SUPERHEROES DON'T TAKE SICK LEAVE

Presenteeism in the New Zealand senior medical workforce - a mixed-method study

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EXECUTIVE SUMMARY

This report describes and discusses the findings of a survey on presenteeism among senior doctors and dentists working in New Zealand's public hospitals. Presenteeism is defined as turning up to work when too unwell, fatigued or stressed to be productive.

The survey involved members of the Association of Salaried Medical Specialists (ASMS), who are medical and dental specialists, and other non-vocationally registered doctors and dentists employed primarily by New Zealand's 20 district health boards (DHBs). For ease of description, these ASMS members are referred to throughout this report as senior doctors or as the senior medical workforce.

The survey examined their self-reported rates of presenteeism as well as the relationships between rates of presenteeism and other variables, including amounts of sick leave, demographic factors and cultural and professional norms.

The study aimed to:

1. estimate the rates of presenteeism in this cohort of senior doctors
2. establish whether there is a relationship between presenteeism and sick leave rates
3. find out why senior doctors feel pressured to turn up to work when unwell and what barriers exist to taking legitimate sick leave
4. consider the broader significance of presenteeism for this group in terms of possible consequences for patient care and safety, and also what these attitudes say about the pressures on New Zealand's public health system.

The overall response rate for this survey was 1806/3740 members approached (48.3%). Presenteeism was reported by 88% of respondents over a 24-month period. Going to work while unwell with an infectious illness was reported by 75% of respondents in the same time period. An average rate of presenteeism was found to be just over 3 days per year with 47% of respondents reporting turning up to work when unwell 3 or more times a year. Females were more likely to exhibit presenteeism than their male counterparts (p=.000).

A positive relationship was found between the estimated number of sick leave days and the number of presenteeism days taken in a year (p=.000). Average rates of sick leave were 2.8 days per year with 54% reporting 1 or fewer days taken over the same time period.

The main reasons reported for presenteeism were feelings of duty to patients (35%), having clinics and theatre sessions already booked (27%), and not wanting

to burden colleagues (24%). Additional analysis of qualitative data emphasised concern about the lack of cover available for sick leave, sociocultural norms where taking sick leave is framed as a weakness, and lack of clarity over the thresholds of illness for taking sick leave.

The findings suggest presenteeism is common, well recognised and an issue of concern. It suggests presenteeism is, at least in part, a behaviour influenced by the pressures on New Zealand's public health system, especially given the limited scope within DHBs for short-term sickness cover. Senior doctors worry about the impact of their sick leave on patients' access to timely health care. The strong pressures to attend work when unwell reflect the high value placed on a senior doctor's duty of care but also the tensions around defining responsible behaviour in this regard.

Specific recommendations include greater investment in the senior medical workforce to enable DHBs to 'staff up', reframing legitimate sick leave as responsible and healthy behaviour, formalising both the accounting processes for and the availability of short-term leave cover, and developing clear written guidelines stating the threshold and process for staying home when unwell.

INTRODUCTION

Working through illness, or attending work when an individual is too unwell to perform to their usual standards, is described as presenteeism. Johns (2010) summarises a range of definitions of presenteeism, which include reduced productivity at work due to ill health and putting in 'face time' at work even when unfit to attend (p. 521). Aronsson and Gustafsson (2005) describe presenteeism as a phenomenon when people ignore "complaints and ill-health that should prompt them to rest and take sick leave" (p. 958) and continue to turn up to work. Research into health care workers, including doctors, reports high rates of presenteeism (McKevitt, Morgan et al. 1997) and suggests feelings of duty to those in care as a core motivating factor to attend work when unwell. Other factors that can encourage presenteeism include high and unrelenting workloads, concerns for the impact of absence on colleagues and finding it hard to say no to workplace demands (Bergstrom, Bodin et al. 2009). Some research suggests a positive relationship between rates of sick leave and rates of presenteeism with many of the factors known to affect rates of sick leave also implicated in presenteeism behaviour (Johns 2011, Krane, Larsen et al. 2014).

This study seeks to understand the prevalence of and factors that influence presenteeism within a particular sector of the New Zealand medical workforce. It is based on a survey of members of the Association of Salaried Medical Specialists (ASMS) who work primarily in New Zealand's 20 district health boards (DHBs). These medical and dental specialists, along with other non-vocationally registered doctors and dentists, are referred to in this report as senior doctors or collectively as the senior medical workforce. The study aims to estimate the rates of presenteeism in this target group by exploring the self-reported rates of presenteeism and estimates of the number of days respondents go to work when they are unwell. It also attempts to establish whether there is a relationship between presenteeism and sick leave by comparing the number of days respondents take as sick leave with rates of presenteeism. Rates of presenteeism are based on participants' self-reported estimates of attending work when ill, and sick leave rates on recall of the number of sick leave days taken.

The research looks at why this group of doctors and dentists feel pressured to work when they are unwell. It describes quantitative and qualitative indicators on presenteeism and puts these in the context of workplace pressures, professional norms and thresholds of illness. Finally, the report considers the broader significance of presenteeism for this group, both in terms of possible consequences for patient care and safety, and in terms of what these attitudes say about the pressures on New Zealand's public health system. In so doing, it highlights the

barriers that limit the taking of legitimate sick leave and considers the potential risks this behaviour represents to the practitioners and their patients.

What is presenteeism and why does it matter?

For the purposes of this study, presenteeism is defined as the act of working in a formal capacity (ie, paid work) when an individual is too unwell, fatigued or stressed to be productive. This broader definition of presenteeism allows for a more encompassing understanding of 'unwell' which could include being unwell in physical and/or psychological terms, thus enabling attention to the significance of stress, fatigue and burnout. Indeed, research suggests that presenteeism is strongly associated with stressful work environments and that workers who report high levels of stress in their jobs are more likely to exhibit presenteeism as a consequence (Demerouti, Blanc et al. 2009, Niven and Ciborowska 2015). Further, Thun, Fridner et al. (2014) assert a clear relationship between high rates of presenteeism and symptoms of burnout among doctors. Including fatigue and stress in the definition enables consideration of presenteeism as a consequence of these factors as well.

It is commonly recognised that doctors[1] take low amounts of sick leave (McKevitt, Morgan et al. 1997). Research suggests that doctors work through illness at a higher rate than other professional groups and frequently attend work when they would advise their patients to stay away (Rosvold and Bjertness 2001). The reasons behind these behaviours are complex. Some argue that it reflects a possible indifference of doctors to their own health (Waldron 1996, Khalid and Juma 2011) whereas others emphasise the importance of broader workplace pressures (Virtanen, Oksanen et al. 2008) and the significance of personal characteristics including commitment to the workplace and the blurring of boundaries between personal and professional spheres (Aronsson, Gustafsson et al. 2000, Aronsson and Gustafsson 2005).

In a seminal paper comparing sick leave behaviours of general practitioners and 'fee earning' professionals, McKevitt, Morgan et al. (1997) found doctors were less likely to take a day off work with a bad head cold than the company fee earners. In their study, 86.6% of general practitioners responded that they would 'definitely not' take the day off work. McKevitt, Morgan et al. (1997) note, however, that the

[1] Doctors has been chosen as a broad term to reference medical professionals including physicians, general practitioners, medical students, registrars etc. as the literature on presenteeism and sickness absence deals with many of these groups collectively or without specification. In our study we reference senior doctors as a specific cohort of this broader group of doctors.

low rates of sickness absence in doctors should not be assumed to indicate a lower incidence of health issues than in other professionals. Indeed, they suggest that levels of psychological ill health are likely to be higher in doctors than in other professional groups. As a consequence, they suggest that low rates of sick leave are likely to be associated with high rates of presenteeism.

Hansen and Andersen (2008) note that people who are unwell but take no sick leave are twice as likely to experience "significant coronary events when compared to those who took 1–7 sick days per year" (p. 957). Bergstrom, Bodin et al. (2009) suggest a positive association between continuing to attend work when ill and the likelihood of future ill health. Other research focussed on long-term sick leave found that while doctors took significantly less sick leave than the control groups involved in the research, they were at greater risk of long-term sickness absence if they experienced poor team work environments (Kivimaki, Sutinen et al. 2001).

Presenteeism has received considerable attention in management and organisation studies where the emphasis is frequently on estimating the consequences of presenteeism in economic terms as a form of productivity loss. Hemp (2004) asserts presenteeism can significantly reduce individual productivity by over a third. As a consequence, presenteeism is estimated to represent a far greater cost to employers than sickness absence. The Southern Cross report into the hidden costs of unhealthy employees estimates two-thirds of the costs per employee as a result of ill health are attributable to presenteeism (Southern Cross Health Society 2010). With possible links between high rates of presenteeism and future high rates of sickness absence, the assumption is that tackling presenteeism is likely to raise productivity rates in the workplace and have future benefits in terms of reducing the likelihood of needing sick leave at a later date (Johns 2011).

For medical professionals, turning up to work with illness is a decision that can have serious consequences that extend beyond an individual's capacity for output (Landry and Miller 2010). As other research into presenteeism in medical contexts suggests, presenteeism can have serious consequences for the morbidity of patients, as well as potentially impinging upon medical efficacy in terms of circumscribing the provision of optimal care (Dew 2011, Starke and Jackson 2015). For severely immunocompromised patients, exposure to mild infectious illnesses can have serious ramifications (Khalid and Juma 2011). Aside from the direct risks posed to patients treated by ill doctors, presenteeism has also been associated with an increase in the number of errors made while at work (Niven and Ciborowska 2015). As a result, presenteeism is likely to play a significant role in influencing the safety and wellbeing of both patients and those who care for them

(Rosvold and Bjertness 2001). As Landry and Miller (2010) state, "[p]atients should be able to obtain healthcare in a safe and disease free environment" (p. 1142). In a workforce that is already stretched and under pressure, identifying factors that may contribute to or alleviate the risk of presenteeism can only be positive for the health and wellbeing of New Zealand's senior medical workforce and the patients for whom they care.

'Choosing' to work through illness is not a simple decision. Dew, Keefe et al. (2005) assert that rather than a binaristic yes or no choice, going to work when unwell is a complex decision articulated within a matrix of other factors. These factors are likely to involve perceptions of individual health status, as well as reflecting broader work-related demands that may discourage or limit the ability to take sick leave (Dew, Keefe et al. 2005, Krane, Larsen et al. 2014, Thun, Fridner et al. 2014, Niven and Ciborowska 2015). Many studies have highlighted the significance of sociocultural factors in this matrix, including ideals about professional commitment and behavioural norms (Hansen and Andersen 2008, Ozbilgin, Tsouroufli et al. 2011). Dew, Keefe et al. (2005) also emphasise the significance of the legislative and compensation environments governing workplaces as a relevant factor as many workplaces have limited amounts of sick leave available. Aronsson, Gustafsson et al. (2000) suggest occupational status has a strong bearing on presenteeism as well, especially in workforces that involve primary responsibility for meeting the needs of other people.

Existing studies of presenteeism in New Zealand

In 2010, the New Zealand Treasury undertook an in-depth study examining the cost of ill health which included estimating the number of hours lost due to presenteeism (Holt 2010). They estimated that indirect costs associated with ill health in New Zealand are approximately $7.483 billion, with presenteeism accounting for over half of this overall cost. Sickness absenteeism was estimated to amount to only 3% of this overall figure. The report further estimated that most New Zealand workers take fewer than five days of sick leave each year. Southern Cross Health Society also commissioned research in 2009 into what it defines as the "hidden costs of unhealthy employees", estimating an average cost to New Zealand employers of both absence and presentee days at more than $2 billion across the entire New Zealand workforce (Southern Cross Health Society 2010). In its survey of 461 employees, Southern Cross Health Society arrived at an average of 11 days per year that an employee would turn up to work when they were unwell, with an average number of 4 sick days taken over the same time period. The most recent 'Wellness in the Workplace' survey by the Southern Cross Health Society, Gallagher Bassett, and Business NZ estimates about 35% of staff across New Zealand's labour

force go to work when they are ill, with an estimated 4.7 days of absence per employee per year (Summers 2015).

Presenteeism has also received attention within occupational health studies where there has been considerable research on the rates and drivers for this behaviour in medical settings. In New Zealand, there has been attention to presenteeism in both public and private hospitals (for the latter see the comparative study by Dew, Keefe et al. 2005). A 2010 study at the former Otago District Health Board focused on the attitudes of all clinical staff to acute personal illness following an outbreak of norovirus in 2008 (Bracewell, Campbell et al. 2010). The authors found that almost 50% of all study participants had reported attending work while sick with an infectious illness over a 12-month period. Within this cohort, doctors were significantly more likely to continue to work when unwell than all other groups surveyed (76.9%). A more recent study at the Capital & Coast District Health Board in 2014 sought to estimate the rate of presenteeism among hospital doctors and the reasons why they continued to work when they were unwell (Tan, Robinson et al. 2014). It found that 82% of respondents reported coming to work knowing they were too sick to perform to their usual standards based on a yes or no answer. Both studies reported the main reasons for doing so as not wanting to increase the workload of others (53.5% in Bracewell, Campbell et al. 2010), not wanting to burden co-workers (71% in Tan, Robinson et al. 2014) and not feeling unwell enough to stay home (40.9% in Bracewell, Campbell et al. 2010).

METHODOLOGICAL APPROACH

This research was based on a self-completion questionnaire administered online to all ASMS members working at DHBs, a total figure of 3740 potential survey participants. The ASMS represents over 90% of the senior medical DHB workforce in New Zealand. The survey was developed on the SurveyMonkey website and was available for participants to complete for a period of one month. This method of delivery was chosen due to its efficiency, cost, and the ease with which participants could participate and results could be analysed. Web-based surveys have been found to return lower response rates than paper-based surveys (Nicholls, Chapman et al. 2011) although Cunningham, Quan et al. (2015) have found that web-based surveys remain popular with research participants due to the greater individual anonymity they provide. Previous research conducted by Gauld and Horsburgh (2014) involving the ASMS membership found no significant differences in either respondent characteristics or views held between online and paper-based survey administration. As a consequence, it was assumed that the mode of delivery would not influence either those who chose to respond, or the views held. Nevertheless, it must be considered that there is some non-respondent bias in the research and limitations to the generalisability of the research on the basis that non-respondents may hold different views to those who took the time to participate.

The survey was widely publicised in internal ASMS publications but participation was voluntary and no incentives for participation were provided. Anonymity and confidentiality were emphasised and no personally identifying information was sought or collected. To encourage the completion of the survey, an estimated completion time of five minutes was stated, progress indicators were provided throughout and the use of open-ended questions was limited. To increase response rates, four reminders were emailed during the month that the survey was open and 'instant' results from the closed survey questions were made instantly available to those that completed the survey. The national ethics committee signalled the study was outside the scope for ethical review due to the anonymous nature of the survey (see appendix 1).

The survey consisted of 10 questions in total – a mixture of Likert scale responses and closed and open-ended questions. A final non-requisite question gave respondents the opportunity to contextualise their answers and provide further commentary on the subject in a free-text comments box. It was hoped this 'comments section' might provide additional insights into the topics of focus. Indeed, as Vadaparampil, Murphy et al. (2013) assert, the qualitative material provided in free-text comments sections of surveys often provides vital information that can be overlooked in terms of its significance. The questions in the main

section of the survey were developed with reference to the findings from the Bracewell, Campbell et al. (2010) and Tan, Robinson et al. (2014) studies, particularly in terms of what factors were selected as possible reasons why respondents might turn up to work when unwell and the factors selected for respondent views as possibly influencing their presenteeism behaviour. A full copy of the questionnaire is included in appendix 2. A pilot of the survey was conducted with the 10 members of the ASMS executive in order to assess the logic and coherence of the questions and minor changes were made as a consequence prior to sending the survey out to the membership as a whole.

Variables

Rates of presenteeism were assessed in different ways and over different time scales. The first question asked respondents to recall and estimate how many times they had turned up to work unwell and unable to perform to their usual standards over the past two years and how many times they had turned up over the same time period while unwell with an infectious illness. These questions were measured in a 4-point Likert scale from 1=often to 4=never. The survey also asked respondents to estimate how frequently their colleagues had turned up to work unwell with an illness using the same 4-point Likert scale. The second way presenteeism was estimated was by requesting respondents to recall and specifically quantify how often they had turned up to work unwell over the past 12 months by listing the number of days in a free-text box. It also asked for the respondents to recall and quantify the number of sick leave days taken over the same period. Comparisons were then made between the Likert scale answers and the quantified rates of presenteeism and leave taken.

Self-reported sickness and presenteeism rates are measures susceptible to recall error and either over- or under-inflation depending on the viewpoints of the respondents involved (Kivimaki, Sutinen et al. 2001, Gerich 2015). Having more than one tool to assess this factor was done in order to give greater confidence in the reported rates, as well as providing some internal contextualisation of the Likert scale answers. Similarly, exploring associations between the rates of presenteeism on two different time scales was hoped to give a more representative picture of presenteeism behaviours as well as checking for internal consistency.

Other variables in the study assessed respondents' opinions on the views of colleagues and management towards the respondent taking sick leave, whether departments had clear understandings of the thresholds for illness and whether they had clear written guidelines around this, and respondents' opinions about how colleagues and departments would manage workloads if the respondent was

to take sick leave. These were all assessed on a 5-point Likert scale from 1=strongly agree to 5=strongly disagree. The issues selected for this question were based on the findings from the study of Tan, Robinson et al. (2014).

The study also asked people to rank their top three possible reasons for not taking sick leave and gave them an opportunity to add their own reason to the list if it was not already included. This question proved the most difficult to analyse due to respondents either not understanding the instructions or choosing to rank more than one option as their first, second or third choice. The issues selected for inclusion in this question were based on studies into presenteeism conducted by Tan, Robinson et al. (2014) as well as Bracewell, Campbell et al. (2010).

In addition to assessing attitudes toward and approximating rates of presenteeism, the survey also collected basic demographic data including age (according to five categories), gender, length of time in the profession (four categories) primary DHB and number of senior medical officers in the respondent's department. A full copy of the survey is included in appendix 2.

Analytical procedures

The raw data was summarised in Excel with Likert scale responses translated into numeric form and basic descriptive statistics produced. Further statistical analysis was undertaken with SPSS (22.0). Associations with 'at work unwell' and 'at work infectious' Likert responses and with the respondents' estimates of the number of sick days and amount of presenteeism within the previous 12 months were explored using non-parametric Spearman's rank correlation coefficients and Kruskal–Wallis tests as appropriate. Key variables explored for these analyses include age, gender, years worked in New Zealand's public health system, size of department, the primary DHB of the respondent and the rankings ascribed to question 5 concerning the reasons for presenteeism. A two-tailed p-value $<.05$ was taken to indicate statistical significance.

Qualitative data from the free-text section of the survey was explored as it became available during the month that the survey was open. Initial analysis of the comments provided was informed by themes emerging from existing studies on presenteeism. Subsequently, interpretation of the comments was based on a more iterative process where the material and themes emerging were allowed to 'speak' for themselves with new codes generated from the material as they were encountered. Both the initial and emergent codes were treated as guides to the material rather than fixed codes against which the data was assessed. Macro-level themes generated through this iterative process are detailed in table 1 alongside the related sub-themes. The material was analysed in this process until theoretical

saturation point had been reached (Charmaz 2008, Sbaraini, Carter et al. 2011). An additional quantification of the qualitative material was conducted to provide a proportional analysis of the three main themes. It is important to note that many of the comments alluded to more than one theme simultaneously, which allowed for an exploration of how the issues were related to other concerns as well as the complexity and tensions circulating around the subject of presenteeism.

Table 1: Thematic coding schedule for qualitative comments

Macro level themes	Sub-themes
Workplace factors	Workload management and anticipation of workload on return
	Importance of lists and clinics
	Issues of cover, 'no slack in the system'
	Not wanting to burden colleagues
	Importance of 'permission' to take sick leave
Professional norms	Sick leave as risk to profession
	Sick leave as weakness
	Doctor's don't get sick
	Commitments to workplace versus commitments to self and family
Acceptable thresholds of illness	Types of illness including infectious versus non-infectious illnesses
	Psychological illness and the 'visibility' of illness
	Thresholds and fatigue

The comments about presenteeism and the various ways in which they were explained or justified were understood to be both a reflection of attitudes towards presenteeism as well as playing an active role in shaping the discourses around presenteeism themselves. Presenteeism was thus explored as a phenomenon resulting from the "interplay between … the structure of social fields and the constraints they pose on action and … the way these structures are appropriated and perceived by the individual"(Hansen and Andersen 2008 p. 957) .

The trends emerging from the quantitative data were explored in conjunction with the qualitative data, with the data sources treated as equally 'valid' in terms of what they suggested about patterns of and drivers for presenteeism. This approach allowed for greater depth and nuance in the interpretation of the findings and analysing both in combination allowed for tensions and in/consistencies in the data to be considered as they arose. For ease of description, the results from the closed-ended questions are described below before being discussed, where appropriate, alongside the qualitative findings in the final section of the report.

RESULTS

Of the 3740 ASMS DHB members invited to participate in the survey, 1989 (53.2%) responded to at least two questions in the survey, 1806 (48.2%) completed the survey in its entirety and 660 (17.6%) left comments for qualitative analysis. Comparative analyses were undertaken on the basis of the respondents who answered the survey completely (1806 or 48.2%) and other correlations were made against the highest number of complete responses for the variables in question.

Of the 1806 who completed demographic information, 41% were female and 59% male. These proportions were broadly representative of the gender spread of the ASMS DHB membership, which is 36% female and 64% male. As figure 1 demonstrates, the spread of respondents across DHBs was a close match to the ASMS membership profile. Table 2 gives the breakdown of survey respondents by age, gender and years worked in New Zealand's public health system. Respondents were mainly aged over 40 and most had worked in New Zealand for periods between 5 and 30 years.

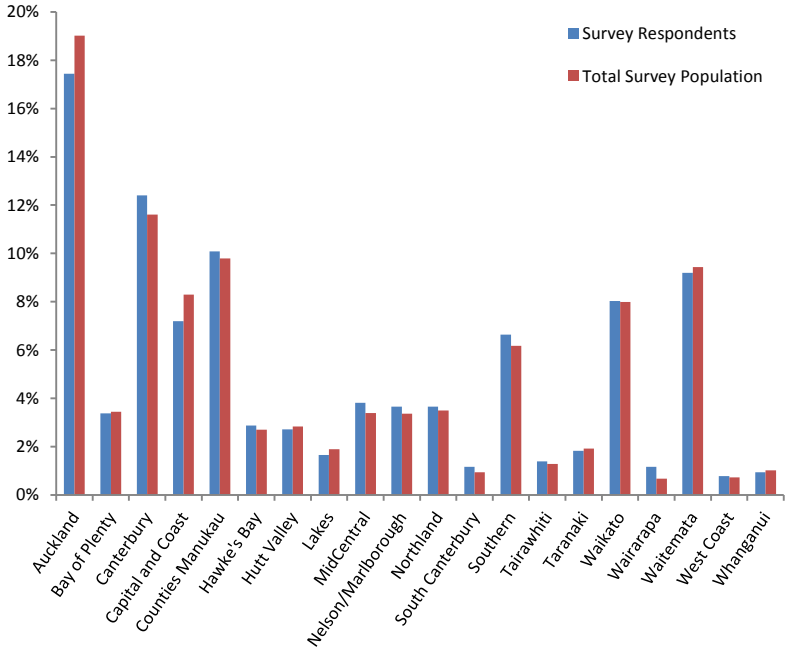

Figure 1: Comparison between percentage of survey respondents and percentage of total ASMS membership per DHB

Table 2: Characteristics of survey respondents

	Years worked in New Zealand				
Gender and age group	**Less than 5 years**	**5–14 years**	**15–30 years**	**More than 30 years**	**Total**
Female	**68**	**320**	**303**	**46**	**737**
20–29	1	0	2	0	3
30–39	25	103	12	0	140
40–49	35	153	142	0	330
50–59	5	54	119	20	198
60 or over	2	10	28	26	66
Male	**92**	**335**	**487**	**155**	**1069**
20–29	0	0	0	0	0
30–39	22	73	11	0	106
40–49	44	164	156	1	365
50–59	18	70	253	48	389
60 or over	8	28	67	106	209
Grand Total	**160**	**655**	**790**	**201**	**1806**

Rates of presenteeism

As detailed in table 3, 57% of respondents who answered this question estimated they had come into work when they were too unwell to perform to their usual standards ‘often’ and ‘sometimes’ over the past two years. Only 12% asserted that they ‘never’ did so over the previous two years; therefore, 88% of senior doctors had turned up to work when unwell at least once in the past 2 years (see figure 2).

Thirty-three percent of respondents estimated coming to work with an infectious illness ‘sometimes’ over the past two years, with 7% estimating that they did so ‘often’ over the same time period. The results suggest that 75% of the senior doctors reported presenting at work with an illness that they know to be infectious over the preceding two years. Fifty-two percent estimated that their colleagues had done so ‘sometimes’ over the past two years, with only 6% estimating that they had ‘never’ done so. These trends are displayed below in figure 2.

Table 3: Recall of presenteeism behaviour over the past 24 months

Statement	Often n/1951 (%)	Sometimes n/1951 (%)	Seldom n/1951 (%)	Never n/1951 (%)
I have come to work when I have been too unwell to perform to my usual standards	237 (12)	870 (45)	602 (31)	242 (12)
I have come to work knowing I am unwell with an infectious illness	145 (7)	646 (33)	674 (35)	486 (25)
My colleagues have come to work too unwell to perform to their usual standards	180 (9)	1017 (52)	630 (32)	124 (6)

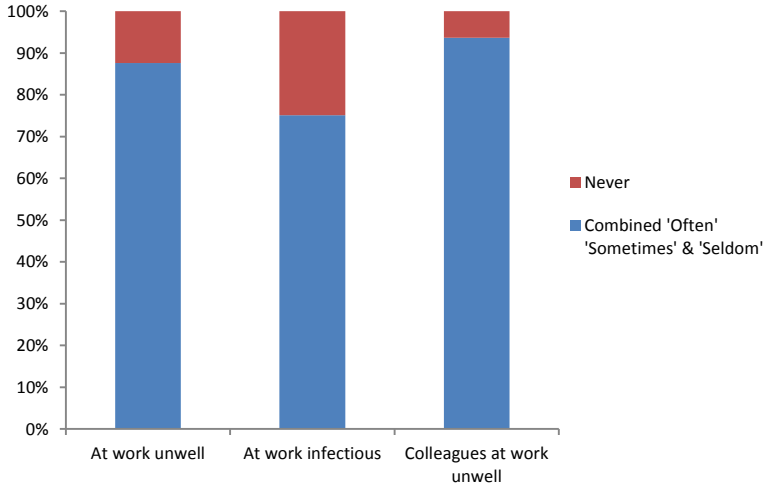

Figure 2: Grouped presenteeism behaviour in survey respondents over the past 24 months.

Other estimates of presenteeism were attained by analysing the quantitative counts for days of sick leave taken over the past year and number of days presenting at work when sick leave should have been taken. As table 4 details, the average number of days estimated they had turned up to work unwell over the past year was just over three days. The median number of days present at work when unwell was two and the median number of sick days taken was one.

Table 4: Estimation of sick leave days taken and days when sick leave should have been taken over the past 12 months

Analysis	Number of days sick leave taken over past year (n=1816)	Number of days present at work when sick leave should have been taken over past year (n=1816)
Average	2.81	3.04
Standard Deviation	7.07	3.48
Min	0	0
Max	135	40
Mode	0	0
Median	1	2
Standard Error	0.17	0.08

Grouping the data (table 5) reveals that the highest proportion of days 'presentee' was between three and five days, with 54% reporting taking one or fewer days sick leave over the same period. The mode for the number of sick days taken is zero.

Table 5: Grouped estimates of sick days and days when sick leave should have been taken over the past 12 months

Days	Number of days sick leave taken n/1816 (%)	Number of days present at work when sick leave should have been taken n/1816 (%)
0	660 (36)	390 (21)
1	333 (18)	218 (12)
2	296 (16)	367 (20)
3 to 5	328 (18)	630 (35)
6 or more	199 (11)	211 (12)

Spearman's correlation analysis (table 6) shows that the number of presenteeism days is strongly associated with the responses given for being at work unwell and at work infectious ($p<.001$). These trends are displayed in figures 3 and 4 below. The analysis also suggests a strong positive association between the number of sick days taken and the number of presenteeism days ($p<.001$) but no significant association was found between the number of sick days taken and the rates of turning up to work with an infectious illness and the number of days of sick leave taken ($p=.67$ and $p=.125$ respectively).

Table 6: Relationship between number of sick and presentee days and Likert scale responses (n=1806)

		Number of days sick leave taken	Number of days present at work when sick leave should have been taken
Number of days sick leave taken	Spearman Correlation	1	.164**
	Sig. (2-tailed)		.000
Number of days present at work when sick leave should have been taken	Spearman Correlation	.164**	1
	Sig. (2-tailed)	.000	
I have come to work when I have been too unwell to perform to my usual standards	Spearman Correlation	.043	.473**
	Sig. (2-tailed)	.067	.000
I have come to work knowing I am unwell with an infectious illness	Spearman Correlation	−.036	.313**
	Sig. (2-tailed)	.125	.000

** Correlation is significant at the .01 level (2-tailed).

The positive associations are displayed in figures 3 and 4, where average (Standard Error) number of days at work unwell is shown against the Likert scale responses for coming to work unwell and coming to work unwell with an infectious illness.

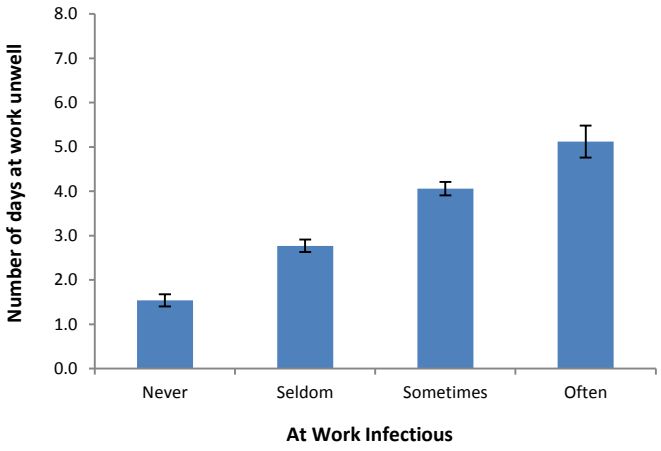

Figure 3: Average number of days at work unwell against Likert scale responses to rate of being at work infectious

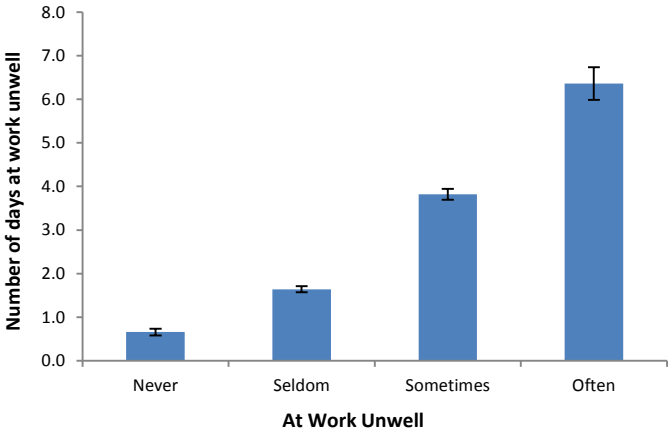

Figure 4: Average number of presenteeism days against Likert scale responses to rate of being at work unwell

Antecedents for presenteeism behaviour

Spearman's correlation coefficients and Kruskal–Wallis tests were used to test for associations between Likert scale responses for coming to work unwell and coming to work when unwell with an infectious illness and the independent variables age, gender, years at work at a New Zealand DHB, and number of senior doctors in a department. Non-parametric Spearman's rank correlation coefficients found no significant correlation between numbers of senior doctors in DHBs and host DHB and the likelihood of being 'at work unwell' (−.015, p=.513 and n=1806). All other variables were found to be significant (p<.001). Detailed breakdown of these figures is provided in appendix 3 along with the detail of the Kruskal–Wallis analysis. These results suggest that female respondents are more likely to assert turning up to work unwell and infectious than their male counterparts. Older respondents are less likely to assert presenteeism and turning up to work infectious than their younger colleagues. Length of time in the profession had no influence on how likely respondents were to assert coming to work infectious but the greater the number of years worked in New Zealand meant that the respondents were less likely to assert presenteeism than those who had spent less time working in New Zealand.

Similarly, non-parametric Spearman's rank correlation coefficients (table 8) and Kruskal–Wallis tests (appendix 4) were used to test for associations between the quantitative counts for number of presenteeism days and number of sick leave

days taken, and the independent variables age, gender, years at work at a New Zealand DHB, and number of senior doctors in a department. The results suggest a negative relationship between age and both number of sick leave days taken and number of presenteeism days. In other words, the younger the respondent, the higher the number of sick and presenteeism days reported. The results found a positive relationship between the numbers of senior doctors in a department and the number of sick leave days taken – in other words, the bigger the department, the more sick leave days taken. The tests further suggest a negative relationship between length of time worked in a New Zealand DHB and the number of presenteeism days (less time in New Zealand, higher presenteeism days). Kruskal–Wallis tests found gender to be significantly associated with both number of sick leave days and number of presenteeism days ($p<.001$), with females more likely to take higher numbers of sick days and presenteeism days than their male counterparts but no association between host DHB and the same variables ($p=.05$ and $p=.183$ respectively – refer appendix 4).

Table 7: Cross tabulations between number of senior doctors in a department, age and years worked in New Zealand, and number of sick leave and presenteeism days

Variable	Spearman's rho	Number of sick leave days	Number of presenteeism days
Number Senior Doctors	Correlation Coefficient	.077**	.000
	Sig. (2-tailed)	.001	.994
	n	1806	1806
Age	Correlation Coefficient	−.049*	−.155**
	Sig. (2-tailed)	.036	.000
	n	1806	1806
Years Worked in NZ	Correlation Coefficient	−.021	−.098**
	Sig. (2-tailed)	.369	.000
	n	1806	1806

**Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2-tailed)

Reasons for turning up to work when unwell

Forty-six percent of the respondents answered this question. Respondents were asked to rank their top three reasons they might not take sick leave from a list of seven possible reasons (with an additional 'other' option). Table 8 gives the top three ranked possible reasons for not taking sick leave with 1 being the most important reason cited. Respondents were able to nominate their own 'other' reason; the responses for this are provided in appendix 6.

Table 8: Ranked reasons for turning up to work when sick leave should have been taken

Reason	Rank 1 n/1737 (%)	Rank 2 n/1737 (%)	Rank 3 n/1737 (%)
Feeling of duty to patient	606 (35)	452 (26)	270 (16)
Clinics/theatre sessions already booked	474 (27)	374 (22)	232 (13)
Not wanting to burden colleagues	409 (24)	485 (28)	431 (25)
Fear of appearing 'weak' compared to other colleagues	42 (2)	64 (4)	153 (9)
Anticipation of extra workload on return to work	129 (7)	214 (12)	300 (17)
Not knowing the threshold for staying home when unwell	33 (2)	70 (4)	159 (9)
Not feeling unwell enough to stay home	227 (13)	181 (10)	314 (18)

Feeling of duty to patient was selected as the most important reason by 35% of respondents and was also ranked as the second most important reason by 26% of the respondents. Not wanting to burden colleagues was cited as the second and third most important reasons (28% and 25% of respondents respectively). The issue of having clinics or theatre sessions already booked was ranked by over 27% of the respondents as the most important reason; 22% and 13% ranked it as the second and third most important reasons respectively. Not feeling well enough to stay home was ranked as the third most important reason by 18% of respondents and anticipation of workload on return to work was also ranked as the third most important consideration for 17% of the respondents.

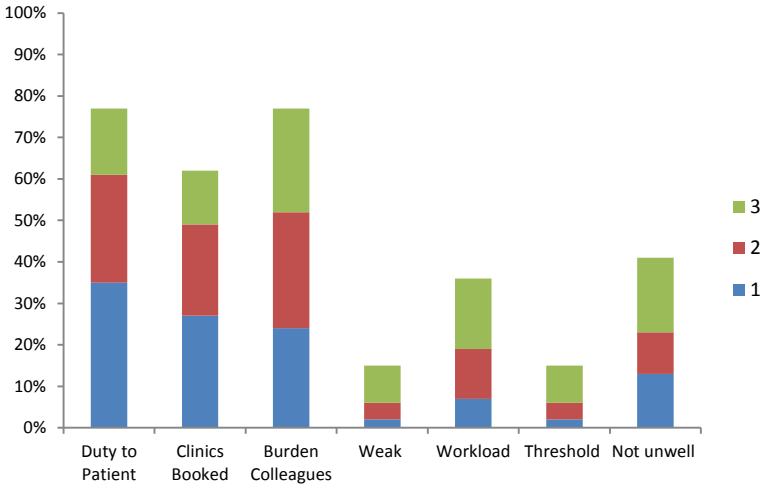

Figure 5: Grouped ranked reasons respondents cite as justification for turning up to work when they are unwell.

Correlation analysis (Spearman's rho) was conducted to test for associations between quantitative estimates for the numbers of sick leave days taken, the number of presenteeism days and the ranking of the variables that may influence behaviour. The findings for this correlation analysis are detailed below in table 9 and in appendix 7. The same tests were also conducted for the Likert scale responses for coming to work unwell and coming to work with an infectious illness. This analysis is detailed in appendix 8. Variables were assigned either a ranking of 1, 2 or 3 as per the survey with non-ranked or higher ranked variables assigned a 4. Negative correlations actually reveal a positive association between the quantitative counts and a prioritisation of the variable in question as a high ranking is represented by a lower numeric score (ie, 1 represents the highest ranked variable). Positive correlation results reveal an association between the quantitative counts and a lower prioritisation of the variable in question (ie, lower rankings were represented by higher scores of 4).

Table 9: Correlations between reasons for coming to work unwell and quantitative counts for sick leave days and presenteeism days

	Number of sick leave days		Number of presenteeism days	
Feeling of duty to patient	Not significant		p=.03	CC=−.052
			Ranking duty to patients highly = more presentee days	
Clinics/theatre sessions already booked	p=.020	CC=.056	Not significant	
	Ranking having clinics booked low = more sick days			
Not wanting to burden colleagues	Not significant		p=.000	CC=−.115
			Ranking not wanting to burden highly = more presentee days	
Fear of appearing weak compared to other colleagues	p=.003	CC=−.025	p=.000	CC=−.124
	Ranking fear of appearing weak highly = more sick days		Ranking fear of appearing weak highly = more presentee days	
Anticipation of workload upon return to work	p=.012	CC=−.061	p=.000	CC=−.098
	Ranking anticipation of workload highly = more sick days		Ranking anticipation of workload highly = more presentee days	
Not knowing the threshold for staying home when unwell	p=.027	CC=−.054	Not significant	
	Ranking not knowing the threshold highly = more sick days			
Not feeling unwell enough to stay home	Not significant		p=.000	CC=.263
			Ranking not feeling unwell enough low = more presentee days	

Note: CC = correlation coefficient

These correlation tests suggest that respondents who ranked duty to patients as an important variable in deciding whether or not they would take sick leave were more likely to have higher numbers of presenteeism days than those who didn't rank the variable highly. Similarly, ranking 'concern for burdening colleagues', 'fear of appearing weak' and 'anticipation of workload upon return to work' were associated with higher numbers of presenteeism days. On the other hand, not ranking 'not feeling unwell enough to stay home' as an important variable was associated with higher numbers of presenteeism days.

In terms of the associations between the variable, ranks and number of sick leave days taken, similar patterns were evident with prioritisation of concern for appearing weak, anticipation of workload upon return and not knowing the threshold for staying home when unwell all associated with greater numbers of sick leave days. Not prioritising having clinics and/or theatre sessions already booked was also associated with greater numbers of sick leave days.

Analyses using Spearman's correlation coefficients and Kruskal–Wallis tests were also performed to test for associations between how these variables were ranked by respondents and the independent variables of gender, age and length of time worked in the profession. Gender was found to be significantly correlated with four out of the six variables with females found to rank concern for burden on colleagues as more important than their male counterparts. Age was also significantly associated with four variables but length of time in the profession was only associated with two of the six variables. Older members were more likely to rank anticipation of workload, not knowing the threshold for staying home and not feeling unwell enough as important reasons for shaping their presenteeism behaviour.

The different patterns of association between age of respondents and the length of time worked in New Zealand suggest that age and length of time worked are weakly similar measures. This could be in part due to some older members only having worked a short period of time in New Zealand if they were trained overseas. Those with the greater amount of time spent working in New Zealand were more likely to rank having clinics already booked and not feeling unwell enough to stay home as a significant influence on their presenteeism behaviour. These findings are summarised in table 10.

Table 10: Associations between independent variables and reasons for coming to work unwell

	Gender	Age	Time worked in NZ
Feeling of duty to patient	Not significant	Not significant	Not significant
Clinics/theatre sessions already booked	Not significant	Not significant	Significant (p=.035) More time in NZ rank as important
Not wanting to burden colleagues	Significant (p=.013) More females rank as important	Significant (p=.003) Younger rank as important	Not significant
Fear of appearing weak compared to other colleagues	Significant (p=.009) More males rank as unimportant	Not significant	Not significant
Anticipation of workload upon return to work	Significant (p=.029) More males rank as unimportant	Significant (p=.019) Older rank as important	Not significant
Not knowing the threshold for staying home when unwell	Not significant	Significant (p=.001) Older rank as important especially for those 60+	Not significant
Not feeling unwell enough to stay home	Significant (p=.000) More males rank as important	Significant (p=.000) Older rank as important	Significant (p=.016) More time in NZ rank as important

Other closed-ended questions in the survey sought to ascertain respondents' views towards factors that may contribute to the behaviours around presenteeism. For ease of reporting and display, responses are grouped into agreement (combined strongly agree and agree), neutral, or disagreement (combined disagree and strongly disagree). Broadly speaking, these questions sought attitudes around sick leave guidelines, collegial and management attitudes and workload management provisions. Sixty-nine percent of respondents disagreed that their department had clear written guidelines on the threshold for staying home, and over 50% disagreed that their department had a clear understanding of the threshold for staying home. Similarly, over 50% disagreed that their department had good provisions for managing workloads when staff were away. Fifty-three percent agreed that management supported them taking sick leave when they are unwell, although 34% neither agreed nor disagreed with this statement.

Slightly fewer than 72% agreed that their colleagues are supportive of them taking sick leave and 48% agreed that their colleagues would manage their workloads if they were away on sick leave. Thirty-three percent disagreed that their colleagues would manage if they were to take sick leave. These findings are summarised in appendix 5 and figure 6 below.

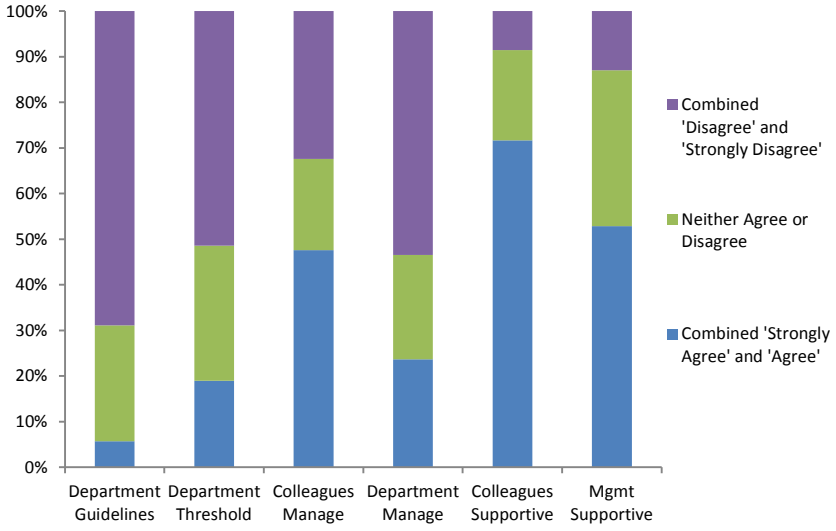

Figure 6: Grouped percentages of views concerning statements around sick leave when unwell

Secondary analysis examined the relationship between these statements and rates of presenteeism and sick leave behaviour. Non-parametric Spearman's rank correlation coefficients were used to analyse the relationship between views on these statements and the responses to turning up to work when unwell and turning up to work when infectious. Statistically significant associations ($p<.001$) were found between the Likert scale responses for turning up to work unwell and infectious and strong disagreement with the statements (details provided in appendix 9). The same tests were undertaken to analyse the relationship between the quantitative counts of sick leave days and number of presenteeism days. The positive associations found ($p<.001$) mean that respondents are more likely to be at work unwell or infectious if they more strongly disagree with the associated variable, and similarly, the negative associations signal a strong level of agreement with the statement in question.

As detailed in table 11, the results suggest presenteeism days are higher for those who strongly disagree with all the statements detailed. Numbers of sick leave days taken, however, were likely to be higher for those who strongly agreed with the statements that their colleagues would manage their workloads, their department had good provisions for managing workloads, and they felt their colleagues were supportive of them taking sick leave. This latter was a particularly strong negative association ($p=.003$).

Table 11: Correlations between views on different variables and number of sick days taken and presenteeism

	Spearman's rho	Number of sick leave days	Number of presenteeism days
My department has clear written guidelines on the threshold for staying home	Correlation Coefficient	.007	.107**
	Sig. (2-tailed)	.761	.000
	n	1806	1806
My department has a clear understanding of the threshold for staying home	Correlation Coefficient	−.031	.217**
	Sig. (2-tailed)	.190	.000
	n	1806	1806
My colleagues would manage their workloads if I stayed home when unwell	Correlation Coefficient	−.070**	.260**
	Sig. (2-tailed)	.003	.000
	n	1806	1806
My department has good provisions for managing workloads when staff are unwell	Correlation Coefficient	−.047*	.288**
	Sig. (2-tailed)	.047	.000
	n	1806	1806
My colleagues are supportive of me taking sick leave when I am unwell	Correlation Coefficient	−.077**	.237**
	Sig. (2-tailed)	.001	.000
	n	1806	1806
Management are supportive of me taking sick leave when I am unwell	Correlation Coefficient	−.024	.314**
	Sig. (2-tailed)	.298	.000
	n	1806	1806

**Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2-tailed)

Qualitative results

Of the 1806 respondents who answered the survey in full, 660 (37%) left comments in the free-text section of the survey. Responses ranged in length from one sentence to multiple paragraphs. Analysis of the recurring themes emerging from these comments suggest that presenteeism is inflected by issues concerning structural factors associated with the workplace including availability of cover as well as idealised and gendered norms about what it meant to be a medical professional and acceptable thresholds of illness. Comments suggested there were important intersections between types of illness and reasons for taking sick leave

and highlighted the importance of collegial recognition and management support as enabling factors for individuals to stay away if they were unwell. Many of the comments referenced more than one theme simultaneously, suggesting the complex and imbricated nature of the problem at hand. Findings are described according to theme in the following sections, and a summary of thematic comments is provided in table 12.

Table 12: Categories of themes identified in the free-text section of the survey with illustrative quotes

Macro level themes	n/660 (%)	Sub-themes	Illustrative comments
Workplace factors	441 (66)	Issues of cover, 'no slack in the system'	"There is no provision for SMOs [senior medical officers] to take sick leave as there is nobody to cover the duties. I would feel too guilty as it causes chaos and huge inconvenience to patients who have to be cancelled. So unless I physically can't get out of bed, I would still turn up to work." (Comment 201)
		Difficulties cancelling clinics	"The main reason is that if I don't turn up, there is a clinic full of patients sicker than me who miss out. Given resource constraints, rebooking these patients elsewhere is a NIGHTMARE [emphasis in original]. There is absolutely no cover for unexpected leave." (Comment 497)
		Anticipation of workload on return	"If I do not turn up, there is simply no one to take over my workload – it simply waits until I return, then gets added into whatever has already been booked. It's easier to just keep working." (Comment 420)
		Not wanting to burden colleagues	"The main issue for me is worrying about who is going to be doing my work if I am not there. There is not the resource to cover sick leave without major inconvenience to other colleagues. I once felt obliged to come in to hospital on my day off to do a post-acute ward round for my colleague who had called in sick, because no other cover could be found (and it was my team that was uncovered, although I was off service at the time). Collegiality dictates that we help each other out when things are not going right, and that is fine, but it is often not recognised (apart from the colleague you are covering for) and completely relies on each other's good will. There is little formal provision for cover of sick leave." (Comment 17)
		Institutional processes to enable sick leave	"I think that the main reason people don't stay home when they should is that they fear that their colleagues will resent them the extra workload. By attending, however, they risk getting other people sick and exacerbating the problem. I feel it is important that there is a clear departmental message of 'if you're sick, stay away' so that people don't feel like they must attend no matter what." (Comment 447)

Macro level themes	n/660 (%)	Sub-themes	Illustrative comments
Sociocultural norms	249 (38)	Sick leave as risk to profession	"Patients are a lot less fortunate than me. There is no excuse for having a day of sick leave for feeling unwell." (Comment 95) "Presenteeism is not usually due to illness but laziness!! Some people take excessive sick leave. That's more of a problem." (Comment 213)
		Sick leave as weakness	"There is a culture amongst the older members of the department that one doesn't take sick days unless dying … Management attitude is a throwback to an earlier time when the Head of Department (now thankfully removed) had a super-hero attitude and expected us all to work even when fatigued and proudly told the story of his wife operating with pneumonia." (Comment 285)
		Doctor's don't get sick	"Recently I tried to challenge our culture of working despite being sick, and was told by my colleagues that if the SMOs stayed at home when they were sick there would be no one to look after the patients. Our unit has a strong 'SMO superhero' culture where SMOs are expected to work when sick, and not thought to need sleep."(Comment 563) "Doctors don't get sick till they can't walk. This is our culture." (Comment 465)
		Commitments to workplace versus commitments to self and family	"All the same issues of presenteeism and the miserable pressure to attend occur when a child is sick also. Complete lack of support and understanding from colleagues. Often take child into work when unwell too! Or throw them back into school when still unwell to get me back to work. If there was any other way than taking time off, I'd be doing it already. Any time off is implied to be slacking – annual/study leave included. How ridiculous this has all got." (Comment 517)
Acceptable thresholds of illness	199 (30)	Types of illness including psychological illness and the 'visibility' of illness	"Physical illness is barely 'tolerated' amongst the SMOs but psychological stress (when we are 2 FTEs [full-time employees] down for 8 months and now 3 FTEs down for the last month) is even more 'not tolerated' – [The] EAP [Employment Assistance Programme] is doing very well from me though!" (Comment 483)
		Infectious versus non-infectious illnesses	"The main scenario for me and I would consider for most, is upper respiratory tract infections and trying to determine how unwell I am in terms of my own functioning, infectiousness and what clinical burden I am leaving for my colleagues to cover. Usually in this circumstance with mild to moderate symptoms I battle through the week limiting myself to mainly clinical work and then utilising my free time at the weekend for recovery." (Comment 261)
		Thresholds and fatigue	"…the issue of threshold is important; I don't think I know what is reasonable in terms of when to be away, in particular threshold when 'on call'. I've raised with colleagues and others were likewise unsure and our thresholds varied (but typically were high)." (Comment 212)

Workplace factors

Workplace factors were the most cited reasons why senior doctors go to work when they are unwell. As illustrated in table 12, workplace factors accounted for 66% of the comments explaining presenteeism behaviour. Sub-themes included issues pertaining to availability of cover and workload management issues, including concerns for clinics and anticipation of increased workloads. Additional factors included concerns for the workload burdens of colleagues as well as suggestions pertaining to institutional processes that may encourage the taking of sick leave. Comments reflected pressures endemic to high workloads and low staffing levels, the complete absence of cover in certain departments, especially small DHBs, and there being 'no slack in the system'. Taking sick leave was frequently described as an 'impossibility' and the hospital environment referenced as 'stretched and overburdened' and working at "110% capacity" (comment 611). Other common phrases and words used to describe workplace concerns included 'no flex', 'overworked system', 'high workloads', and 'lean', and spoke to the difficulties around taking sick leave as 'pressure', 'nightmare', representing "profound disruption" (comment 606) and being a 'struggle'.

Professional and cultural norms

Thirty-eight percent of all comments in the free-text section of the survey referenced themes pertaining to the significance of professional and cultural norms in shaping their presenteeism behaviour. Sub-themes in this regard were divided into references to sick leave as a risk to the profession and as a weakness, and illness as something that doctors could not afford to succumb to. Behaviours were described with phrases such as 'superhero', 'macho', 'old school' and discussions about medical professionals' 'culture' referring to expectations of behaviour where it was vital to 'soldier on'. Underlying many of these references to expectations were subtle gendered references and comparative descriptions that suggested presenteeism behaviour was an important signifier of what it meant to be identified as a senior doctor. Respondents wrote of feeling 'guilty' if they took sick leave and described leave as 'letting the team down'. Sick leave was cast as a negative behaviour that deviated from the 'norm' with some respondents describing it in ways that signalled unprofessional or less-than-collegial behaviour. Respondents recounted instances when colleagues "put down another if they weren't tuffing [*sic*] it out" (comment 362). Another key sub-theme grouped under professional norms was references to tensions between commitments to the workplace and commitments to family and how the interplay between these affected whether and how respondents took sick leave. Comments in the free-text section of the survey revealed a number of respondents who felt they could not

take both time off in order to care for sick children especially as well as time off to look after themselves.

Acceptable thresholds of illness

Thirty percent of comments left in the free-text section of the survey were coded as referencing notions about acceptable thresholds of illness. Comments were grouped under this theme if they discussed difficulties trying to work out when an illness would be 'bad' enough to justify taking a day off work on sick leave, how behaviour would differ depending on whether they were ill with infectious versus non-infectious illnesses, and how sick leave taken for operations and 'planned' events was easier to plan for and more 'acceptable'. Comments also discussed the under-recognised impact of psychological illnesses and fatigue from working long shifts and being on call. These 'hidden' issues were described as being less readily accepted as a reason to take sick leave and as a consequence, respondents reported finding it harder to adjudicate appropriate courses of action. The notion of 'thresholds' was referenced directly, with many commenting that they were unsure of "when to be away" (comment 212). The feeling was that there needed to be greater recognition of psychological illnesses and fatigue-related issues as issues of concern for the senior medical workforce. Many spoke about needing better guidance and more support from management to help them feel that it was ok to 'stay away'.

DISCUSSION

The averaged response rate across questions answered in this study at 49.7% was higher than previous surveys on the ASMS membership and comparable to the 52% response rate in Gauld's 2010 study 'Implementing In Good Hands' (see Gauld, Horsburgh et al. 2011). The response rate suggests that the issue is one of relevance to the membership and attracted a good deal of interest as a consequence. The demographic section of the survey received lower rates of completion, which may suggest that respondents were reticent in providing demographic detail, potentially due to concerns about anonymity and confidentiality.

Rates of presenteeism

The two estimates of presenteeism used in this report appear to be internally consistent with each other. Combined, they suggest a picture of the senior medical workforce where presenteeism is a common phenomenon and more than half report coming to work unwell often and sometimes in a 24-month period. Respondents reported coming to work unwell at an average rate of approximately three days per year, with 78% reporting coming into work unwell at least one day in a year. These results are in line with findings from other studies into medical professionals in New Zealand (Bracewell, Campbell et al. 2010, Tan, Robinson et al. 2014) and internationally (Senden, Lovseth et al. 2013, Szymczak, Smathers et al. 2015).

In all cases, the scores for coming to work unwell or infectious 'sometimes' was consistently higher than 'seldom' or 'never'. The same trend held with respect to perceptions of colleagues coming to work too unwell to perform to their usual standards. This suggests that there is a high self-awareness of presenteeism within the senior medical workforce as well as indicating that respondents are aware of when their colleagues are unwell and how it can affect their performance. The rates estimated for coming to work infectious are of particular concern given the vulnerable patients that some of the senior doctors are likely to be in contact with. The potential for doctors as vectors in the transmission of illnesses is well documented (Widera, Chang et al. 2010 and see further discussion below) and most of the respondents who left comments readily acknowledged that this was less than ideal behaviour. The high rates of presenting while known to be infectious may reflect an ambiguity as to when symptoms represent a considerable risk to patients (see 'Acceptable thresholds of illness' below) but most likely reflect the considerable pressures that senior doctors face to present at work even when experiencing serious illness; for example, one respondent described being seen in

an emergency department while ill with pneumonia while running back to conduct a clinic (comment 175).

The rates of overall presenteeism reported in the senior doctors involved in this study are comparable to those reported in doctors in other studies. It is important to consider, however, the different methodological approaches used. Tan, Robinson et al. (2014) requested a yes or no answer to reporting at work unwell, whereas others relied solely on quantitative counts (for example Szymczak, Smathers et al. 2015). This study was also based on larger numbers of participants than others – 1806 compared with 614 in Szymczak, Smathers et al. (2015) and 328 in Tan, Robinson et al. (2014) – which may have some bearing on the findings. Compared to the estimates of presenteeism in New Zealand workers across the board, the rates found in this study are considerably lower. For example, the study conducted by the Southern Cross Health Society in 2010 (n=461) found on average a presenteeism rate of 11 days per year. This was further segregated into 13 days for 'unhealthy' workers and 7 days for 'healthy' workers (Southern Cross Health Society 2010).

In light of the wider literature on presenteeism in the medical workforce, and the qualitative data collected in this study, it is entirely feasible that the medical professionals involved in this study have a very high threshold for recognising 'illness' in themselves compared with the New Zealand populace as a whole. As the qualitative findings suggest, medical professionals who are consistently in contact with very ill people are unlikely to consider factors such as having a headache or back pain 'illnesses' that would preclude work[2] (also see 'Acceptable thresholds of illness' below). It is important to consider as a consequence that relying solely on the medical professional's own perception of whether or not their state of health would have required sick leave is likely to have resulted in an underestimation of their presenteeism rates compared to other groups. This possibility is further suggested by the very low rates of sickness absence recorded for this cohort in both this and other studies. Indeed, it is worth considering that this study had no way of situating the presenteeism rates estimated in the study in light of an objective health assessment of the survey respondents. It would be useful, for example, to be able to assess whether or not there is a relationship between the presenteeism rates reported and the 'health' of the survey respondents as a whole. As a consequence, it is impossible to assess whether the presenteeism rates reflect underlying rates of chronic illness or other factors (Hansen and Andersen 2008).

[2] In the Southern Cross study, health problems that can result in presenteeism were defined to include depression, back pain, arthritis, heath disease, high blood pressure and gastrointestinal disorders (Southern Cross Health Society 2010).

The survey revealed low rates of sick leave which were consistent with the generally lower than average rates of sick leave taken by medical professionals found in other studies. The positive relationship recorded between the qualitative counts of presenteeism and the days of sick leave taken by the survey respondents was consistent with the positive correlation found in Aronsson, Gustafsson et al. (2000). This positive relationship suggests that as the number of presenteeism days increases, so too does the number of sick leave days. The factors contributing to this relationship are likely to be complex, and arguably the study has no way of objectively interrogating the reasons for this association. Nevertheless, there are some possible explanations as to why this positive relationship exists.

As detailed in the demographic composition of the survey respondents, 48% were aged over 50 with 15% aged 60 and over. This demographic make-up is likely to have some influence on the underlying health status of respondents and, in particular, the rates at which sick leave may be taken for planned procedures or significant issues requiring long periods of sick leave absence. This was suggested in some of the qualitative comments left, where some respondents qualified their amounts of sick leave reported in the survey as required (and planned) for specific surgical operations, or for recuperation from cancer treatment. As this respondent noted:

> "I would just like to add that the 10 days sick leave I took [was] because I had undergone an operation and the surgeon told me I had to stay home." (Comment 203)

The related high rates of presenteeism could suggest that other than taking large chunks of sick leave for operations or planned procedures, the specialists in this study generally continue to work through illness. Other possible reasons are suggested in the literature, which suggests an association between presenteeism and future ill health possibly as a consequence of not taking adequate time to recuperate (Bergstrom, Bodin et al. 2009), or allostatic overload (McEwen 2008), which can further lead to the likelihood of burnout (Howlett, Doody et al. 2015). As Demerouti, Blanc et al. (2009) suggest, continuing to work through sickness can have significant negative consequences for both physical and psychological recuperation, which can increase the likelihood of experiencing emotional and physical exhaustion or burnout and thus significant sick leave as a result. It would have been useful to have access to human resources data about sick leave days taken by this cohort of the medical community to provide insight into the reported sickness leave rates and, in particular, to enable an objective assessment of the self-reported rates of sickness absence found in the study. Other studies have gauged this by including a health status measure against which rates of sick leave and presenteeism are compared (see for example the study conducted by

Demerouti, Blanc et al. 2009), which would be useful to replicate if this study is done again in the future.

Importantly, the close association suggested between presenteeism and sick leave supports other research that finds sickness presenteeism and sickness absence as two sides of the same decision-making process (Dew, Keefe et al. 2005, Krane, Larsen et al. 2014). This relationship came across especially strongly in the qualitative material where pressures driving presenteeism were frequently discussed in light of whether or not taking sick leave was possible due to the range of structural and cultural factors identified (see 'Cover and management of sickness absence' below). As other commentators have suggested, low rates of sickness absence is not necessarily an indicator of the absence of sickness (McKevitt, Morgan et al. 1997). Indeed, what emerges from these findings is a clear pattern of coming to work when ill at the expense of taking legitimate sick leave and feeling unable to take legitimate sick leave because of various structural and cultural barriers.

The correlation analysis suggested that women and younger senior doctors were more likely to assert presenteeism and presenteeism with an infectious illness in the survey than their counterparts, as measured by both the quantitative counts and the Likert scale responses. This pattern is consistent with the findings from Tan, Robinson et al. (2014) as well as the findings from Jena, Melzer et al. (2012). Senden, Lovseth et al. (2013) also found being female was a significant predictor of presenteeism in their study of Swedish university hospital physicians. As discussed in greater detail below, many people reported tensions between taking sick leave for themselves and reserving sick leave for when they needed to look after their dependents. It is possible that female respondents are more likely to experience pressures to reserve their sick leave for when they need to care for dependents than their male counterparts (Floderus, Hagman et al. 2009, Wallace 2014). Research cited in Gascoigne, Parry et al. (2015), for example, notes that female professionals are still likely to have primary responsibility for 'caregiving' in addition to their work responsibilities. They further note that these gendered norms are often at odds with the expectations of 'all-hours work', particularly in what they define as 'extreme jobs' which could arguably encompass the nature of work for senior doctors (see also Acker 1990). Simpson (1998) also notes that the women with children who participated in her survey on presenteeism were more likely to cite conflicting demands of home and work than their male counterparts who also had children but also to cite this as a driver for staying at work when unwell.

Rosvold and Bjertness (2001) found physicians aged between 30 and 39 were the most likely to work through illness than the older counterparts. They suggest that

this was due to the intensive training requirements this cohort were likely to be involved in but also because of additional vulnerabilities experienced by younger medical professionals who are still trying to establish their positions in the medical workforce. Other research supports the idea that presenteeism is common amongst sectors of the workforce who feel a need to demonstrate a more visible commitment to their workplace as well as those who are trying to 'impress' seniors, possibly for promotion opportunities (Demerouti, Blanc et al. 2009). Some of the comments left in the qualitative section of the survey suggested that senior doctors had 'wised up' to the importance of taking sick leave and noted specifically that while they had definitely worked through illness when younger, they no longer felt pressured (or felt better able to resist the pressures) to do so. As the following comment states:

> "I am less likely to attend work when unwell now than when I was younger. It has taken some time to overcome the fear of being thought 'weak' or a shirker to get to this point." (Comment 209)

These broader contextual factors, including concerns for appearing weak or a 'shirker', and their possible influence on presenteeism rates are described in more detail in the following sections.

Reasons for turning up to work when unwell

The results generated in this study are broadly consistent with other published research that suggests concern for impact on colleagues and notions of duty to patients as important reasons behind presenteeism behaviour (Tan, Robinson et al. 2014). The findings from this research suggested that not feeling unwell enough was less important than the concern for co-workers, feeling of duty to patients, and having clinics already booked (cf. findings from Bracewell, Campbell et al. 2010). The findings from the qualitative data generated by this study reiterate the importance of these variables but suggest additional factors and more nuanced explanations for the behaviours revealed in this study. Viewed alongside the quantitative patterns, the qualitative data adds considerable depth to understanding the complex and imbricated decision-making processes that surround presenteeism behaviour. These issues are discussed in detail alongside relevant quantitative findings according to the three main qualitative themes in the following sections.

Cover and management of sickness absence

As detailed in the results, having clinics and theatre sessions already booked or anticipating extra workload upon return to work were ranked as important drivers

of presenteeism by the survey respondents. Ranking anticipation of workload as an important factor was associated with higher numbers of presenteeism days whereas not ranking clinics and/or theatre sessions as an important reason was associated with greater numbers of sick leave days. It is important to note that not all of the specialists involved in this research are likely to have direct patient contact, or may have less frequent contact than some sub-specialities. This may have some bearing as to why specialists who didn't rank clinics or theatre sessions important find it easier to take sick leave than others. Rosvold and Bjertness (2001), for example, note that those with fewer commitments to patient lists were less likely to work when ill, which may suggest a concurrent increase with the amount of sick leave taken by this cohort. Sub-specialty or working with patients was not looked at in the survey so this association can't be explored more fully as a consequence.

These issues were framed slightly differently in the qualitative comments where respondents frequently spoke of presenteeism with reference to their concerns for the lack of available cover, especially if they were to take sudden unanticipated sick leave. These themes were echoed by the 47% of respondents who didn't agree that management would be supportive of them taking sick leave (34% neither agreed or disagreed with this statement and 13% outright disagreed) . As one comment stated:

> "Management are supportive of me taking sick leave in terms of telling me 'of course I should be away if unwell', but there is very little practical support offered to offset the effect on patients, colleagues and my work load on return..." (Comment 212)

Research conducted by Krane, Larsen et al. (2014) supports the notion that concerns over how sickness absence would likely be managed both at managerial levels and by colleagues has a large bearing on attitudes towards presenteeism. Their research into nursing home employees found that if employees knew that other workers could cover them, then they were more likely to take the time off work as opposed to turning up to work when unwell. Analysis of levels of agreement with various statements relating to taking sick leave and rates of presenteeism suggested similar patterns. As detailed in the results, disagreeing with the notion that colleagues would manage their workloads if sick leave was taken was found to be strongly associated with higher numbers of turning up to work when unwell and infectious as was disagreeing with the statement that departments had good provisions for managing workloads when staff are unwell. This complex picture is illustrated by the following quote:

> "The sick leave I have taken this year was for a planned procedure so several weeks' notice was possible and this was much easier to arrange and I didn't feel guilty taking it as I knew cover was in place. In our department … short notice sick leave, particularly on evenings and at weekends is much harder to cover. Staffing levels at our DHB mean that our staff already pick up extra shifts as locums to cover SMO and RMO [resident medical officer] leave and planned sick leave, so there is not much capacity left for short notice sick leave cover … I would be more likely to take short notice sick leave if I thought there was more of a possibility my shift would be covered." (Comment 23)

In the New Zealand DHB context, locums can be provided in some circumstances if sick leave is planned in advance; for example, for an individual's planned surgery. It is unlikely, however, that formal cover will be provided or is even available for short-term unanticipated sick leave. It is generally expected that other staff will absorb the additional workload into their schedules, where possible. At present, ASMS job-sizing activities do not accommodate unplanned sick leave as generally it is expected that it will be of short duration and not represent a large burden. This assumes that there is sufficient capacity for staff to absorb additional workload. One comment from a respondent suggested that future job-sizing activities should indicate the number of sick relief FTE positions there should be per total FTEs as one way of providing an objective assessment of cover needs in departments. These comments, as well as a number of others left in the survey, suggest that formalising both the accounting processes for and the availability of short-term leave cover would have a considerable impact on the likelihood of the senior doctor's willingness to take sick leave. This may be one practical strategy that may have a positive impact on presenteeism behaviour.

Cover, however, is further complicated due to the high levels of specialisation and the nature of the tasks performed by the senior medical specialists. It is conceivable, for example, that the work undertaken by some medical specialists in particular DHBs is so specialised that no one can readily provide cover, even in well-staffed departments with appropriate mechanisms in place. Difficulties around cover thus involve considerations as to how 'replaceable' the senior medical specialists are. The following comment referred to these issues directly:

> "[t]he more senior your level (both clinically and within your departmental structure) the more 'difficult' it is to 'replace' you for leave whether expected or unexpected. We do not have a 'casual pool' available from where to draw on such as in the case of nurses. There is always the awareness of being a burden to colleagues and having to 'catch up' on your return to work." (Comment 572)

Low replaceability, as articulated by Aronsson and Gustafsson (2005), pertains to task specificity but also refers to how 'lean' a workplace is in terms of staffing and resourcing levels. In their research they found that the leaner the workplace, the more likely it was to have staff with low replaceability in that the nature of work may not be readily performed by others and thus builds up during time on leave. Understaffed 'lean' workplaces with demanding workloads were found to encourage workers to attend when unwell. Starke and Jackson (2015) consider this relationship in their discussion of what they define as "a business model of health care" (p. E1). In their view, a health care system focused on productivity metrics and outputs combined with a practitioner's personal and moral obligations as a caregiver act as a potent driver of presenteeism. This may be a factor of particular relevance in some of the smaller DHBs within New Zealand where some specialties have very low numbers or may even be sole practitioners. Interestingly, however, there was no association found between rates of presenteeism and number of specialists in a department, or between presenteeism and host DHB (see the 'Results' section above). There was, however, a relationship between rates of sick leave and the number of specialists in a department. This suggests that issues around cover may be interwoven with broader issues to do with the resourcing and staffing of DHBs, especially as the results suggest that larger departments have higher rates of sick leave, which could mean specialists find it 'easier' to take sick leave in better-covered departments. Research by the ASMS in 2014 suggests that issues around cover are increasingly important given the severely entrenched shortages in New Zealand's DHBs where numbers of funded specialists often falls short of the numbers required to meet patient needs (ASMS 2014).

Thirty-eight percent of the respondents ranked concern for growing workload while on sick leave as a core consideration of their presenteeism. Older respondents were more likely to rank it as more important than their younger counterparts. Respondents' comments spoke of this, with frequent references to stress and concern for the build-up of work while on leave. As the following comment summarises:

> "It is essentially impossible to be away [sick] when on call. There is simply no potential cover and management are completely ill-prepared for this. If we take time away from clinics, the workload is just increased significantly at the next one to make up for it ... leading to more stress than it's worth. Management in public hospitals have survived on specialist goodwill for years, and have abused it for so long they don't even know they're doing it." (Comment 134)

As this comment illustrates, if senior doctors feel they are operating in a 'lean' system with no cover and anticipate further stress and work pressure at the

culmination of taking sick leave, then they are likely to continue to show up to work, even if unwell. This comment further highlights how such behavioural patterns can become ingrained as the 'norm' and suggests that management can unwittingly take advantage of "specialist goodwill" under such circumstances.

Madan, Harvey et al. (2011) note that while individuals should not feel pressured into coming to work when unwell, the option of doing 'adapted duties' can be beneficial in avoiding the 'all or nothing' dichotomy in relation to working with illness. Indeed, some respondents noted that they might try and restrict the amount of patient contact they have when they are ill and instead focus on non-clinical duties such as administration tasks. Given the significance of workplace pressures to attend work when unwell, however, strategies to enable employees to be at work at reduced capacity may fail to adequately address the complex nature of this phenomenon. Indeed, encouraging employees to go to work when unwell, even with adapted duties, may not negate the broader stresses and anxieties that many of the respondents spoke about with regard to their presenteeism behaviour. This issue is further touched on in relation to the theme of thresholds of illness in the following sections.

Aronsson and Gustafsson (2005) say that levels of control over both the pace and type of work is a contributing factor to presenteeism. They cite the work of Johansson and Lundberg (2004) to describe 'control' as relating to the concept of 'sickness flexibility' or the ability to adapt tasks to how an individual may be feeling. In their view, having a high level of control might enable an individual to turn up to work unwell because they have the opportunity to adjust their pace of work to how they are feeling. On the contrary, however, having low control over work tasks may also act as a driver for presenteeism if the amount and type of work is unrelenting and inevitable. With low control an individual may feel extremely beholden to turn up regardless of their health status.

For the medical professionals involved in this study, there may be instances of presenteeism as a consequence of both 'low' and 'high' levels of control. For example, a surgeon faced with lists and clinics may describe themselves as having a low level of control because of limited ability to adapt the required task performance to how they are feeling (lists etc must be done) whereas another senior doctor could modify their work plan to ensure low levels of patient contact and thus justify their decision to come in to work when unwell on that basis. Aronsson and Gustafsson further note that those who are able to exert higher levels of control over their work duties are often driven to attend because of their personal thresholds for illness. Here, the notion of 'personality related variables' is useful. Their concept of 'boundarylessness' or the inability to "set limits with regard to excessive demands" (Aronsson and Gustafsson 2005 p. 960) is particularly

relevant in light of other cultural factors associated with the medical profession. These feelings of high personal responsibility to patient care (Widera, Chang et al. 2010), as well as discourses that frame medicine as being an all-hours profession requiring a fulltime commitment (Tsouroufli, Ozbilgin et al. 2001, Ozbilgin, Tsouroufli et al. 2011), are all likely to influence the relative importance of workplace pressures and demands.

Presenteeism as a consequence of concerns for burdening colleagues

As the results in table 12 suggest, structural factors were commonly discussed alongside the anticipated negative consequences taking leave would engender for patients and colleagues alike. Many respondents spoke of feelings of great reluctance to take sick leave due to concerns for the already overstretched and overburdened workloads of colleagues. For example, the following comment links decisions around presenteeism to concerns over burdening already stretched colleagues operating in a 'fragile' public health system:

> "It's not about trying to appear tough or about being a martyr, it's knowing that the systems are fragile and being away sick places extra strain on all of your colleagues who are already struggling." (Comment 146)

Not wanting to burden colleagues was ranked by 28% of respondents as the second most important reason to turn up to work when ill and by 24% of respondents as the most significant reason in influencing their presenteeism behaviour. Women and younger senior doctors were more likely to rank this factor as important. Furthermore, ranking not wanting to burden colleagues highly was strongly associated (p=.000) with higher numbers of presenteeism days. Johns (2011) notes research which suggests workplace environments that have strong team cultures can foster presenteeism due to either perceived pressure from other teammates to turn up to work or self-motivated presenteeism due to not wanting to 'let the team down'. The relative importance placed on collegiality and sense of loyalty to co-workers was clear in this study. While concern for burdening colleagues was emphasised as an important driver of presenteeism behaviour, over 70% of respondents were of the view that their colleagues were supportive of them taking sick leave when unwell and over 50% agreed that management were supportive of them taking sick leave. While this suggests a positive picture on the whole with respect to collegial relations, in 30% of situations where colleagues are not believed to be supportive, and 50% of situations where management is perceived as not supportive, presenteeism is likely to be an issue. Indeed, the respondents

who disagreed with these statements were found to have higher levels of presenteeism than those who did not. These findings suggest the impact that perceptions of unsupportive colleagues and unsupportive management can have. Combined, these statistics suggest a complex matrix of issues affecting a workforce with strong notions of loyalty to each other, but behaviours driven by concern for burdening colleagues as well as by perceptions of a lack of support from both colleagues and management in a stretched workplace environment.

Presenteeism and duty of care

The notion of duty to those in care is well recognised as a key driver of presenteeism (Aronsson, Gustafsson et al. 2000, Bergstrom, Bodin et al. 2009). As already suggested by the findings from the quantitative data, feeling of duty to patient was ranked by 35% of respondents as the primary reason why the respondents involved in this study continued to turn up to work when unwell and was overall the most significant reason selected by respondents. Ranking feeling of duty to patients highly was found to be significantly associated with number of presenteeism days but this factor was not correlated significantly with gender, age or years of time worked. In the qualitative results, respondents emphasised the logistical difficulties around rescheduling clinics or lists in terms of the disruption these cancellations would represent to patients. As one respondent stated:

> "Patients have often been waiting for a couple of months for an appointment, and if they are rescheduled due to illness, it will probably be another 4–6 weeks before they can be seen. I feel a huge duty to honour their appointment." (Comment 433)

The comments referenced in this theme clearly touched on broader discourses about medical professionals as committed and dedicated to their work and their patients. Embedded in these statements about the significance of workplace factors are reflections of what respondents feel it means to be a 'good doctor'. These themes are discussed in the following section as illustrative of a collective normativity of presenteeism within the medical profession where choosing whether or not to take sick leave is often made in reference to embedded social and moral norms.

Sick leave, presenteeism and superhero SMOs

Compared with the great emphasis placed on duty to patients, fewer than 2% of respondents framed fear of appearing weak as the primary reason they continued to turn up to work unwell, although 9% of respondents signalled that it was the third most significant reason for their behaviour. The correlation analysis suggested

that fear of appearing weak was strongly correlated with presenteeism behaviour (p=.000), rates of turning up to work infectious (p=.000) and number of sick days taken (p=.003). If respondents ranked these factors highly, they were both likely to have higher rates and days of presenteeism and greater numbers of sick leave days. While fears concerning appearing weak are not ranked highly as an explicit reason why the respondents may turn up when ill, there was an undercurrent to many of the qualitative comments left that issues around fear of appearing weak, broadly defined, is an issue of relevance in shaping presenteeism behaviour and rates of sick leave taken. Men were more likely to rank this as an unimportant factor in determining their presenteeism behaviour but there was no significant relationship between age and years worked.

Consideration of the qualitative data revealed a sense that some respondents either were aware sick leave could represent weakness in the eyes of their colleagues, or supported the view that taking sick leave represented less than ideal behaviour in a senior doctor. These feelings were conveyed in comments that suggested taking sick leave would be viewed negatively by their colleagues. Comments referred to sick leave as a tenuous option as it might be viewed as 'letting the side down' or suggesting a less than ideal work ethic. For example, in the following comment sick leave and weakness were directly referenced as an issue of concern:

> "…There is … a strong pervasive attitude amongst a vocal majority of senior staff that taking sick leaves implies 'weakness' and that [New Zealanders] have a 'terrible work ethic', 'taking sick leave at the drop of a hat' … It almost makes you frightened to call in sick as you feel this will count against you given the real negative perceptions that exist around it in our department." (Comment 162)

In this comment, the connections made between sick leave, work ethic, weakness and rank is interesting. For this respondent, feeling 'frightened' to call in sick suggests their decisions are inflected by a workplace environment where individuals are anxious as to how their sick leave behaviour will be perceived. As another respondent wrote, "Sometimes fear of being criticised by the senior colleague for taking sick leave makes me go to work" (comment 350). If there is a perception that senior members of the department disapprove of the taking of sick leave, then presenteeism is likely to be implicitly normalised as a coping strategy. This could be especially so for those who are younger or attempting to establish themselves in a workplace where it has been made clear that "[sick leave] will count against you". This may also be a contributing factor in the significant correlations found between gender (more females likely to exhibit presenteeism) and younger medical professionals.

Other comments from respondents who viewed presenteeism as a 'non-issue' inadvertently reinforced this view that taking sick leave is indicative of a poor work ethic. For example, one respondent stated:

> "I feel this [presenteeism] is a non-issue. In fact, taking mental health staff as a whole, I find it amazing that so many take sick leave so often, indicating a possibly flawed work culture in this country." (Comment 174)

Johns (2011) notes in his research into presenteeism that during wartime, it was not uncommon to view absenteeism (broadly defined) as "extremely deviant and even treasonous behaviour" (p. 486). While sick leave as a form of absenteeism is not framed in such an extreme manner in the comments of this study, some comments certainly conveyed strongly held views about the legitimacy of taking sick leave for specialists. Some comments conveyed this feeling by comparing the sick leave behaviour of senior doctors with that of other medical professionals such as nurses, 'junior' colleagues and technicians. In the following comment, the respondent compares their own behaviour of only missing one shift in 20 years with their perception of the amount of leave taken by resident medical officers:

> "I have only missed one shift in 20 years. I work in the ED [emergency department]. Our patients can't reschedule their visit. If I call in sick I am screwing both the patient and my colleagues who are left to deal with the mess. Far more harmful to miss a shift than to wear a mask and keep a reasonable distance. The RMOs don't feel this way, however. They call in sick far out of proportion to the incidence of disease in society. It is truly breath-taking." (Comment 601)

This study has no way of comparing the sick leave rates between the specialists involved in this study and the perceived behaviour of the resident medical officers opined by this respondent. The purpose of reporting this quote is rather to reflect the strongly held views concerning the legitimacy of taking sick leave and to suggest how these views can act as potent drivers for presenteeism. In directly comparing perceptions of sick leave behaviour between the different medical professionals, this individual is casting an implicit professional judgement where those who take sick leave are constructed as inferior to a professional ideal. If calling in sick is viewed as 'screwing' both patients and colleagues, this has the capacity to create a stressful atmosphere where presenteeism can be viewed as a necessary course of action in order to avoid criticism or negative attention. A less vehement comparison was made by another respondent as follows:

> "…The nurses and junior doctors have a different culture of calling in sick when they are sick, in fact some could argue they go too far the other way!" (Comment 563)

This respondent's comparative emphasis on their perception of the 'culture' of nurses and 'junior' doctors (whether accurate or not) is further significant because it suggests an 'othering' of behaviour that deviates from an unspoken 'norm'; in this case the idea that specialists should work through illness. This concept of 'othering' has been widely described in feminist literature and has been linked to gendered dualisms where the 'normal' is seen as masculine and more powerful than the 'other', which is often feminised, peripheralised and framed as less powerful (De Beauvoir 1949). As Tsouroufli, Ozbilgin et al. (2001) summarise, "otherness … can be projected to any individual or group to challenge their status and professional authority and disqualify them from membership to a community" (p. 501). Exploring these comparative descriptions of presenteeism behaviour as a form of othering assists with understanding how presenteeism behaviour is entangled with the identity of specialists. In other words, it suggests a 'policing' of sick leave in light of idealised views concerning what it means to be a specialist.

The gendered tone of these discourses around sick leave also requires attention. Phrases such as 'superhero' (comments 563 & 285), needing to 'man-up' (comment 163), or 'battle on' (comment 192) are not gender-neutral descriptions. Rather, they suggest an association between presenteeism behaviour and a masculinised normativity of attitudes (Simpson 1998, Risberg 2004). Medicine as a male-dominated profession has been well documented and despite the increasing participation of women in medicine, there are arguable gendered inequalities that persist (Risberg 2004, Wallace 2014). While this is not the emphasis of this research, it is important to consider how pre-existing structural gender inequalities may feed into the expectation of presenteeism as 'normal' behaviour. For example, in the following anecdote a respondent recounts being described as a 'wimp' by colleagues for taking sick leave:

> "…[M]ost clinical and non-clinical managers are relatively unsupportive. For example, when taking 1 day off during a 7 day illness, I was laughed at in front of trainees and nurses for being a 'wimp' and my clinical director collared me in the corridor and mentioned my having a lot of time off, despite my having come into work when signed off!" (Comment 317)

As a 'wimp', the respondent's sick leave behaviour is implied to be lacking against an unspoken masculine/macho norm. The respondent highlights their frustration with this teasing and subsequent criticism of their sick leave behaviour, especially

because they had come into work when being still officially on leave. These tensions and behaviours are entangled up with other themes around conscientiousness (Rosvold and Bjertness 2001) and heroic perseverance in the face of adversity (Johns 2011) as well as a keenly felt sense of duty and responsibility described in the previous section. Emphasising the gendered dimensions to these discourses is done in order to destabilise the neutrality accorded these expectations around professional behaviour as well as to highlight some of the barriers that may exist to block full and equal participation.

In this regard, many comments discussed drivers for presenteeism in ways that highlighted tensions between the expected norms of professional behaviour and commitments to family life and self. As one respondent recounted:

> "I have a 12 month old child that has been sick a lot due to starting preschool, therefore I go into work when I'm sick as I've already been off with my child sick and feel I can't ring in sick again. This is mostly because my first 3 months back after maternity leave I was told (in an informal, friendly meeting…) that I had had too much sick leave and it was affecting other people. So since then I have gone into work when I shouldn't have and had to send my child to preschool when I shouldn't have." (Comment 276)

This recounting of a critical comment regarding the impact of the respondent's sick leave on her colleagues has created a very stressful situation for the respondent where turning up to work "when she shouldn't" is necessary to avoid further criticism or the suggestion of a lack of commitment to the profession. The idea that she has taken "too much" sick leave has created an uncomfortable sense of obligation to work in a manner that forces this respondent to push herself and her child to 'present' in less than ideal circumstances.

Ozbilgin, Tsouroufli et al. (2011) and Simpson (1998) have described similar tensions between demonstrating commitment to the medical profession and an expected 'all-hours' temporal availability of the medical professional. Their research suggests that assumptions about what constitutes 'ideal' medical practice, in this instance, being available to work at all hours of the day, is interwoven with other assumptions about demonstrating commitment to the profession in ways that subjugates the individual's other responsibilities to family, work–life balance and personal needs. Their research further draws attention to how expectations about all-hours work affects female and male doctors differently, particularly because of differences in terms of domestic responsibilities. The tensions described between taking sick leave for dependents and then presenting at work when unwell suggest that similar issues may apply to the specialist workforce; it would be

interesting to look at the relationship between gender, dependents and presenteeism in greater depth in future research.

This pressure, perceived or otherwise, to attend work at the expense of looking after oneself or dependents was specifically noted in some comments. One respondent gave an account of an extreme example of presenteeism where her attendance was required under less than ideal circumstances:

> "When I was a heavily pregnant house surgeon I was on call overnight and I developed gastroenteritis. I didn't know who to call and hoped I would not get called out. At about 6am I was called to a cardiac arrest – I doubt whether I performed optimally. There have been many instances since when I have felt unwell but 'boxed on' – but in the past few years I am much less inclined to do this. When my children were young I found it easier to stay home if they were sick than if I was sick." (Comment 177)

'Boxing on' through episodes of illness suggests the entrenched nature of presenteeism and how tightly this behaviour is entangled with other norms concerning what it means to be a medical professional. If 'boxing on' and battling through illness is expected, then this creates a real dilemma for those who fall seriously unwell when on call, or for those who have ill dependents and need to take leave in order to look after them. If this legitimate sick leave behaviour is constructed as lacking or inferior, there are likely to be additional issues around morale that require attention. As another respondent wrote:

> "Somehow I doubt whether I am really sick if I can physically get out of bed in the morning. It is somewhat ironic that as a general rule we are far more generous towards our patients in terms of sick leave than ourselves or our colleagues." (Comment 381)

The tone of these comments suggests that expectations about presenteeism can have serious ramifications for the morale of departments and the levels of stress and anxiety in the individuals concerned. The difficulty here is teasing out how to normalise sick leave as a legitimate course of action when perseverance in the face of adversity is understood to be a main sign of their dedication to their profession and the patients they serve. Nevertheless, establishing what constitutes an acceptable threshold of illness is not going to be helped if attitudes continue to exist that view sick leave is only justifiable if medical professionals 'can't walk' or are 'dying'. Greater emphasis needs to be placed on the negative consequences of presenteeism, particularly in terms of its links to future burnout among medical professionals (Bergstrom, Bodin et al. 2009), and the potential for serious harm to

patients (Widera, Chang et al. 2010). The following section examines comments about types of illness and how this shapes presenteeism behaviour.

Acceptable thresholds of illness

As the following quote summarises, respondents often discussed their presenteeism behaviour with reference to determining 'when is sick too sick'. Respondents discussed judging their levels of illness against consideration for workload pressures, the likely burden on colleagues and their feelings of duty to patients:

> "It's hard to call in sick, 'cause you feel responsible for your patients and when are you really sick? We hardly feel sick enough to be sick. I had an emergency surgery and even then I felt guilty not being able to call my patients off my worklist." (Comment 470)

Implicit in these statements is a 'weighing up' of their illness against a threshold where the potential for negative outcomes around taking leave necessitates working through illness. As discussed, sick leave was frequently described as only legitimate in the face of serious illness despite a clear acknowledgement that presenting with illness could negatively impact on an individual's ability to perform or negatively affect their patients. As the quantitative findings further emphasise, not knowing the threshold for staying home when unwell was not ranked highly as a significant driver of presenteeism behaviour but it was associated (p=.027) with the number of sick leave days taken. Respondents aged 60 and above were more likely to rank this as an important factor in determining their presenteeism behaviour. However, very few of the respondents agreed with the notion that their departments had either clear written guidelines on the threshold for staying home when unwell or had even a clear understanding of the threshold for staying home (5.9% and 19.3% respectively). Not feeling unwell enough to stay home was ranked as a reasonably significant factor in shaping presenteeism behaviour and was strongly associated (p=.000) with the number of presenteeism days taken. Males, older respondents and those who had spent more time in the New Zealand DHB workforce were all found to rank this as an important issue in shaping their presenteeism behaviour.

Comments fleshed out these associations by describing infectious illnesses such as gastroenteritis as more readily accepted as a reason for staying home with upper respiratory tract infections frequently cited as not being a good enough reason to stay away. As the quantitative findings suggest, however, even with infectious illnesses, the pressure to attend work was still significant enough to encourage presenteeism; 41% respondents cited attending work 'sometimes' and 'often' while

unwell with an infectious illness. Only 25% said they had 'never' done so. This is similar to findings reported in Szymczak, Smathers et al. (2015) that found 50–90% of health care workers reporting that they would work or have worked while unwell with infectious illness.

In the view of Jena, Melzer et al. (2012), this apparent willingness to turn up to work while infectious could be interpreted as a decline in standards of 'professionalism' in doctors as it has the potential to place patients at risk of harm. Khalid and Juma (2011) pronounce this tendency as a double standard with Landry and Miller (2010) suggesting that presenteeism behaviour, particularly with communicable disease, should be viewed as a form of medical negligence in that doctors are contravening the Hippocratic oath: "First, do no harm". Senior doctors obviously have considerable professional ability to judge whether or not their illness posed a significant threat to their patients although there is research to suggest that doctors as a group often fail to comply with basic infection control procedures and can play an active role in the transmission of disease (Bracewell, Campbell et al. 2010, Widera, Chang et al. 2010). What this high rate of attending while infectious suggests is that senior doctors in this study are under incredible pressures to attend work which can affect their judgement around when they should stay home. The following comment illustrates this quandary clearly:

> "…The other thing is how sick is sick – the commonest being non-specifically virally unwell (rhinorreah, head cold, cough etc.). It is hard to know whether you should stay home or not and I have worked a whole weekend feeling suboptimal but not terrible only to discover that I actually had Whooping Cough! ... When symptoms are in that borderline zone where you can carry on but aren't quite 100% one does feel bad to cancel patients off lists, clinics, etc." (Comment 366)

Senior doctors clearly face a dilemma when deciding if their illness should necessitate taking sick leave, and, as this example illustrates, there can be serious consequences from making the 'wrong' decision. One suggestion that came through in the comments as a possible way forward was the idea of having either occupational health physicians available for senior medical specialists, or having explicit guidelines about when to stay home, when to cancel clinics, and clarification of the administrative procedures around this. Data from the quantitative part of the study suggested that very few departments had clear written guidelines for the threshold for staying away when unwell and that there was a strong association between levels of presenteeism and whether or not respondents disagreed with the statement that their departments had either thresholds or guidelines. The study did not probe whether or not medical practitioners had their own general practitioner although Tan, Robinson et al.

(2014) found no association between presenteeism behaviour and whether or not their respondents had their own general practitioner. These associations, however, do suggest that management could do more in terms of clarifying the 'grounds' for taking sick leave, and making the process easier to do so.

Many of the respondents made it clear that having some form of external validation either in the form of written guidelines, departmental policies or having an occupational health physician available in the hospitals would help to avoid presenteeism. Starke and Jackson (2015) argue for more attention to developing clearer statements regarding the thresholds of illness which have the capacity to restrict work on the basis of key symptoms. They do concede, however, that "determining what constitutes being too sick to work is complicated and lacks a sufficient evidence base" (p. e1). Other suggestions in the literature on ameliorating presenteeism note the importance of flexible working arrangements such as having the option to avoid clinical contact with patients, or conducting clinics over Skype or an equivalent (Landry and Miller 2010). This also came through as an 'informal' strategy, as the following comment suggests:

> "Several times with a cold, I have stayed home but done 'paper work' from home & still fielded calls re my patients. This is a reasonable compromise when wanting to not pass on infectious disease but not so unwell that can't concentrate on work." (Comment 341)

The importance of explicit support or permission to take leave was noted by some respondents. This notion of being 'permitted' to take sick leave was described as both an enabling mechanism as well as a strategy to combat the 'guilt' that is often associated with taking leave. As one respondent stated:

> "Several years ago our clinic charge nurse made it very clear to me that I was entitled to take sick leave when I or my children were sick and not to compromise on this. This has been tremendously helpful in 'allowing me' to take sick leave rather than coming back to work when I shouldn't." (Comment 562)

This comment reiterates the significance of external support and validation as a factor of relevance for presenteeism. The importance of receiving 'permission', in this case from a charge nurse, reiterates the importance of support from management and colleagues alike and the value placed on shared recognition. As one respondent summarised, "doctors need explicit support and 'permission' to take sick leave" (comment 564). These themes reiterate the significance of understanding the broader social and practical context of how a physical illness is 'received', and in turn classified as something that necessitates staying away from work or continuing to work when ill. An additional part of this process that was

described in the qualitative data was the manner in which non-physical illnesses were treated by individuals and colleagues alike.

Visibility of illness

The many and varied stresses that influence the decision to present at work when ill also included reference to how visible the illness was. Some respondents framed this notion of visibility in terms of feeling that they had to 'present' at work in order to prove they were unwell before going home once their illness was recognised as genuine and legitimate:

> "Sometimes I need to show I'm not well, so I come in then leave early." (Comment 428)

Visibility of illness was also discussed with reference to the under-recognition afforded fatigue as a consequence of onerous on-call duties, or from working outside of normal hours. Many of the senior doctors who left comments felt fatigue needed more explicit attention as a factor potentially more significant than physical illness in terms of its capacity to impair performance. As the following respondent stated:

> "Fatigue after [a] 24-hour obstetric call is just as major an issue as sickness, and it is being ignored." (Comment 515)

Fatigue is well recognised as having the capacity to significantly impair a person's ability to work safely and efficiently, as well as having a detrimental effect on individual and workforce morale (Kuhn 2001, AMA 2005, Smith-Coggins, Howard et al. 2006). Studies into the impact of fatigue in emergency departments suggest a clear relationship between working while fatigued and the incidence of errors (Smith-Coggins, Rosekind et al. 1994). Although the definition of presenteeism used in this study was intended to include presenteeism as a consequence of fatigue and stress, many respondents chose to specifically identify fatigue as a separate issue to sickness-related presenteeism. For example, in the following comment the respondent distinguishes between feeling 'jaded and tired' as opposed to being 'unwell':

> "I think the hardest one is when you are feeling tired after an 'all-nighter' on call. You are not unwell, but feel a bit jaded and tired. Ideally, you don't really want to come in but you are probably at 80–90% of normal. You may feel fine initially and then tire later in the day." (Comment 218)

One respondent suggested a second category of leave called "fatigue leave" (comment 409) as a way of distinguishing between leave taken for physical illness

and leave required for recuperation from shift work or on-call duties. At present the ASMS is working on guidelines for recuperation time following on-call or shift work which suggest a minimum of 24 hours following one or more night shifts but optimally three days of recuperation time in order to overcome sleep-disruption. What these findings suggest is that fatigue needs greater recognition as a legitimate reason to take sick leave.

Similar comments were made about psychological issues including depression and burnout. Many noted that 'obvious' physical illnesses were likely to be more readily accepted as a valid reason to take sick leave than something that was essentially 'hidden'. Nevertheless, many stated that this attitude disregarded the potential negative consequences of presenteeism as a result of these factors:

> "[there is] not enough consideration of psychological illness until overt. You have to be seen to be physically ill. I have seen many colleagues over the years where work or home stress has finally caused illness that may have been averted if the old school macho ethic hadn't forced them to work when they should have been seeking help." (Comment 55)

Psychological or mental illnesses are recognised as having a significant ability to affect the productivity of workplaces (Johns 2011) with Goetzel, Long et al. (2004) estimating depression and other psychological illnesses as being one of the most costly causes of presenteeism. In addition to the negative impacts on productivity, working with depression and other psychological illnesses is recognised as having the potential to negatively impact the quality of patient care as well as morale and team dynamics (Thun, Fridner et al. 2014). Nevertheless, Cooper and Dewe (2008) note that despite depression, stress and anxiety accounting for nearly 46% of all reported illnesses in the United Kingdom, the significance of mental ill health is poorly recognised by employers. Further, other research found that depression was rated lower as a good reason to stay away from work than other factors including family illness, minor illness, bad weather and poor transportation (Johns and Xie 1998). As one respondent summed up:

> "…[p]hysical illness is barely 'tolerated' amongst SMOs but psychological stress … is even more 'not tolerated'." (Comment 483)

Waldron (1996) reports similar attitudes in his research on presenteeism in doctors in the United Kingdom. The study reports one doctor stating that "the mind numbing tiredness and dreadful working conditions led to stress and demoralisation sufficient for me to take 6 months sick leave between jobs" but Waldron states that "…he blamed his absence on an old knee injury rather than admit to being depressed" (p. 394). These issues reflect broader trends to do with

recognising depression as a legitimate form of illness and, in some circumstances, a legitimate reason to stay away from work.

Some respondents suggested that this was to do with the different types of risk associated with psychological issues as opposed to infectious illnesses. For example, one respondent noted that:

> "…the issue of psychological health is often handled differently by an individual than physical health. [It is] easier to continue working when unwell psychologically than when say [you] have diarrhoea and vomiting." (Comment 241)

Infectious illnesses certainly present different and more immediate 'risks' than psychological conditions but as the respondent intimates, handling mental health 'differently' can be at the risk of ignoring possible significant consequences. As the following section of a comment describing the impact of short staffing as a consequence of sick leave demonstrates, failure to ignore the warning signs of stress can have serious ramifications:

> "…[t]here was a more prolonged period of solo cover for the department where I would find myself locking the office door and hiding under the desk in the dark which suggests that longer periods without additional cover are psychologically quite damaging. Doctors as a profession are famously poor at managing their own health and well-being and I am no exception." (Comment 629)

Burnout is a psychological syndrome that can result from working under stressful conditions for a prolonged period of time (Brenninkmeiker and VanYperen 2003). It is well reported that high levels of burnout and stress are associated with lowered cognitive performance and poor team dynamics (Howlett, Doody et al. 2015), and are positively associated with the likelihood of future long-term sickness absence (Borritz, Christensen et al. 2010). The impact on performance was noted by one respondent who stated:

> "In my view it is mental health problems ([especially] depression) that people do not want to acknowledge and are often unaware of the impact on their performance." (Comment 316)

Given the cultural and professional norms described in the sections above, there are clear barriers within the senior medical workforce that need addressing before opening up about psychological illness can be done without risk of further judgement (Moll, Eakin et al. 2013). Promoting a culture within the senior medical cohort where viewing sickness as a form of weakness is not tolerated will be very important in this regard (Tan, Robinson et al. 2014).

SUMMARY AND CONCLUSIONS

The results from this survey provide a comprehensive insight into both rates of and motivations for presenteeism within this cohort of senior doctors across New Zealand's DHBs. The findings from this research suggest that presenteeism behaviour is common,, well recognised and an issue of concern. It suggests that the rates displayed for this target group are consistent with other research into medical professionals both within New Zealand and internationally. The combination of the qualitative and quantitative findings provides a rich and nuanced examination of the complexities that surround presenteeism and suggests that the 'choices' available to senior medical doctors about whether or not to attend work when unwell are shaped by multiple considerations.

The findings suggest that participants are keenly aware of the pressures on New Zealand's public health system and emphasise the limited scope within DHBs for short-term sickness cover. The research suggests that senior doctors are attentive as to how taking sick leave can add to the workloads of their colleagues, and that this can be a barrier to taking legitimate leave. It further suggests that senior doctors are very concerned as to how sickness absence can impact negatively upon the ability of their patients to access the health care that they require. Conversely, however, the high rates of continuing to work while unwell and while infectious suggest a worrying picture where the potential for further risk of harm to both practitioner and patient alike is considerable.

The findings suggest that management has an important role to play in reshaping attitudes towards sick leave and also in devising strategies to enable senior doctors to readily take leave without the burden of guilt and concern for how their absence will be managed. The survey also suggests that sociocultural factors play an important and possibly under-recognised role in perpetuating presenteeism behaviour.

Any solutions developed must address both practical and cultural change. With DHBs operating in increasingly tight fiscal environments, staffing levels may continue to suffer and entrenched shortages are likely to increase. Improving mechanisms to facilitate the provision of short-term cover is a core issue for the senior doctors involved in this study. While the strategies for addressing this particular issue are not simple, investing in the senior medical workforce to enable DHBs to 'staff up' and have better buffers for short-term sick leave is likely to pay dividends in the long term (see for example Wrate 1999 for a forthright commentary on this issue).

Management and senior doctors also need to face some hard questions about the culture of the medical profession. Presenteeism behaviour is unlikely to decrease if individuals are operating in environments where working through illness is viewed as 'normal' or, at worst, 'necessary' behaviour. Creating an environment that fosters work–life balance, including greater recognition of the challenges faced by working parents who have ongoing responsibilities for dependents, needs more explicit support from colleagues and management alike. Management and those in leadership positions need to lead the way in changing the view that sick leave represents weakness. Taking legitimate sick leave must be reframed as responsible and healthy behaviour. What is clear from the research is that the senior doctors in this study value the support of their colleagues and will work through illness in order to avoid overburdening their peers. Finding a middle ground where it is 'ok' to take leave without being seen to be 'letting the side down' will require better cover arrangements as well as a shift in attitude and culture.

In this regard, it is recommended that future job-sizing activities should indicate the number of sick relief FTE positions there should be per total FTEs as one way of providing an objective assessment of cover needs in departments. Formalising both the accounting processes for and the availability of short-term leave cover is likely to have a considerable impact on the likelihood of the senior doctors to take sick leave. This may be one practical strategy that may have a positive impact on presenteeism behaviour.

Another potentially readily achievable measure could be to encourage the provision of clear written guidelines stating the threshold for staying home when unwell. Not only would this give individuals and their colleagues something that they can objectively assess their condition against, but it may also provide a measure of 'permission' to stay home when they are unwell. These guidelines might also advise on when and how clinics and lists may need to be cancelled as well as providing a clear process for how this can be accomplished and the necessary rearrangements that may be required.

There are limitations to the current study; in particular, the already noted reliance on self-reported rates of both sickness absence and presenteeism. It would be helpful to include an objective measure of sickness absence rates as well as including a measure of self-health assessment. Both these additional variables would enable comparison between the rates of presenteeism and some measure of the health of the respondents. For example, there was no way of assessing what types of illness was associated with the rates suggested in this study. Additional variables that could be of relevance to presenteeism behaviour might include number of dependents, ethnicity and working arrangements (e.g. FTE or hours in private work).

Further, it would be helpful to triangulate the findings from the survey with additional research such as semi-structured interviews with a random sample of the membership. This would have enabled further investigation of the themes emerging from the qualitative data and more opportunity to examine and cross-check the interpretation of the qualitative findings presented.

Importantly, this research suggests that notions of wellness need to be expanded to encompass the significance of psychological illness as well as fatigue and burnout. Encouraging a culture within the medical workforce that recognises the impact of having workers who are struggling as a consequence of depression, fatigue and emotional exhaustion would be an important step in recognising these factors as legitimate reasons to take time off work.

Presenteeism poses clear risks to patients and practitioners alike. Turning up to work while unwell reflects the high value placed on medical professionals' duty of care but also the tensions to do with defining responsible behaviour in this regard. It is clear from this research that the senior medical workforce is under stress. Solutions must prioritise patient health and safety while continuing to find strategies to improve staffing levels and morale.

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APPENDICES

Appendix 1: Letter from the National Ethics Committee Re. Scope of Study

Health and Disability Ethics Committees

20 Aitken Street
Freyberg Building
PO Box 5013
Wellington

0800 4 ETHICS
hdecs@moh.govt.nz

Study title:	Presenteeism in the Senior Medical Workforce

Thursday, 24 September 2015

Dr Charlotte Chambers
PO Box 10763, Wellington
Association of Salaried Medical Specialists

Dear Dr Chambers

Thank you for emailing HDEC a completed scope of review form on 21 September 2015. The Secretariat has assessed the information provided in your form and supporting documents against the Standard Operating Procedures. Your study will not require submission to HDEC, as on the basis of the information you have submitted, it does not appear to be within the scope of HDEC review. This scope is described in section three of the Standard Operating Procedures for Health and Disability Ethics Committees.

An observational study requires HDEC review only if the study involves more than minimal risk (that is, potential participants could reasonably be expected to regard the probability and magnitude of possible harms resulting from their participation in the study to be greater than those encountered in those aspects of their everyday life that relate to the study).

Your study did not involve any disclosure of identifiable health information. Collection of anonymous information does not require HDEC review. If you consider that our advice on your project being out of scope is in incorrect please contact us as soon as possible giving reasons for this.

This letter does not constitute ethical approval or endorsement for the activity described in your application, but may be used as evidence that HDEC review is not

required for it. Please note, your locality may have additional ethical review policies, please check with your locality. If your study involves a DHB, you must contact the DHB's research office before you begin. If your study involves a university or polytechnic, you must contact its institutional ethics committee before you begin.

Please don't hesitate to contact us for further information.

Yours sincerely,

Nic Aagaard
Senior Advisor
Health and Disability Ethics Committees
hdecs@moh.govt.nz

Appendix 2: Copy of the survey sent out to DHB-based ASMS members (laid out as received)

Exploring Presenteeism in the New Zealand Senior Medical Workforce

The ASMS is conducting research into 'presenteeism' within the senior medical workforce in New Zealand.

Presenteeism for the purposes of this study is defined as the act of turning up to work when an individual is too unwell, fatigued or stressed to be productive.

This study has two aims: to estimate the levels of presenteeism within the senior medical workforce in New Zealand and to explore why Senior Medical Officers go to work when they should probably be on sick leave.

We estimate this survey will take about five minutes of your time to complete. All responses are anonymous and confidential.

If you have any questions, please feel free to contact Charlotte Chambers at the ASMS: cc@asms.nz

We thank you for your time.

1. Which DHB are you primarily employed by? (please tick one)

◯ Northland	◯ Tairawhiti	◯ Capital and Coast
◯ Waitemata	◯ Hawke's Bay	◯ Nelson Marlborough
◯ Auckland	◯ Taranaki	◯ West Coast
◯ Counties Manakau	◯ Whanganui	◯ Canterbury
◯ Waikato	◯ MidCentral	◯ South Canterbury
◯ Lakes	◯ Wairarapa	◯ Southern
◯ Bay of Plenty	◯ Hutt Valley	

2. How many SMOs are in your department (to the best of your knowledge)?

3. For the following statements, please choose the answer that best describes your situation over the past two years (to the best of your memory):

	Often	Sometimes	Seldom	Never
I have come to work when I have been too unwell (in physiological and/or psychological terms) to perform to my usual standards	○	○	○	○
I have come to work knowing I am unwell with an infectious illness (eg. flu, diarrhoea, vomiting)	○	○	○	○
My colleagues have come to work too unwell (in physiological and/or psychological terms) to perform to their usual standards	○	○	○	○

4. For the following statements, please choose the answer that best reflects your opinion:

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
My department has clear written guidelines on the threshold for staying home when unwell	○	○	○	○	○
My department has a clear understanding of the threshold for staying home when unwell	○	○	○	○	○
My colleagues would manage their workloads if I stayed home when unwell	○	○	○	○	○
My department has good provisions for managing workloads when staff are unwell	○	○	○	○	○
My colleagues are supportive of me taking sick leave when I am unwell	○	○	○	○	○
Management are supportive of me taking sick leave when I am unwell	○	○	○	○	○

5. Please select from the following the top three possible reasons that you might not take sick leave and rank them in order of importance with one being the most important reason in your view.

Please use numeric format eg. 1, 2, 3.

Feeling of duty to patient	
Clinics/theatre sessions already booked	
Not wanting to burden colleagues	
Fear of appearing 'weak' compared to other colleagues	
Anticipation of extra workload on return to work	
Not knowing threshold for staying home when unwell	
Not feeling unwell enough to stay home	
Other (please specify):	

6. Approximately how many sick leave days have you taken in the past 12 months?

7. Approximately how many times have you gone to work in the past 12 months when you should have taken sick leave due to being unwell?

8. Do you primarily identify as (please tick one):

- ◯ Male
- ◯ Female

9. What is your age group? (please tick one)

- ◯ 20-29
- ◯ 30-39
- ◯ 40-49
- ◯ 50-59
- ◯ 60 or over

10. How many years have you worked in the New Zealand public health care system? (please tick one)

- ◯ Less than 5 years
- ◯ 5-14 years
- ◯ 15-30 years
- ◯ More than 30 years

11. We are interested in any further thoughts you may have on presenteeism. Please feel free to add any comments in the box below and thanks for taking the time to complete this survey.

Appendix 3: Cross tabulations between gender, age and years worked in New Zealand and rates of coming to work unwell and coming to work with an infectious illness

I have come to work when I have been too unwell to perform to my usual standards

GENDER	Never (%)	Seldom (%)	Sometimes (%)	Often (%)	Total
Female	61 (8)	204 (28)	367 (50)	105 (14)	**737**
Male	159 (15)	353 (33)	439 (41)	118 (11)	**1069**
Total	**220 (12)**	**557 (31)**	**806 (45)**	**223 (12)**	**1806**

I have come to work knowing I am unwell with an infectious illness

GENDER	Never (%)	Seldom (%)	Sometimes (%)	Often (%)	Total
Female	162 (22)	249 (34)	265 (36)	61 (8)	**737**
Male	285 (27)	369 (35)	338 (32)	77 (7)	**1069**
Total	**447 (25)**	**618 (34)**	**603 (33)**	**138 (8)**	**1806**

I have come to work when I have been too unwell to perform to my usual standards

AGE	Never (%)	Seldom (%)	Sometimes (%)	Often (%)	Total
20–29	0 (0)	1 (33)	1 (33)	1 (33)	**3**
30–39	27 (11)	69 (28)	128 (52)	22 (9)	**246**
40–49	57 (8)	215 (31)	322 (46)	101 (15)	**695**
50–59	81 (14)	181 (31)	253 (43)	72 (12)	**587**
60 or over	55 (20)	91 (33)	102 (37)	27 (10)	**275**
Total	**220 (12)**	**557 (31)**	**806 (45)**	**223 (12)**	**1806**

I have come to work knowing I am unwell with an infectious illness

AGE	Never (%)	Seldom (%)	Sometimes (%)	Often (%)	Total
20–29	0 (0)	2 (67)	0 (0)	1 (33)	3
30–39	47 (19)	88 (36)	96 (39)	15 (6)	246
40–49	142 (20)	244 (35)	246 (35)	63 (9)	695
50–59	167 (28)	192 (33)	187 (32)	41 (7)	587
60 or over	91 (33)	92 (34)	74 (27)	18 (7)	275
Total	**447 (25)**	**618 (34)**	**603 (33)**	**138 (8)**	**1806**

YEARS WORKED IN NZ	I have come to work when I have been too unwell to perform to my usual standards				
	Never (%)	Seldom (%)	Sometimes (%)	Often (%)	**Total**
Less than 5 years	22 (14)	49 (31)	65 (41)	24 (15)	**160**
5–14 years	67 (10)	188 (29)	320 (49)	80 (12)	**655**
15–30 years	95 (12)	246 (31)	352 (45)	97 (12)	**790**
> 30 years	36 (18)	74 (37)	69 (34)	22 (11)	**201**
Total	**220 (12)**	**557 (31)**	**806 (45)**	**223 (12)**	**1806**

YEARS WORKED IN NZ	I have come to work knowing I am unwell with an infectious illness				
	Never (%)	Seldom (%)	Sometimes (%)	Often (%)	**Total**
Less than 5 years	51 (32)	46 (29)	53 (33)	10 (6)	160
5–14 years	146 (22)	230 (35)	226 (35)	53 (8)	655
15–30 years	191 (24)	282 (35)	255 (32)	62 (8)	790
> 30 years	59 (29)	60 (30)	69 (34)	13 (7)	201
Total	**447 (25)**	**618 (34)**	**603 (33)**	**138 (8)**	**1806**

Appendix 4: Details of Kruskal–Wallis tests for correlations between categories of gender and host DHB and the Likert scale responses to coming to work unwell and infectious and the quantitative counts of days at work presentee.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of At work unwell is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
2	The distribution of At work infectious is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.009	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of At work unwell is the same across categories of DHB.	Independent-Samples Kruskal-Wallis Test	.521	Retain the null hypothesis.
2	The distribution of At work infectious is the same across categories of DHB.	Independent-Samples Kruskal-Wallis Test	.531	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of no sick days is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
2	The distribution of no presenteeism is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of no sick days is the same across categories of DHB.	Independent-Samples Kruskal-Wallis Test	.050	Retain the null hypothesis.
2	The distribution of no presenteeism is the same across categories of DHB.	Independent-Samples Kruskal-Wallis Test	.183	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Appendix 5: Respondents' views concerning various statements around sick leave when unwell

Statement	Strongly agree n/1917 (%)	Agree n/1917 (%)	Neither agree or disagree n/1917 (%)	Disagree n/1917 (%)	Strongly disagree n/1917 (%)
My department has clear written guidelines on the threshold for staying home when unwell	11 (1)	99 (5)	487 (25)	860 (45)	460 (24)
My department has a clear understanding of the threshold for staying home when unwell	29 (2)	334 (17)	568 (30)	728 (38)	258 (14)
My colleagues would manage their workloads if I stayed home when unwell	163 (9)	750 (39)	383 (20)	472 (25)	149 (8)
My department has good provisions for managing workloads when staff are unwell	65 (3)	389 (20)	439 (23)	663 (35)	361 (19)
My colleagues are supportive of me taking sick leave when I am unwell	365 (19)	1009 (53)	380 (20)	126 (7)	37 (2)
Management are supportive of me taking sick leave when I am unwell	205 (11)	808 (42)	655 (34)	174 (9)	75 (4)

Appendix 6: 'Other' reasons provided for turning up to work when unwell

'Other' reason stated	Rank 1	Rank 2	Rank 3	Totals
No cover available	9	6	19	34
Pressure from management	6	1	1	8
Reason not stated	3	0	7	10
Work ethic	2	1	3	6
Pressure from colleagues	1	0	2	3
Not unwell with contagious illness	0	2	2	4
"Doctors don't get sick"	1	0	2	3
Reserving sick leave for kids	1	0	1	2
Not enough sick leave left	0	0	1	1

Appendix 7: Correlations between possible reasons for not taking leave and quantitative counts of sick leave days and presenteeism days

Variable	Spearman's rho	Number of sick leave days	Number of presenteeism days
Feeling of duty to patient	Correlation Coefficient	.017	−.052*
	Sig. (2-tailed)	.492	.030
	n	1718	1718
Clinics/theatre sessions already booked	Correlation Coefficient	.056*	−.015
	Sig. (2-tailed)	.020	.529
	n	1718	1718
Not wanting to burden colleagues	Correlation Coefficient	−.025	−.115**
	Sig. (2-tailed)	.298	.000
	n	1718	1718
Fear of appearing weak compared to other colleagues	Correlation Coefficient	−.072**	−.124**
	Sig. (2-tailed)	.003	.000
	n	1718	1718
Anticipation of workload upon return to work	Correlation Coefficient	−.061*	−.098**
	Sig. (2-tailed)	.012	.000
	n	1718	1718
Not knowing the threshold for staying home when unwell	Correlation Coefficient	−.054*	−.021
	Sig. (2-tailed)	.027	.394
	n	1718	1718
Not feeling unwell enough to stay home	Correlation Coefficient	.013	.263**
	Sig. (2-tailed)	.597	.000
	n	1718	1718

**Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2-tailed)

Appendix 8: Correlations between reasons for coming to work unwell and Likert measures for rates of coming to work unwell and with an infectious illness

Variable	Spearman's rho	I have come to work knowing I am unwell with an infectious illness	I have come to work when I have been too unwell to perform to my usual standards
Feeling of duty to patient	Correlation Coefficient	-.012	-.050*
	Sig. (2-tailed)	.631	.038
	n	1737	1737
Clinics/theatre sessions already booked	Correlation Coefficient	-.038	-.032
	Sig. (2-tailed)	.113	.178
	n	1737	1737
Not wanting to burden colleagues	Correlation Coefficient	-.066**	-.034
	Sig. (2-tailed)	.006	.157
	n	1737	1737
Fear of appearing weak compared to other colleagues	Correlation Coefficient	-.090**	-.099**
	Sig. (2-tailed)	.000	.000
	n	1737	1737
Anticipation of workload upon return to work	Correlation Coefficient	-.059*	-.122**
	Sig. (2-tailed)	.014	.000
	n	1737	1737
Not knowing the threshold for staying home when unwell	Correlation Coefficient	.002	-.019
	Sig. (2-tailed)	.946	.433
	n	1737	1737
Not feeling unwell enough to stay home	Correlation Coefficient	.188**	.258**
	Sig. (2-tailed)	.000	.000
	n	1737	1737

**Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2-tailed)

Appendix 9: Correlations between views on different statements and rates of coming to work either unwell or infectious

Variable	Spearman's rho	I have come to work when I have been too unwell to perform to my usual standards	I have come to work knowing I am unwell with an infectious illness
My department has clear written guidelines on the threshold for staying home when unwell	Correlation Coefficient	.105	.131
	Sig. (2-tailed)	.000	.000
My department has a clear understanding of the threshold for staying home when unwell	Correlation Coefficient	.210	.223
	Sig. (2-tailed)	.000	.000
My colleagues would manage their workloads if I stayed home when unwell	Correlation Coefficient	.252	.207
	Sig. (2-tailed)	.000	.000
My department has good provisions for managing workloads when staff are unwell	Correlation Coefficient	.277	.233
	Sig. (2-tailed)	.000	.000
My colleagues are supportive of me taking sick leave when I am unwell	Correlation Coefficient	.246	.212
	Sig. (2-tailed)	.000	.000
Management are supportive of me taking sick leave when I am unwell	Correlation Coefficient	.296	.248
	Sig. (2-tailed)	.000	.000

**Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2-tailed)