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Towards a healthy and sustainable workforce for the future

The current health and wellbeing of the nursing and midwifery workforce in Wales.

Benjamin J. Gray, Diana Bright, Sian Bolton, Alisha R. Davies

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Foreword

One of the four core aims that underpins *A Healthier Wales* (2018), the ten year plan for health and social services, specifically relates to supporting and developing the workforce, as it is recognised that without such investment the strategy will fail to deliver the services the population needs now and in the future. Nursing and midwifery staff make up the largest proportion of clinical NHS staff and play a significant role in social care services, specifically where individuals need nursing care. It is therefore essential that studies, such as this one conducted by Public Health Wales and described in this report, are undertaken so that we can understand the challenges facing front line staff, with the ultimate goal to take action to improve their overall health and wellbeing while in work.

The work undertaken by nursing and midwifery staff is at times rewarding as well as physically and emotionally challenging. Clearly enabling individual staff to make healthy lifestyle choices and achieve a balance between work and home-life is good for the practitioner as well as ensuring we have a healthy workforce. Equally important, however, is how employers support staff who find themselves unwell, undergoing life experiences such as childbirth or bereavement, or are struggling to cope with their mental health.

Welsh Government has been developing policies aimed at improving the health and wellbeing of the population, which includes the section of the population in work. The most recent of these is the *Healthy Weight: Healthy Wale*s (2019) strategy, which is a 10 year long-term plan to prevent and reduce obesity in Wales. There are four themes included in the plan: healthy environments; healthy settings; healthy people; and leadership and enabling change. The strategy sets out incremental changes designed to enable individuals to care for themselves as well as actions we can take to improve our environment.

While there is much that an individual can do to promote their own health and wellbeing, eg not smoking, maintaining a healthy weight, moderation in alcohol consumption or taking regular exercise, there are also actions that employers can take to support its workforce. *Healthy Working Wales* (http://www.healthyworkingwales.wales.nhs.uk/home) is a programme that helps employers to develop and sustain environments, policies and cultures that promote good health and support the appropriate and timely return to work of those who are absent from work due to sickness or who have fallen out of employment due to periods of ill health. This is an underused tool in the workplace that should be utilised further.

This descriptive study looked at the views of approximately 5% of the nursing and midwifery workforce in Wales at a specific point in time and although its findings cannot be generalised to the workforce at large, it does provide an indication of the challenges some staff are facing in our health and social care services. The findings provide food for thought for readers who have responsibilities for the management of staff or are involved in redesigning our services for the future.

Jean White

Prof Jean White CBE MStJ
Chief Nursing Officer

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Executive Summary

Background

- The nursing and midwifery workforce accounts for the largest occupational group within the healthcare workforce in Wales, with over 30,000 nurses, midwives and health care support workers currently working for the National Health Service (NHS).

- These health professionals have physically and mentally demanding roles, and the working pressures are reflected in high levels of sickness absence and presenteeism. More specifically, nurses have reported feeling overworked, underpaid, and unable to provide the level of care they would like, with many considering leaving the profession before retirement age.

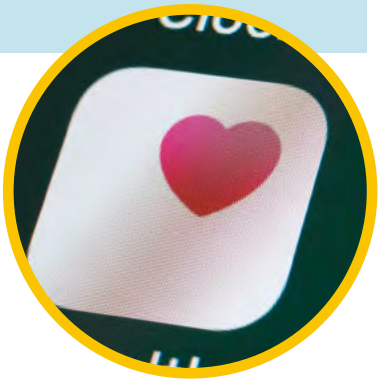
- The long-term ambition of the Welsh Government is to transform healthcare in Wales from a hospital-based care and treatment model to a service that is predominantly based in the community and more focused on health, wellbeing, prevention and early intervention. The health and wellbeing, and ultimately, the sustainability of the health and social care workforce forms an integral component of these ambitions.

- In order to better understand the health and wellbeing of the nursing and midwifery workforce in Wales and the contributing factors, Public Health Wales carried out a national survey amongst the wider workforce in 2019.

- The cross-sectional survey was accessed online and invitations were sent via the Royal College of Nursing Wales and Royal College of Midwives Wales to their members in addition to being circulated via Directors of Nursing for each of the seven Health Boards and three NHS Trusts. In total, responses from 1,642 individuals from the nursing and midwifery workforce (**nurses, midwives and health care support workers**) were included in this study.

- It should be noted that as it was not possible to select a representative sample of the nursing and midwifery workforce in Wales from a sampling framework, the study design was cross-sectional. Therefore a key limitation is that the findings are unadjusted (to workforce distribution in Wales), and therefore descriptive and not generalisable to the entire nursing and midwifery workforce in Wales.

Findings



Current health and wellbeing (Sections 3.2 and 4.1)

- Overall, a total of 1,642 valid responses were received and of these, 89.5% were nurses, 5.4% were midwives and 5.1% were health care support workers. The majority of the nursing and midwifery workforce who responded (71.1%) indicated having good or very good general health. However, 36.5% reported they have a longstanding illness or condition.
- Low mental wellbeing was reported in 14.4% of all respondents and more specifically, 36.8% indicated that they had trouble feeling relaxed.
- Physical inactivity was reported in 38.9% of respondents, 9.2% reported being a current smoker, 9.6% reported binge drinking and 69.4% did not eat at least 5 fruit or vegetables daily.

Overall, other than a lower prevalence of current smokers and those experiencing limiting illnesses, the health of the nursing and midwifery workforce was similar to the working age population of Wales. However, within our respondents, there were certain subgroups that reported higher levels of poorer mental health, in particular, **younger members** of the nursing and midwifery workforce.

The working environment (Sections 3.3 and 4.2)

Respondents were asked to reflect on their current work environment and impact on their health and wellbeing. These include work-related stress, presenteeism, barriers to health care and access to healthy food options.

- Over half of respondents (62.1%) reported suffering from work-related stress, and this was highest amongst female and younger staff members, and those in NHS Pay Bands 5 and 6 (64.4%, compared to 49.4% amongst Band 4 and below, and 60.1% amongst Band 7 and higher).
- Over half of respondents (61.0%) attended work when feeling unwell twice or more in the last 12 months. The three main reasons for attending work when unwell were preventable in part, namely (i) stress, (ii) respiratory illness, such as flu or cold and (iii) musculoskeletal conditions.
- The vast majority of the nursing workforce (89.0%) reported experiencing barriers when accessing healthcare appointments. Lack of time (75.4%), no cover/staff shortages (39.8%), waiting lists (31.5%), accessibility of services (28.0%) and concerns about their job (26.1%) were all commonly reported reasons.
- Just over two thirds (69.5%) of respondents reported having the flu vaccination in the last winter season. Amongst those not vaccinated (500/1,642), the three most reported barriers to uptake of the flu vaccination were fear of side effects (22.4%), not believing it works (19.8%) and lack of time (17.2%).
- Frequently missing breaks was reported by over half of respondents (50.6%) and this increased with pay bands. The majority of respondents reported that drinking water was readily available at their workplace (72.5%), yet only 58.5% stated they felt adequately hydrated. The opportunity to purchase healthy food, drink and snack options was lower in evening working hours.

The nursing and midwifery workforce were provided with seven examples of interventions that could help to improve their health and wellbeing. The most popular suggestions were related to time (i.e. time to exercise and/or time to prepare meals) and financial incentives to support health such as reduced gym membership.

Feelings towards career and perceptions of value (Sections 3.4 and 4.3)

- Three quarters of those who responded reported their occupation was a rewarding career (75.3%), and over two thirds were enthusiastic about their job (69.1%). Over half would recommend a nursing, midwifery or health care support worker career to others (55.4%).
- A high proportion of respondents expressed feeling valued by patients (80.0%) and families of patients (69.8%), but felt less valued by senior staff (42.9%).
- A higher proportion of respondents in NHS Pay Bands 5 and 6 had considered leaving the profession in the past 12 months (54.4%, compared to 36.8% amongst Pay Band 4 and below, and 43.2% amongst Pay Band 7 and higher). Those within Pay Bands 5 and 6 also expressed lower levels of enthusiasm (towards the job) and feelings of value compared to other pay bands.

Financial pressures (Sections 3.5 and 4.4)

- More than half of all respondents (50.7%) have needed to take some action to meet daily living expenses in the last 12 months, this included 30.7% who worked overtime in their main job, 25.5% who borrowed money from family or friends, and 11.8% who worked an additional job.
- Over one third (38.2%) experienced financial difficulty in the last 12 months and the main consequences were cutting back on food or travel costs (31.1%) and struggling to pay gas or electricity bills (11.5%).

Financial pressures are a real concern for the nursing and midwifery workforce with 42.3% experiencing financial worries in the last 12 months. This was greater amongst males, younger members of the nursing workforce (18-39 years of age), those employed at NHS Pay Band 4 and below and those with poorer health outcomes.

Considerations for future action

This report is one of the largest and most comprehensive cross-sectional surveys undertaken amongst the nursing and midwifery workforce in Wales and provides an understanding of their health and wellbeing. It explores the underlying challenges to health and wellbeing, including the impact of the work environment, including feelings towards their career and financial pressures. This survey includes the views from 1,642 nurses, midwives and health care workers across Wales who responded to the questionnaire, and whilst not a representative sample, it equates to ~5% of the Welsh NHS workforce. The results reflect a nursing and midwifery workforce who enjoy and are enthusiastic about their career but are also experiencing high levels of work-related stress, other work pressures and wider implications (e.g. financial concerns) that could lead to poorer health outcomes. In addition, there are specific groups who are experiencing these pressures more than others are. Key considerations for future action are:

1 Given that the working environment has a huge influence on health and wellbeing; managers, administrators and policy-makers are urged to develop and maintain supportive work environments in order to improve staff and patient outcomes. Two main areas of focus are outlined below:

- **Support the mental wellbeing of the workforce:** High levels of stress amongst the workforce is a concern, in particular amongst female staff, younger members of the workforce and those employed in NHS Pay Bands 5 and 6. There is a need to better understand and address the factors contributing to stress including system and cultural drivers of presenteeism (e.g. staffing pressures) and to ensure settings are healthy working environments, for example by enforcing work breaks and providing access to healthy food and drinks.

- **Strengthen prevention of ill health:** Levels of flu vaccine uptake are low amongst the nursing and midwifery workforce, and attending work when suffering from respiratory illness such as flu or a cold is common. Action is needed to address barriers to vaccination (e.g. informed by behavioural insights) and to encourage sick employees to stay at home.

2 Recognise and value the nursing and midwifery workforce:

- Over two thirds of the nursing and midwifery workforce felt the occupation was a rewarding career, and valued by patients and families, but fewer felt valued by senior staff. Action is needed to better understand the underlying contributing factors to inform action to address this imbalance. Following the concepts of fair work and adequately rewarding staff, with the potential for real and meaningful progression, could be important first steps.

3 Understand the root cause of financial pressures:

- The proportion of the nursing and midwifery workforce reporting financial pressure is of concern, given the links between financial pressures and poor health and wellbeing. Action is needed to understand the root causes of these pressures and co-produce solutions. Alongside, ensuring early access to financial advice and support for those currently in need.

4 A focus on supporting the younger members of the nursing and midwifery workforce and those employed in NHS Pay Bands 5 and 6:

- These two groups of our respondents consistently reported poorer health and wellbeing outcomes. The need for targeted approaches should be considered in the development of actions to support the health and wellbeing of the workforce as a whole.

Our findings provide useful insights into the health and wellbeing of the Welsh nursing and midwifery workforce. The health and wellbeing of the nursing and midwifery workforce is not only important at a personal level, but also for the population that requires their services. The ageing demographics of the nursing and midwifery workforce, its declining health status mirroring the ageing of the population, balanced against increasing care needs, suggests that effective wellbeing strategies for nurses and midwives are essential not only to safeguard their health but to ensure a healthy and sustainable nursing and midwifery workforce for the future.

The findings and recommendations outlined in this report will help Welsh Government achieve their ambition of creating *'a motivated and sustainable health and social care workforce'* that contributes to making the health and social care system fit for the future.

1 Introduction

The nursing and midwifery workforce accounts for the largest occupational group within the healthcare workforce (1) and there are over 30,000 registered nursing, midwifery and health visiting staff working for the National Health Service (NHS) in Wales (1,2). At times, these occupations can be physically and mentally demanding (3,4) and these working pressures are reflected in high levels of both sickness absence and presenteeism (3). More specifically, nurses have reported feeling overworked, underpaid, and unable to provide the level of care they would like, with many considering leaving the profession before retirement age (5,6). In addition, there is also growing evidence that healthcare professionals are increasingly at risk of obesity, physical inactivity and poor diet which can have a negative impact on health and wellbeing (7–12) and several studies of nursing students have reported a high prevalence of unhealthy behaviours.

Global changes in the population demographics are forecast to dramatically increase demand for healthcare services (13). In order to address these population trends, there is a need to strengthen the capacity and sustainability of the healthcare workforce to meet these demands (14). In Wales, the health and wellbeing of the health and social care workforce was emphasised in the Parliamentary Review of Health and Social Care in Wales (15), and is a key focus within the 2018 Welsh Government's strategy to improve the health of the nation '***A Healthier Wales'*** (16). This long-term plan for health and social care services in Wales included an explicit aspiration to ***make NHS Wales an exemplar employer on wellbeing at work and a healthy workforce*** (16). NHS Wales employs around 89,000 staff; a diverse workforce recognised as a key asset to transforming the quality of care and population health, and who provide a significant contribution to both the national and local economy (1). The NHS, as an anchor organisation, is also well placed to lead by example and influence the broader factors that impact health in local communities (17).

The long-term ambition of the Welsh Government is to transform healthcare in Wales from a hospital-based care and treatment model to a service which is predominantly based in the community and more focused on health, wellbeing, prevention and early intervention (16). Healthcare professionals including the nursing and midwifery workforce have an important role in the promotion of good health (18,19) and a recent systematic review reported that advice and guidance to support health is more likely to be accepted by patients if delivered by a visibly, healthy professional (20). Therefore, an understanding of the current health and wellbeing of the nursing and midwifery workforce in Wales will provide essential learning to help inform the NHS and Welsh Government to deliver their aims contained within '***A Healthier Wales'*** (16).

This cross-sectional survey seeks to provide an overview of the health and wellbeing of the nursing and midwifery workforce in Wales, identify whether there are specific groups within the workforce with higher needs, whilst also exploring the wider contributing factors to health and wellbeing including:

- The working environment
- Perceptions of value
- Feelings towards career
- Financial pressures

The final element of this study highlights those solutions selected by the nursing and midwifery workforce themselves, which could help to improve their health and wellbeing, and also considers the associated policy implications of these actions.

2 Methodology

This research was conducted as an online cross-sectional survey administered via the Royal College of Nursing (RCN), Royal College of Midwives (RCM) and the Directors of Nursing for each of the seven Health Boards and three NHS Trusts in Wales. All of the nursing and midwifery workforce (Box 1) working in Wales were invited to participate in a bi-lingual anonymised questionnaire between April and June 2019. The invitation was by e-mail and the questionnaire was available in paper form on request. The online questionnaire was accessed on 2,266 occasions, and after the removal of ineligible respondents (those excluded via the screening question i.e. not a nurse, midwife or health care support worker in Wales (n=24); and those who indicated they were either currently unemployed or retired (n=6), and incomplete responses), a total of 1,642 respondents were included in the analysis. No individuals requested a paper copy of the questionnaire. These respondents equate to approximately 5% of the NHS nurses and midwives currently working in Wales[a].

Box 1. Nursing and midwifery workforce as defined in this report.

Measures included in the questionnaire

The questionnaire collated information from respondents on demographic variables and a number of topics related to health and wellbeing (Box 2), their working environment (including barriers to healthcare), job satisfaction, perceived feelings of value, and recent financial difficulties. Questions used validated tools where possible or were adapted from national surveys or similar surveys in this topic area. Nursing and midwifery staff in Public Health Wales piloted both versions (English and Welsh) of the questionnaire, and these comments contributed to the final questionnaire design. Full details of the included questions and the pilot phase are provided in Appendix 1.

Data analysis

Descriptive analysis was undertaken to examine the health and wellbeing, and contributing factors, amongst the respondents from the nursing and midwifery workforce in Wales.

Unless specified, the total number of valid respondents (n=1,642) was used in all data analyses. The approach includes presenting descriptive (n, %) data followed by Chi-squared analysis examined any differences across the following sub-groups of interest:

- Socio-demographic factors (gender, age group, deprivation quintile).
- Employment status (NHS Pay Band[b], full or part-time contract).
- Health status (general health, mental wellbeing).

a StatsWales. NHS staff by staff group and year. https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Staff/NHS-Staff-Summary/nhsstaff-by-staffgroup-year

b NHS Pay Band refers to Agenda for Change (AfC) pay scales. http://www.wales.nhs.uk/documents/2018%20-%20AfC%28W%29%201%202018%20%20%28Advance%20Pay%20Letter%29%20-%20PDF%20FINAL.pdf

In the NHS, typically age and pay band are concomitantly linked i.e. the older the person, the higher their pay band and vice versa. To examine the independent associations between these variables, odds ratios with 95% confidence intervals crude and adjusted (gender, deprivation, age group/pay band) for age group and pay bands were calculated. The key findings are described in the Results section; supplementary results are presented in Tables A1-A15 (see Appendix 2).

It should be noted that as it was not possible to select a representative sample of the nursing and midwifery workforce in Wales from a sampling framework, the study design was cross-sectional. Therefore a key limitation is that the findings are unadjusted (to workforce distribution in Wales), and therefore descriptive and not generalisable to the entire nursing and midwifery workforce in Wales.

Box 2. Single questions asked to obtain health-related information

Health Status Measure	Question	Categories (responses)
General health*	How is your health in general? Is it …	Good or better general health (Very good; good) Not good general health (Fair; bad; very bad)
Mental wellbeing†	From the Warwick and Edinburgh Mental Wellbeing Score (short version)	Average Low (Raw scores converted to metric score and categorised into average or low. Respondents who did not answer all 7 statements were not assigned a mental wellbeing score)
Health-Harming Behaviour (HHB)	**Question**	**Categories (responses)**
Smoking status*	In terms of smoking tobacco, which of the following best describes you?	Current (I smoke daily; I smoke occasionally but not daily) Ex-smoker (I used to smoke but do not smoke at all now) Never (I have never smoked)
Physical activity levels‡	On how many days each week do you engage in at least 30 minutes of physical activity (enough to make you out of breath and sweat)?	Physically inactive (never; 1 day or less) 2-4 days (2-4 days) 5+ days (5 days or more)
Binge drinking frequency^	In the last year, how often have you had 6 or more alcoholic drinks in a single drinking occasion?	Regularly (daily; weekly) Occasionally (monthly; less than monthly) Never (Never; I don't drink at all)

* National Survey for Wales https://gov.wales/sites/default/files/statistics-and-research/2019-08/national-survey-wales-questionnaire-2018-19.pdf

† Short Warwick and Edinburgh Mental Wellbeing Score conversion using https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs/using/howto/swemwbs_raw_score_to_metric_score_conversion_table.pdf. Low mental wellbeing categorised as the mean -1 standard deviation.

‡ Scottish Physical Activity Screening Questionnaire http://www.paha.org.uk/Resource/scottish-physical-activity-screening-question-scot-pasq

^ Adapted from AUDIT-C tool https://www.gmmh.nhs.uk/download.cfm?doc=docm93jijm4n639.pdf&ver=1017

3 Findings

3.1 Characteristics of the nursing and midwifery workforce respondents

The majority of respondents were registered nurses (89.5%), followed by midwives (5.4%) and health care support workers (5.1%). Overall the majority were female (88.3%), aged 40 years or older (77.0%), of White ethnicity (94.6%) (Table 1). A high proportion of respondents were in NHS employment (88.3%), at NHS Pay Bands 5 and 6 (57.1%), working full-time (68.5%).

Table 1. Socio-demographic factors and employment status of respondents (n=1,642. % of total respondents)

Variable	Frequency n (%)
Gender	
Female	1450 (88.3)
Male	164 (10.0)
Not provided	28 (1.7)
Age	
18-29 years	123 (7.5)
30-39 years	237 (14.4)
40-49 years	452 (27.5)
50-59 years	658 (40.1)
60 years and older	154 (9.4)
Not provided	18 (1.1)
Deprivation Quintile	
1 (Most Deprived)	141 (8.6)
2	234 (14.3)
3	308 (18.8)
4	265 (16.1)
5 (Least Deprived)	315 (19.2)
Not provided	379 (23.0)
Staff Grade (NHS Pay band)	
Managerial and Senior Staff (Pay Band 7 and higher)	576 (35.0)
Registered Nurses and Midwives (Pay Bands 5 and 6)	937 (57.1)
Healthcare Support Workers or equivalent (Pay Band 4 and below)	87 (5.3)
Not provided	42 (2.6)
Employment status	
Full-time	1124 (68.5)
Part-time	441 (26.9)
Employed, but not currently working*	28 (1.7)
Other	47 (2.8)
Not provided	2 (0.1)

* includes both on long-term sickness absence and maternity leave

3.2 Current health and wellbeing

Key messages:

- The majority of the nursing and midwifery workforce who responded (71.1%) indicated having good or very good general health. However, 36.5% reported having a longstanding illness or condition.
- Over one-third of respondents indicated they had trouble feeling relaxed (36.8%) and almost half reported at least one health-harming behaviour (49.1%).
- Members of the nursing and midwifery workforce within the youngest age groups (from 18 to 29 years) tended to report poorer general health and lower mental wellbeing than those in the older age groups.

Overall, the majority of the nursing and midwifery workforce reported good or very good general health (71.1%), although over one third of all respondents reported having a longstanding illness (36.5%), and of these 60.5% (363/600) reported this limited their day to day capacity. Almost half (49.1%) of all respondents reported at least one health-harming behaviour, and physical inactivity (38.9%) was the most commonly reported (Table A1, Appendix 2). Low mental wellbeing was reported in 14.4% of all respondents and more specifically, over one third had difficulty relaxing (36.8%), whilst high proportions reported not feeling optimistic about the future (20.5%) or close to others (14.7%; Table A2, Appendix 2).

Differences by socio-demographic factors

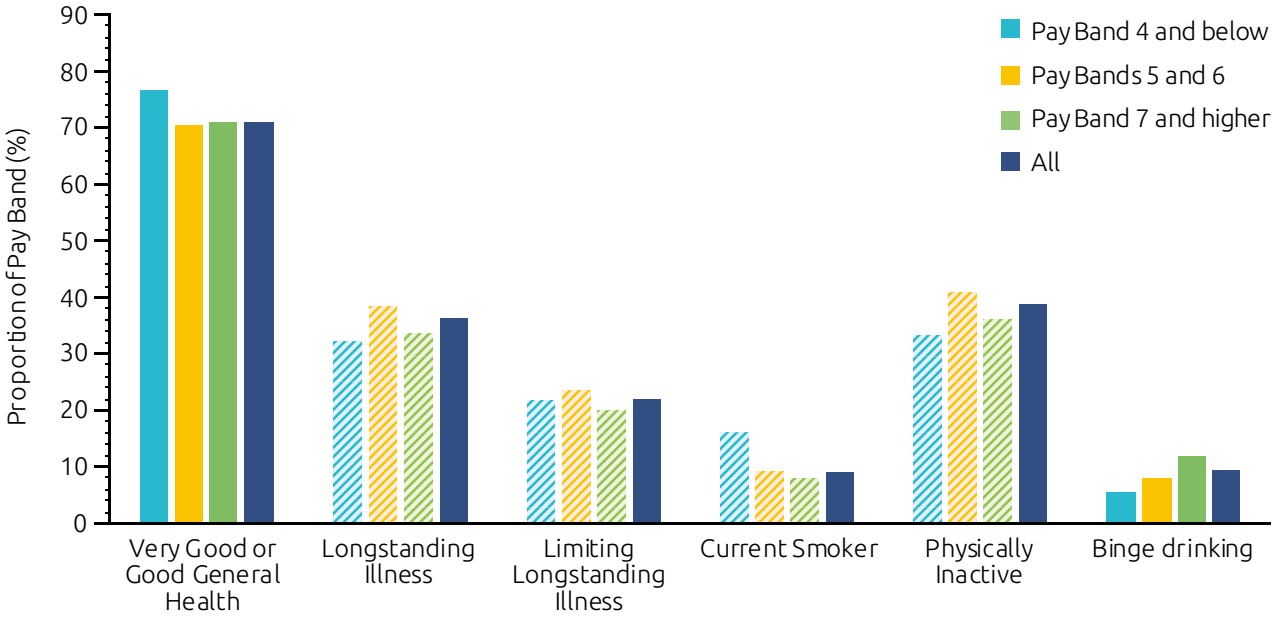
With regards to gender and deprivation, a higher proportion of males reported poorer health (38.4% compared to 25.7%, p=0.001) and binge drinking (18.3% compared to 8.6%, p<0.001) than females. Whilst a greater proportion of respondents in the least affluent areas reported higher levels of poor general health (41.0%), longstanding illness (44.7%), and physical inactivity (51.1%; Table A1, Appendix 2).

A high proportion of respondents in the youngest age groups reported poorer general health (32.0%) and limiting longstanding illness (26.8%; Table A1, Appendix 2). Levels of poorer mental wellbeing were highest amongst the younger age groups (18-29 years: 19.3%; 30-39 years: 18.5%; 40-49 years: 17.3%) and more specifically, these age groups also reported the highest levels of never or rarely feeling relaxed (18-29 years: 47.2%; 30-39 years: 50.2%; 40-49 years: 39.2%; Table A2, Appendix 2).

Differences by NHS Pay Band

We explored differences by NHS Pay Band to better understand if there are specific groups within the nursing and midwifery workforce who are more affected by poor health (Figure 1). Those employed at Pay Band 4 and below reported the highest levels of good self-reported general health (76.9%), compared to the other pay bands (Pay Bands 5 and 6: 70.8%; Pay Band 7 and higher: 71.4%). Reported binge drinking was highest in those employed in the highest pay band (Pay Bands 7 and higher: 11.8% compared to Pay Bands 5 and 6: 8.3%; Pay Band 4 and below: 5.7%; p<0.05). After adjusting for age, gender and deprivation, those in Pay Band 7 and above were 1.51 [95 % CI 1.02-2.22] times more likely to report binge drinking than those in Pay Bands 5 and 6.

Figure 1. General health, longstanding illness and health-harming behaviours by NHS Pay Band. (solid bars represent a significant difference between pay bands, patterned bars represent no significant difference).

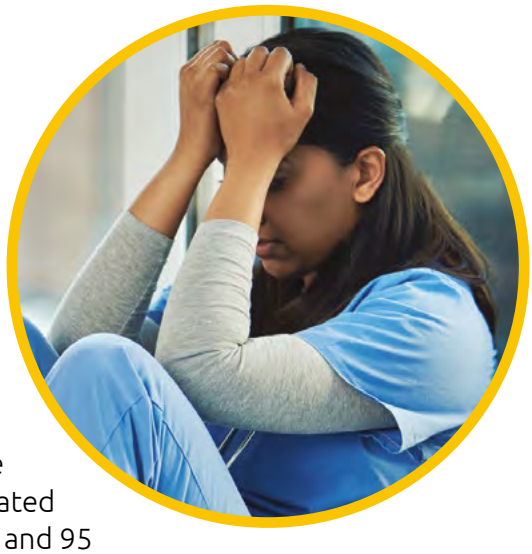


3.3 Health and wellbeing in the workplace

3.3.1 Work-related stress

Key messages:

- Over half of respondents (62.1%) reported suffering from work-related stress.
- Stress was highest in NHS Pay Bands 5 and 6 (64.4%) compared to other pay bands (Pay Band 4 and below: 49.4%; Pay Band 7 and higher: 60.1%).



Differences by socio-demographic factors

Overall, a high prevalence of work-related stress (62.1%) was reported by the nursing and midwifery workforce respondents. Levels of work-related stress were higher amongst female compared to male (62.9% compared to 52.4%; $p<0.05$) respondents, and there was a pattern of higher levels of work-related stress with increasing age group, up to the age of 60 ($p<0.05$; Table A3, Appendix 2). After adjusting for gender, deprivation and NHS Pay Band, those in all other age groups were more likely to report work-related stress compared to the oldest age group (Odds Ratio (OR) and 95 % confidence interval; 18-29 years: 1.76 [1.00-3.08]; 30-39 years: 2.19 [1.34-3.57]; 40-49 years: 1.97 [1.27-3.05]; 50-59 years: 2.00 [1.30-3.05]).

Differences by NHS Pay Band

A higher proportion of the nursing workforce in Pay Bands 5 and 6 reported work-related stress compared to those in other pay bands (64.4%; Pay Band 7 and higher: 60.1%; Pay Band 4 and below: 49.4%, respectively; $p<0.05$). After adjusting for age, gender and deprivation those in Pay Bands 5 and 6 were more likely to report work-related stress than their counterparts in Pay Band 7 and higher (OR: 1.32 [1.02-1.72]).

Differences by health status

Those with poorer health outcomes reported experiencing more work-related stress than their healthier counterparts, 80.0% of those with poor general health reported work-related stress compared to 55.2% amongst those with good general health ($p<0.001$). The highest proportion of work-related stress was reported in those with low mental wellbeing (89.9% compared to 57.3% in those with average mental wellbeing; $p<0.001$) (Table A3, Appendix 2).

3.3.2 Presenteeism

Key messages:

- Over half of respondents (61%) attended work when feeling unwell twice or more in the last 12 months.
- The three main reasons for attending work when unwell were (i) stress, (ii) respiratory illness such as flu or cold and (iii) musculoskeletal (MSK) conditions.
- A greater proportion of NHS Pay Bands 5 and 6 reported attending work when unwell 2 to 5 times, whereas a greater proportion of NHS Pay Band 4 and below attending work when unwell more than five times.

In the last 12 months (May 2018 to April 2019), 82.5% of the respondents reported attending work at least once when they felt they should have been absent through illness. Almost half of the respondents (43.9%) attended work on two to five occasions when unwell and 17.1% reported that they had attended work on more than five occasions when unwell. The three most common reasons for attending work when unwell were stress (55.7%), respiratory illness such as flu or cold (53.9%) and musculoskeletal (MSK) related conditions (38.2%; Table 2).

Table 2. Frequency of presenteeism and main reasons for attending work when ill (n=1,642. % of total respondents)

In the past 12 months, have you gone to work when you should not have?	n (%)
Once	353 (21.5)
Two to five occasions	721 (43.9)
More than five occasions	281 (17.1)
Main reasons for attending work when unwell (n=1,355, multiple responses allowed)	
Stress	755 (55.7)
Respiratory illness (flu or cold)	731 (53.9)
Musculoskeletal (MSK) condition	517 (38.2)
Gastrointestinal/stomach complaint	261 (19.3)
Recurring condition	118 (8.7)

Differences by socio-demographic factors

The observations by gender, age group or deprivation quintile in the number of times attended work when unwell were similar; however, there were some differences reported for the reason that sickness absence should have been taken, for example, those in the older age groups reported MSK as a reason more than their younger counterparts.

Differences by NHS Pay Band

A higher proportion of respondents within Pay Bands 5 and 6 reported attending work between 2 to 5 times compared to other pay band groupings (Pay Bands 5 and 6: 45.7%; Pay Band 4 and below: 35.6%; Pay Band 7 and higher: 42.7%; $p<0.001$). For those who reported attending work on more than 5 occasions, the greatest proportion was those in Pay Band 4 and below (Pay Band 4 and below: 20.7%; Pay Bands 5 and 6: 15.9%; Pay Band 7 and higher: 17.9%; $p<0.05$; Table A4, Appendix 2).

Differences by health status

A higher proportion of those with poorer general health and low mental wellbeing attended work when they were unwell than those in better health (Table A4, Appendix 2).

3.3.3 Barriers when accessing healthcare and flu vaccination

Key messages:

- The vast majority of the nursing workforce (89%) reported experiencing barriers when accessing healthcare appointments.
- Lack of time (75.4%), no cover/staff shortages (39.8%), waiting lists (31.5%), accessibility of services (28.0%) and concerns about their job (26.1%) were all commonly reported barriers.
- Over two thirds (69.5%) of respondents reported having the flu vaccination in the last winter season. Amongst those vaccinated, the most commonly reported location for receiving the vaccination was the workplace (83.5%).

Overall, 89% of respondents had experienced barriers to attending health-related appointments. The most commonly reported barriers were work-related such as lack of time (75.4%), no cover (39.8%) and concerns about the impact of their job (26.1%) or related to health service provisions such as waiting lists (31.5%) and accessibility of services (28.0%).

Differences by socio-demographic factors

A higher proportion in the younger age groups compared to the oldest age group reported lack of time as the main barrier to attending health appointments (18-29 years: 78.0%; 30-39 years: 84.0%; 60 years and older: 68.8%). The younger age groups also cited personal reasons such as job fears, embarrassment and pride or denial more commonly than their older peers (Table A5, Appendix 2). Accessibility of services was more of a barrier for the oldest age group (60 years and older: 36.4%).

Differences by NHS Pay Band

A high proportion across all pay bands reported at least one perceived barrier to attending health appointments (Table 3). There were some differences in reasons perceived as barriers. For example, after adjusting for age, gender and deprivation those in Band 5 or 6 were more likely to report no cover (1.59 [1.24-2.04]), waiting lists (1.49 [1.15-1.93]) and impact on job (1.70 [1.24-2.32]) as barriers compared to those in Band 7 and higher, but however, were less likely to report lack of time as a barrier (0.74 [0.55-0.99]).

Differences by health status

Those in poorer health (poor general health or low mental wellbeing) also reported barriers to health appointments compared to those with better health statuses (Table 3).

Table 3. Barriers to health appointments reported by NHS Pay Band, general health and mental wellbeing (n=1,642. % of total respondents, multiple responses allowed)

		Lack of time	No cover	Waiting Lists	Accessibility of services	Job fears	Confidentiality fears	Embarrassment	Pride or denial	No barriers
All	n	1238	653	517	459	428	239	215	206	181
	%	75.4	39.8	31.5	28	26.1	14.6	13.1	12.5	11
NHS Pay Band										
Pay Band 7 and higher		79.2	33.9	27.3	28.5	19.4	14.1	11.8	12	12.2
Pay Bands 5 and 6		74.2	43.6	34.2	28.3	30	14.8	14.2	14.1	10.2
Pay Band 4 and below		67.8	35.6	31	23	26.4	13.8	12.6	2.3	11.5
x^2		**7.869**	**14.932**	**7.868**	1.18	**20.625**	0.209	1.8	**10.395**	1.348
p-value		**0.02**	**0.001**	**0.02**	0.554	**<0.001**	0.901	0.407	**0.006**	0.51
General Health										
Good or better (%)		72.3	35.4	29	25.2	19.4	11	10.3	9.3	13.2
Not good (%)		82.4	50.6	38.1	34.6	42.5	23.2	20	20.4	6
x^2		**16.881**	**30.529**	**11.898**	**13.887**	**87.535**	**38.598**	**26.283**	**35.815**	**16.122**
p-value		**<0.001**	**<0.001**	**0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**
Mental wellbeing										
Average mental wellbeing (%)		73.7	35.7	30.4	26.4	21.3	11.8	10.6	10.6	12.5
Low mental wellbeing (%)		86.1	61.2	38.8	38	51.9	30	27.8	24.5	3.4
x^2		**16.681**	**54.695**	**6.666**	**13.4**	**98.405**	**53.403**	**52.27**	**34.973**	**17.067**
p-value		**<0.001**	**<0.001**	**0.01**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**

Flu vaccination

Over two-thirds of those who responded, reported having the free flu vaccination in the last winter season. Amongst those vaccinated, the most commonly reported location for receiving the vaccination was the workplace (83.5%, Table 4). Amongst those not vaccinated, the three most reported barriers to uptake were fear of side effects (22.4%), not believing it works (19.8%) and lack of time (17.2%; Table 4).

After adjusting for gender, deprivation and NHS Pay Band, compared to the youngest age groups the uptake of the flu vaccination was less likely in all other age groups (30-39 years: 0.46 [0.25-0.83]; 40-49 years: 0.52 [0.29-0.91]; 50-59 years: 0.53 [0.31-0.93]; 60 years and older: 0.36 [0.19-0.67]).

Table 4. Flu vaccination uptake and main barriers to not having the flu vaccination last year (2018)

Flu vaccination uptake and location	n (%)
Had flu vaccination last year?	1142 (69.5%)
• Yes, at work	954 (83.5%)
• Yes, at GP surgery	133 (11.6%)
Amongst those not vaccinated (n=500): Reasons given for not having the flu vaccination (multiple responses allowed)	
Fear of side effects	112 (22.4%)
Do not believe it works	99 (19.8%)
Lack of time	86 (17.2%)
Worried will make ill	67 (13.4%)
No need for it	61 (12.2%)
Accessibility of services	57 (11.4%)
Not at high risk of flu	56 (11.2%)

3.3.4 Working environment and health

Key messages:

- Over half (50.6%) of the nursing and midwifery workforce who responded, reported that they frequently miss in-work breaks.
- Respondents reported greater availability of healthy food (65.2% compared to 13.2%), healthy drinks (70.5% compared to 34.9%), and healthy snacks (61.9% compared to 14.1%) during the day compared to options available during the evening working hours.

Overall, over half of respondents (50.6%) reported frequently missing breaks. The majority of respondents reported that there was drinking water readily available at their workplace (72.5%), however, despite this availability, only 58.5% stated that they felt adequately hydrated (Table A3, Appendix 2). Compared to the day, the opportunity to purchase healthy food (Evening: 13.2%; Day: 65.2%), drinks (Evening: 34.9%; Day: 70.5%) or snacks (Evening: 14.9%; Day: 61.9%) is much lower in the evening. Less than one third (30.6%) of those who responded reported managing to eat healthily, through eating 5 or more fruit and vegetables a day (Table A6, Appendix 2).

Differences by NHS Pay Band

The proportion of missing breaks increased with an increase in NHS Pay Band (Pay Band 4 and below: 16.1%; Pay Bands 5 and 6: 46.7%; Pay Band 7 and higher: 61.1%; $p<0.001$). A lower proportion of those in Pay Bands 5 and 6 reported having less access to drinking water (69.4% compared to Pay Band 4 and below: 78.2%; Pay Band 7 and higher: 76.7%; $p<0.01$) and being less hydrated (54.0% compared to Pay Band 4 and below: 57.5%; Pay Band 7 and higher: 66.1%; $p<0.01$; Table A3, Appendix 2). These observations remained after adjusting for age, gender and deprivation. Healthier eating habits decreased with NHS Pay Band with highest proportions reported in Pay Band 7 (35.9% compared to Pay Band 5 and 6: 27.7%; Pay Band 4 and below: 26.4%; $p<0.01$; Table A6, Appendix 2)

Differences by health status

Those with poorer health status reported less access to drinking water and were less hydrated at work (Table A3, Appendix 2). Those with lower mental wellbeing reported missing breaks more often than those with average mental wellbeing (60.8% compared to 48.9%; $p=0.001$). Whereas, healthier eating habits were reported more by those in better general health (32.8% compared to 25.1%; $p<0.05$).

3.3.5 Improvements for health and wellbeing

Key messages

- Most popular suggestions to improve wellbeing at work were related to time (i.e. time to exercise and/or time to prepare meals) and financial incentives.
- All of the suggestions were more popular in younger members of the nursing and midwifery workforce (aged 49 years and below), and those with poorer general health would like the options in both environments (home and work).

Of the seven suggestions proposed for improving wellbeing, the most popular suggestions were those that would make time for the individual or had a financial benefit. Overall, the most popular suggestion to improve wellbeing was time to exercise (66.7%), followed by time to prepare meals (55.1%), and financial incentives to support health and wellbeing (52.7%; Table A7, Appendix 2). With regards to location, options at both the workplace and home environment were most popular with respondents. A high proportion of respondents would like to see more options for healthier food (54.6%), snacks (48.8%), and drinks (39.0%) introduced in their places of work (Table A6, Appendix 2).

The top three choices for improvements to be introduced in the workplace to support health and wellbeing are shown in Table 5. The top choice to be introduced in the workplace was time to exercise in all sub-groups apart from the younger members of the nursing workforce, where financial incentives were the most popular choice.

Table 5. Suggested workplace* improvements to support health and wellbeing (top 3 choices)

Everyone	Males	Females	Younger workforce (18-39 years)	Pay Bands 5 and 6	Not good general health	Low mental wellbeing
1) Time to exercise (49.0%)	1) Time to exercise (52.4%)	1) Time to exercise (48.4%)	1) Financial incentives# (60.5%)	1) Time to exercise (45.5%)	1) Time to exercise (54.1%)	1) Time to exercise (56.1%)
2) Financial incentives# (44.1%)	2) Financial incentives# (38.4%)	2) Financial incentives# (44.6%)	2) Time to exercise (53.9%)	2) Financial incentives# (43.3%)	2) Financial incentives# (50.3%)	2) Financial incentives# (54.8%)
3) Time to prepare meals (34.1%)	3) Time to prepare meals (30.5%)	3) Time to prepare meals (34.3%)	3) Time to prepare meals (48.6%)	3) Time to prepare meals (35.5%)	3) Time to prepare meals (43.7%)	3) Time to prepare meals (42.7%)

* workplace options included respondents that selected in work only and both (work and home).

the example provided in the questionnaire for financial incentives was reduced gym membership.

3.4 Job satisfaction and future plans

3.4.1 Feelings towards career and perceptions of value

Key messages:

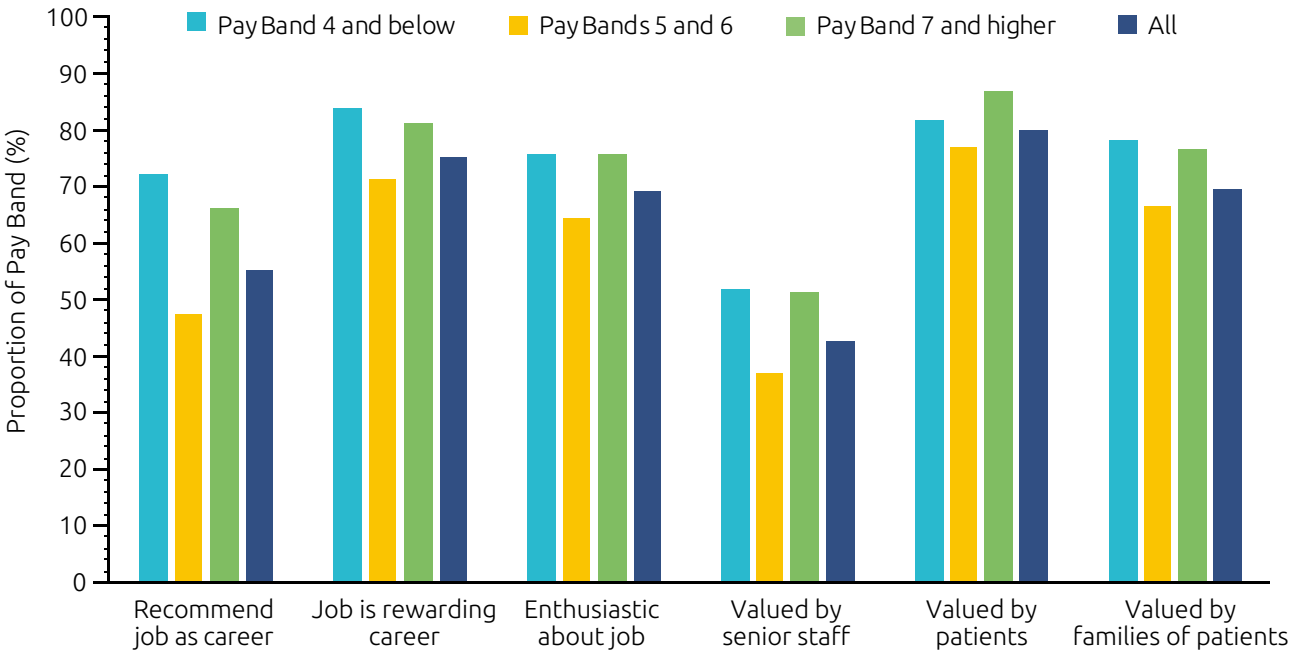
- Overall, 75.3% of respondents reported that their job was a rewarding career, 69.1% reported they were enthusiastic about the job, and 55.4% respondents reported they would recommend the job as a career.
- A high proportion of respondents felt valued by patients (80.0%) and families of patients (69.8%) but less valued by senior staff (42.9%).
- Job satisfaction and the perceived value were lower in the nursing workforce employed as NHS Pay Bands 5 and 6 compared to other Pay Bands, this was especially apparent in recommending their job as a career and feeling valued by senior members of staff.
- Lower levels of job satisfaction and feelings of value were reported amongst those with poorer general health and mental wellbeing.

Overall, the nursing workforce reported that their current jobs were a rewarding career choice (75.3%), felt enthusiastic about their jobs (69.1%) and over half of the respondents (55.4%) reported that they would recommend their job as a career. The majority felt valued by both patients (80%) and families of patients (69.8%), but less than half of the respondents (42.9%) reported feeling valued by senior staff (Figure 2).

Differences by socio-demographic factors

A higher proportion of female respondents reported feeling enthusiastic about their job compared to male respondents (70.5% compared to 61.0%; $p<0.05$). The proportion of the workforce feeling valued tended to increase with age (18-29 years: 67.5%; 50-59 years: 72.4%; 60 years and older: 84.0%) and these observations remained after adjusting for gender, deprivation and NHS Pay Band (Table A11, Appendix 2).

Figure 2. Job satisfaction and perceived feelings of value, overall and by NHS Pay Band.
(solid bars represent a significant difference between pay bands).



Differences by NHS Pay Band

Positivity and enthusiasm about their job, and feelings of being valued were lowest amongst the nursing and midwifery workforce in Pay Bands 5 and 6 (Figure 2). Amongst Pay Bands 5 and 6, only 47.7% would recommend their job as a career (compared to Pay Band 4 and below: 72.4%; Pay Band 7 and higher: 66.0%; p<0.001) and only 37.0% felt valued by senior members of staff (compared to Pay Band 4 and below: 51.7%; Pay Band 7 and higher: 51.2%; p<0.001). After adjusting for age, gender and deprivation, those in Pay Band 4 and below (2.05 [1.30-3.49]) and Pay Band 7 and higher (2.19 [1.71-2.80]) were more than twice as likely to recommend their job as a career than those in Pay Bands 5 and 6.

Differences by health status

Better health was associated with better job satisfaction (Table A11, Appendix 2). Those who reported being in good or better general health were more enthusiastic about their job (73.5% compared to 56.6%) and felt their job was a rewarding career in comparison to those in poorer health (78.3% compared to 67.5%). They also felt more valued by patients (82.2% compared to 73%; p<0.001), by families of patients (72.5% compared to 61.9%; p<0.001), and by senior staff (47.6% compared to 31.1%; p<0.001).

These differences were more evident when comparing mental wellbeing. Compared to those with average mental wellbeing, 22.4% with low mental wellbeing agreed to recommending the job as a career (compared to 61.4%; p<0.001), 49.4% felt the job is rewarding (compared to 80.5%; p<0.001), 35.4% feeling enthusiastic (compared to 74.8%). In turn, a higher proportion of those with average mental wellbeing reported feeling valued by patients (82.4% compared to 67.6%; p<0.001), families of patients (72.4% compared to 55.7%; p<0.001) and by senior staff (48.5% compared to 13.5%; p<0.001).

3.4.2 Feelings towards the profession/job in the past 12 months

Key messages:

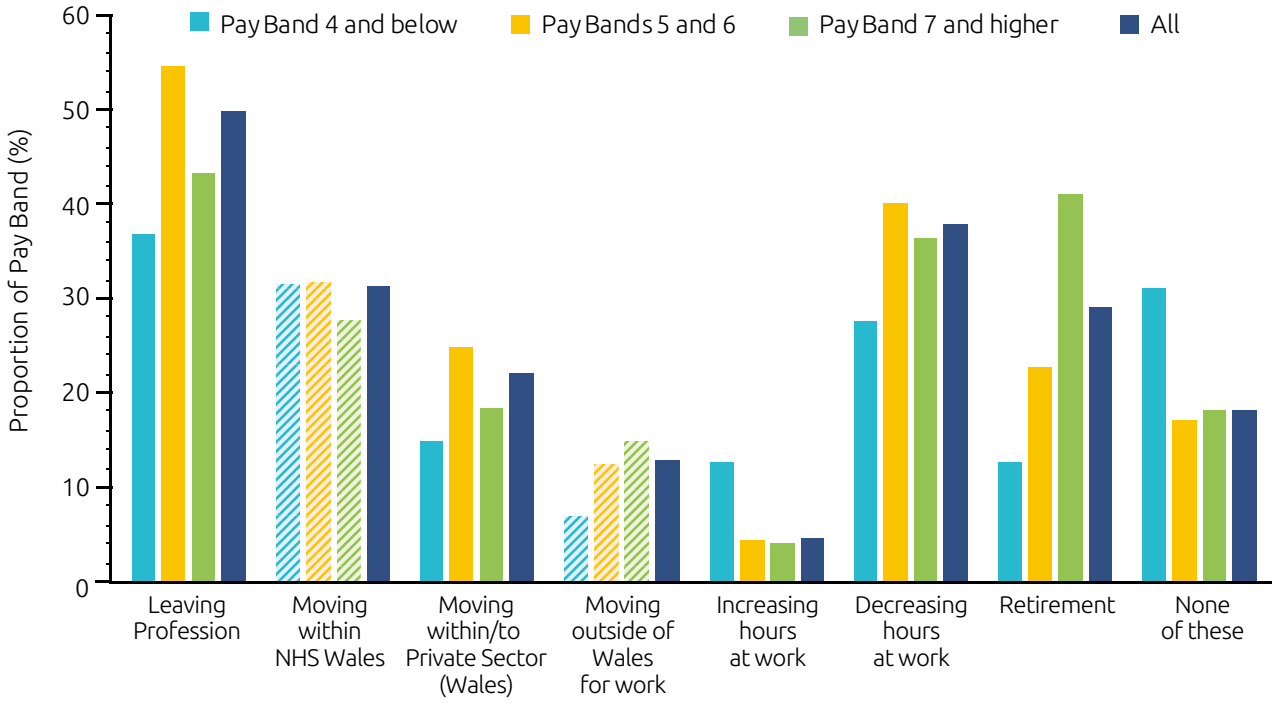
- A high proportion of respondents (49.8%) have considered leaving the profession within the 12 months preceding our survey. This was more apparent in those employed in NHS Pay Bands 5 and 6 or with poorer health (poor general health and low mental wellbeing).

Over the past 12 months prior to completing the survey, almost half of all respondents (49.8%) had considered leaving the profession, whilst 37.9% had considered decreasing hours in their present job, and 31.2% had considered moving to another job within NHS Wales (Table A12, Appendix 2).

Differences by NHS Pay Band

There were differences in feelings towards the profession/job in the past 12 months between pay bands and type of employment. For instance, more than half in Pay Bands 5 and 6 (54.5%) reported having considered leaving the profession, whilst those in Pay Band 4 and below were the least likely to report leaving the profession (36.8%). After adjusting for age, gender and deprivation these differences remained evident. Those within Pay Bands 5 and 6 also reported they have considered moving within/to the private sector in Wales (Pay Bands 5 and 6: 24.8%; Pay Band 4 and below: 14.9%; Pay Band 7 and higher: 18.4%; $p<0.05$), and decreasing hours at work (Pay Bands 5 and 6: 40.0%; Pay Band 4 and below: 27.6%; Pay Band 7 and higher: 36.3%; $p<0.05$) more than other pay bands (Figure 5). After adjusting for age, gender and deprivation, compared to Pay Bands 5 and 6, those in Pay Band 4 and below were more likely to have considered increasing hours at work (2.92 [1.21-7.06]), whereas those in Pay Band 7 and above were more likely to have considered retirement (1.72 [1.27-2.33]).

Figure 3. Feelings towards the profession/job in the past 12 months by NHS Pay Band. (solid bars represent a significant difference between pay bands, patterned bars represent no significant difference).



Differences by health status

Compared to those in good health and average mental wellbeing, a higher proportion of those who reported poorer health have considered leaving the profession, moving jobs within Wales or decreasing their working hours compared to those in better health (Table 7).

In terms of capacity implications for the NHS, 73.4% of the NHS respondents (n=1,450) have considered an option that could result in a decrease in the present capacity within the NHS workforce in Wales. As respondents were able to select multiple options, these choices could have a positive or negative impact on the NHS capacity (Table 6).

Table 6. Feelings towards the profession and categorised future impact for the NHS (NHS Staff only, n=1450) (n=1,450; multiple responses allowed).

Reducing Capacity	n (%)
Decreasing hours at work	533 (36.8%)
Losing Capacity	
Leaving profession	728 (50.2%)
Moving to the Private Sector (from NHS)	310 (21.4%)
Moving outside of Wales	188 (13.0%)
Retirement	415 (28.6%)
Maintaining Capacity	
Moving within NHS Wales	481 (33.2%)
Increasing hours at work	71 (4.9%)
Considered none of the options	271 (18.7%)

Table 7. Job satisfaction and feelings towards profession by health status (n=1,642; multiple responses allowed).

	Leaving Profession	Moving within NHS Wales	Moving within/ to Private Sector (Wales)	Moving outside of Wales for work	Increasing hours at work	Decreasing hours at work	Retirement	None of these
General Health								
Good or better (%)	44.4	28.9	19.9	12.1	4.6	35	29.1	21.1
Not good (%)	62.6	36.9	26.9	14.6	4.4	45	28.1	10.7
x^2	**41.767**	**9.295**	**8.952**	1.832	0.033	**13.388**	0.164	**23.079**
p-value	**<0.001**	**0.002**	**0.003**	0.176	0.855	**<0.001**	0.685	**<0.001**
Mental wellbeing								
Average mental wellbeing (%)	44.3	29.1	19.4	11.3	4.7	36.2	28.8	20.2
Low mental wellbeing (%)	80.2	44.7	32.1	21.1	3.4	48.9	27.4	4.6
x^2	**103.811**	**22.858**	**19.306**	**17.459**	0.858	**13.822**	0.179	**33.245**
p-value	**<0.001**	**<0.001**	**<0.001**	**<0.001**	0.354	**<0.001**	0.672	**<0.001**

3.5 Financial situation

Key messages:

- Financial concerns impacted on many of the respondents and more than half (50.7%) reported having to take some action to meet daily living expenses including working overtime and borrowing money from family or friends.
- Over one third (38.2%) reported experiencing financial difficulty in the last 12 months and the main consequences were cutting back on food or travel costs (31.1%) and struggling to pay gas or electricity bills (11.5%).
- The impact of financial worries experienced in the last 12 months was greater in males, younger members of the nursing workforce (18-39 years of age) and those employed at pay band 4 and below.

Financial concerns impacted on many of the respondents and more than half (50.7%) reported having to take some action to meet daily living expenses including working overtime and borrowing money from family or friends. Overall, to meet their daily living expenses, 30.7% of the nursing workforce reported having worked overtime in their main job, whilst 25.5% borrowed money from family or friends, and 11.8% worked an extra job, a small proportion (1.9%) had taken out a payday loan.

Despite action being taken to meet daily living expenses, over one third (38.2%) of respondents reported experiencing some kind of financial difficulty in the last 12 months (Table 8). The most common financial difficulties experienced by our respondents were cutting back on food or travel costs (31.1% of all respondents) and struggling to pay gas or electricity bills (11.5% of all respondents).

The personal impacts of financial worries (Table 8) included losing sleep as a result of financial concerns (reported by 24.7% of all respondents), a detrimental impact on the family unit (17.5% of all respondents), and considering leaving their job because of financial worries (8.4% of all respondents).

Table 8. Financial implications experienced in the past 12 months (n=1,642; multiple responses allowed).

Action taken to meet daily living expenses	n (%)
Worked overtime in main job	504 (30.7)
Borrowed money from family or friends	418 (25.5)
Worked an extra job	194 (11.8)
Taken out a payday loan	32 (1.9)
None of these	810 (49.3)
Financial difficulties experienced	**n (%)**
Cut back on food or travel costs	510 (31.1)
Struggled to pay gas/electricity bills	189 (11.5)
Missed or late on mortgage or rent payment	58 (3.5)
Used food banks or charities	21 (1.3)
None of these	1015 (61.8)
Impact of financial worries	**n (%)**
Lost sleep	406 (24.7)
Impact on wider family unit	287 (17.5)
Impact on decision making at work	142 (8.6)
Considered leaving job	138 (8.4)
Required time during work to sort problems	114 (6.9)
None of these	947 (57.7)

Differences by socio-demographic factors

A higher proportion of those in the younger age groups reported experiencing financial hardship compared to those in the older age groups (Figure 4). Compared to those aged 18-29 years, members of the nursing and midwifery workforce aged 50 years and older were more likely to report not having to take any action to meet daily living expenses (50-59 years; 2.13 [1.32-3.43]; 60 years and older: 3.63 [2.02-6.54]), not suffering financial consequences (50-59 years; 2.08 [1.31-3.31]; 60 years and older: 3.72 [2.01-6.90]) or not experiencing impacts of financial worries (50-59 years; 1.90 [1.20-3.02]; 60 years and older: 2.44 [1.37-4.33]) after adjusting for gender, deprivation and NHS Pay Band. A higher proportion of males reported the detrimental impact of financial circumstances on health and wellbeing. Specifically, more males reported losing sleep (32.3% compared to 24.0% respectively; $p<0.05$) and experiencing wider impacts on the family unit (25.0% compared to 16.5%; $p<0.05$; Table A15, Appendix 2).

Differences by NHS Pay Band

In general, the lower the pay band, the higher the proportion that reported negative financial implications (Figure 5). The most apparent observations were in regards to having to work overtime (Band 4 and below: 41.4%; Pay Bands 5 and 6: 35.3%; Band 7 and higher: 22.0%; $p<0.001$) or borrow money (Band 4 and below: 34.5%; Pay Bands 5 and 6: 28.7%; Band 7 and higher: 19.4%; $p<0.001$) to meet daily living expenses. A higher proportion of those in lower Pay Bands reported detrimental financial consequences including cutting back on food or travel costs (Band 4 and below: 35.6%; Pay Bands 5 and 6: 36.0%; Band 7 and higher: 22.7%; $p<0.001$) and struggling to pay gas and electricity bills (Band 4 and below: 18.4%; Pay Bands 5 and 6: 13.8%; Band 7 and higher: 6.6%; $p<0.001$). After adjusting for age, gender and deprivation these differences remained.

Differences by health status

Consistently, those with worse health outcomes (poorer general health and low mental wellbeing) reported negative consequences of financial pressures more frequently. There were only two examples where the differences were not significant, and this was comparing general health statuses when: (1) working an extra job to meet daily living expenses, or (2) missing or being late with mortgage or rent payments (Table A13-A15, Appendix 2).

Figure 4. Adverse financial consequences experienced by age group. (solid bars represent a significant difference between age groups, patterned bars represent no significant difference).

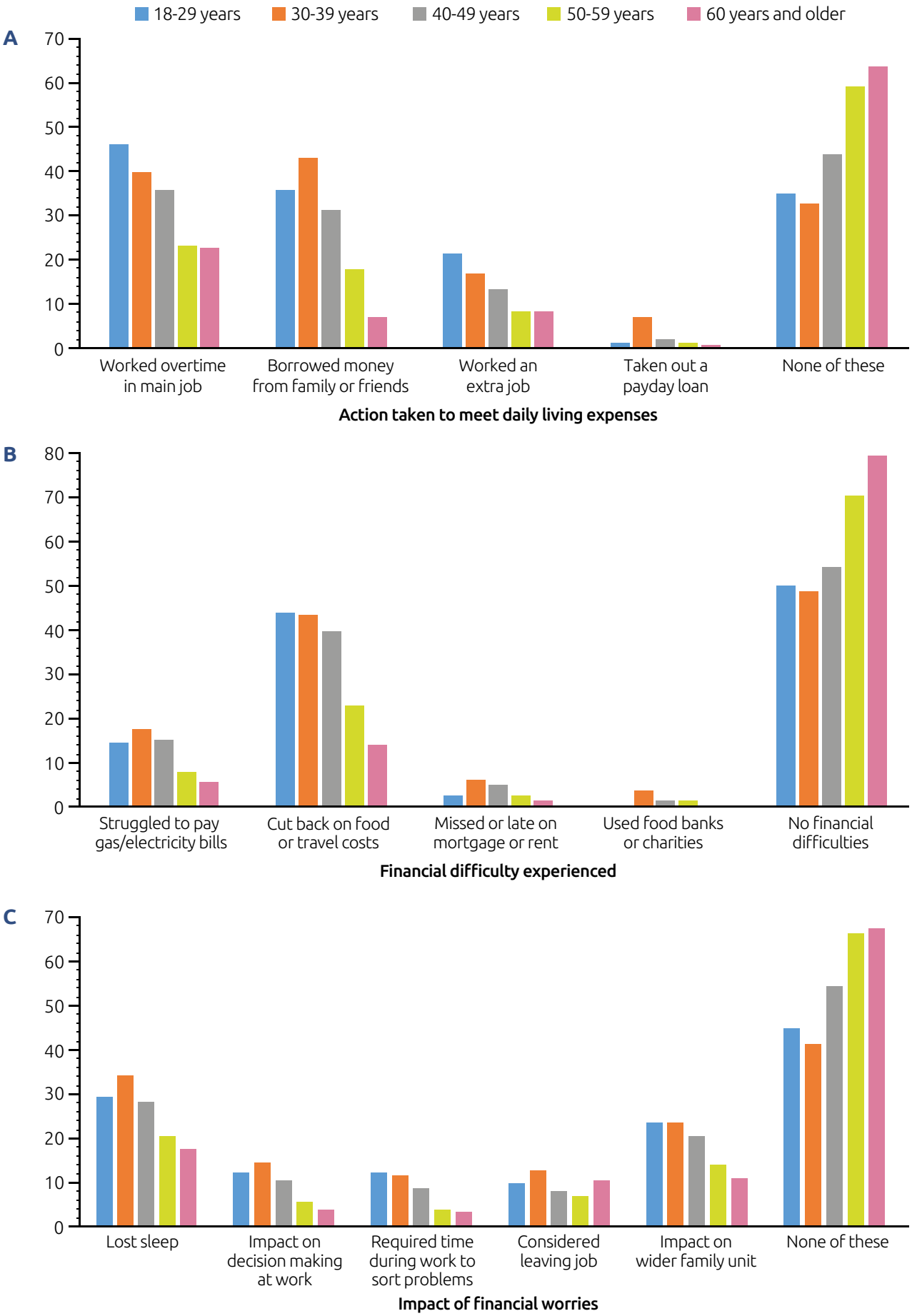
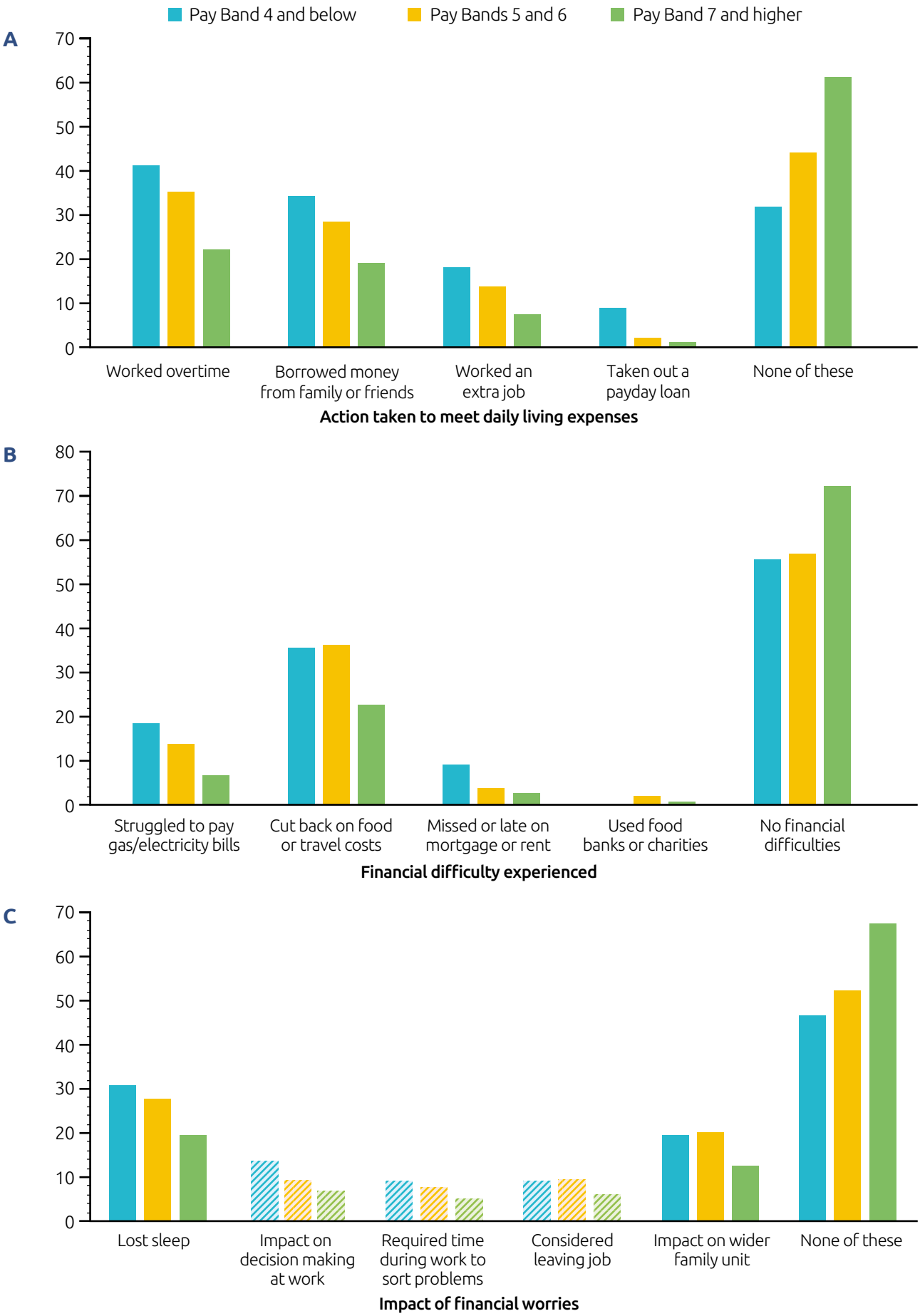


Figure 5. Adverse financial consequences experienced by NHS Pay Bands. (solid bars represent a significant difference between pay bands, patterned bars represent no significant difference).



4 Discussion

This report is one of the largest and most comprehensive cross-sectional surveys undertaken amongst the nursing and midwifery workforce in Wales and provides a valuable understanding of their health and wellbeing. It explores the underlying challenges to health, including the impact of the work environment, financial pressures, and job satisfaction and career plans. This survey includes the views from 1,642 nurses, midwives and health care workers across Wales who responded to the questionnaire, and whilst not a representative sample, it equates to ~5% of the Welsh NHS workforce.

Here we summarise the key findings and reflect on what our study adds within the context of the wider literature. We also draw together the key themes in two specific groups of respondents who consistently reported poorer health and wellbeing outcomes: a) younger members of the nursing and midwifery workforce and b) those employed in NHS Pay Bands 5 and 6. Finally, considering the implications, we identify a number of recommendations to improve the health and wellbeing of the nursing and midwifery workforce.

4.1 Current health and wellbeing

Overall, our findings indicate that the self-reported health of the nursing and midwifery workforce is similar to that of the working-age Welsh population (21). In our study, 37% reported having a longstanding illness and 22% a limiting longstanding illness, although these were slightly lower than that of the general working-age Welsh population (longstanding illness: 46%; limiting, longstanding illness: 33%; (21)).

In our study, 49% of the nursing workforce reported at least one health-harming behaviour, the most commonly reported was physical inactivity (39% reported not being physically active, compared to 33% in the general population; (21)). Although regular physical activity can help to prevent the well-known high levels of stress, fatigue, and burnout caused by their occupation (22), previous research in agreement with our findings, demonstrates nurses and midwives do not regularly exercise (19, 24–27). Occupational factors such as job speciality, work status, work hours, shift work, and job demand, can all significantly contribute to physical inactivity amongst the nursing and midwifery workforce (27). Only 9% of respondents reported being a current smoker, which is lower than the 17% of Welsh working-age adults who currently smoke (21) and substantially lower to what has been found in the nursing workforce of several European countries (28,29) including Scotland (12). Binge-drinking was reported by 10% of respondents (compared to 27% in the UK general population; (30)) but was higher in males (compared to females) and those in Pay Band 7 and higher (compared to other Pay Bands). Alcohol consumption has been previously described as a way to relax and recover from shifts amongst experienced nurses (31); however, drinking alcohol is an ineffective strategy to recover from shift work (32).

Overall, other than a lower prevalence of current smokers and those experiencing limiting illnesses, the health of the nursing and midwifery workforce does not appear to be any worse (or better) than the general population of Wales. The most telling factor in poorer levels of health and wellbeing, was deprivation status, and as widely reported in the literature, health outcomes were worse in those resident in the most deprived areas (33). However, within our respondents, there were certain subgroups that reported higher levels of poorer mental wellbeing, in particular, younger members of the nursing and midwifery workforce (see Section 4.5.1).

4.2 The working environment

4.2.1 The impact of the working environment on health and wellbeing

The working environment had a number of potential impacts on the health and wellbeing of the nursing and midwifery workforce. Notably, 62% of our sample reported experiencing work-related stress. It has been widely reported that stress and mental health issues account for a high proportion of health problems in nurses and midwives (5,7). Nurses have consistently reported feeling exhausted and burnt out as they often arrive early for their shifts and finish late, and many are unable to take breaks due to staff shortages (34,35). Data from the 2018 NHS Staff Survey (6) indicated that almost 40% of NHS staff in England reported feeling unwell as a result of work-related stress, with this figure being the highest in five years. However, less than 30% reported feeling that their NHS Trust takes positive action to improve staff health and wellbeing (6).

Although the workplace is recognised as an appropriate setting for health promotion and disease prevention (36), the physical environment and the nature of the nursing occupation have been found to play a significant role in determining nurses' healthy eating behaviours in the workplace (37–39). For instance, over half of our respondents reported missing breaks, and this practice at work may promote the consumption of energy-dense foods (40), having irregular meal patterns and being unable to drink enough water at work (41). Working in a fast-paced environment, unhealthy snacks may be viewed as a quick release of energy when time is limited (37). Respondents highlighted the lack of available healthy food and snacks at work, and research elsewhere has reported that increasing the availability of healthy food, particularly in the evening working hours, would encourage healthy eating (42). Provision of adequate food preparation and storage facilities could also prevent nurses and midwives from changing their regular meal choices (37). In Wales, the Corporate Health Standard (CHS) is one of the Healthy Working Wales programmes and is recognised nationally as a mark of quality for health and wellbeing in the workplace (43). For instance, the CHS has guidance to support business/organisations to make positive changes to the provision of food and drink in vending machines. Having more refrigerated vending machines with a selection of healthier options as well as adequate water dispenses would reduce important barriers to healthy eating in the nursing and midwifery profession (44). Furthermore, the National Institute for Health and Care Excellence (NICE) recommendations on obesity prevention in the workplace state the need to support action to improve healthy food and drink provision (45).

The high proportion who reported suffering from work-related stress and missing breaks in our survey suggests that organisational factors such as lack of time and high workloads have an impact on ability to maintain a healthy lifestyle (46). Since lack of time is one of the main barriers reported by health professionals to engage in healthy lifestyles, system-level interventions such as releasing staff to participate in exercise sessions during their working hours could aid in improving their health and wellbeing (46). Studies exploring the impact of system-level interventions have reported significant reductions in nurses' body mass index (BMI) post-intervention (47,48). These interventions can also be expanded to focus on healthy eating and meal preparation. Ultimately, these interventions benefit not only employees but also employers through reduced absenteeism and lower health care costs (48). We also identified a number of proposals that could be implemented in the workplace to improve health and wellbeing. The more popular choices were those that provided time for staff in the workday to either exercise or prepare healthier meals. These options were reported here by those with the poorest health outcomes and could, therefore, have a significant impact on the health and wellbeing of the nursing workforce.

Our findings also suggest that organisational factors such as lack of time/being too busy, staff shortages and waiting lists are impacting on the ability of staff to attend personal medical appointments. Barriers to attending medical appointments during working hours were reported

more by Pay Bands 5 and 6 employees and those with poor general health or low mental wellbeing. It is not surprising that lack of time was reported as the main barrier, since nurses and midwives tend to work overtime due to staff shortages and pressures in meeting targets (5,49). Having support from managers and peers may eliminate key barriers that prevent nurses and midwives considering their own health, particularly in younger and less experienced members of the workforce (3). In-house occupational services could also increase the health and wellbeing of the nursing and midwifery staff by providing rapid access to diverse services designed to help staff to return to work or manage a health condition in work (50).

High levels of stress have also been linked to presenteeism, with a high proportion of nurses going to work when feeling unwell (3,5). Attending work when unwell has associated economic burden not only for the NHS, but for societies due to loss of productivity (51,52). Other studies have shown that the pressure for nurses to attend work when feeling unwell has been found to be self-directed i.e. feelings of letting down colleagues and patients/services if they are away from work (3,53) but has also been related to 'intimidating' managerial environment in which nurses are encouraged to return to work before they are ready (3).

For example, almost half of the nurses surveyed for the 2017 RCN Employment Survey reported going to work when feeling unwell at least twice a year (5). In the 2018 NHS Wales Staff Survey, 64% of staff reported that they have come to work despite not feeling well enough (54). Overall, 83% of nurses in our study reported attending work at least once when they felt unwell and the main reasons for attending were largely preventable: stress, respiratory illness (e.g. flu/cold) or musculoskeletal conditions. Notably, the main causes of both presenteeism and absenteeism in the wider NHS are similar to our findings (MSK conditions [25%], and stress [23%]; (55)) and highlight the need for a more focused approach on prevention by promoting a culture of health, wellbeing and safety in the workplace (56,57).

Our survey found that the overall uptake of the free annual flu vaccination was only 70% and this number decreased with increasing age. Consistent with previous studies (58,59), two of the commonly reported barriers was that either they did not believe that the vaccine works or that they were worried that the vaccine would make them ill. These attitudes may have the effect of undermining the health protection offered by the vaccination within the hospital and healthcare settings and may contribute to the low flu vaccination coverage among healthcare professionals, particularly in nurses (58,59). This demonstrates the need for further action to better inform and engage the nursing and midwifery workforce in prevention of ill-health.

Consideration for action

Given that, the working environment has a significant influence on health and wellbeing; managers, administrators and policy-makers are urged to develop and maintain supportive work environments in order to improve staff and patient outcomes. Two main areas of focus are outlined below:

- **Support the mental wellbeing of the workforce:** High levels of stress amongst the workforce is a concern, in particular amongst female staff, younger members of the workforce and those employed in NHS Pay Bands 5 and 6. There is a need to better understand and address the factors contributing to stress including system and cultural drivers of presenteeism (e.g. staffing pressures) and to ensure settings are healthy working environments, for example by enforcing work breaks, and providing access to healthy food and drinks.
- **Strengthen prevention of ill health:** Levels of flu vaccine uptake are low amongst the nursing and midwifery workforce, and attending work when suffering from respiratory illness such as flu or a cold is common. Action is needed to address barriers to vaccination (e.g. informed by behavioural insights) and to encourage sick employees to stay at home.

4.3 Feelings towards career and perceptions of value

Despite the high levels of work-related stress and other working pressures, positivity towards their career was still relatively high amongst our respondents, with 75% reporting that their job was rewarding and 69% felt enthusiastic about their job. It is well known that nurses tend to describe nursing as a rewarding and fulfilling profession (34,60). However, according to the 2017 RCN Employment Survey, the proportion of nurses recommending nursing as a career (41%) was the lowest reported at any point in the last decade (5). Our findings were slightly higher with 55% of our respondents stating that they would recommend their job as a career.

In our study, a high proportion reported feeling valued by patients and families of patients but felt less valued by senior members of the staff. Lower levels of job satisfaction and feelings of value, particularly from senior staff, were found in Pay Bands 5 and 6 and in those with poorer general health and low mental wellbeing. Nurses have consistently reported that they do not feel valued (34). Feelings of value are important to increase job satisfaction and reduce emotional exhaustion and stress amongst nurses and midwives (26,61). In Scotland, authors found that nurses were less stressed if they felt in control of their activities and felt that their work was valued (62).

Half of our respondents reported considering leaving the profession (50%, compared to similar results from the recent NHS England Staff Survey at 51%) and 22% considered moving to the private sector (compared to 21% thinking of quitting the NHS altogether; (6)). High levels of stress, job dissatisfaction and disillusionment have been previously reported in the UK nursing and midwifery workforce (6,63,64). Dissatisfaction with pay band/grade is closely related to the sense that pay does not match the level of responsibility, the duties or the intensity of the job (65). Lack of support, particularly from senior staff (66) as well as lack of development opportunities previously found among UK nurses (5) may also explain why we observed a high proportion in the youngest age groups and in NHS Pay Bands 5 and 6 in our study that reported having considered leaving the profession. Welsh Government have recently published their "Employability plan" (67) which promotes the concept of fair work which seeks to adequately reward and offer real and meaningful opportunities for progression. This represents an opportunity to consider how best to implement the aspirations of Fair Work within the context of the NHS.

The Nursing & Midwifery Council (NMC) reported that working conditions, exacerbated by staffing shortages are the main reason for nurses and midwives leaving the profession before retirement (68). On the other hand, a positive perception of the work environment is associated with approximately 30% less intention to leave the profession (69). Poor physical health and mental wellbeing have been linked to low levels of satisfaction and feelings of value (70). This, in turn, has been associated with the intention to leave the profession, which has implications for workforce retention (60,65,71).

Staff shortages and turnover represent a major problem for health and social care in terms of the ability to care for patients and the quality of care (72). There are significant cost implications associated with a burdened healthcare service (64). Turnover of nursing staff produces costs due to refilling the position, arranging introductory programmes for new employees and loss of organisational productivity and knowledge (72). For instance, it has been recently estimated that in England, one in eight nursing positions are currently vacant (73), with the average cost of recruiting a band 5 to 6 staff nurse between £1000 and £9000 (74,75). To retain qualified staff, it is important that staff feel valued and that the high levels of job satisfaction are reflected in better physical and mental health outcomes (76). Evidence shows that it may take nursing staff up to 3

years before they make the final decision to leave (77,78) and therefore, managers have a window of opportunity to implement preventative action to discourage nurses from making the final decision to leave the profession.

Consideration for action

Recognise and value the nursing and midwifery workforce: Over two thirds of the nursing and midwifery workforce felt the occupation was a rewarding career, and were valued by patients and families, but fewer felt valued by senior staff. Action is needed to better understand the underlying contributing factors to inform action to address this imbalance. Following the concepts of fair work and adequately rewarding staff, with the potential for real and meaningful progression, could be important first steps.

4.4 Financial pressures and the associations with health and wellbeing

Undue financial pressures is another external consideration that can have adverse consequences for health and wellbeing. Of the respondents to our survey, 38% experienced some sort of financial difficulties and 42% expressed financial worries in the last 12 months. These difficulties were more apparent in the younger age groups (18-49 years) and those in lower pay bands (less than Pay Band 7). A quarter of all respondents have lost sleep over money worries but the impact of financial worries including impact on decision-making at work, impact on the wider family unit and considering leaving the job was also significantly higher in males, in those aged between 18 and 49 years old and those in lower pay bands.

Our findings are consistent with findings from the Cavell Nurses' Trust survey which indicated that UK nurses are twice as likely to suffer financial hardship (e.g. unable to afford basic necessities) than the general population, especially healthcare assistants who are in the lower pay bands/ grades (79). Evidence suggests that even for those nurses who are more able to afford these necessities they are still generally more financially deprived than the general UK population (79). Data from the RCN also reflect the financial pressure nurses (and midwives) are currently experiencing, with increasing numbers of nurses having to seek financial help (80). In 2016, the RCN Foundation awarded more than £250,000 to applicants of their hardship funding streams, up from £56,000 only a decade ago (72).

The RCN has also recognised that staffing shortages, not getting a pay rise, and cuts in education funding are all some of the main reasons for poor nurse staff retention (68). We demonstrate in this report that financial circumstances are also associated with poorer health and wellbeing and considerations of leaving the workforce. On a positive note, NHS Wales (and the wider UK) have just seen new pay scales introduced (81) which may alleviate some of these pressures.

Interventions with financial incentives were also reported by our respondents as a way to help improve their health and wellbeing. Financial incentives have already been tested in the NHS through the 'Pounds for Pounds' trial available for NHS staff and the general public with mixed results (82). Clinically significant weight changes and positive changes to dietary behaviours and physical activity were noted. However, the drop-out rate was higher in comparison to other commercial weight loss programmes and there is no data on sustained weight and long-term behavioural changes (46). More research is needed to demonstrate the success of financial incentives to improve lifestyle behaviours in the nursing and midwifery workforce.

Consideration for action

Understand the root cause of financial pressures: The proportion of the nursing and midwifery workforce reporting financial pressure is of concern, given the links between financial pressures and poor health and wellbeing. Action is needed to understand the root causes of these pressures and co-produce solutions. Alongside, ensuring early and timely access to financial advice and support for those currently in need.

4.5 Identification of two working populations of concern

4.5.1 Younger members of the nursing and midwifery workforce

Currently, the nursing and midwifery workforce are experiencing several socio-political challenges from the very beginning of their career (64). Younger individuals are entering the workforce with more disadvantages (i.e. funding cuts, staff shortages) than those who entered the workforce 20 or 30 years ago. Given the increasing demands for healthcare in our ageing population and predicted nursing and midwifery workforce shortages (64), nurses' ability to provide services and their capacity to act as role models in health-promoting behaviour will be limited by their poor health status (19,83).

A decline in the health and mental wellbeing of nurses will inevitably impact the capacity of the NHS to provide the health and social care services that the population needs. Self-rated poor health and lower mental wellbeing in the youngest age group in our study could place them at higher risk of adverse physical and mental health as they continue employment in the profession because their health status is already comprised at a young age (19). The impact of financial concerns were also high in this demographic and it is also important to consider that some of the younger workforce are likely to still be experiencing financial worries, which have been established as a major stressor on mental health in student nurses and midwives (34).

4.5.2 Members of the workforce within NHS Pay Bands 5 and 6

The health and wellbeing of the nursing and midwifery workforce currently employed in NHS Pay Bands 5 and 6 is also of concern. This population typically make up the majority of the workforce, and are usually in frontline/patient facing positions (5).

The levels of work-related stress were highest in this Pay Band and we have already touched upon working pressures leading to job dissatisfaction within the NHS workforce. More specifically, in the NHS, there are particularly low scores for job satisfaction among nurses in Pay Band 5 (5). This could explain why feelings of leaving the profession were higher in our respondents within Pay Bands 5 and 6.

Poor health and mental wellbeing have been linked to low levels of satisfaction and feelings of value (71). This, in turn, has been associated with the intention to leave the profession with important implications for workforce retention (62, 67, 72). Such research findings were reflected in our observations, those within Pay Bands 5 and 6 reported lowest levels of job satisfaction and

feeling valued, and were the highest proportion that expressed a desire to leave the profession. This specific workforce population also experienced more frequent barriers to their own healthcare needs which were reflective of current staff shortages (no cover to allow attendance) or fears about a personal impact on their job or career.

Further consideration

A focus on supporting the younger members of the nursing and midwifery workforce and those employed in NHS Pay Bands 5 and 6: These two groups of our respondents consistently reported poorer health and wellbeing outcomes. The need for targeted approaches should be considered in the development of actions to support the health and wellbeing of the workforce as a whole.

4.6 Wider implications for the future of the nursing workforce in Wales

At a time when the UK needs more nurses and midwives, a high proportion have expressed a desire to leave the profession (64). It has been recognised that nursing and midwifery staff feel overworked, underpaid and unable to provide the level of care they would like which has resulted in low morale and overall job dissatisfaction (3,5). Early retirement is yet another factor contributing to losing capacity in the NHS (5). Experienced nurses and midwives possess intellectual and institutional memory (84), they are more equipped to handle difficult situations (85), they enhance the quality of care, and provide vital mentorship for inexperienced staff entering the workforce (86). Creating a more supportive work environment for an ageing workforce is crucial to delay the retirement of older and more experienced nurses and midwives (87).

It is also worth noting that the challenge is not only staff retention but encouraging young people to enter nursing or midwifery as a career (64). Recent data has shown that one in four student nurses drop out of their degrees before graduation (88) and over half of midwifery undergraduates have considered dropping their studies, generally as a result of financial pressures (89). Despite Wales retaining the bursary for student nurses, the number of applicants to 2017/18 undergraduate nursing courses was down by 10% compared to 2016 (64). All of these factors contribute to the nurse shortages in the UK that have been exacerbated by the decrease of EU nurses working in the UK since 2016/17 (63).

4.7 Limitations of the study

This study has some limitations which we do acknowledge. Respondents were self-selected and whilst their demographic characteristics resembled those of the nursing and midwifery workforce (e.g. nine in ten nurses are female) (68), it is not possible to confirm the representative nature of the respondents. Therefore the findings are descriptive and not generalisable to the entire nursing and midwifery workforce in Wales.

The majority of our respondents were nurses so we were unable to make any comparisons between occupations and health and wellbeing as in previous UK studies (12).

In addition, this was a self-report survey, with the usual limitations of participant recall and potential bias. Qualitative methods might have been more advantageous to explore feelings about the profession and working conditions in detail. Finally, our study relied on cross-sectional data and therefore could not definitively establish causality.

4.8 Conclusions

Our findings provide useful insights into the health and wellbeing of the Welsh nursing and midwifery workforce. Although, respondents self-rated their general health similarly to that of the general population and reported high levels of job satisfaction, they are experiencing high levels of work-related stress, with a third of them experiencing financial pressures.

A high proportion of respondents have considered leaving the profession, particularly in NHS Pay Bands 5 and 6 and those with poorer health and low mental wellbeing. The health and wellbeing of the nursing and midwifery workforce is not only important at a personal level, but for the population that requires their services.

The ageing demographics of the nursing and midwifery workforce, its declining health status mirroring the ageing of the population, balanced against increasing care needs, suggests that effective wellbeing strategies for nurses and midwives are essential not only to safeguard their health but to ensure a healthy and sustainable nursing and midwifery workforce for the future.

Given that the working environment has a huge influence on health and wellbeing; managers, administrators and policy-makers are urged to develop and maintain supportive work environments in order to improve staff and patient outcomes.

The findings and recommendations outlined in this report will help Welsh Government achieve their ambition of creating *'a motivated and sustainable health and social care workforce'* (16) that contributes to making the health and social care system fit for the future.

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Appendices

Appendix 1. Detailed Methodology

Between April and June 2019, a cross-sectional survey of the nursing and midwifery workforce (**nurses, midwives and health care support workers**) in Wales was conducted by Public Health Wales with support from the Royal College of Nursing (RCN), Royal College of Midwives (RCM) and the Directors of Nursing from the seven Health Boards and three NHS Trusts in Wales. The fieldwork (data collection) element of this study was carried out by Quality Health, a professional market research company.

The survey was anonymous, bi-lingual and hosted online, with paper versions available on request. The online survey was an integral part of Quality Health's Bespoke QMS Application. Developed and managed entirely in-house, the platform is predominantly written in .net and JavaScript and the underlying database is SQL Server. The portal itself is secure using SSL encryption.

Data Integrity Procedures

The initial setup was rigorously tested by both internal Quality Health staff and selected representatives from the client. The structure and question content were checked by at least two members of the Quality Health IT team to ensure that the questions, text and response options and coding met the client's requirements. Test submissions were made, and the captured data cross-checked to ensure that no data loss or miscoding was happening. Due to the online platform being fully integrated with the QMS application, it was not possible for data to be recoded at source. Captured data were checked for completion criteria and any blank responses would have been removed from the final numbers. As a final set of checks, the data files used for the base of the reports were also checked to ensure that errors had not been introduced post-export. These included range checks and comparisons to the underlying captured data and that contained in the export files. At this point, data would also go through a routing process to ensure that any of the enforced rules regarding the display of linked questions (e.g. if ticked yes go to X) and any anomalies corrected to reflect those routes.

Questionnaire Respondents

There were 2,266 occasions where the questionnaire was loaded up. 1,648 complete responses were recorded overall. This gives an overall conversion rate to completion of 73%. Note that this is not an exact figure as it is not possible to determine what percentage of these were reloads by the same person or test/check sessions. It would be more realistic to give a conversion rate of 80%. Although this may appear high, this is quite normal for an anonymous questionnaire of this complexity and length. There were no paper copies of the questionnaire requested.

It should be acknowledged that the final 1,642 (6 were further excluded) respondents may not be fully representative of all the nursing workforce in Wales. However, using the latest available assignment count data (StatsWales; https://statswales.gov.wales/Catalogue/Health-and-Social-Care/NHS-Staff/NHS-Staff-Summary/nhsstaff-by-staffgroup-year) the number of respondents is equal to ~5.0% of nursing, midwifery and health visiting staff. Therefore the data included within this report provides good indicative data on the views of these professionals through the health care workforce (NHS and other sectors) in Wales. Unfortunately, the StatsWales data does not provide data on age/gender/pay band so we were not able to assess the extent to which the sampled workforce may be representative.

Questionnaire Development

The related questions for each of the sections contained within the questionnaire are shown in Box A1. Where possible the questionnaire content was taken or adapted from existing sources or developed internally drawing on expertise. The questionnaire was piloted (bi-lingually) with nursing and midwifery staff from Public Health Wales by Quality Health prior to implementation and some of the feedback contributed to the final questionnaire design.

Box A1. Questionnaire sections, questions and sources

Sections	Questions	Source
Current health and wellbeing	• Self-reported health status	National Survey for Wales
	• Presence of long-term health condition or illness	National Survey for Wales
	• Impact of health condition or illness on activities of daily living	National Survey for Wales
	• Mental health status	Short Warwick Edinburgh Mental Wellbeing Scale
	• Smoking tobacco	National Survey for Wales
	• Alcohol consumption	AUDIT-C
	• Physical activity participation	Scottish Physical Activity Screening Questionnaire
Health and wellbeing in the workplace	• Work-related stress	Internal question
	• Presenteeism - Over the past 12 months how often, if ever, have you gone to work despite feeling you should really have taken sick leave?	RCN Employment Questionnaire 2017
	• Barriers when accessing healthcare - Do you feel that any of the following are barriers when accessing healthcare for yourself (select all that apply)?	Options from Ipsos MORI Fitness to Practice Report
	• Flu jab uptake, location and barriers	Internal question
	• Missed breaks (How often?)	Internal question
	• Access to water at work	Internal question
	• Feelings of adequate hydration	Internal question
	• Access to healthy food choices (during the day, during the evening, would like more options)	Stay Well in Wales Survey
	• Eat 5 fruit or vegetables per day	
Financial pressures	• In the past 12 months (choose all that apply)	RCN Employment Questionnaire 2017
	• To meet daily living expenses	
	• Financial consequences experienced	
	• Impact of financial concerns	
Job satisfaction and feelings of value	• To what extent do you agree/disagree with the following statements?	RCN Employment Questionnaire 2017 and Internal
Feelings towards the profession/ job in the past 12 months	• Have you seriously considered any of the following in the past 12 months? (Select all that apply)	Internal
Improvements for health and wellbeing	List of options available; Choose either work, home or both	Internal question

Socio-demographic measures (Deprivation)

The Index of Multiple Deprivation (IMD) Quintiles were derived by linking the postcodes of respondents with the February 2019 version of the ONS Postcode data (http://geoportal.statistics.gov.uk/datasets/ons-postcode-directory-february-2019). The IMD rank was then grouped into the prescribed deciles and finally merged to form the quintile value. Postcodes were provided by 1,263 (77.0%) of the respondents.

Data Analysis

All statistical analysis was undertaken using IBM SPSS Statistics 24.

Appendix 2. Supplementary Data

Table A1. General health, pre-existing conditions and health-harming behaviours (HHBs) by socio-economic factors

		Not good general health	Longstanding illness	Longstanding, limiting illness	Current Smoker	Physically Inactive	Binge Drinker	0 HHBs	1 HHB	2-3 HHBs
All	n	431	600	363	151	639	157	836	682	124
	%	26.2	36.5	22.1	9.2	38.9	9.6	50.9	41.5	7.6
Gender										
Male (%)		38.4	42.7	27.4	9.1	36.0	18.3	48.2	42.7	9.1
Female (%)		25.7	35.9	21.7	9.2	39.7	8.6	50.8	41.7	7.4
x^2		**11.704**	2.894	2.85	0.002	0.836	**15.877**		0.796	
p-value		**0.001**	0.089	0.091	0.968	0.36	**<0.001**		0.672	
Age Group										
18-29 years (%)		32.0	35.8	26.8	12.2	41.5	5.7	47.2	48.0	4.9
30-39 years (%)		27.0	32.5	21.1	12.7	43.5	11.0	44.3	46.4	9.3
40-49 years (%)		29.5	32.7	17.3	9.3	37.8	11.5	50.7	41.2	8.2
50-59 years (%)		26.2	40.6	25.2	7.8	38.9	8.7	52.6	40.3	7.1
60 years and older (%)		18.7	37.7	21.4	7.8	36.4	9.1	53.9	39.0	7.1
x^2		8.359	9.223	11.645	6.712	2.967	5.277		8.535	
p-value		0.079	0.056	**0.02**	0.152	0.563	0.26		0.383	
Deprivation Quintile										
Q1 (Most Deprived, %)		41.0	44.7	30.5	7.8	51.1	9.9	41.8	48.2	9.9
Q2 (%)		26.2	35.9	19.7	10.3	38.9	7.7	50.9	41.9	7.3
Q3 (%)		30.2	43.8	26.3	11.7	37.7	11.4	48.4	44.2	7.5
Q4 (%)		25.0	38.5	26.0	7.9	43.0	9.1	48.3	43.4	8.3
Q5 (Least Deprived, %)		21.8	32.4	17.8	6.3	35.9	9.8	54.3	40.0	5.7
x^2		**19.920**	**11.625**	**13.833**	6.553	**11.247**	2.197		7.801	
p-value		**0.001**	**0.02**	**0.008**	0.161	**0.024**	0.7		0.453	

Table A2. Components of mental wellbeing overall and by age group

(Rarely/never)	All	18-29 years	30-39 years	40-49 years	50-59 years	60 years and older	x^2	*p-value*
Feeling optimistic about future	20.5%	16.3%	20.3%	19.0%	21.9%	22.1%	2.980	0.56
Feeling useful	10.8%	14.6%	13.9%	9.5%	10.9%	6.5%	8.007	0.09
Feeling relaxed	36.8%	47.2%	50.2%	39.2%	31.3%	24.7%	**43.339**	**<0.001**
Dealing with problems well	8.6%	17.9%	13.9%	8.4%	6.1%	5.8%	**28.397**	**<0.001**
Thinking clearly	7.6%	15.4%	13.9%	9.7%	3.6%	2.6%	**47.138**	**<0.001**
Feeling close to other people	14.7%	21.1%	17.7%	15.9%	12.3%	11.0%	**11.005**	**0.03**
Able to make up own mind about things	4.8%	10.6%	4.2%	5.1%	4.1%	3.2%	**10.721**	**0.03**
Low Mental Wellbeing	14.4%	19.3%	18.5%	17.3%	12.5%	10.0%	**11.478**	**0.02**

Table A3. Working conditions experienced overall and by age, gender, NHS Pay Band and health status (n=1,642)

		Work-related stress	Regularly miss breaks at work	Drinking water available in work	Feel hydrated at work
All	n	1020	831	1191	960
	%	62.1	50.6	72.5	58.5
Gender					
Male (%)		52.4	48.2	73.2	67.1
Female (%)		62.9	50.7	72.8	57.5
x^2		**6.828**	0.374	0.013	**5.541**
p-value		**0.009**	0.541	0.91	**0.019**
Age Group					
18-29 years (%)		64.2	42.3	68.3	39.8
30-39 years (%)		62.9	49.4	70.9	46.8
40-49 years (%)		62.4	49.6	75.2	60.2
50-59 years (%)		63.5	53.5	72.5	64.7
60 years and older (%)		50.0	48.1	72.7	60.4
x^2		**10.406**	6.338	3.06	**42.253**
p-value		**0.034**	0.175	0.548	**<0.001**
NHS Pay Band					
Pay Band 7 and higher		60.1	61.1	76.7	66.1
Pay Bands 5 and 6		64.4	46.7	69.4	54.0
Pay Band 4 and below		49.4	16.1	78.2	57.5
x^2		**8.955**	**72.389**	**11.186**	**21.723**
p-value		**0.011**	**<0.001**	**0.004**	**<0.001**
General Health					
Good or better (%)		55.2	49.1	74.1	60.1
Not good (%)		80.0	53.8	68.7	53.1
x^2		**82.272**	2.764	**4.737**	**6.289**
p-value		**<0.001**	0.096	**0.03**	**0.012**
Mental wellbeing					
Average mental wellbeing (%)		57.3	48.9	75.3	62.9
Low mental wellbeing (%)		89.9	60.8	59.5	36.7
x^2		**90.688**	**11.3**	**25.38**	**56.954**
p-value		**<0.001**	**0.001**	**<0.001**	**<0.001**

Table A4. Presenteeism overall, by NHS Pay Band and health status (n=1,642; multiple responses allowed)

		Number of times attending work when feeling unwell (n=1.642)			Reason should have been off work on sick leave (n=1,355; multiple responses allowed)				
		Once	2-5 times	More than 5 times	Stress	Respiratory illness (flu or cold)	Musculoskeletal condition	Gastrointestinal/ stomach complaint	Recurring condition
All	n	353	721	281	755	731	517	261	118
	%	21.5	43.9	17.1	55.7	53.9	38.2	19.3	8.7
NHS Pay Band									
Pay Band 7 and higher		19.3	42.7	17.9	54.6	55.7	34.1	16.1	8.3
Pay Bands 5 and 6		22.9	45.7	15.9	55.7	53.8	40.5	21.1	9.3
Pay Band 4 and below		21.8	35.6	20.7	57.4	50.0	33.8	22.1	7.4
x^2			**18.509**		0.26	0.927	5.581	4.977	0.625
p-value			**0.047**		0.878	0.629	0.061	0.083	0.732
General Health									
Good or better (%)		24.5	42.0	12.0	51.5	56.4	33.5	16.9	5.6
Not good (%)		14.2	47.6	31.1	65.3	49.0	48.3	23.8	15.5
x^2			**134.701**		**21.245**	**6.21**	**25.659**	**8.437**	**34.992**
p-value			**<0.001**		**<0.001**	**0.013**	**<0.001**	**0.004**	**<0.001**
Mental wellbeing									
Average mental wellbeing (%)		23.1	44.0	13.4	50.4	56.1	37.7	17.8	8.2
Low mental wellbeing (%)		11.4	46.4	37.6	81.0	43.8	39.8	23.5	11.5
x^2			**115.455**		**70.64**	**11.367**	0.374	**3.907**	2.544
p-value			**<0.001**		**<0.001**	**0.001**	0.541	**0.048**	0.111

Table A5. Barriers to attending health appointments experienced overall, by age group and employment contract (n=1.642; multiple responses allowed)

		Lack of time	No cover	Waiting Lists	Accessibility of services	Job fears	Confidentiality fears	Embarrassment	Pride or denial	No barriers
All	n	1238	653	517	459	428	239	215	206	181
	%	75.4	39.8	31.5	28.0	26.1	14.6	13.1	12.5	11.0
Age Group										
18-29 years (%)		78.0	45.5	37.4	22.8	38.2	20.3	25.2	22.0	13.8
30-39 years (%)		84.0	44.7	31.2	20.3	30.4	14.3	18.1	12.7	5.1
40-49 years (%)		74.8	39.4	27.4	25.2	23.0	14.2	13.7	12.8	12.2
50-59 years (%)		73.4	36.8	32.8	31.3	23.7	14.1	9.4	11.1	11.9
60 years and older (%)		68.8	39.6	33.8	36.4	26.0	10.4	6.5	9.7	12.3
x^2		**14.848**	6.611	6.355	**19.42**	**15.84**	5.592	**35.55**	**12.357**	**10.774**
p-value		**0.005**	0.158	0.174	**0.001**	**0.003**	0.232	**<0.001**	**0.015**	**0.029**
Employment contract										
Employed, full-time		80.1	40.2	30.4	27.6	26.2	14.5	13.8	12.2	10.5
Employed, part-time		64.2	37.6	32.9	29.7	25.2	14.7	11.3	13.2	12.5
x^2		**43.391**	0.877	0.889	0.707	0.191	0.014	1.673	0.269	1.255
p-value		**<0.001**	0.349	0.346	0.401	0.662	0.905	0.196	0.604	0.263

Table A6. Access to healthy food choices overall, by gender and NHS Pay Band (n=1.642)

		Eat 5 or more fruit and veg daily	Purchase Healthy Food			Purchase Healthy Drinks			Purchase Healthy Snacks			Already enough options	Not interested
			During Day	During Evening	Would like more options	During Day	During Evening	Would like more options	During Day	During Evening	Would like more options		
All	n	503	1070	114	896	1158	301	641	1016	122	801	459	90
	%	30.6	65.2	13.2	54.6	70.5	34.9	39.0	61.9	14.1	48.8	28.0	5.5
Gender													
Male (%)		28.0	57.3	13.6	53.7	62.2	29.1	46.3	53.7	10.7	43.9	25.6	11.0
Female (%)		30.7	66.3	13.4	54.6	71.7	36.2	37.7	63.0	14.9	49.0	28.4	4.9
x^2		0.485	**5.223**	0.002	0.047	**6.364**	2.004	**4.616**	**5.502**	1.308	1.512	0.573	**10.45**
p-value		0.486	**0.022**	0.962	0.828	**0.012**	0.157	**0.032**	**0.019**	0.253	0.219	0.449	**0.001**
NHS Pay Band													
Pay Band 7 and higher		35.9	69.6	19.8	51.4	75.0	39.6	35.8	67.9	21.2	45.3	36.5	4.5
Pay Bands 5 and 6		27.7	62.4	10.6	57.4	67.9	33.0	41.8	58.2	11.4	51.0	23.2	5.7
Pay Band 4 and below		26.4	69.0	15.4	49.4	73.6	36.5	35.6	66.7	15.4	50.6	20.7	10.3
x^2		**12.02**	**8.659**	**11.85**	**6.312**	**9.1**	3.017	**6.034**	**15.122**	**12.366**	4.739	**33.75**	5.051
p-value		**0.002**	**0.013**	**0.003**	**0.043**	**0.011**	0.221	**0.049**	**0.001**	**0.002**	0.094	**<0.001**	0.08

Table A7. Popularity of suggested improvements for wellbeing (provisions) overall, by gender, age group and NHS Pay Band (n=1,642; multiple responses allowed)

		Financial incentives			Time to exercise			Time to prepare meals			Childcare provisions		
		Work Only	Home Only	Both	Work Only	Home Only	Both	Work Only	Home Only	Both	Work Only	Home Only	Both
All	n	176	141	548	137	290	668	101	345	458	43	53	176
	%	10.7	8.6	33.4	8.3	17.7	40.7	6.2	21.0	27.9	2.6	3.2	10.7
Gender													
Male (%)		11.6	9.8	26.8	15.2	14	37.2	9.8	17.7	20.7	4.9	4.3	10.4
Female (%)		10.4	8.5	34.2	7.4	18.1	41.0	5.7	21.4	28.6	2.3	3.2	10.8
x^2		0.215	0.304	3.602	**11.842**	1.71	0.869	**4.345**	1.213	**4.567**	3.37	0.557	0.024
p-value		0.643	0.582	0.058	**0.001**	0.191	0.351	**0.037**	0.271	**0.033**	0.053	0.455	0.878
Age Group													
18-29 years (%)		4.9	11.4	56.1	6.5	24.4	40.7	11.4	22.0	39.8	5.7	4.9	21.1
30-39 years (%)		14.3	5.5	46.0	6.8	21.9	50.6	8.0	23.6	39.2	5.9	5.9	32.1
40-49 years (%)		11.7	10.0	33.6	8.2	17.7	44.0	6.2	21.2	32.1	3.3	5.8	10.8
50-59 years (%)		10.3	8.2	27.1	9.4	15.3	38.0	3.8	19.9	22.5	0.6	0.9	2.9
60 years and older (%)		7.8	8.4	23.4	6.5	15.6	26.6	7.8	18.8	11.7	1.3	0.6	2.6
x^2		**9.647**	5.347	**64.166**	3.036	**9.685**	**26.411**	**14.502**	1.972	**57.484**	**27.279**	**29.99**	**179.681**
p-value		**0.047**	0.253	**<0.001**	0.552	**0.046**	**<0.001**	**0.006**	0.741	**<0.001**	**<0.001**	**<0.001**	**<0.001**
NHS Pay Band													
Pay Band 7 and higher		12.2	6.4	31.3	10.2	15.3	43.2	4.3	21.9	26.4	1.9	2.8	6.1
Pay Bands 5 and 6		9.3	10.2	34	6.9	19.7	38.6	7.4	20.4	28.1	2.5	3.6	13.8
Pay Band 4 and below		14.9	6.9	36.8	10.3	19.5	39.1	3.4	25.3	32.2	6.9	2.3	10.3
x^2		4.896	**6.94**	1.793	5.614	4.919	3.189	**6.831**	1.401	1.432	**7.73**	1.086	**21.901**
p-value		0.086	**0.031**	0.408	0.06	0.085	0.203	**0.033**	0.496	0.489	**0.021**	0.581	**<0.001**

Table A8. Popularity of suggested improvements for wellbeing (classes) overall, by gender, age group and NHS Pay Band (n=1,642; multiple responses allowed)

		Access to local gym			Local exercise classes			Healthy cooking classes			Not needed, already lead healthy lifestyle
		Work Only	Home Only	Both	Work Only	Home Only	Both	Work Only	Home Only	Both	
All	n	150	125	354	64	152	324	37	110	157	308
	%	9.1	7.6	21.6	3.9	9.3	19.7	2.3	6.7	9.6	18.8
Gender											
Male (%)		9.8	9.1	19.5	3.0	6.1	17.7	1.8	6.1	7.9	20.1
Female (%)		9.0	7.4	21.5	4.0	9.7	19.9	2.1	6.9	9.8	18.7
x^2		0.093	0.603	0.353	0.355	2.212	0.443	0.068	0.148	0.591	0.198
p-value		0.761	0.437	0.552	0.551	0.137	0.506	0.794	0.7	0.442	0.657
Age Group											
18-29 years (%)		3.3	13.8	36.6	3.3	17.1	25.2	2.4	13.8	20.3	10.6
30-39 years (%)		10.5	5.9	28.3	4.6	9.7	21.9	3.4	9.3	17.7	12.2
40-49 years (%)		10.8	7.7	23.0	3.1	8.2	23.2	1.8	6.6	9.1	16.2
50-59 years (%)		8.5	7.0	17.3	4.0	7.8	16.9	2.1	4.6	5.9	22.9
60 years and older (%)		7.8	7.1	12.3	4.5	12.3	13.0	1.3	7.1	5.2	26.0
x^2		8.0	8.177	**38.098**	1.438	**13.081**	**14.416**	2.577	**17.193**	**48.379**	**26.787**
p-value		0.092	0.085	**<0.001**	0.838	**0.011**	**0.006**	0.631	**0.002**	**<0.001**	**<0.001**
NHS Pay Band											
Pay Band 7 and higher		10.1	6.3	19.6	4.5	7.5	19.4	1.9	4.2	6.3	20.1
Pay Bands 5 and 6		8.3	8.9	21.9	3.4	10.5	19.5	2.3	8.9	11.1	18.5
Pay Band 4 and below		9.2	5.7	28.7	4.6	10.3	26.4	2.3	3.4	17.2	13.8
x^2		1.331	3.91	3.992	1.285	3.865	2.489	0.325	**13.95**	**15.588**	2.173
p-value		0.514	0.142	0.136	0.526	0.145	0.288	0.85	**0.001**	**<0.001**	0.337

Table A9. Popularity of suggested improvements for wellbeing (provisions) by health status (n=1,642; multiple responses allowed)

		Financial incentives			Time to exercise			Time to prepare meals			Childcare provisions		
		Work Only	Home Only	Both	Work Only	Home Only	Both	Work Only	Home Only	Both	Work Only	Home Only	Both
All	n	176	141	548	137	290	668	101	345	458	43	53	176
	%	10.7	8.6	33.4	8.3	17.7	40.7	6.2	21	27.9	2.6	3.2	10.7
General Health													
Good or better (%)		10.4	7.8	31.5	8.1	17.0	38.8	5.5	20.1	24.8	2.2	2.9	9.1
Not good (%)		11.6	10.9	38.7	8.6	20.0	45.5	7.7	23.0	36.0	3.9	4.2	14.2
x^2		0.438	**3.871**	**7.413**	0.085	1.828	**5.846**	2.619	1.547	**19.432**	3.552	1.602	**8.679**
p-value		0.508	**0.049**	**0.006**	0.771	0.176	**0.016**	0.106	0.214	**<0.001**	0.059	0.206	**0.003**
Mental wellbeing													
Average mental wellbeing (%)		10.4	8.4	31.7	7.7	16.5	40.5	6.0	20.7	26.7	2.4	3.0	9.5
Low mental wellbeing (%)		11.8	10.5	43.0	10.5	24.1	45.6	6.8	23.6	35.9	4.2	5.5	17.3
x^2		0.397	1.149	**11.612**	2.119	**8.005**	2.137	0.192	1.008	**8.423**	2.543	3.789	**12.657**
p-value		0.528	0.284	**0.001**	0.145	**0.005**	0.144	0.661	0.315	**0.004**	0.111	0.052	**<0.001**

Table A10. Popularity of suggested improvements for wellbeing (classes) by health status

		Access to local gym			Local exercise classes			Healthy cooking classes			Not needed, already lead healthy lifestyle
		Work Only	Home Only	Both	Work Only	Home Only	Both	Work Only	Home Only	Both	
All	n	150	125	354	64	152	324	37	110	157	308
	%	9.1	7.6	21.6	3.9	9.3	19.7	2.3	6.7	9.6	18.8
General Health											
Good or better (%)		9.2	6.2	19.3	4.3	7.4	17.2	2.1	6.5	7.8	22.2
Not good (%)		8.6	11.4	28.1	2.8	13.9	26.2	2.3	7.2	14.6	9.3
x^2		0.128	**12.192**	**14.413**	1.892	**15.799**	**16.192**	0.048	0.237	**16.855**	**34.429**
p-value		0.721	**<0.001**	**<0.001**	0.169	**<0.001**	**<0.001**	0.827	0.626	**<0.001**	**<0.001**
Mental wellbeing											
Average mental wellbeing (%)		9.3	7.0	20.1	3.8	8.8	19.0	2.2	6.2	8.9	20.2
Low mental wellbeing (%)		8.4	12.7	27.8	3.4	13.1	24.1	1.7	8.4	13.1	8.9
x^2		0.186	**8.95**	**7.295**	0.082	**4.331**	3.225	0.235	1.591	**3.985**	**17.191**
p-value		0.666	**0.003**	**0.007**	0.775	**0.037**	0.073	0.628	0.207	**0.046**	**<0.001**

Table A11. Job satisfaction and perceived feelings of value overall, by gender, age group and health status (n=1,642)

		Recommend job as career		Job is rewarding career		Enthusiastic about job		Valued by senior staff		Valued by patients[i]		Valued by families of patients[i]	
		Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree
All	n	910	410	1237	175	1135	229	705	582	1070	70	934	102
	%	55.4	25.0	75.3	10.7	69.1	13.9	42.9	35.4	80.0	5.2	69.8	7.6
Age Group													
18-29 years (%)		56.1	26.0	81.3	7.3	63.4	17.9	43.9	33.3	67.5	12.0	59.8	20.5
30-39 years (%)		56.1	22.8	75.5	10.1	70	13.1	43.9	39.7	72.4	7.9	66.4	9.8
40-49 years (%)		54.2	24.6	76.5	10.0	70.4	14.4	46.5	33	82.1	4.9	71.5	7.8
50-59 years (%)		56.5	24.5	75.1	11.1	69.5	13.2	40.1	35.1	84.0	3.5	72.7	4.9
60 years and older (%)		55.2	27.3	70.1	12.3	68.8	13	45.5	34.4	80.2	3.1	69.5	3.1
x^2		0.636	1.152	4.976	2.309	2.321	2.217	4.887	3.265	**24.886**	**18.018**	9.179	**38.313**
p-value		0.959	0.886	0.29	0.679	0.677	0.696	0.299	0.515	**<0.001**	**0.001**	0.057	**<0.001**
Gender													
Male (%)		53.7	20.1	71.3	12.2	61.0	15.2	46.3	34.8	74.0	8.4	63.4	8.4
Female (%)		55.9	25.0	76.1	10.2	70.5	13.4	43.1	34.6	80.5	4.9	70.8	7.5
x^2		0.308	1.87	1.84	0.625	**6.284**	0.404	0.629	0.001	3.009	2.885	3.124	0.126
p-value		0.579	0.171	0.175	0.429	**0.012**	0.525	0.428	0.972	0.083	0.089	0.077	0.723
General Health													
Good or better (%)		60.4	21.1	78.3	9.2	73.5	11.1	47.6	31.0	82.2	4.1	72.5	6.7
Not good (%)		42.9	34.6	67.5	14.6	56.6	22.0	31.1	46.9	73.0	8.7	61.9	10.2
x^2		**38.782**	**30.447**	**19.542**	**9.508**	**42.182**	**31.001**	**34.992**	**34.75**	**13.354**	**10.812**	**13.301**	**4.332**
p-value		**<0.001**	**<0.001**	**<0.001**	**0.002**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**0.001**	**<0.001**	**0.037**
Mental wellbeing													
Average mental wellbeing (%)		61.4	19.6	80.5	7.6	74.8	10.1	48.5	29.3	82.4	4.5	72.4	6.5
Low mental wellbeing (%)		22.4	54.9	49.4	27.8	35.4	36.7	13.5	69.6	67.6	9.0	55.7	13.3
x^2		**124.012**	**133.495**	**106.668**	**86.774**	**144.88**	**117.929**	**100.206**	**143.017**	**23.997**	**7.344**	**23.135**	**11.421**
p-value		**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**0.007**	**<0.001**	**0.001**

i Respondents in patient-facing roles only (n=1,345).

Table A12. Feelings towards job/career in past 12 months overall, by gender, age group and employment contract (n=1,642; multiple responses allowed)

		Leaving Profession	Moving within NHS Wales	Moving within/ to Private Sector (Wales)	Moving outside of Wales for work	Increasing hours at work	Decreasing hours at work	Retirement	None of these
All	n	818	513	362	211	75	622	477	298
	%	49.8	31.2	22.0	12.9	4.6	37.9	29.0	18.1
Gender									
Male (%)		50.0	36.6	28.0	20.7	2.4	33.3	27.4	13.4
Female (%)		49.4	30.5	21.3	11.9	4.8	38.1	29.3	19.0
x^2		0.023	2.561	**3.899**	**10.207**	1.836	1.329	0.25	3.023
p-value		0.88	0.11	**0.048**	**0.001**	0.175	0.249	0.617	0.082
Age Group									
18-29 years (%)		50.4	41.5	27.6	20.3	3.3	35.0	0.0	20.3
30-39 years (%)		54.0	38.0	32.1	16.0	7.6	44.7	0.8	18.1
40-49 years (%)		50.2	39.6	24.3	14.4	6.0	32.1	8.8	21.2
50-59 years (%)		49.5	25.1	16.9	10.5	3.3	39.2	52.4	15.8
60 years and older (%)		39.6	14.3	17.5	7.1	1.3	40.3	53.9	18.8
x^2		8.087	**57.969**	**29.558**	**17.035**	**13.746**	**12.499**	**452.987**	5.723
p-value		0.088	**<0.001**	**<0.001**	**0.002**	**0.008**	**0.014**	**<0.001**	0.221
Employment contract									
Employed, full-time		48.1	32.5	22.4	14.8	1.9	40.3	28.6	19.0
Employed, part-time		54.4	28.8	20.4	7.9	11.8	31.7	30.4	16.1
x^2		**5.013**	1.985	0.751	**13.208**	**70.132**	**9.853**	0.463	1.732
p-value		**0.025**	0.159	0.386	**<0.001**	**<0.001**	**0.002**	0.496	0.188

Table A13. Action taken to meet daily living expenses in the past 12 months overall, by NHS Pay Band and health status (n=1,642; multiple responses allowed)

		Worked overtime in main job	Borrowed money from family or friends	Worked an extra job	Taken out a payday loan	None of these
All	n	504	418	194	32	810
	%	30.7	25.5	11.8	1.9	49.3
Gender						
Male (%)		35.4	26.8	19.5	3.0	42.1
Female (%)		30.3	25.3	10.9	1.9	50.6
x^2		1.741	0.179	**10.53**	1.068	**4.237**
p-value		0.187	0.672	**0.001**	0.301	**0.04**
NHS Pay Band						
Pay Band 7 and higher		22.0	19.4	7.3	0.9	61.5
Pay Bands 5 and 6		35.3	28.7	13.8	1.9	44
Pay Band 4 and below		41.4	34.5	18.4	9.2	32.2
x^2		**34.219**	**19.767**	**18.498**	**27.59**	**54.837**
p-value		**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**
General Health						
Good or better (%)		28.0	22.9	10.9	1.0	53.9
Not good (%)		38.3	32.7	13.7	4.6	38.3
x^2		**15.638**	**16.088**	2.428	**20.955**	**30.865**
p-value		**<0.001**	**<0.001**	0.119	**<0.001**	**<0.001**
Mental wellbeing						
Average mental wellbeing (%)		28.5	23.2	10.7	1.3	52.1
Low mental wellbeing (%)		41.4	39.7	17.7	5.9	35.0
x^2		**15.554**	**28.497**	**9.413**	**22.253**	**23.588**
p-value		**<0.001**	**<0.001**	**0.002**	**<0.001**	**<0.001**

Table A14. Financial difficulties experienced in past 12 months overall, by NHS Pay Band and health status (n=1,642; multiple responses allowed)

		Struggled to pay gas/electricity bills	Cut back on food or travel costs	Missed or late on mortgage or rent	Used food banks or charities	No financial difficulties
All	n	189	510	58	21	1015
	%	11.5	31.1	3.5	1.3	61.8
Gender						
Male (%)		12.8	29.3	5.5	1.8	61.6
Female (%)		11.2	31.1	3.2	1.2	62.4
x^2		0.357	0.232	2.22	0.397	0.043
p-value		0.55	0.63	0.136	0.529	0.836
NHS Pay Band						
Pay Band 7 and higher		6.6	22.7	2.4	0.3	71.7
Pay Bands 5 and 6		13.8	36.0	3.7	1.9	56.5
Pay Band 4 and below		18.4	35.6	9.2	0.0	55.2
x^2		**22.496**	**29.909**	**10.265**	**8.322**	**36.894**
p-value		**<0.001**	**<0.001**	**0.006**	**0.016**	**<0.001**
General Health						
Good or better (%)		8.9	28.2	3.2	0.8	65.4
Not good (%)		18.1	38.7	4.4	2.6	52.4
x^2		**26.38**	**16.467**	1.434	**8.091**	**22.476**
p-value		**<0.001**	**<0.001**	0.231	**0.004**	**<0.001**
Mental wellbeing						
Average mental wellbeing (%)		9.2	27.8	2.6	1.1	65.4
Low mental wellbeing (%)		24.1	48.9	8.9	2.5	42.2
x^2		**43.42**	**42.062**	**22.681**	**3.004**	**46.106**
p-value		**<0.001**	**<0.001**	**<0.001**	**0.083**	**<0.001**

Table A15. The impact of financial worries experienced in past 12 months overall, by NHS Pay Band and health status (n=1,642; multiple responses allowed)

		Lost sleep	Impact on decision making at work	Required time during work to sort problems	Considered leaving job	Impact on wider family unit	None of these
All	n	406	142	114	138	287	947
	%	24.7	8.6	6.9	8.4	17.5	57.7
Gender							
Male (%)		32.3	14.6	8.5	15.9	25.0	48.8
Female (%)		24.0	7.9	6.6	7.4	16.5	58.9
x^2		**5.458**	**8.642**	0.852	**13.673**	**7.454**	**6.184**
p-value		**0.019**	**0.003**	0.356	**<0.001**	**0.006**	**0.013**
NHS Pay Band							
Pay Band 7 and higher		19.3	6.9	5.2	6.1	12.8	67.9
Pay Bands 5 and 6		27.6	9.4	7.8	9.6	20.3	52.8
Pay Band 4 and below		31.0	13.8	9.2	9.2	19.5	47.1
x^2		**15.306**	5.606	4.411	5.922	**13.851**	**37.583**
p-value		**<0.001**	0.061	0.11	0.052	**0.001**	**<0.001**
General Health							
Good or better (%)		20.2	6.0	5.7	6.1	12.6	64.3
Not good (%)		36.4	15.3	9.5	13.5	31.1	40.6
x^2		**44.69**	**35.142**	**7.129**	**23.109**	**74.425**	**72.518**
p-value		**<0.001**	**<0.001**	**0.008**	**<0.001**	**<0.001**	**<0.001**
Mental wellbeing							
Average mental wellbeing (%)		21.3	6.2	5.6	5.9	14.1	62.3
Low mental wellbeing (%)		43.5	22.4	15.2	20.7	34.6	34.6
x^2		**53.418**	**67.117**	**27.922**	**58.301**	**59.164**	**63.339**
p-value		**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**

Our Priorities 2018-2030

Building and mobilising knowledge and skills to improve health and well-being across Wales

Influencing the wider determinants of health

Improving mental well-being and resilience

Working to Achieve a Healthier Future for Wales

Supporting the development of a sustainable **health and care system focused on prevention** and early intervention

Promoting healthy behaviours

Protecting the public from infection and environmental threats to health

Securing a **healthy future** for the next generation

Our Values:

Working together with trust and respect to make a difference

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Iechyd Cyhoeddus Cymru
Public Health Wales

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