

Redevelopment and Wellbeing
Case study of The Princess Margaret and Burwood Hospital Merger
Christchurch, New Zealand

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Burwood Community

Executive Summary

Two of Christchurch's Hospitals are merging together as one; The Princess Margaret Hospital and Burwood Hospital. Both hospitals have different specialities and are also on two different sites across the city; The Princess Margaret specialises in elderly care and is located in Cashmere, Burwood Hospital specialises in rehabilitative care and is located in Burwood. This report identifies major components in the process of change framework; socio-cultural integration, workspace environments, and travel and transport, and how these aspects can impact on wellbeing. A pilot study has been conducted to shed insight into how the focus areas under the process of change framework will affect The Princess Margaret and Burwood Hospitals.

The methods for obtaining our data was through using an online questionnaire sent out to both staff of The Princess Margaret and Burwood Hospitals. This contained both quantitative and qualitative data.

The results were mainly positive about the merger between The Princess Margaret and Burwood Hospitals. Access to quiet and private rooms were of major importance in the new open plan workspace. The Princess Margaret Hospital is affected by the change in travel and transport compared to Burwood Hospital, with 35% having to change their mode of transport when the merger occurs. The community also feel that the merger will be positive and an asset to the area. The majority of the community also know something about the merger.

A limitation of the research was having one mode of gathering data, through an online questionnaire. If a variety of data gathering was used e.g. focus group it would have given a greater sample size and more in depth information that could have been used for analysis.

The key focus areas of the process of change framework require further independent research, and research is also needed to investigate how Cashmere and the surrounding areas feel about the loss of TPMH and its staff population.

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Introduction

Hospital mergers have increased in the past two decades in response to shifts in outpatient care, inpatient excess capacity, and pressures to manage population health in an integrated and cost-efficient manner. Some hospital closures or mergers can also be a part of post-disaster management. The Princess Margaret Hospital (TPMH) and Burwood Hospital in Christchurch, New Zealand are among many hospitals worldwide undergoing a merger in a post-disaster environment. This is an important transition for many staff members who may experience changes that impact significantly on their physical, psychological, and social wellbeing. This research project seeks to scope the key areas of the merger between TPMH and Burwood and subsequent redevelopment of Burwood Hospital that may impact on wellbeing and require further focus. These areas have been identified in consultation with community partners and fall under the process of change framework comprising of three parts; socio-cultural integration, workspace environments, and travel and transport. These key focus areas demonstrate potential areas in which redevelopment and change may impact on the wellbeing of staff. This research project also seeks to look beyond those directly involved in the merger and redevelopment into the wider community. The aim of this to understand what impact the redevelopment has on community wellbeing, and to assess to what extent the redevelopment and merger has the ability to act as a placemaking initiative by creating a vibrant public space that promotes health and wellbeing in Burwood.

Literature Review

Socio-Cultural Integration

The first area of focus under the process of change framework is in regard to the challenges and benefits of social and cultural integration. Several studies suggest that most mergers fail due to the lack of understanding and appreciation of the differences in culture, values, and goals of the existing organisation (Weil, 2010; Choi, 2012; Dauber, 2012). Moreover, existing literature indicates that although there is no single approach to achieving successful integration, future research should focus on how the socio-cultural integration process is managed (Stahl & Voigt, 2008; Schroeder, 2015; Lupina-Wegener, 2011).

Culture has been described as the set of shared, implicit assumptions and values that determine the way that people think, feel, and react, and which distinguish one group from another (Hofstede, 1983; Schroeder, 2012; Bijlsma-Frankema, 2004). Although organizational cultures generally reflect national cultures, leadership and management styles often vary considerably between organisations in the same country. Fletcher (2006) acknowledges that these differences influence how members of an organisation communicate with one another, deal with conflict, are involved in decision-making, and are assessed and rewarded for their performance. As highlighted by many researchers common issues raised by staff affected by hospital mergers revolve around conflicting organisational priorities and cultural differences (Fulop, et al., 2005; Schroeder, 2015; Priest, 2011; Shield et al., 2002). Unfortunately, planning for post-merger integration typically focuses on operational and structural issues and in most cases lack of attention to culture and identity issues have led to a loss of valuable human resources.

Dissimilar cultures often lead to anxiety about or opposition to the merger, particularly on the part of those whose organisational culture is most disrupted or threatened by change (Schroeder, 2012). For newly merged organisations staff were particularly concerned about losing their identity and familial environment. Small scale hospitals were perceived to develop a culture of informal contact and accessibility. Face to face communication was easier and staff felt that they were able to influence and be heard in a way that is more difficult to achieve in a bigger organisation (Ovseiko, Melham, Fowler & Buchan, 2015). Where management structures of one organisation are imposed to another, a 'takeover' occurs and can lead to unhealthy dynamics among the members of both organisations (Fulop et al., 2005). Therefore, it is essential to understand the nature and influence of cultures in each of the formerly separate organisations and ensure that any necessary changes are implemented sensitively, minimizing the negative impacts on staff attitudes and morale (Schroeder, 2015; Dauber et al. 2012; Weil, 2010). Where differences in organisational priorities exist, Priest (2011) suggests that alignment of goals and objectives should be made in a collaborative way to allow professional relationships and linkages to develop across disciplines and teams.

Communications between employees and managers are critically important before, during, and after the merger of complex organisations such as these hospitals. Multiple mechanisms should be established to communicate quickly, frequently, and honestly. Information, themes, progress, and problems of the merger should be shared widely and often. Managers can provide opportunities for staff involvement in developing and implementing development strategies. Communications with external stakeholders, for example other hospitals, political groupings, and professional

colleges are vitally important too. Ovseiko et al (2015) suggested the use of the Competing Values Framework (CVF), shown in Figure 1, in understanding the disparity between varying the cultures in different hospitals. In England this framework was applied in the case of the merger between two National Health Service (NHS) trusts; Nuffield Orthopaedic Centre (NOC), and the Oxford Radcliffe Hospitals (ORH).

For the transformational change programme to succeed, it is crucial to understand the hospitals' cultural compatibility, "how well the top executives and the frontline staff are likely to be able to work together" (McKinsey, 2012: 14). Schroeder (2012) observes that although cultural differences and other people-related factors such as resistance to change impede the success of post-merger integration, these are often unanticipated and overlooked as the merger unfolds. In summary, cultural differences can slow the speed of change and increase transition costs considerably. Further research is required to examine staff engagement strategies and cultural interventions to manage cultural diversity and expectations.



Figure 1. Competing Values Framework.

(Adapted from Helfrich, Mohr & Meterko, 2007. As cited in Ovseiko et al., 2015)

Workspace Environments

A further area of focus in the process of change framework is in relation to the physical workspace environment, particularly in open plan work areas. Workspace environments have transitioned in recent decades from conventional private spatial configurations to open plan, and many studies have found a strong relationship between workplace environments and workers productivity, job satisfaction, and general wellbeing. Open plan environments can have positive effects by offering greater flexibility, increased ergonomics, and physical and psychological control. They can also improve employee communication and interaction. However, there are also negative aspects of open plan workspaces such as misfit, and increased noise and stress levels.

One area of research that has begun to answer what physical elements can affect employees 'fit' to this space is ergonomics which is the practice of designing products, systems and processes to take into consideration the interaction between them and the people they are used by (International Ergonomics Association, 2015). Research by Brill (1992) focuses specifically on workspace environments in healthcare, and found that aspects of the work environment most directly linked to performance included ergonomic features such appropriate furniture, lighting, aesthetics, and personalisation. It is noted that a significant factor affecting job performance is furniture layout and floor configuration, contributing to how well individual's workspaces are designed to support the work they do (Brill, 1992; Vischer, 2007). Oldham and Fried (1987) also investigated ergonomic workspace features, and their study suggests that physical characteristics of a work environment can have an impact on the behavioural and attitudinal reactions of employees.

However, while physical features and ergonomics impact on workers wellbeing the most significant impacts of workspace environment are psychological, including perceived levels of control, misfit, and work-related stress. Lack of privacy and personal control are considered as key sources of dissatisfaction in open-plan office layouts (Kim & de Dear, 2013). However, a sense of personal sense of control can come from the opportunity to influence aspects of one's environment. A study by Lee & Brand (2005) examined the effects of distractions, flexible use of workspace, and personal control over the work environment on perceived job performance and satisfaction. Their results suggest that providing employees with more control over their individual workplace may address individual, interpersonal, and group needs for flexibility; which, in turn, may contribute to group cohesiveness and satisfaction with the physical workspace environment (Lee & Brand, 2005).

Another important factor affecting productivity and wellbeing in open workspace environments is the level of noise and distractions. Vischer (2007) and Kim & de Dear (2013) have

acknowledged that noise is a primary source of discomfort and reduced productivity. It has been noted that while the ability to freely communicate with co-workers is essential, unless a degree of privacy and acoustic quality are provided employees satisfaction with their workspace environment will eventually decrease (Kim & de Dear, 2013; Carsia, 2002). Carsia (2002) has further associated noise, even at low levels, as a known cause of workplace stress, which can have significant impacts on psychological wellbeing.

Misfit is fundamental to understanding workplace stress and the transactional nature of the person-environment relationship, in addition to the processes that underlie it. Theoretical models of stress at work emphasise the need for a good fit between a person's abilities, skills, degree of control, and the workspace to ensure environmental comfort (Vischer, 2007). The concept of environmental comfort (fit) and control links the physical aspects of workspace design and management and psychological aspects of workers environments with concrete outcomes such as improved performance, productivity, and wellbeing (Vischer, 2007). This concept plays a key role in worker-workspace relationships and comprises at least three categories as shown in Figure 2; physical (basic human needs), functional (ergonomic support), and psychological (comfort and control).

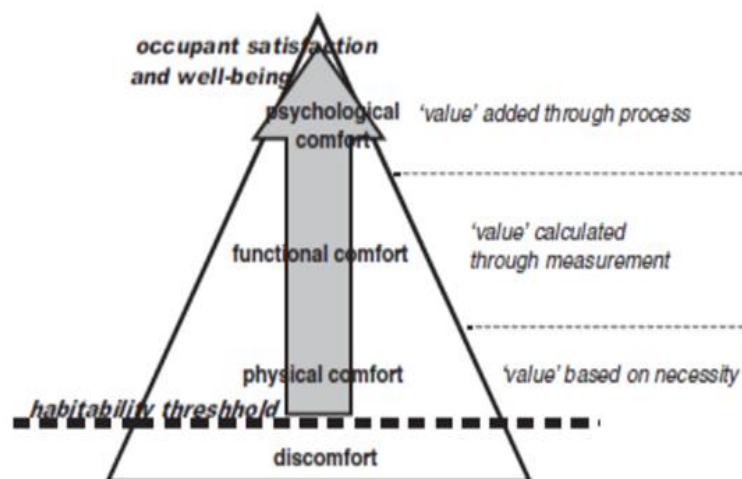


Figure 2: The 'Habitability' Pyramid. (Vischer, 2007).

To create attractive, supportive, and productive workplace environments and enhance employee wellbeing these factors need to be understood and balanced. In open plan environments ergonomic features of the physical workspace need to be enhanced to maximise employee

productivity, satisfaction, and wellbeing. This incorporated with increased environmental control, comfort, and fit can support physical and psychological wellbeing. Furthermore, workspace planning should carefully incorporate not only openness and accessibility to support group collaboration, but also a variety of space options to enable noise-free, private environments, including the ability to work from home if suitable to support individually controlled distraction free work, with the opportunity to reduce noise when needed.

Travel and Transport

The third area of focus under the process of change framework is in relation to changes in travel and transport. The primary function of travel and transport has historically been the movement of goods and people between places and it is a key enabler, providing access to employment, services, and facilities. However, transport goes beyond this primary function and can have significant impacts on the wider determinants of health. Furthermore, vehicle volumes are also a significant safety concerns and can impact on psychological wellbeing by acting as a stressor and inhibitor to social interaction. Several studies have shown a relationship between travel, transport modes, health, and wellbeing (Novaco, Stokols & Milanese, 1990; Gee & Takeuchi, 2004; Hartgen, 1997; Environment Canterbury [ECan], Christchurch City Council [CCC] & Canterbury District Health Board [CDHB], 2010). These relationships have a range of impacts on the physical and psychological wellbeing of individuals and communities through use of active and non-active modes of transport, and traffic and travel-related stress in regard to commute times and traffic congestion.

Transportation modes can have significant impacts on physical health and wellbeing. Non-active modes of transport, such as private vehicle use, have been shown to increase sedentary lifestyles and reduce physical activity levels among users (ECan et al, 2010; Frumkin, 2002). This has a strong relationship to negative physical health outcomes such as increased obesity and chronic illnesses (Hartgen, 1997; ECan et al, 2010). Furthermore, environmental pollutants that are associated with automobile reliance and emissions are a well-documented cause of negative health outcomes (Frumkin, 2002). Research has shown that increased rates of respiratory health issues and cardiovascular disease are related to increased air pollution and vehicle emissions of nitrogen oxides, hydrocarbons, ozone, and particulate matter (Frumkin, 2002).

However, active modes of transport such as walking and cycling are effective ways of increasing physical activity, and can have many positive health benefits to the user such as

decreased risk of obesity and chronic disease (Hartgen, 1997). It has been noted that two of the most significant barriers to adoption of active transport modes are proximity to the destination and time constraints (ECan et al, 2010; Hartgen, 1997). This indicates that as distance and time from the destination increase non-active modes of transportation are more likely to be used. Employing active modes of transport, particularly for everyday travel such as work commutes, can also have wider positive effects on individuals and communities alike by increasing physical activity and reducing vehicle emissions and volumes enabling healthy and socially active environments (ECan et al, 2010).

The negative effects on health and wellbeing caused by vehicle emissions and increasing vehicular use are widely acknowledged, and often contrasted to the benefits of active transport modes. However, impacts of travel and transport on health and wellbeing go beyond physical aspects. Research has shown that time spent in a vehicle also can have significant negative impacts on psychological wellbeing, primarily due to increased traffic stressors including commuting times and traffic congestion (Novaco et al, 1990; Gee & Takeuchi, 2004; Olsson, Gärling, Ettema, Friman, Fujii, Karlstads, 2013). Perceived traffic stress stems from long commuting times and traffic congestion, which can affect psychological health through effects on blood pressure caused by prolonged inactivity and variations in levels of tolerance and irritability (Novaco et al, 1990; Olsson et al, 2013). Research by Gee & Takeuchi (2004) has shown that people reporting high traffic stress had significantly lower health status, in addition to increased depressive symptoms. Gee & Takeuchi's (2004) findings suggest that traffic stress may represent an important, yet often overlooked, factor that significantly influences the psychological wellbeing of urban populations.

As redevelopment continues to shape and decentralize the urban landscape vehicle use is increasingly adopted to ensure people are able to easily move around and reach destinations at varying distances. The normalization of long commutes made by private vehicle leads to a range of impacts including; increasing traffic volumes and reducing opportunities for social interaction, increasing traffic congestion and subsequent pollutants caused by emissions, increasing commute time, and increasing stress levels. All of these factors have significant impacts on physical and psychological wellbeing of both the individual and the wider community.

Methods

A variety of methods were used to conduct our research. These methods were; consultation with community partner, a questionnaire, and GEOG110 questionnaire data. From this we then used excel and Qualtrics for the data analysis. Qualtrics is an online questionnaire builder, which also records the data as each person answers the survey.

Consultation: The first step was to consult with Dr Joyce Alberts on what she and the management team wanted to get from this research. The process of change was the area they were primarily interested in. The key areas of focus within this framework of process of change were distinguished as social interaction and cultural mix, workspace environments and travel and transport, and ultimately how this impacts wellbeing.

Questionnaire: The questionnaire was designed in Qualtrics; the reason for this was for ease of use. The staff would be able to do it over the internet, be anonymous and take less than 5 minutes to do, and the data would be automatically saved. The questionnaire contained both qualitative and quantitative data which could be used for analysis. The survey was distributed to the staff of Burwood and The Princess Margaret Hospitals through management. The staff were the population, while the sample itself was random. The questionnaire had a sample size of 30 which is the minimum number for statistical analysis. There were a range of questions asked covering; general questions, social interaction and cultural mix, workspace environment and travel and transport.

GEOG110 Questionnaire: A 100 level geography course at University of Canterbury also conducted research in Burwood over this time. Four of the questions in their community assets survey related to the re-development of Burwood Hospital. We used two of the questions about the Burwood Hospital re-development in our analysis relating to awareness and overall impacts. This questionnaire had both quantitative and qualitative data. For the purposes of our research only the quantitative data was used. This questionnaire had a sample size of over 400.

Data Analysis: Microsoft Excel was used for the bulk of the data analysis and required arranging and ordering our data to be able to produce the findings by means of graphs and tables. Qualtrics was also used for the cross tabulations to show the relationship between variables.

Results

This results section will be divided into two parts; The Princess Margaret and Burwood Hospital and The Burwood Community awareness and perception of overall impacts of the redevelopment.

Burwood and The Princess Margaret Hospitals

The results here are divided into two sections; Workspace and Social/Cultural Mix, and Travel and Transport.

Questions relating to the first section are; how do you feel about your current workspace environment? How much do you feel you know about the new workspace environment at Burwood Hospital? Rate the level of importance of the following factors in a work environment, what things would you like to see in your work environment to improve your working day? Comment on the positive/negative impacts of the merger between TPMH and Burwood.

Questions relating to the second section are; how long does it take to travel to your usual place of work? What is your usual mode of transport to and from work? Will the re development of Burwood Hospital change your usual mode of transport?

Workspace Environments and Social/Cultural Mix

Overall the majority were happy with their current workspaces, however there were areas identified that could be improved. These areas were; space, noise, building interior and social opportunities. The building interior and space were most commonly identified as being a current issue (Figure 3).

Feelings about current workspace

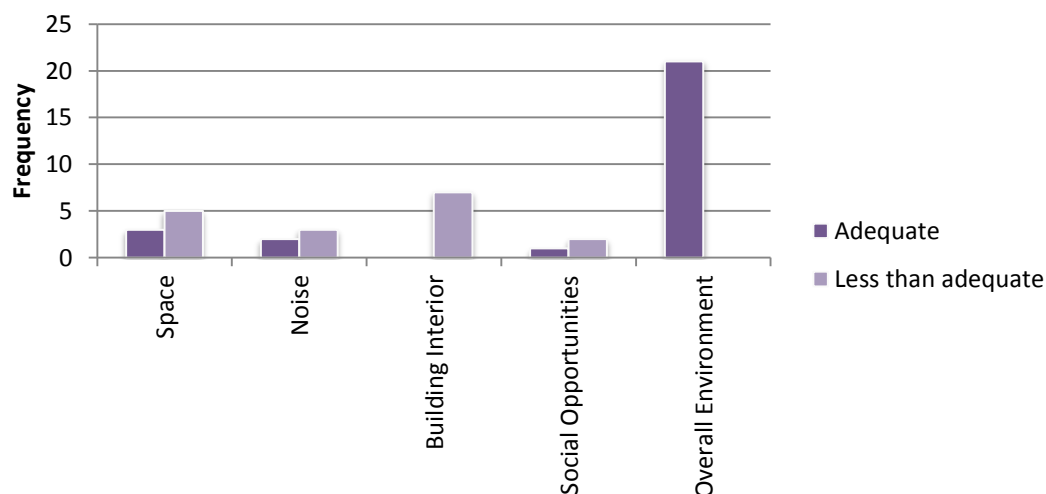


Figure 3: Feelings about current workspace.

Nobody indicated that they 'knew nothing' about the new workspace environment however there was a 50/50 split between knowing a little and a lot. Staff that had been actively involved in design of the new workspace knew the most; however everyone did know something through the information that has been put out through the intranet and in the hospitals. The most important factor in the new workspace environment was the access to quiet and private areas (Figure 4). Professional relations, management and leadership, and communication and consultation were equally as important as each other (Figure 4). Access to areas that are conducive to physical activity was the least important to the staff (Figure 4). To improve their working days the staff most wanted to see access to private and quiet areas. Having access to good technology, a good social space in which staff can mix and chat, and calming décor such as picture on walls were also important.

Important factors in the new workspace environment

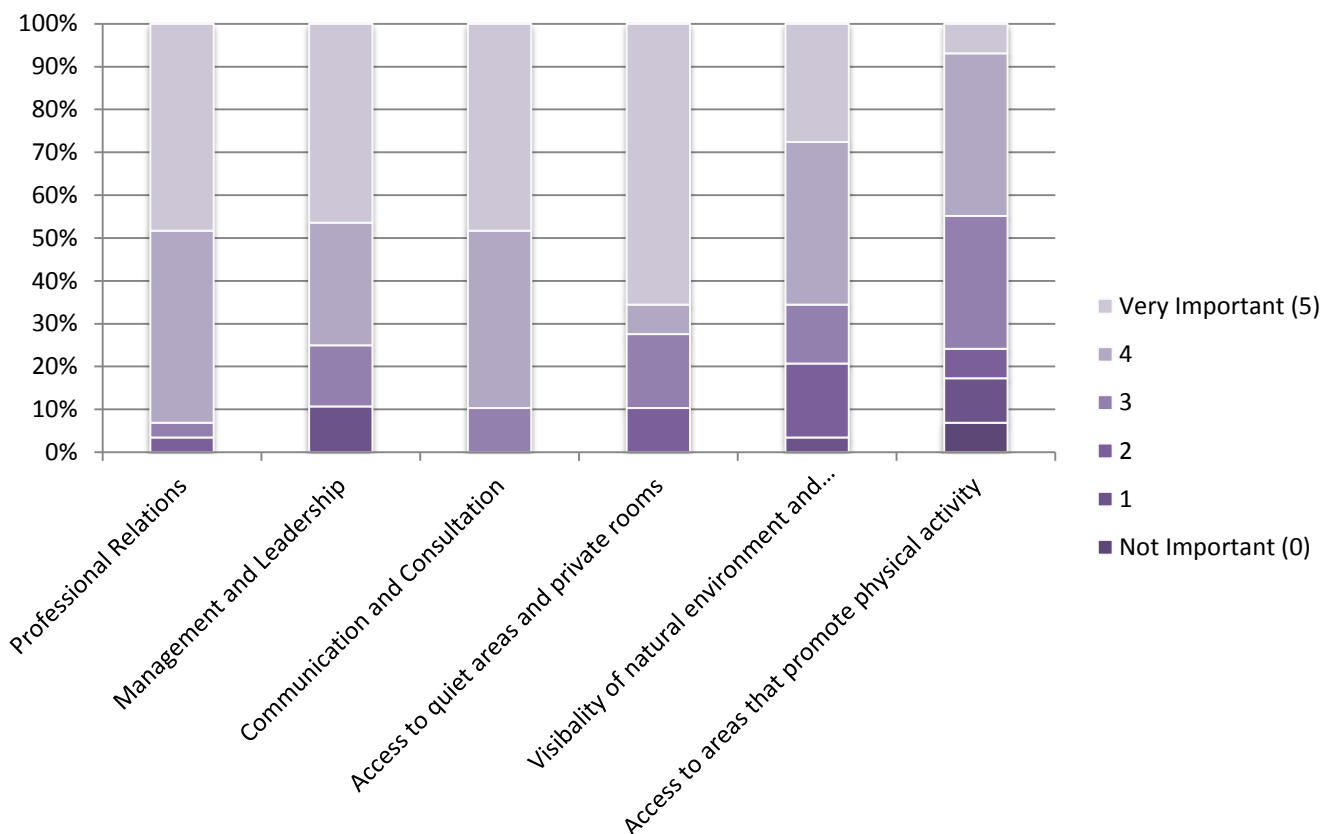


Figure 4: Important factors in the new workspace environment.

There were a range of positive and negative impacts identified. There were three re-occurring positive impacts; modern facilities, one team and shared expertise. However, there were more negative re-occurring impacts including; changes in travel time and distance, loss of connectedness between community teams, differing management styles and lack of private spaces.

Transport and Travel

TPMH staff will be affected the most by the merger of the two hospitals. They currently use a range of transport modes; however when the merger happens 35% of the staff will have to change their mode of transport (Figure 5). Burwood on the other hand is not affected by the merger in term of changing their modes of travel to work. Furthermore, there is currently many staff from TPMH whose travel to work takes less than twenty minutes however when the merger happens these travel times are shown to increase. This impact on travel time is largely on TPMH staff, and Burwood staff will not be affected by a change in travel time (Figure 5).

		How long does it take you to travel to your usual place of work?			
		0-20 minutes	20-40 minutes	40-60 minutes	60+ minutes
Which hospital do you usually work at?	Princess Margaret	15	5	1	0
	Burwood	3	1	3	0
	Neither (please explain)	0	0	0	0

		What is your usual mode of transport to and from work?				
		Car	Bus	Bicycle	Walk	Other (please specify)
Which hospital do you usually work at?	Princess Margaret	16	0	3	2	0
	Burwood	4	1	0	1	0
	Neither (please explain)	0	0	0	0	0

		Which hospital do you usually work at?		
		Princess Margaret	Burwood	Neither (please explain)
Will the redevelopment of Burwood Hospital change your usual mode of transport?	Yes	6	0	0
	No	15	7	0

Figure 5: Travel time and modes of transport.

Burwood Community

This section of results gives an insight into how aware the community are of the redevelopment of Burwood Hospital, and the overall impacts the redevelopment will have on the community. The results have been divided into suburbs of Burwood as follows; Prestons, Waitikiri, Cameo Grove/ The Limes, Yellowstone, Tumara Pak, Travis Country, Burwood Central, Burwood South and Burwood East (Figure #). Burwood Hospital is located where the orange box is (Figure 6).

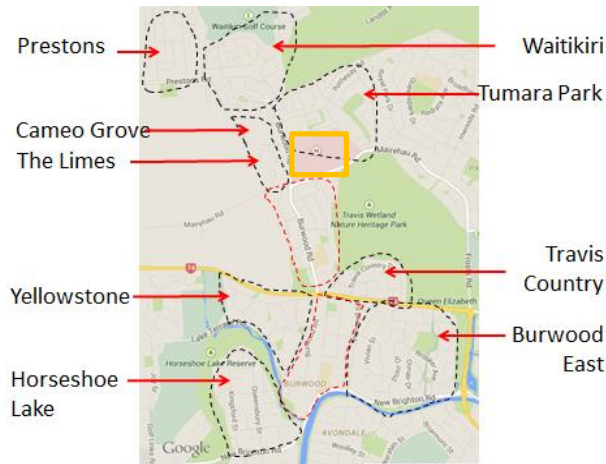


Figure 6: Burwood community and Burwood Hospital

Burwood Central is the most aware of the hospital redevelopment, while the other suburbs are on par with each other for how much they know (Figure 7). When comparing it to the map above you would think that the suburbs closest to the hospital would be more aware, yet this is not the case. All of the suburbs know a little about the awareness while Cameo Grove/The Limes has the highest proportion that does not know anything (Figure 7).

Awareness of Hospital Re-Development

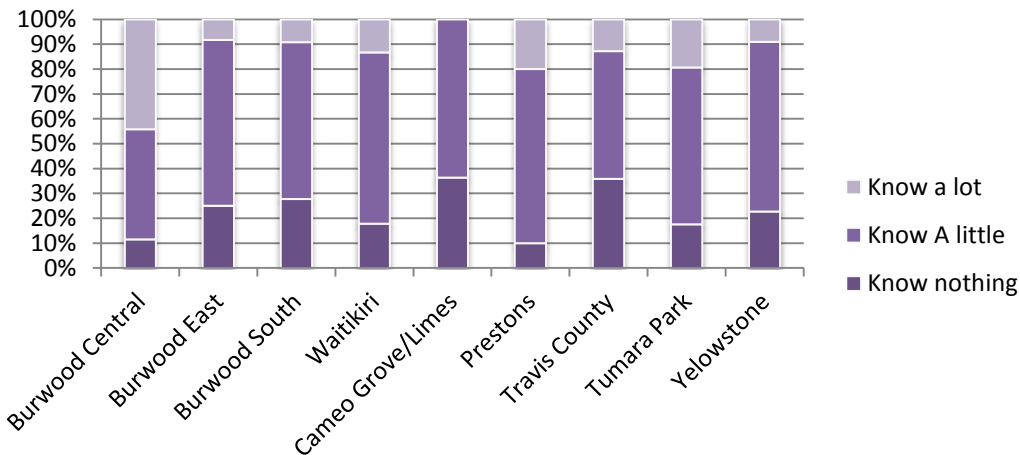


Figure 7: Community awareness of Burwood Hospital redevelopment.

In comparison to the figure above, the suburbs which feel the most positive such as Cameo Grove/ The Limes are the closest in proximity to the hospital (Figure 8). While the suburbs which are at a greater proximity from the hospital are the most negative about the overall impacts the hospital re development will have on the community.

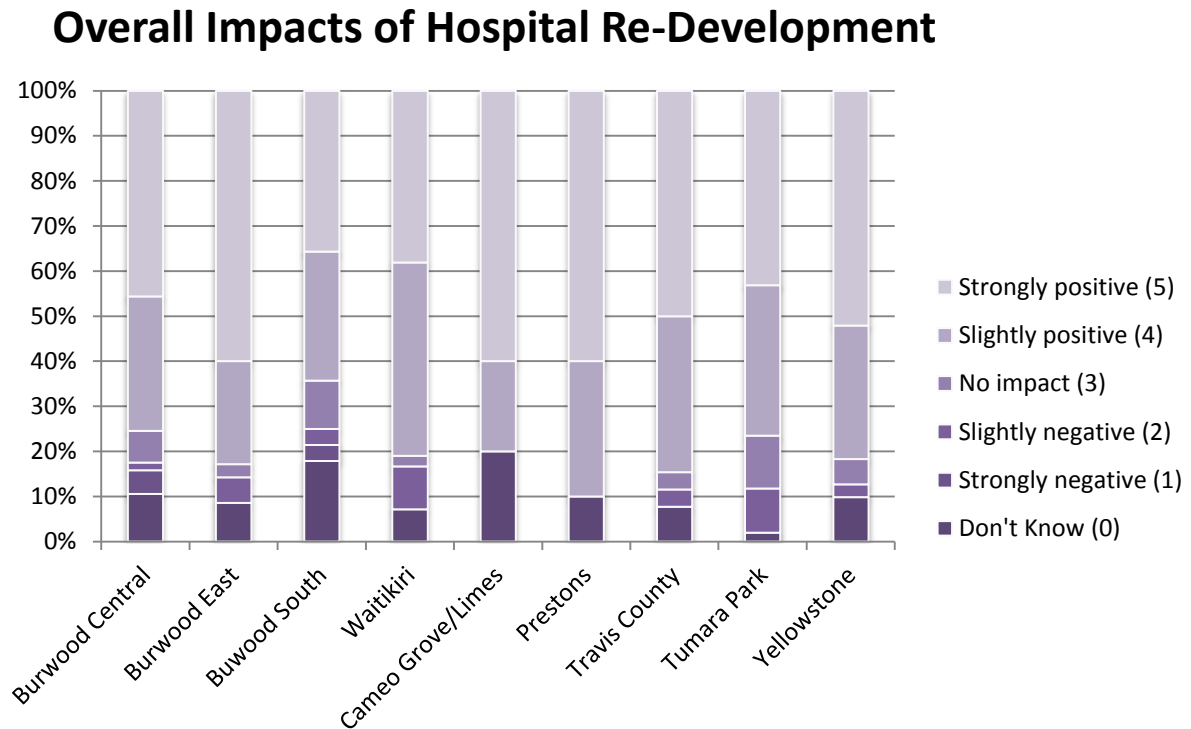


Figure 8: Burwood community overall impacts of hospital redevelopment.

Limitations

Because this research project is exploratory in nature, a number of limitations merit discussion. Only one type of method was used in the analysis, web-based survey. Although face to face interviews through drop-in sessions were initially proposed, these were not carried out due to time constraints. Apart from this, a review made by Weber and Bradley (2006) indicates that other limitations of web-based surveys revolve around data quality. Dimensions of data quality include (1) unit and item nonresponse; (2) honesty of responses, particularly for questions of a sensitive nature; and (3) completeness of responses, particularly for open ended questions. In the case of this research, the analyses were also unable to exclude and to quantify response and non-response bias, as the response rates of the staff survey at hospital level are unknown. Low response rates may also indicate some form of systematic bias in the data collected. It could be that those who felt strongly, either positively or negatively, about the merger may have been more likely to respond.

Discussion

In this research project we found that the concerns of staff at both TPMH and Burwood Hospital are related to the three key focus areas identified in the process of change framework and discussed in regard to literature; social integration and cultural mix, workspace environments, and travel and transport.

The results from the staff questionnaire showed that key areas perceived to be in need of improvement in current work environments were in relation to building interior, space, noise, and social opportunities. The building interior was shown as the area that was least adequate in current workspace environments, and emphasizes the need for enhanced ergonomic features as discussed by Brill (1992) and Oldham & Fried (1987). These features can include a range of lighting, acoustics and aesthetics. Furthermore, personal control over such features may contribute to satisfaction with the physical workspace and enhance overall job performance and general wellbeing. Results from TPMH and Burwood staff also indicate that space, noise, and access to private areas are key areas of concern in current workspaces, and additionally the most important factors in regard to the new workspace environment. Noise and space generally work in conjunction with one another, particularly in open plan layouts, and with noise being a primary contributor to work-related stress. As discussed by Carsia (2002) it is essential to ensure access to spaces in the work environment which are both quiet and private to support job productivity and satisfaction in addition to enhancing psychological wellbeing. This relates back to Kim & de Dear's (2013) research which investigates the privacy-communication trade-off, and is of particular importance in healthcare environments where privacy is of great concern and furthers the need for access to such spaces.

Professional relationships, management and leadership, and communication and consultation were of equal but slightly lesser concern than the physical environment in the new workspace for both TPMH and Burwood staff, yet still rated highly important. Our results indicate that many of the negative impacts of the merger and redevelopment included the loss of connectedness between community teams and the challenges of merging differing management styles. These are common areas of concern in hospital mergers as discussed by Fulop et al (2015) and Priest (2011), and emphasizes the need for organisational and management systems to focus on the socio-cultural integration process and continued communication.

However, our results also indicate positive aspects of social and cultural mix in the new work environment, for example many staff members thought 'one merged team' might increase group cohesiveness and contribute to the sharing of skills and expertise. To enhance this Priest (2011)

suggests that the alignment of goals and objectives should be made in a collaborative way to allow professional relationships and linkages across disciplines and teams.

In relation to the third area of focus under the process of change framework our results indicated that changes in travel times and transport modes will exclusively affect employees from TPMH who are relocating to Burwood Hospital after the merger and redevelopment. Staff from Burwood Hospital will be largely unaffected in relation to travel and transport and there will be no change in transport modes, unfortunately only one of these respondents said they use an active transport mode.

Results for TPMH staff showed an increase in relation to travel time post-merger. This can impact significantly on wellbeing as more time spent commuting may lead to increased traffic stress and subsequent psychological health impacts such as those discussed by Gee & Takeuchi (2004). Results also show that staff from TPMH will have to change transportation modes post-merger, with 35% being affected. Many of these changes are a shift away from active transport modes, and may have negative impacts on health and wellbeing by enhancing the existing negative relationship between increased vehicle use, sedentary lifestyles, and associated health risks as discussed by ECan et al (2010) and Hartgen (1997). Additionally, increased vehicle use contributes to air pollutant levels through vehicle emissions as discussed by Frumkin (2002), and can have widespread effects that go beyond the individual. Furthermore, increased vehicles in the area can cause safety concerns and reduce the opportunity for social interaction within the community. As discussed, increasing non-active modes of transport have various impacts on wellbeing, which could negatively affect staff and the wider community in Burwood if the dominant shift in transport modes post-merger continues to be towards private vehicle use. This emphasizes the need for further research into how active modes of transport could be promoted or made more accessible post-merger to encourage not only healthier staff, but also healthier communities with reduced traffic impacts and associated health and safety hazards.

While the results of this research project have begun to show a connection between the key areas of focus in relation to development and wellbeing through literature and the process of change framework, each of the focus areas merits deeper investigation and requires further research.

Additionally, the hospital staff are only one aspect of the redevelopment, which also has an effect on the wider community in Burwood. Results from Burwood 'Community Assets Survey' data, collected by University of Canterbury's GEOG110 class, indicate that the community perception of

the redevelopment in Burwood is largely positive. The results show that negative impacts that did occur in relation to the redevelopment were from areas in close proximity and centred on traffic concerns, areas at a further distance were less affected by such issues. However, areas in closer proximity may have been more inclined to respond to the impacts of the redevelopment, positive and negative, because they may be more affected by the change. The community results are particularly interesting in that the areas in close proximity to the hospital even with little knowledge, such as Cameo Grove/ The Limes, also had the highest proportion of people who thought the overall impacts of the redevelopment would be positive. Offsetting traffic concerns, this may be due to the benefits people living in closer proximity may experience after the redevelopment such as an increase in pedestrian, social, and economic activity in the area.

Therefore, the redevelopment of Burwood Hospital could act as a placemaking initiative for some areas in Burwood community, particularly those in close proximity. By increasing people and activity in the area this community asset can create a vibrant space that promotes health and wellbeing for both hospital staff and the wider community, which is of particular importance to the Burwood area and community post-earthquake. However, further research is required into how the Cashmere community and surrounding areas feel about the loss of TPMH and its staff population, as the increased positive aspects in Burwood may be a result of displacement from other areas.

Conclusion

Redevelopment continues to shape the urban landscape and impact significantly on individual and community wellbeing. The health sectors is increasingly involved in redevelopment and is influenced in some cases by post-disaster management and rebuild strategies. The aim of this research project was to look into one such case study, the merger between The Princess Margaret Hospital and Burwood Hospital in the context of post-earthquake Christchurch, and scope the key areas of concern and focus which require further research. This was done under the process of change framework and included focus areas of socio-cultural integration, workspace environments, and travel and transport which were all established as areas of concern. These focus areas were shown to hold significant relationships to both individual and community wellbeing, and further research is required to understand the full extent to which these relationships are present in this merger and redevelopment. Further research is also required to identify and promote strategies that both aid in resolving issues raised in the focus areas, in addition to enhancing health and wellbeing of the individual and the wider community.

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