BUDGET
PERSPECTIVES
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OCCUPATIONS AND HEALTH

BRENDAN WALSH AND KARINA DOORLEY

ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE

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ABBREVIATIONS

CES-D	Center for Epidemiological Studies Depression Scale
CSO	Central Statistics Office
GHQ	General Health Questionnaire
GMS	General Medical Services Scheme
GP	General practitioner
GPVC	General practitioner visit card
ILO	International Labour Organization
PHI	Private health insurance
HIS	Healthy Ireland Survey
SOC2010	Standard Occupational Classification 2010
WHO	World Health Organization

ABSTRACT

The relationship between health and employment status continually shows that individuals who work have lower levels of illness and higher self-reported health. This study examines how self-reported health and objective measures of health (multimorbidity and mental health problems) differ across employment status and occupations among adults of working age (25-65 years). In addition, the study examines how public health coverage – medical card and GP visit card (GPVC) – and private health coverage (PHI), and lack thereof, differ across occupations. Overall, individuals not in employment have much lower rates of self-reported health and higher rates of illness. In particular, mental health problems are three times higher among unemployed individuals across all age groups. Examining workers separately, differences in health status across occupations are small. However, rates of health coverage differ considerably across occupations. In general, occupations associated with poorer health status tend to have the highest percentages of workers without a medical card/GPVC or PHI. This affects workers' ability to access lower cost or free healthcare, including for the purpose of certified sick leave.

SECTION 1

Introduction

The relationship between health and employment status has been the subject of many studies. A clear association between both subjective and objective health measures and employment has been documented, with those with poor health status much less likely to work than those with good health status. Mental health problems in particular affect employment status (Frank and Gertler, 1991). The financial burden that can accompany poor health means that households who experience poor health or negative health shocks can be exposed to financial hardship. Lower levels of employment may reduce the ability of many families to respond to such shocks. Furthermore, health problems can themselves result in severe earnings penalties over an individual's lifetime. Evidence from Denmark, which has a strong welfare system, highlights that across a person's working life, mental health problems can result in large earnings penalties, rising to 74 per cent for people with severe illness such as schizophrenia (Biasi et al., 2021). It is therefore important to provide evidence that may encourage policies in Ireland to reduce barriers for people in poor health seeking to enter or stay in employment. This study examines how health status differs across employment status and occupations among adults of working age (25-65 years), and to what extent variations in health coverage among workers may also inhibit the ability to access lower cost or free healthcare, including for the purpose of certified sick leave.

There are complications in estimating the link between health and work. First, there is the possibility that causality travels in both directions – with work status influencing health and health influencing work status. Those in poor health may choose not to work or their poor health may render them unproductive, which makes it difficult to find a job and/or puts them at risk of job loss (Pacheco et al., 2014). Barriers may prevent people with illness entering employment, and some illnesses, such as mental health problems, attach a level of stigma in the workplace (Krupa et al., 2009). Recent figures from the Central Statistics Office (CSO) indicate that six per cent of those with a disability reported discrimination when looking for work, compared to five per cent of those without a disability.[1] Alternatively, certain occupations may have a direct effect on physical or mental health (Graetz, 1993), either through work-related injury or physical and psychological illnesses (Russell et al., 2018). These work-related health issues can sometimes be related to occupational characteristics (Russell et al., 2016). Those who lose their job may also experience a change in mental or physical health (Clark and Oswald, 1994). Periods of economic downturn also result in people with mental health problems leaving or being excluded from the labour market at disproportionately high rates (Starace et al. , 2017), which puts them at elevated risk of experiencing exclusion

[1] See https://www.cso.ie/en/releasesandpublications/er/ed/equalityanddiscrimination2019/.

from the labour market. This effect is more pronounced for young, low-educated workers.

A second complication in estimating the link between health and work is the likelihood that other observable or unobservable factors, such as wealth or genetics, influence both health and the decision to work or the type of work undertaken.

These factors can complicate the formulation of policies that seek to increase health status and to reduce barriers for people with health problems entering the labour market. Length of unemployment is also likely to be a key factor in the relationship between health and employment, and often such information is not available for researchers (McKee-Ryan, et al., 2005).

In seeking to estimate the causal effect of work on health, or of health on work, some researchers have used longitudinal data to estimate structural models of the relationship between health and employment (Haan and Myck, 2009). Others have used sibling fixed effects to control for genetic unobserved heterogeneity (Nwosu, 2016) or have examined how exogenous changes in health affect work (Tefft, 2012). Such studies typically find that most of the association between work and health is due to the effect of health on employment rather than the effect of employment on health. This is particularly true at older ages (Haan and Myck, 2009). An education gradient characterises the association: low education groups tend to experience higher exits from employment due to poor health than do high education groups (Britton and French, 2020).

Other strands of this research literature have investigated how different types of work are linked to health. Niklova (2019), using panel data for Germany, showed that switching from unemployment to employment, or employment to self-employment, leads to health gains. Findings from Rietveld et al. (2013), using data from the US, contradict this, however; these authors rule out any positive effect of self-employment on health and suggest that healthier individuals select into self-employment. Moscone et al. (2015) demonstrate that precarious temporary contracts have a negative effect on mental health. Other research in the US has shown how health insurance, which is heavily tied to employment in the US, keeps people who experience a health shock in work for longer (Bradley et al., 2011). They argue that the expected future cost of healthcare for a worker whose health has deteriorated incentivises them to stay in employment in order to continue benefitting from health insurance coverage.

Research on health and employment from Ireland has tended to focus on specific occupations/industries or population groups. Privalko et al. (2019) examined working conditions, health and extending working lives among older workers in Ireland using the Labour Force Survey. This research found that older workers did

not tend to have poorer health outcomes or mental health problems than younger workers. This was driven in part by better working conditions (such as low shift work rates) for older workers. The authors found, however, that workers were more likely to exit professions like construction and retail/wholesale early due to illness or disability. Mosca and Barrett (2014), investigating the effect of forced and voluntary retirement on the population aged over 50 in Ireland, found that while forced retirement resulted in a reduction in mental health, this was not the case for voluntary retirement. Analyses focusing on the working age population in Ireland found that the employment rates for people with mental health-related disabilities in 2006 was 27 per cent, compared to 63 per cent for those without a mental health-related disability (Amnesty International, 2012). Kelly and Maître (2021), in a cross-country comparison, found that, among EU Member States, Ireland has the fourth lowest employment rate for people with disabilities (36 per cent). More recent research also highlights that returning to work can be difficult for individuals who experience a health shock, such as a cancer diagnosis. Such a diagnosis has a large negative impact on the career of many workers, particularly female, younger workers and the self-employed, which may impact their decision to return to work (Connolly et al., 2021). There has been less research examining how health status and healthcare coverage differ across occupations in Ireland.

This study assesses the link between health and work in Ireland across the working age population. We document how self-assessed health, multimorbidity and the incidence of mental health problems (e.g. depression/anxiety) is related to work status by age, education and occupation type. We make no claims about the direction of causality but rather provide a descriptive picture of the health of workers compared to those who do not work. We complement this analysis by estimating healthcare coverage (medical card and PHI) across different occupation types, which we compare to coverage for those who do not work, in order to expose groups at risk of poor health and with low healthcare coverage. As the individuals concerned could be at risk of financial hardship, we briefly explore potential policy solutions that would target them.

The paper uses five waves (2015–2020) of the Healthy Ireland Survey (HIS), which is the largest nationally representative survey of health, healthy behaviours and health utilisation ever conducted in Ireland. HIS also collects a range of demographic information including age, county of residence, and employment status and occupation (using SOC2010), which allows this study to examine those in and not in work, as well as workers across occupations. Previous analyses using HIS have highlighted those occupations most vulnerable to COVID-19 based on worker characteristics (Walsh et al., 2020). We restrict our analysis to those in the working age population who are likely to have finished their education and who are not yet of retirement age (25-65 years). This provides us with a sample of 25,040 respondents. We characterise people as workers if, in response to the question on ‘current situation with regard to work’, they state that they are working (employed or self-employed). Non-workers are a mixture of those who

selected ‘looking for first regular job’, ‘unemployed’, ‘actively looking for work’, ‘student’, ‘home duties’, ‘retired’, ‘unable to work’ and ‘other’. All analyses use nationally representative sampling survey weights.

Where possible, estimates are presented at the single year of age level to allow for comparisons to be made across ages. To eliminate fluctuations across ages in the graphs, we estimate three-year moving averages at the single year of age level.

SECTION 2

Self-reported health and multimorbidity

The Healthy Ireland Survey (HIS) asks respondents questions on their current health including, 'How is your health in general?' Respondents were provided with five options to answer this question: 'very good', 'good', 'fair', 'bad' and 'very bad'. We created a binary variable with a value of one for individuals with very good or good self-reported health, and zero otherwise. We use this variable as a measure of an individual's subjective health status. In addition, HIS lists a number of conditions, such as diabetes and asthma, and asks respondents if any of these conditions have been confirmed by a medical diagnosis.[2] Using this information, we create a multimorbidity variable with a value of one if a respondent reports two or more conditions. We use this variable as a measure of an individual's objective health status.

2.1 HEALTH BY EMPLOYMENT STATUS

The relationship between health and employment is complicated. Some international evidence has shown that, among older workers, most of the association is due to the effect of health on employment (Britton and French, 2020; Haan and Myck, 2009). However, for specific illnesses such as mental health and other occupational diseases, unemployment has been found to drive poorer health (Hammarström and Janlert, 2002; Paul and Moser, 2009; Drummond, 2007). Furthermore, poor health represents a barrier to employment for many people. However, for others employment may, directly or indirectly (via factors such as higher income and social connectedness), improve their health.

Figure 2.1 shows the health status of workers and non-workers aged 25-65 using our subjective and objective health measures. In line with international evidence, workers have much higher self-reported health and lower rates of multimorbidity compared to non-workers, especially at older ages.

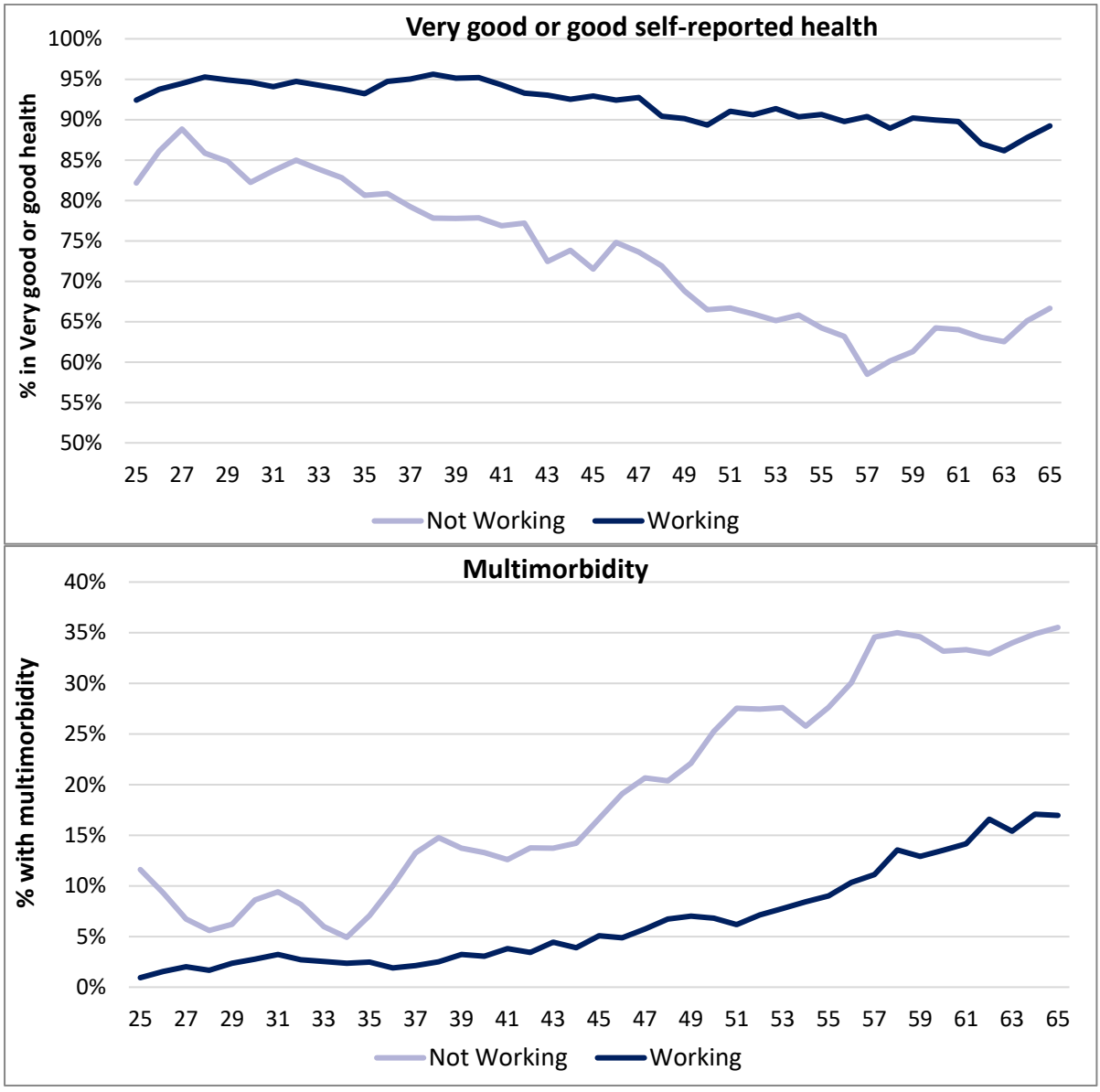
Overall, a high percentage (90 to 95 per cent) of workers report high rates of self-reported health, with little variation by age. The self-reported health of non-workers is substantially lower and displays an age gradient, with younger non-workers more likely to report good health (85 per cent) than older non-workers (65 per cent). By contrast, using the more 'objective' measure of health, workers and non-workers have lower multimorbidity at younger ages than at older ages. However, multimorbidity rates are consistently higher for non-workers. For

[2] The following conditions are included in the multimorbidity variable: asthma; chronic bronchitis, COPD and emphysema; heart attack or chronic consequences of heart attack; high blood pressure; stroke; arthrosis/osteoporosis; arthritis; diabetes; back pain; cirrhosis of the liver; kidney problems; any emotional, nervous or psychiatric problems, such as depression or anxiety; ulcers; dementia/Alzheimer's disease; Parkinson's disease; and cancer.

example, at age 39 (the median age for the Irish population), 3 per cent of workers report a multimorbidity in HIS compared to 14 per cent of non-workers.

The lack of large variation in subjective health status among workers across age may be a consequence of the fact that older workers (aged 55+) in Ireland have been found to have equal or better working conditions than younger workers (aged <55) across many health indicators (Privalko et al., 2019). It may also signify important selection effects in the Irish labour market whereby the development of ill health at older ages results in departure from the labour market. It may also simply be due to systematic differences in how subjective measures of health are reported by age.

FIGURE 2.1 SELF-REPORTED HEALTH AND MULTIMORBIDITY RATES BY EMPLOYMENT STATUS



Source: Authors' analysis of Healthy Ireland Survey, Waves 1–5.

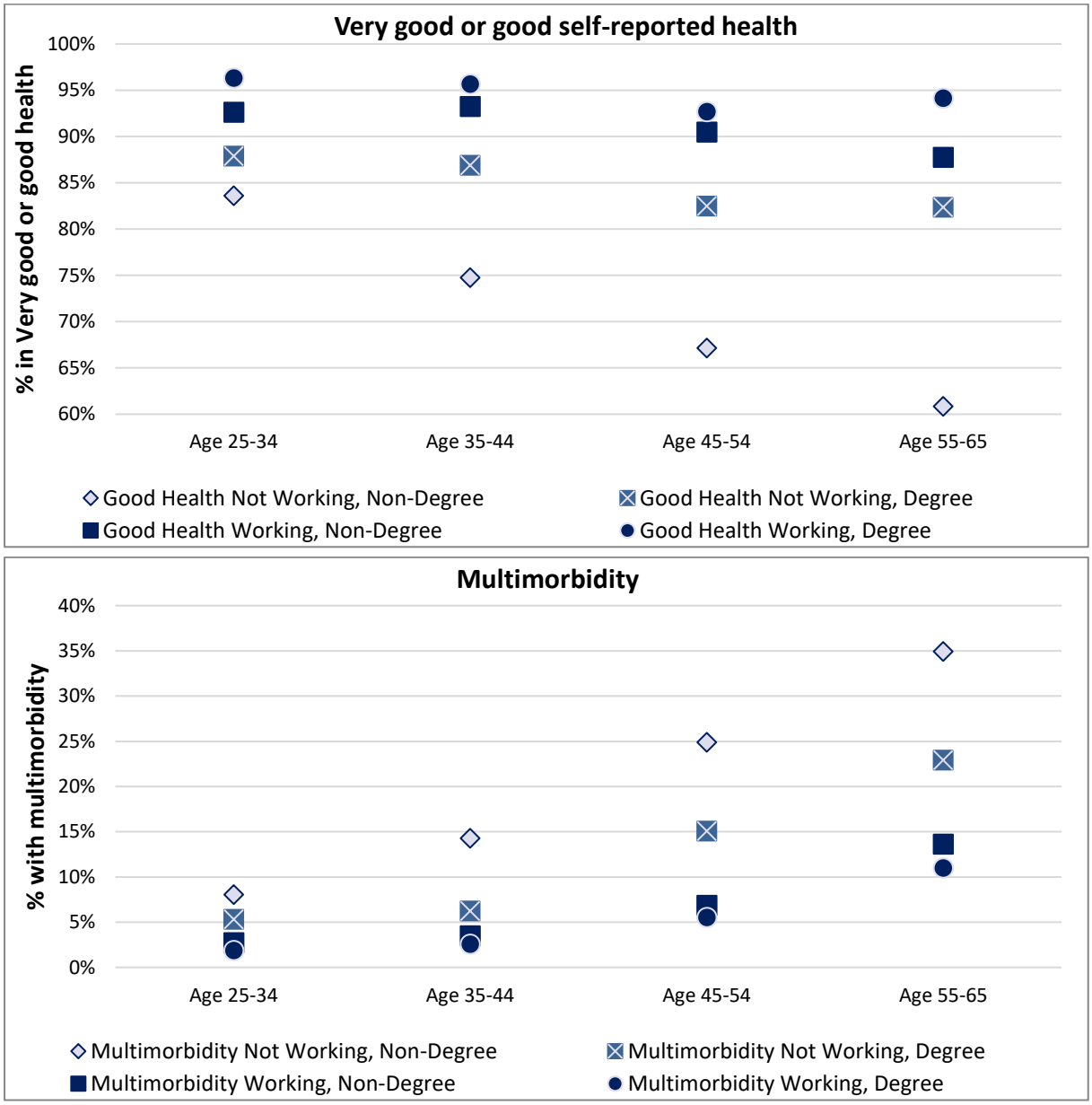
Notes: Multimorbidity corresponds to having had two or more chronic conditions listed in the Healthy Ireland Survey during the previous 12 months. Estimates presented are three-age-year moving averages. Analyses undertaken on the 25-65 years working age population.

2.2 HEALTH BY EMPLOYMENT STATUS AND EDUCATION

Figure 2.2 shows the education gradient (degree versus non-degree) in the relationship between employment and health status after controlling for pertinent demographic information, including age, sex and geographic region of residence. Education can be a proxy for various demographic factors linked with health, including income and wealth, and better underlying health, as well as other factors such as wider family wealth and better social networks, which may better mitigate the health impacts of not working.

Workers have better health status compared to non-workers regardless of education status. For workers, there is little difference in self-reported health or multimorbidity levels between those with a degree or without a degree. However, for non-workers, a large education gradient is seen, especially at older ages. Among non-workers aged 55-65 years, 82 per cent of those with a degree report very good or good self-reported health, with 23 per cent having multimorbidity. However, among non-workers aged 55-65 years with no degree, only 61 per cent report very good or good self-reported health, with 35 per cent having multimorbidity.

FIGURE 2.2 SELF-REPORTED HEALTH AND MULTIMORBIDITY RATES BY EMPLOYMENT STATUS AND EDUCATION STATUS



Source: Authors' analysis of Healthy Ireland Survey, Waves 1–5.

Notes: MM (Multimorbidity) corresponds to having had two or more chronic conditions listed in the Healthy Ireland Survey during the previous 12 months. Estimates are predicted health status outcomes following a linear regression controlling for age, sex and geographic region of residence. Analyses undertaken on the 25-65 years working age population.

SECTION 3

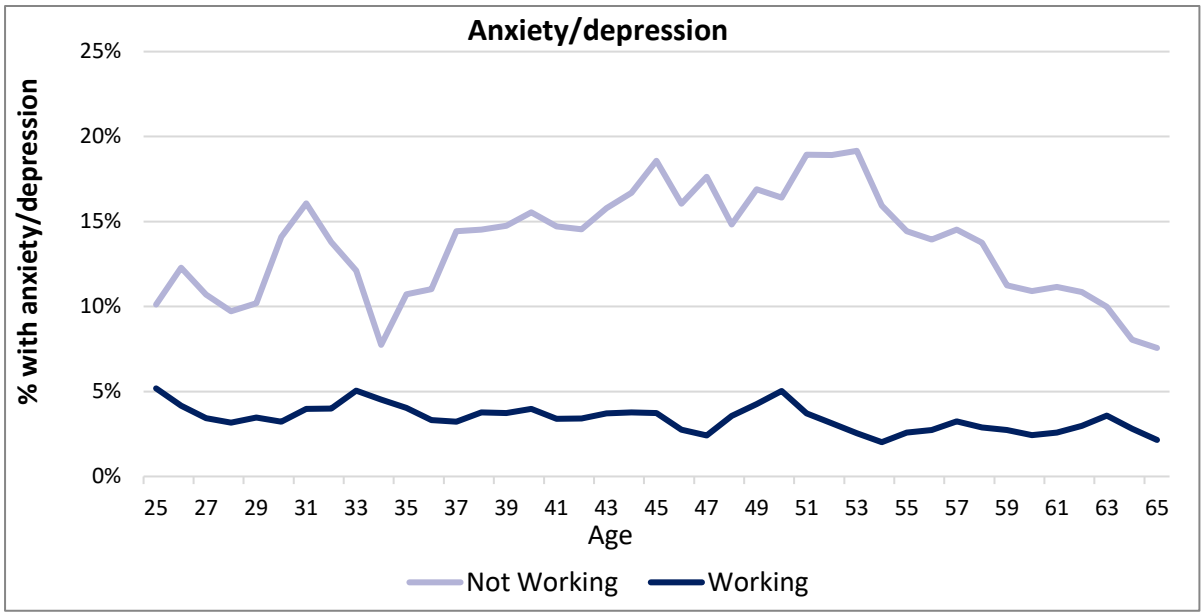
Mental health

One of the health conditions included in the multimorbidity measure relates to mental health problems. Within the Healthy Ireland Survey (HIS), respondents were asked if they have any emotional, nervous or psychiatric problems, such as depression or anxiety. There is national (Mosca and Barrett, 2014) and international (Graetz, 1993; Clark and Oswald, 1994) evidence for the link between mental health and employment. This study diverges from many previous analyses in terms of how mental health problems are estimated. Previous studies, such as (Mosca and Barrett, 2014), use validated instruments such as the Center for Epidemiological Studies Depression Scale (CES-D) scale or General Health Questionnaires (GHQs), with mental health problems determined by scores on these scales. In this section, we focus on mental health problems that have been diagnosed by a medical professional. We create a binary variable with a value of one for individuals who reported a mental health problem and zero otherwise.

3.1 MENTAL HEALTH BY EMPLOYMENT STATUS

Figure 3.1 shows the percentage of workers and non-workers with a mental illness. Similar to the results observed for overall health status, workers have much lower rates of mental illness compared to non-workers. Across workers of all ages, on average, fewer than 5 per cent report a mental illness and there is little variation in this figure by age. However, for non-workers, mental illness rates are much higher and fluctuate across all ages. Mental illnesses in non-workers are slightly lower at older ages. The largest difference in mental illness rates between non-workers and workers is seen in the 45-55 age group. At age 53, 19 per cent of non-workers report a mental illness, compared to 3 per cent of workers.

FIGURE 3.1 MENTAL ILLNESS RATES BY EMPLOYMENT STATUS

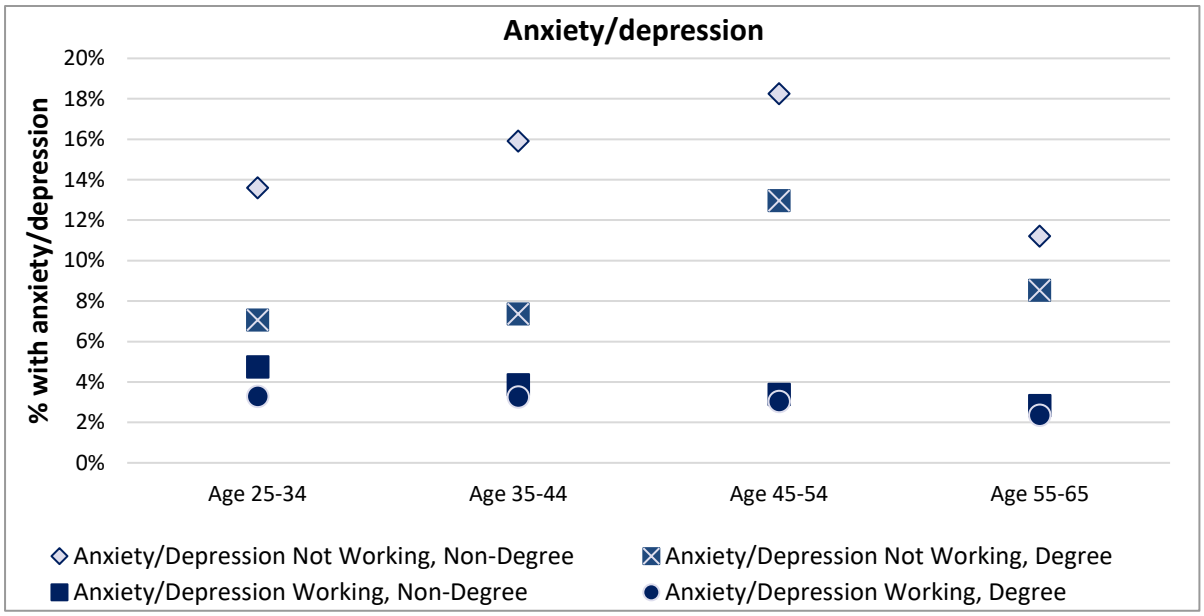


Source: Authors' analysis of the Healthy Ireland Survey, Waves 1–5.
Notes: Anxiety/depression corresponds to having had 'any emotional, nervous or psychiatric problems, such as depression or anxiety' confirmed by a medical diagnosis. Estimates are three-age-year moving averages. Analyses undertaken on the 25-65 years working age population.

3.2 MENTAL HEALTH BY EMPLOYMENT STATUS AND EDUCATION

Figure 3.2 illustrates the education gradient (degree versus non-degree) in the relationship between employment and mental health status. While a small education gradient is observed for workers, a much larger gradient is observed for non-workers. Within the 25-34 years age group, 14 per cent of non-workers with no degree report a mental illness compared to 7 per cent of non-workers with a degree. For workers, these figures are much lower, at 5 per cent and 3 per cent respectively. Education, therefore, appears to shield individuals – and particularly those not in work – from mental illness. The mechanism behind this is likely to be complicated and not necessarily directly attributable to education itself. Education is a proxy for many demographic factors linked with health, including income and wealth, neighbourhood affluence, better underlying health and greater access to healthcare, as well as other factors such as wider family wealth and better social networks, which may better mitigate the health impacts of not working.

FIGURE 3.2 MENTAL ILLNESS RATES BY EMPLOYMENT STATUS AND EDUCATION STATUS



Source: Authors' analysis of Healthy Ireland Survey, Waves 1–5.

Notes: Anxiety/depression corresponds to having had 'any emotional, nervous or psychiatric problems, such as depression or anxiety' confirmed by a medical diagnosis. Estimates are three-age-year moving averages. Analyses undertaken on the 25-65 years working age population.

SECTION 4

Health in workers

Tasks and working conditions invariably differ across occupations. A now infamous 1958 study of London bus drivers and conductors highlighted that despite having similar socio-economic and demographic characteristics, bus conductors, owing to the more aerobically physical nature of their job, had much lower rates of heart attacks than drivers who had more sedentary work (Morris, 1958). In addition, workers in some occupations may be more susceptible to health shocks. For example, previous evidence has found farmers to be at much higher risk of accident and injury. Factors such as shift work have also been shown to impact both physical and mental health status (Torquati et al., 2019).

In this section, we examine health status across occupations for workers. Workers are categorised according to their SOC2010 at the two-digit level. In general, occupations with lower numbers are adjudged as being higher socio-economic occupations; they are higher paid, have a larger percentage of workers with degrees and require less physically demanding work. Occupations are ranked by the outcome measure being estimated. Health status estimates for non-workers are also included for comparison purposes.

4.1 HEALTH ACROSS OCCUPATIONS

Figure 4.1 shows health status across occupations using our subjective and objective health measures. These estimates are adjusted estimates after controlling for pertinent demographic information, including age, education, sex and geographic region of residence. We provide adjusted (standardised) estimates as factors such as age, sex and education can impact occupation selection, as well as the health of an individual. These adjusted estimates therefore more accurately represent the association between occupation and health status.

Similar to estimates of health by education levels for workers, no statistically significant variation in self-reported health status is seen across occupations. Variation is observed in multimorbidity. Workers in the 'textiles, printing and other skilled trades', as well as care workers, transport workers and workers from elementary occupations,[3] have higher rates of multimorbidity compared to other occupations. Variation across occupations pales in comparison to multimorbidity rates among non-workers however.

[3] 'Caring professional service occupations', 'transport and mobile machine drivers and operatives', 'elementary administration and service occupations' and 'elementary trades and related occupations'.

FIGURE 4.1 WORKER SELF-REPORTED HEALTH AND MULTIMORBIDITY RATES BY OCCUPATION (SOC2010)

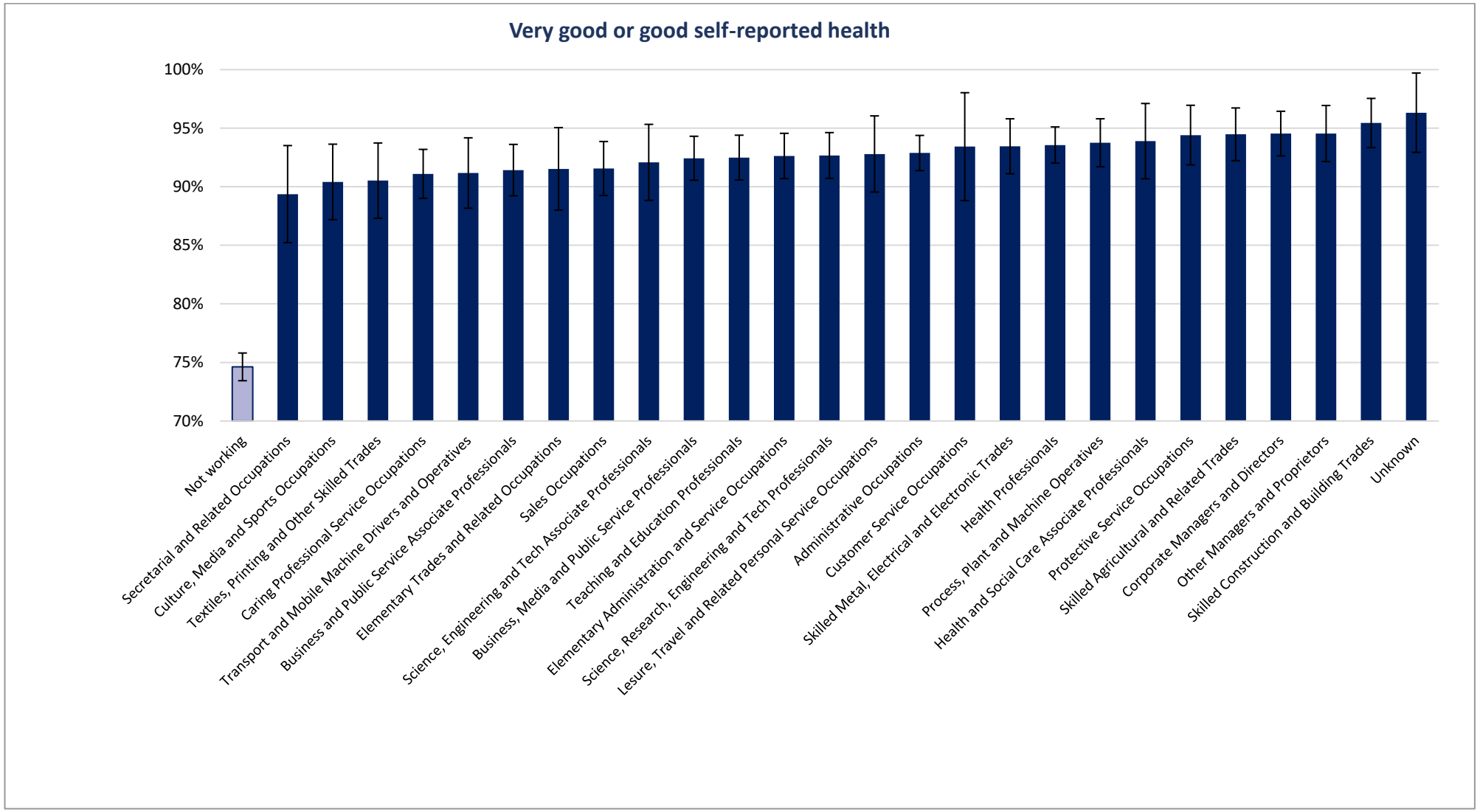
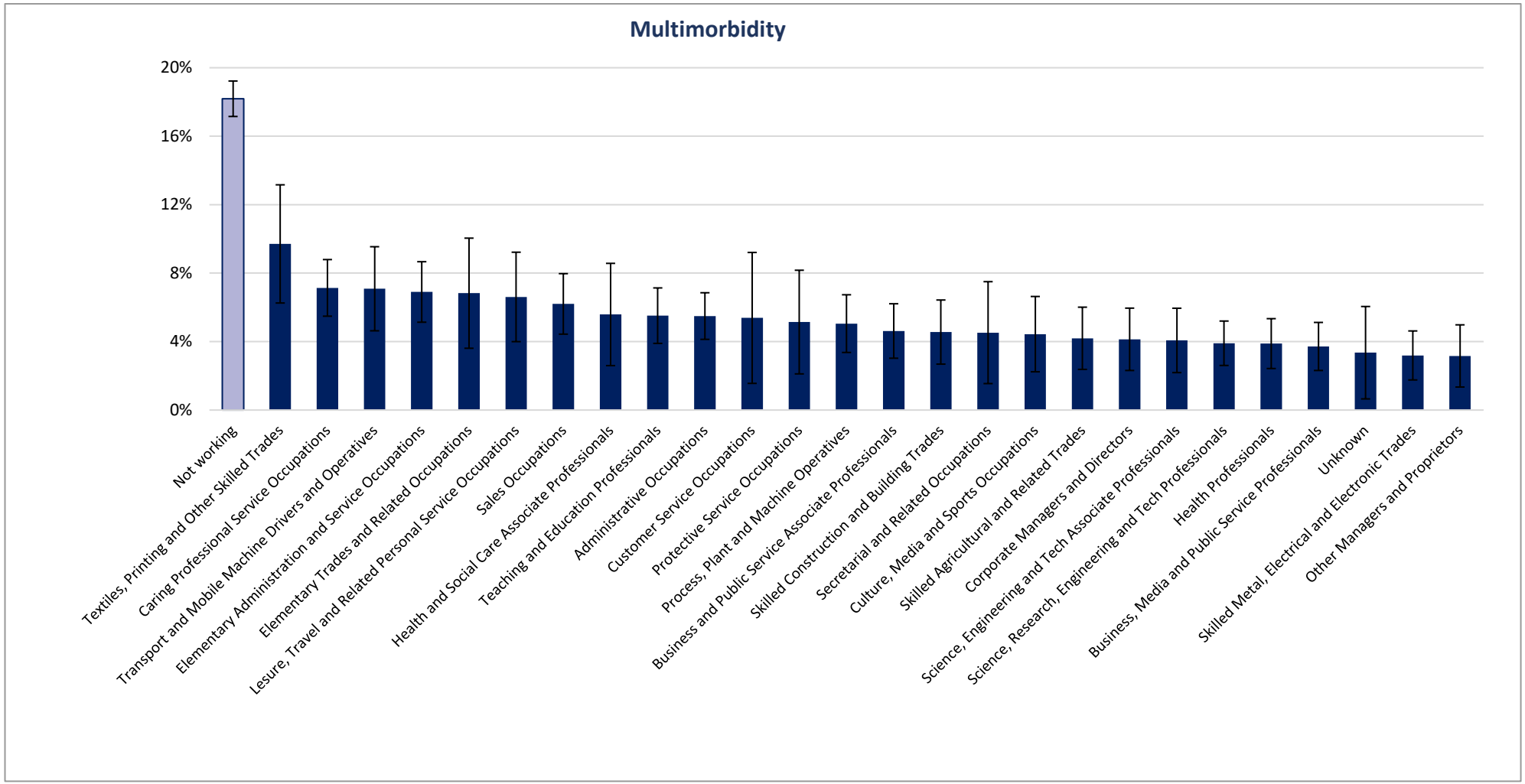


FIGURE 4.1 (CONTD.) WORKER SELF-REPORTED HEALTH AND MULTIMORBIDITY RATES BY OCCUPATION (SOC2010)

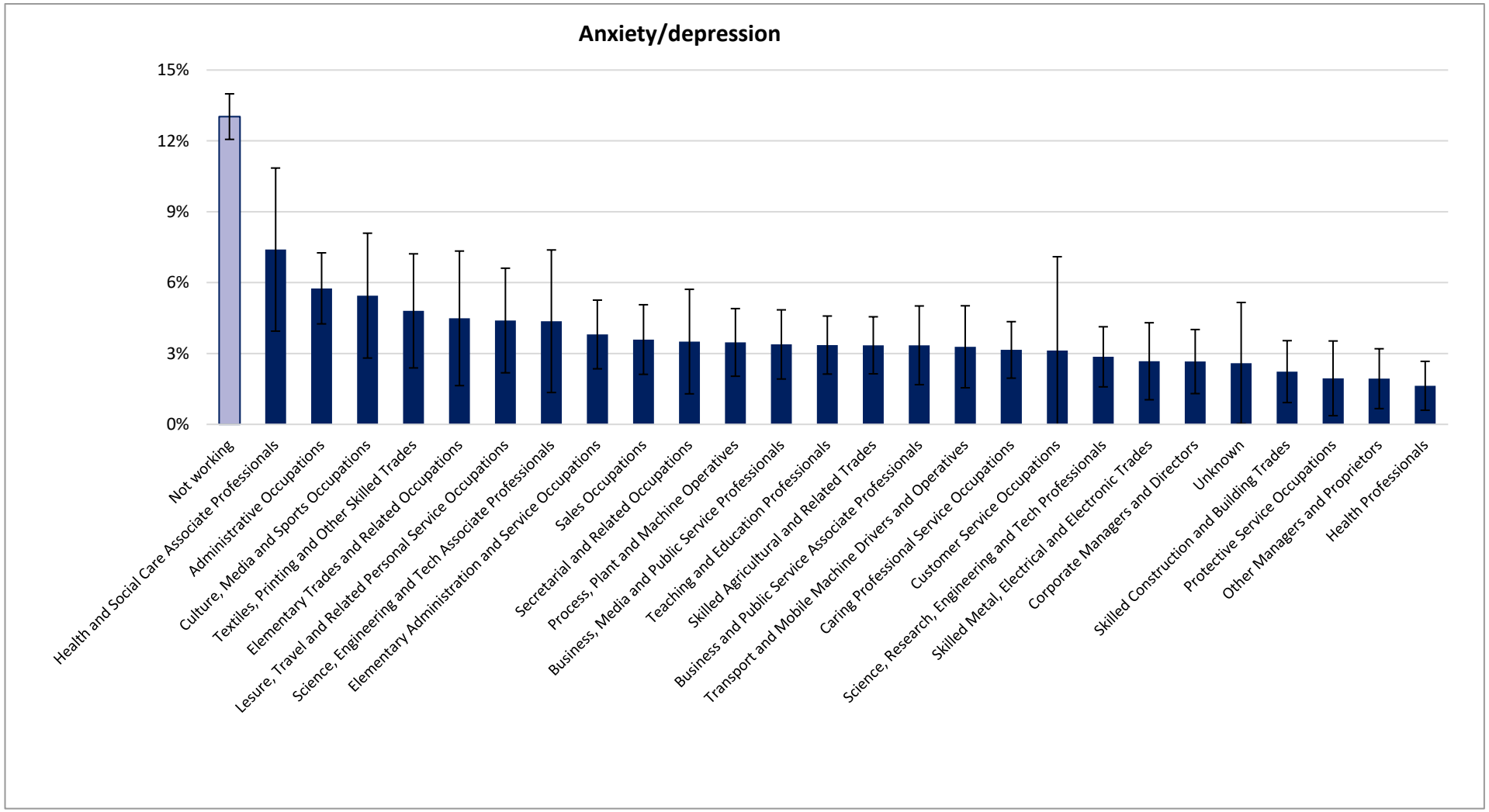


Source: Authors' analysis of the Healthy Ireland Survey, Waves 1–5.

Notes: Multimorbidity corresponds to having had two or more chronic conditions listed in the Healthy Ireland Survey during the previous 12 months. Estimates presented are average rates adjusted for age, education, sex and geographic region of residence. Analyses undertaken on the 25-65 years working age population.

Figure 4.2 shows mental illness rates across occupations. While mental illness rates are higher among non-workers than found across all worker occupations, much more variation in mental illness rates across occupations is observed compared to self-reported health status and multimorbidity. Interestingly, the largest variation is arguably seen among healthcare workers. Despite health professionals (e.g. doctors) having the lowest rates of mental illness at 1.6 per cent, health and social care associate professionals (e.g. nurses) have the highest rates at 7.4 per cent. This ties with the previous Russell et al. (2016) finding that healthcare workers are over-represented among those workers reporting stress, anxiety or depression.

FIGURE 4.2 WORKER MENTAL ILLNESS RATES BY OCCUPATION (SOC2010)



Source: Authors' analysis of the Healthy Ireland Survey, Waves 1–5.

Notes: MM (Multimorbidity) corresponds to having two or more chronic conditions listed in the Healthy Ireland Survey in the previous 12 months. Estimates are three-age-year moving averages. Analyses undertaken on the 25-65 years working age population.

SECTION 5

Healthcare coverage

Ireland does not provide universal access to free public healthcare services. Two key publicly-funded programmes, the General Medical Services (GMS) Scheme and the GP visit card (GPVC), exist as a form of public insurance. The medical card provides free access to primary (e.g. GPs), community (e.g. public health nurse), and acute hospital (e.g. emergency department and in-patient care) services.[4] GPVCs are more limited, providing free access to GPs and practice nurse care. Those living in a low-income household are generally eligible for a medical card, though access to a medical card can also be granted if an individual is suffering from a specific illness, or for other discretionary reasons. In general, there is a strong correlation between employment status and medical card eligibility. While income thresholds for GPVCs are approximately 50 per cent higher than those for medical cards, in recent years all children aged under six, as well as those aged 70 and over, automatically qualify for one.

For those without a medical card or GPVC, large co-payments are required for public healthcare; these patients are required to pay the market price for healthcare provided privately. For example, those without a medical card are required to pay up to €800 per year in public hospital costs, €100 per emergency department attendances, and over €50 for a GP visit. On the last point, recent ESRI research has highlighted that the removal of GP fees via universal GPVCs for the over-70s actually improved psychological health (Ma et al., 2020). Due to this lack of universal public health insurance (PHI), as well as barriers to accessing many public healthcare services (acute hospital waiting lists are among the longest in Europe), a large private healthcare sector exists in Ireland, with many people possessing PHI. It is important to note that having a medical card or GPVC does not prohibit possession of PHI (or vice versa); many people hold 'dual' public and private coverage (Walsh et al., 2021). A strong association has been found between being employed and having PHI. While some jobs provide a contribution towards PHI, in general individuals purchase PHIs on their own behalf.

Workers are entitled to a social welfare payment called Illness Benefit if they cannot work due to illness and if they have enough social insurance contributions. In addition to Illness Benefit, some employers top up the salary of their employees while they are medically unfit to work. In 2022, a new law is expected to be enacted that will require all employers to provide paid sick leave for three days per year (increasing up to 10 days by 2026) at a rate of 70 per cent of worker salary.[5] Entitlement to all of these payments is contingent on being medically certified as unfit to work. While the medical card and the GPVC, as well as some PHI policies,

4 Medical cards also provide eligibilty for other services such as lower child education expenses and a reduced universal social charge (Keane et al., 2021).

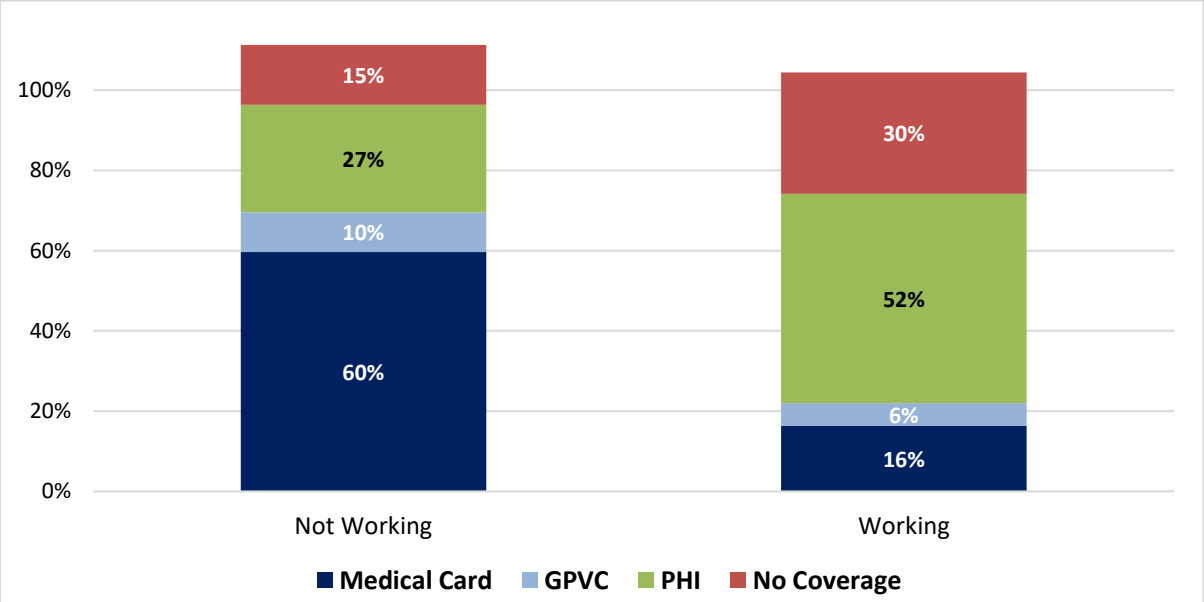
5 Sick leave and sick pay (See www.citizensinformation.ie).

cover the cost of visiting a GP in order to obtain this medical certification, those workers with no healthcare coverage or more basic PHI policies must pay out-of-pocket for this service.[6]

5.1 HEALTHCARE COVERAGE ACROSS EMPLOYMENT STATUS AND OCCUPATIONS

Figure 5.1 illustrates healthcare coverage rates for workers and non-workers. While 60 per cent of non-workers have a medical card, only 16 per cent of workers have one. Rates for GPVCs are similar across employment status (6 to 10 per cent). PHI rates are much higher for workers, with 52 per cent possessing PHI compared to 27 per cent of non-workers. Interestingly, 30 per cent of workers and 15 per cent of non-workers do not possess any form of healthcare coverage. This means these individuals are required to pay all co-payments for both public and private healthcare that they may require.

FIGURE 5.1 POPULATION HEALTHCARE COVERAGE RATES BY EMPLOYMENT STATUS



Source: Authors' analysis of the Healthy Ireland Survey, Waves 1–5.
Notes: Rates for PHI and medical card/GPVCs are not mutually exclusive and some individuals hold both PHI and a medical card or GPVC. For this reason, coverage proportions sum to >100%. GPVC: GP visit card. PHI: private health insurance. Analyses undertaken on the 25-65 years working age population.

6 The ICTU submission on the pre-legislative process for the proposed law notes that due to the low rates of medical card and GP visit card coverage among workers, out-of-pocket payments for a GP visit may create a barrier for workers in exercising any new sick leave rights. See https://www.oireachtas.ie/en/debates/debate/joint_committee_on_enterprise_trade_and_employment/2021-11-24/2/.

Figure 5.2 shows healthcare coverage rates across occupations. Rates for non-workers are also included for comparison. There are very large variations in healthcare coverage rates across occupations. In general, where medical card rates are higher, PHI rates tend to be lower (and vice versa). Workers in the following categories have the highest rates of medical card coverage: 'elementary trades and related occupations', 'elementary administration and service occupations', 'caring professional service occupations', and 'leisure, travel and related personal service occupations'. These jobs tend to be lower paid, making individuals working in these occupations more likely to be eligible for a means-tested medical card. These occupations also have the lowest rates of PHI. The highest rates of PHI are seen in more high paying jobs: over 80 per cent of workers in the following categories have PHI: 'protective service occupations', 'business, media and public service professionals', and 'science, research, engineering and tech professionals'.[7] GPVCs rates are lower but tend to be highest in those professions with higher medical card rates.

One of the key findings is that a large minority of workers in many occupations have no coverage.[8] There is some overlap between the occupations with the lowest healthcare coverage and highest rate of ill health. In occupations such as 'textiles, printing and other skilled trades', 'elementary administration and service occupations', 'elementary trades and related occupations', and 'transport and mobile machine drivers and operatives', over 40 per cent of workers have no healthcare coverage. These occupations are also associated with higher rates of multimorbidity. This means workers in these industries may be required to pay systematically larger costs for healthcare than workers in other industries. As certified sick leave requires a medical certificate issued by a medical professional (i.e. a GP), workers with no healthcare coverage need to pay an average of €50 to €60 for such a certificate. This upfront out-of-pocket cost may make this group less likely to apply for Illness Benefit or to receive occupational related sick pay. There is already evidence that certain types of workers are less likely to be eligible for or avail of paid sick leave. In 2021, the Central Statistics Office (CSO) estimated that part-time workers with less service are more likely to take unpaid sick leave than full-time workers or workers with a longer work history. Likewise, lone parents are more likely to take unpaid sick leave than workers of families with two adults and dependent children.[9]

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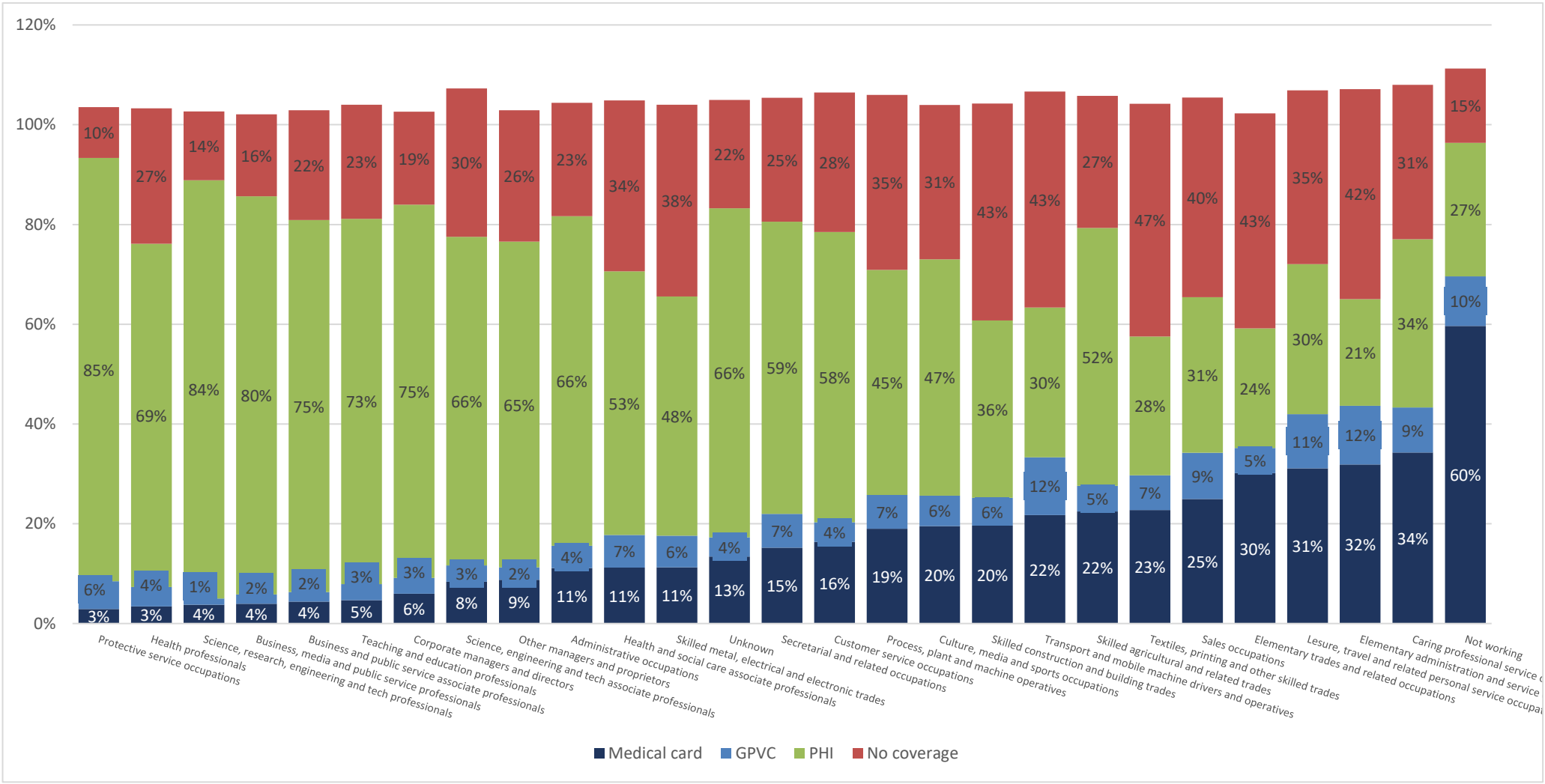
7 Some professions within these groupings which may not be highly paid, such as the armed forces, may have occupation-specific access to healthcare, subsidised by their employer.

8 Due to the limited benefits of GP visit cards, including those with only GP visit cards. However, one key benefit of a visit card is free access to a GP to receive a medical certificate required for certified sick leave.

9 See https://www.cso.ie/en/releasesandpublications/ep/p-pwlbmr/personalandwork-lifebalance2021-mainresults/leaveintheworkplace/.

FIGURE 5.2 ELIGIBILITY AND COVERAGE RATES BY OCCUPATION (SOC2010)

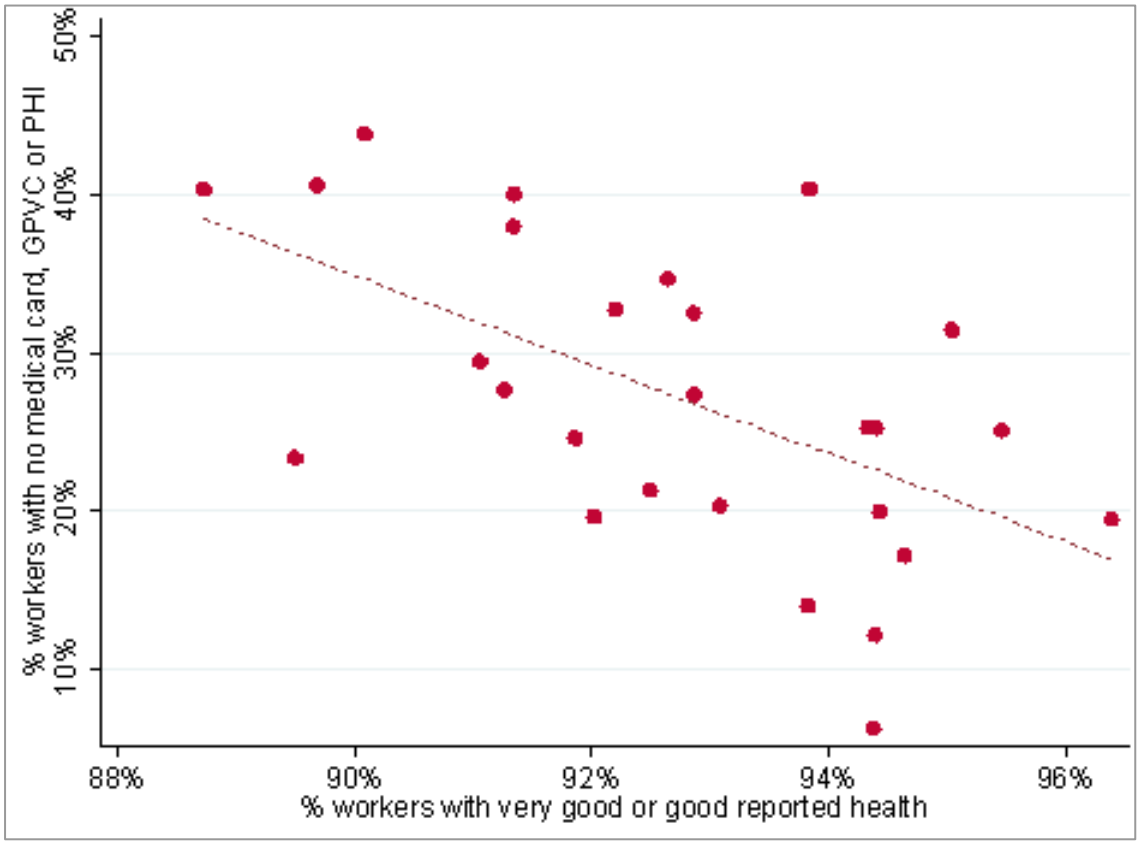


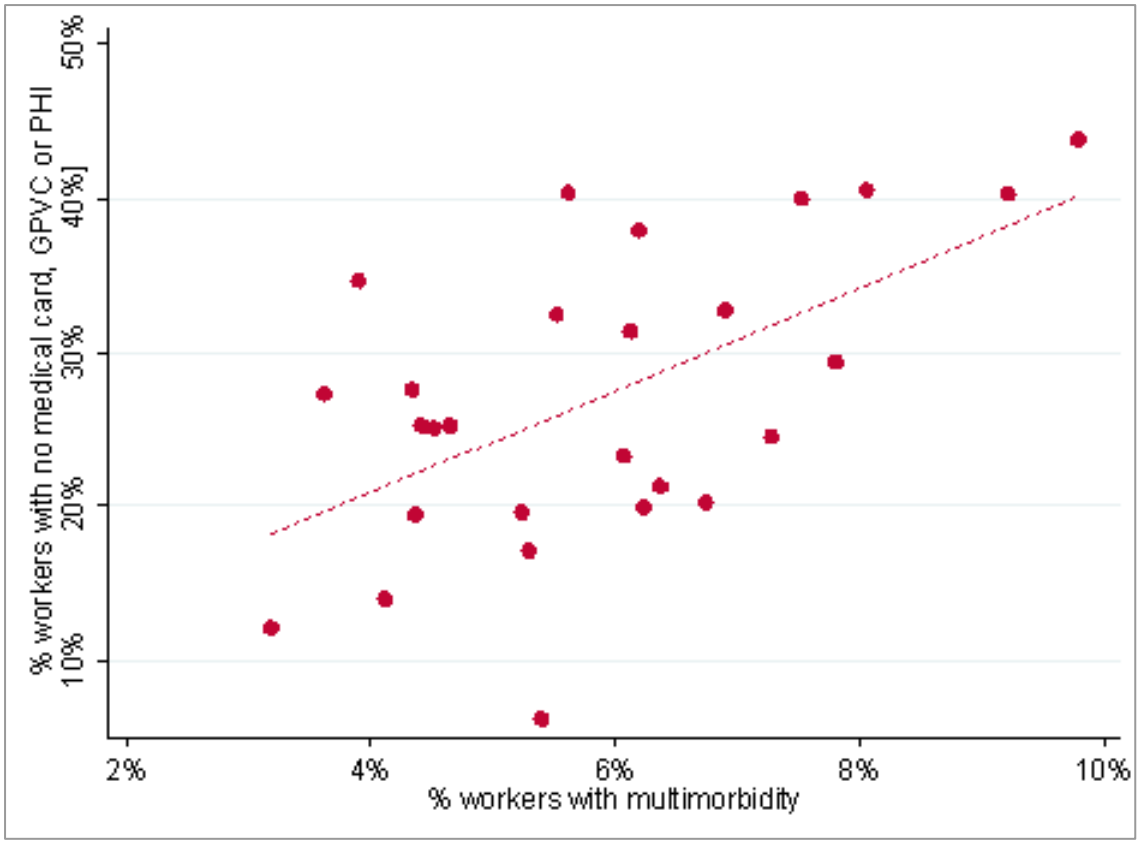
Source: Authors' analysis of the Healthy Ireland Survey, Waves 1–5.

Notes: Rates for PHI and medical card/GPVCs are not mutually exclusive and some individuals hold both PHI and a medical card or GPVC. For this reason, coverage proportions sum to >100%. GPVC: GP visit card. PHI: private health insurance. Analyses undertaken on the 25-65 years working age population.

Figure 5.3 investigates the relationship between healthcare coverage and health status in more detail by plotting the estimated percentage of workers with no medical card, GPVC or PHI against the percentage of workers with high self-reported health status and with high rates of multimorbidity. It shows that for self-reported health a negative relationship exists: occupations with a poorer average health status have higher percentages of workers with no healthcare coverage. A positive relationship exists between no healthcare coverage and multimorbidity rates; occupations with higher rates of multimorbidity have higher percentages of workers with no healthcare coverage. These results show that many workers who may require more healthcare are at a higher risk of having to pay for such care out of pocket, with no public or private healthcare coverage to cushion the impact of such payments. This has important ramifications for equality of access to paid Illness Benefit, paid sick leave and recording of occupational illness. These results may also have implications for presenteeism and within-workplace infection rates if barriers to accessing healthcare lead to some people working while sick.

FIGURE 5.3 ASSOCIATION BETWEEN MEDICAL CARD/PHI AND MULTIMORBIDITY RATES BY OCCUPATION (SOC2010)





Source: Authors' analysis of the Healthy Ireland Survey, Waves 1–5.
Notes: Adjusted estimates controlling for age, sex, education and place of residence.

SECTION 6

Conclusions

This study undertakes one of the first analyses of the health status of the working age population in Ireland. A key finding is that there are very large differences in subjective and objective health measures between the working and non-working populations in Ireland. Overall, we find very high rates (90 to 95 per cent) of 'very good' or 'good' self-reported health among workers in Ireland. Self-reported health status was much lower in non-workers, with for example only 78 per cent of non-workers aged 39 (the median age of the Irish population) reporting 'very good' or 'good' self-reported health. This fell to approximately 60 per cent for non-workers aged 55 years or older. Multimorbidity rates (having two or more diagnoses of physical or mental illness) were also consistently approximately three times higher in the non-working population. At age 39, 3 per cent of workers report a multimorbidity in the Healthy Ireland Survey (HIS) compared to 14 per cent of non-workers. For both workers and non-workers, multimorbidity rates are higher for older cohorts while the same is only true for non-workers using the more subjective self-reported health measure.

Despite observing large differences in health status by employment status, little variation was observed when comparing self-reported health across most occupations. More variation is observable when using the more objective measure of multimorbidity rates. Certain occupations, such as 'textiles, printing and other skilled trades', are associated with higher multimorbidity rates than others. However, the difference in multimorbidity between workers and non-workers dwarfs these inter-occupation differences.

Another key finding of this paper is the large variation in mental illness between workers and non-workers, and across occupations. We find that a very large percentage of non-workers report a diagnosis of a mental illness, such as anxiety and depression, compared to workers. Just 4 per cent of median aged workers report a mental health diagnosis compared to 15 per cent of non-workers. We also find that some occupations, such as 'health and social care associate professionals' and administrative occupations, tend to experience higher average rates of mental illness. In the (post) COVID-19 period, mental illness has become more important in the public's consciousness, and it is possible that some of these trends have been exacerbated due to prolonged work absences and increased stress in certain professions. Previous evidence has highlighted that employment has the ability to significantly improve mental health, with even short working weeks (eight hours) shown as sufficient to increase individual mental health and wellbeing (Kamerade et al., 2019). Removal of barriers, such as stigma related to mental health in the workplace, may reduce reticence among many in seeking employment, or make it more feasible for others to stay in employment (Krupa et al., 2009). These results also support previous research about the need for promoting labour market

participation for people with mental illness and reintegration of those who may have left the workplace (Starace et al., 2017). This may need to go beyond equality legislation, which already stipulates that employers must make reasonable accommodation for those with a disability, including mental illnesses.

We find that large variations in healthcare coverage (possession of a medical card, GP visit card (GPVC) or public health insurance (PHI)) exist across occupations. A significant minority (15 per cent) of non-workers have no healthcare coverage. A much larger share of workers have no healthcare coverage (30 per cent). This means that many workers and non-workers may be required to pay out of pocket for both public and private healthcare. We also find that there is a negative association between lack of healthcare coverage and the average health of workers by occupation. Occupations with worse subjective and objective health status have the highest percentages of workers with no healthcare coverage. In some occupations where almost 10 per cent of workers report multimorbidity, over 40 per cent of workers have no healthcare coverage. As access to healthcare is often a pre-requisite for access to Illness Benefit or to occupational-related sick pay, this finding has important implications for equality of access to these schemes and to the new Statutory Sick Pay Scheme, due to be introduced later this year. Expanding the GPVC scheme, as highlighted in the Sláintecare report, is an obvious way to remedy this potential inequity although it would come at a significant cost. Previous studies by the ESRI estimate that the expansion of free GP care to the full population would add an estimated 2 to 3.5 per cent to total public healthcare expenditure in Ireland (Connolly et al., 2018)

Certain limitations impede the drawing of greater conclusions from this study. First, HIS does not collect information on number of hours worked. A recent study by the World Health Organization (WHO) and the International Labour Organization (ILO) found longer working hours were tied to higher risks of dying from stroke and heart disease (Pega et al., 2021). Second, we were unable to look at shift work or insecure forms of work in detail. Third, due to low observation numbers, we could not examine workers at a more granular level in terms of their specific occupation (i.e. SOC2010 four-digit level). Neither could we examine why individuals were not working; whether it was due, for example, to early retirement, home duties, or never having worked. Fourth, it is well documented that working practices for many workers have changed since the onset of the COVID-19 pandemic (Redmond et al., 2020), with working from home (or blended/hybrid working) common for many occupations. In addition, both physical and mental health problems may have increased (or decreased), as a result of the pandemic. The pandemic has, on average, reduced the mental health of the population;[10] this may be somewhat associated with the high prevalence of unemployment spells.

[10] See https://www.cso.ie/en/releasesandpublications/ep/p-sic19wbg/socialimpactofcovid-19surveyfebruary2021well-being/resultsandanalysis/.

Foregone healthcare and lengthening waiting lists may also have resulted in poorer health for those with a chronic illness while the impact of long COVID is not yet fully understood. As the data included here predate the onset of the pandemic, similar analyses undertaken using more recent data may elucidate slightly different results between non-workers and workers and across occupations.

Lastly, we have not tried to estimate a causal link between health and employment status, leaving this exercise to future work, although the absence of longitudinal data with detailed work histories makes this difficult. As such, the results in this report should be considered observational associations. Based on international evidence, the relationship between work and health is complicated (especially for mental health); however, in general, it is likely that a large proportion of the association between work and health is due to the effect of health on employment, rather than the effect of employment on health. Policies aimed at reducing barriers to employment are likely to have a positive impact on health, especially mental health. Our estimates of differences in health status and healthcare coverage between occupations suggest a clear role for future research and policy considerations. Many people in Ireland lack either public or private healthcare coverage, and this is especially evident among workers in occupations of highest risk for health shocks and lower health status. Policies such as the expansion of universal GP care may reduce out-of-pocket payment barriers to healthcare, as well as enable access to medical certification, which is required in order to qualify for Illness Benefit.

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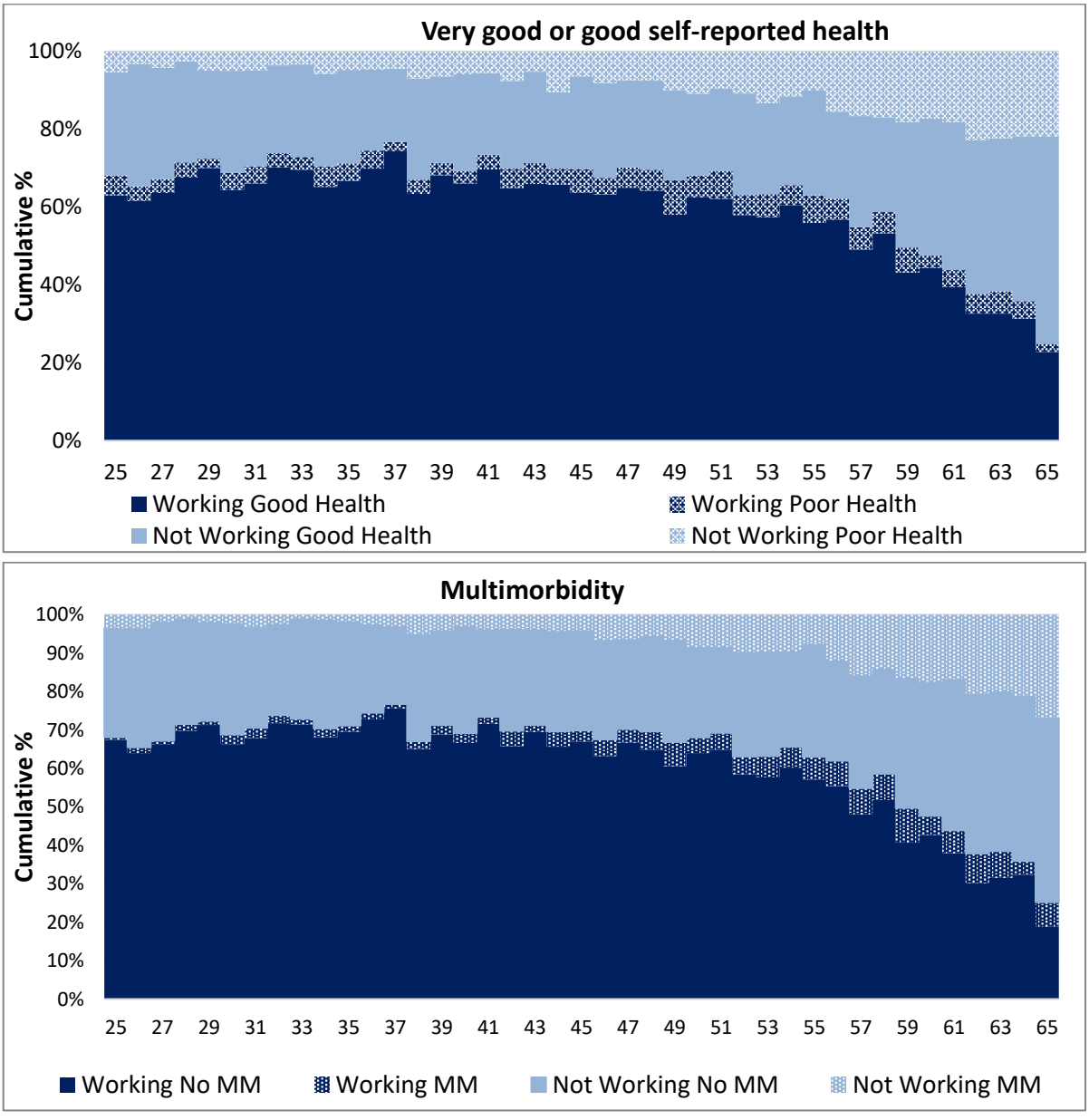
APPENDIX A

Figure A.I presents the percentage of each age group by working and health (self-reported and multimorbidity) status. The percentage working but in poorer health (or with multimorbidity) is similar across all ages. Similarly, the percentage not working but in good health (or with no multimorbidity) is also similar across all ages. However, across ages, the percentage working in good health (or with no multimorbidity) decreases from age 50, and the percentage not working in poorer health (or with multimorbidity) increases from age 50.

FIGURE A.1 PERCENTAGE OF POPULATION BY HEALTH STATUS AND EMPLOYMENT STATUS



Source: Authors' analysis of Healthy Ireland Survey Waves 1-5.
Notes: Multimorbidity corresponds to having two or more chronic conditions listed in the Healthy Ireland Survey in the previous 12 months. Estimates are three-age-year moving averages.

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