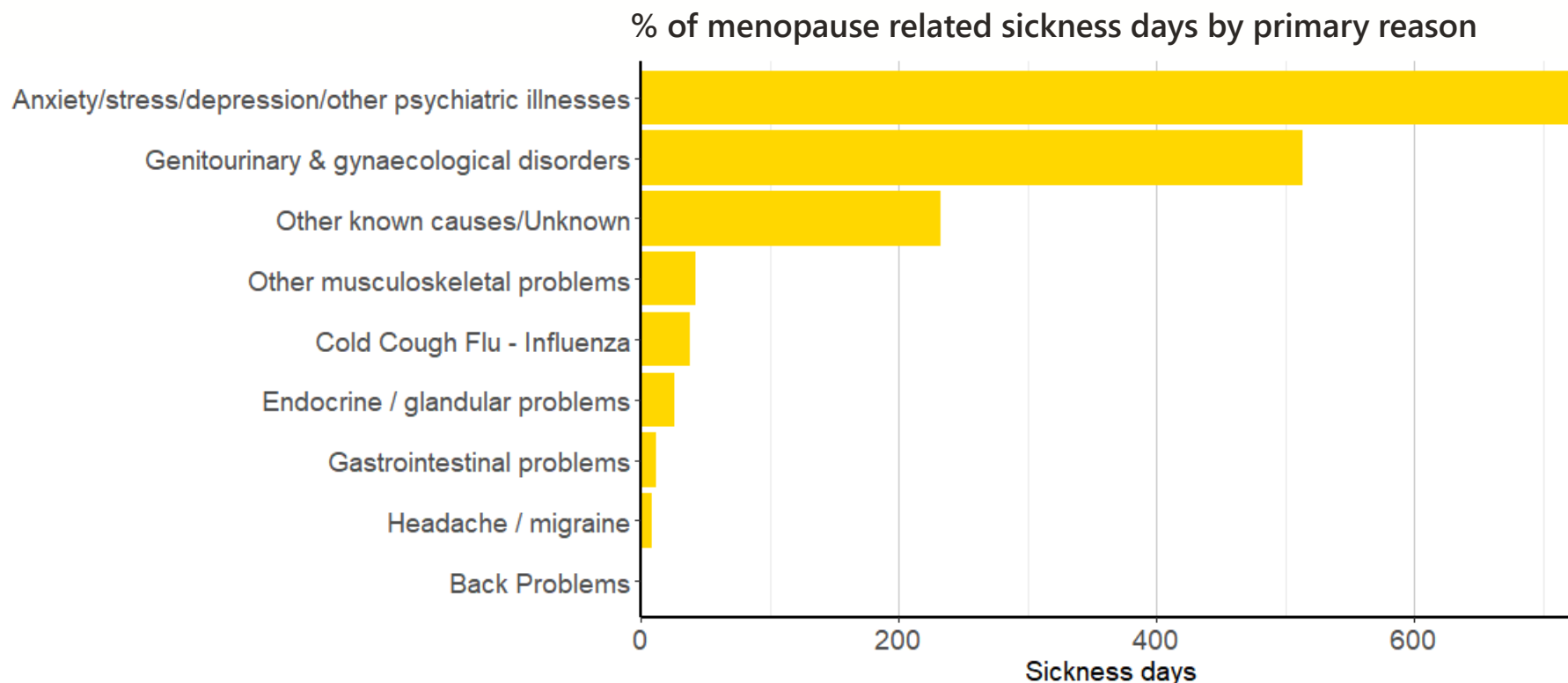
Recording of menopause sickness reason

Sickness data records the primary reason for a sickness absence. From February 2020 additional data for a 'Related Reason' was also collected. A related reason of menopause is available (the only other is a related reason of COVID-19).

Data for 2021 shows that only a small amount of sickness days were recorded under a related reason of menopause (1,604 sickness days from a total of ~4.4 million sickness days in females aged 45-54). However, the data collected does show majority of menopause related absences are in females aged 45-54 (77%).

Number of sick days recorded with menopause as related reason

Menopause symptoms

When menopause is given as a related reason, the primary sickness reason is still reported. In sickness data the primary reason is usually what an employee states. For females aged 45-54 who give a related reason of menopause, the most common primary reasons were those related to mental health (anxiety/stress/depression/other psychiatric illnesses), genitourinary and gynaecological disorders and other known causes/unknown. Together, these are the primary reasons for nearly all (92%) of menopause related sickness days.

% of menopause related sickness days by primary reason

Primary reason	Sickness days
Anxiety/stress/depression/other psychiatric illnesses	~720
Genitourinary & gynaecological disorders	~510
Other known causes/Unknown	~230
Other musculoskeletal problems	~45
Cold Cough Flu - Influenza	~40
Endocrine / glandular problems	~30
Gastrointestinal problems	~12
Headache / migraine	~8
Back Problems	~0

Sickness days

Sickness data is taken from 2021 for supplementary reason of menopause. Data was submitted by 29 organisations

Summary

- Female NHS employees aged 45-54 do not have an unusual pattern of sickness absence. This may suggest that females in this age group are presenting at work even when suffering from menopausal symptoms

- Regression analysis shows that for all employees in the 45-54 year age group, rather than gender, the significant factors driving sickness absences are: salary band (the lower the band the higher the sickness rate), some staff groups (lower for doctors and managers and infrastructure support staff; higher for nurses, health visitors and midwives) and some organisation types (higher for ambulance trusts, community provider trusts and mental health trusts).

- The single biggest reason for sickness absence for NHS employees is for reasons related to their mental health. Females aged 45-54 have the highest rate of sickness absence in this category. This is also often a key reason for sickness in females experiencing menopause symptoms (as recorded with a related reason of 'menopause')

- Although the ability to record a related sickness reason of menopause has been available for nearly two years, recording is low. This raises questions; not only about how informed females may be as to their own health needs, but also as to the level of openness between employers and staff when discussing reasons for sickness absence

References and data notes

Data quality

Data quality
NHS Digital seeks to minimise inaccuracies and the effect of missing and invalid data but responsibility for data accuracy lies with the organisations providing the data.

Leavers data
Excludes data for Chesterfield Royal Hospital NHS Foundation Trust for all years. Moorfields Eye Hospital NHS Foundation Trust is included in the analysis from December 2018. Leavers records are linked to a separate ESR Reasons for Leaving dataset. In many instances the Reason for Leaving record has not been completed, which accounts for the Unknown records. Staff may be included in the data multiple times if they have multiple reasons for leaving. This may be the case if staff have multiple assignments or they have left in multiple annual periods.

Joiners data
Excludes data for Chesterfield Royal Hospital NHS Foundation Trust for all years. Moorfields Eye Hospital NHS Foundation Trust is included in the analysis from December 2018.

Data quality

Sickness data

Working pattern has been calculated based on an employee's contracted FTE in December of the annual period. This analysis has been extracted from the same source as official statistics but using criteria that may cause small differences to the official figures. Sickness absence rate is calculated by dividing the sickness absence days for each reason by the sum of days lost due to all reasons. Both figures may include non-working days. While lower sickness absence rates, in general, indicate lower levels of sickness absence it should be noted that lower rates can also indicate under reporting of sickness absence. Please note that some trusts provide very few reasons for sickness absence, for example one trust provides no reasons with their recorded absence, so national figures are incomplete but the best figures available.

Exclusions

A small number of records are excluded where they have a not known or error value. This applies to the characteristics analysis on the following basis:

- Profession - Unknown classification (0.17%)
- Ethnicity – Unknown (0.99%)
- Salary - No value (1.18%)

Please note that missing data is still included in aggregate analysis.

References

1 https://digital.nhs.uk/data-and-information/areas-of-interest/workforce

2 https://www.nhsbsa.nhs.uk/electronic-staff-record-esr-workforce-services#:~:text=The%20Electronic%20Staff%20Record%20(ESR,over%20one%20million%20NHS%20employees

3 https://www.nhsemployers.org/articles/pay-scales-202223

4 https://www.pssru.ac.uk/

5 https://www.bma.org.uk/pay-and-contracts/pay

6 https://www.longtermplan.nhs.uk/online-version/chapter-4-nhs-staff-will-get-the-backing-they-need/#:~:text=The%20NHS%20is%20the%20biggest,quarters%20of%20whom%20are%20women

7 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3319184/

8 https://digital.nhs.uk/data-and-information/publications/statistical/general-and-personal-medical-services data from December 2021

9 Sickness absence rate is calculated by dividing the sickness absence days for each reason by the sum of days lost due to all reasons. Both figures may include non-working days