

Prisoner double-bunking: Perceptions and impacts

Findings from a two-phase research investigation

Strategy, Policy and Planning

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Executive Summary

Throughout the last decade the Department of Corrections was faced with the need to accommodate significant increases in the number of prisoners, and to do so cost-effectively. Amongst a number of strategies in response, extending the level of double bunking was pursued over a period spanning 2009-2011.

This report outlines the findings of two separate phases of research exploring double bunking in New Zealand prisons. Of particular interest in the first phase was the perceptions of double bunking held by prisoners who had been housed in this manner, and staff who had worked in double bunked units. The objective of this research was to identify issues which should be addressed before double bunking was further extended. The research involved a series of interviews with prison managers, staff and prisoners, in twelve prison units.

The second phase occurred during the period over which the level of double bunking was expanded. This examined rates of incidents (such as prisoner assaults and incidents of disorder) for the purpose of determining whether, as double bunking expanded, the rates at which such events occurred were increasing. A core objective of this phase was to clarify the extent to which double bunking, on the scale planned, remained consistent with the goals of safe, secure and humane containment of prisoners.

Phase 1 research: Key findings

The majority of prisoners interviewed preferred single cell accommodation in prison, as it provided them with privacy, and reduced exposure to conflict. However, the overall impression gained from interviews was that, when assigned to a double bunked cell, prisoners simply got on with things and made the best of the situation. Although many had stories to tell of previous cell sharing experiences that were unpleasant, almost all prisoners reported that their current cell sharing arrangement was satisfactory. Prisoners appeared able to change cellmates reasonably readily, which means that within a reasonable period of time they were usually able to find a tolerable, if not agreeable companion to share a cell with. Interviews suggested that the majority of staff took care in thinking through the implications of placement decisions.

Some prisoners expressed a distinct preference for being double bunked, stating that it had positive benefits such as companionship, mutual support, and the sharing of resources.

The research findings indicated that safe and humane containment under double bunking conditions requires that certain risks are monitored and managed. Important risk management strategies discussed by staff and prisoners were as follows:

- considered placement decisions that avoid prisoners being placed with another prisoner who has potential to cause them emotional or physical harm
- monitoring of cellmate combinations by staff to ensure that interpersonal conflict and tension do not become unduly elevated
- facilitating time away from the cell so that cell-sharing prisoners have time to themselves
- providing options for prisoners to securely store personal items.

Improved ventilation, and fittings such as modesty screens and access to extra toilets in the wider unit, were regarded as important for mitigating personal hygiene-related aspects of cell-sharing for prisoners.

Double banded units were found to create a number of challenges for staff working within them, mainly related to the demands associated with the greater volume of prisoners within the unit confines. However, staff were found to be managing these challenges through good practice, processes and systems. Staff practice is critical in preventing or mitigating risks and potential downsides of double bunking. The knowledge, experience and level of professionalism they bring to the job makes the difference in ensuring the safety, security and humane containment of prisoners and the effective running of units where cells are double banded. Operating in a thoughtful, responsive and flexible way to the needs of prisoners helps minimise the likelihood of problems occurring and reduces the severity of negative outcomes when problems do arise.

Phase 2 research: Key findings

A statistical analysis of incidents in prison units, within which double bunking was recently introduced or expanded, was undertaken.

The analysis indicated no measurable increase in the rate of incidents involving prisoners in those units during periods when the proportion of double-bunking increased from zero to around 70% of each unit. Thus, no evidence was found to support the hypothesis that double bunking resulted in, or was associated with, increased incident rates. Instead, the analysis found an slight inverse relationship (negative correlation) with the rate of double bunking as it has increased through the 19-month analysis period. That is, during the analysis period, as the rate of double bunking has increased, the overall and notifiable incident rates actually decreased slightly.

Overall conclusion

The two phases of the research point to a general conclusion that, while some prisoners find sharing a cell with another prisoner disagreeable, the practice *per se* is consistent with principles of safe and humane containment of prisoners.

Phase 1: Introduction and background

Rationale for the research

Changes in Government policy, legislation, sentencing practice, actual offending rates and Police crime resolution meant that the Department of Corrections faced both a short and long term need to accommodate an increasing number of prisoners. Economic considerations meant also that this must be done cost-efficiently.

The Department considered a range of options that would add capacity to the prison estate; one option considered was the double bunking of existing prison cells. At each of five prisons, all low security cell accommodation (excluding self-care units) was to be fully double bunked. Around 70 percent of high security accommodation (excluding drug treatment units, specialist treatment units or operational support beds, such as at risk and management units) was also to be double bunked. In total, 990 additional beds were to be provided through this process over 2009 - 2011¹.

The Department has experience in operating multi-occupant cells: over the past few decades, the proportion of cells which are shared has varied between 21 percent and 27 percent of the total prison system at any one time. Implementation of extended double bunking represents a 75 percent increase in the number of double bunked cells.

To facilitate the expanded double bunking, around 350 new prison staff were recruited to manage prison units with significantly increased numbers of residents. A range of changes were made to standard operational practices. Further, an assessment instrument known as the Shared Accommodation Cell Risk Assessment (SACRA) was developed to guide decision-making about which prisoners should be double bunked, and with whom.

Double bunking, either as a routine aspect of prisoner housing, or as a strategy to manage capacity shortages, is not uncommon internationally. The housing of two, three or four prisoners in a cell, or even dormitory-style accommodation, was the norm for decades in most countries from the 19th century onwards. While single cells gradually became more commonplace over the course of the last century, rapid growth in prisoner populations across most western countries in the last couple of decades has led to a resurgence in double bunking. For example, England and Wales saw widespread reintroduction of double bunking in response to capacity shortages. A few countries (for example, Canada, Denmark, Finland) however are continuing to phase the practice out, with new and replacement accommodation exclusively made up of single cells.

There is limited international or local evidence on the effects of double bunking. In the United Kingdom, prison homicides and sexual assaults have been found to disproportionately involve cellmates. A recent review of available research, however, concluded that there was no clear association between double bunking and increased rates of inmate misconduct, except perhaps where prisoners are younger (under 25 years). Cell sharing has on the other hand been associated with reduced incidence of self-harm and suicide.

In the context of its expanded use, it was considered appropriate to explore first-hand experiences of double bunking, and evaluate its impacts, particularly in terms of prisoner safety and well-being.

¹ 540 beds were planned to be in-service from March 2010, and 886 from September 2010; the remaining 104 beds (at Mt Eden) were constructed by May 2011.

Aim, key research question and objectives

The over-arching goal of this research is to determine whether, and to what extent, double bunking is consistent with the objectives of safe and humane prisoner containment. However, this first phase of the research is primarily intended to provide information which clarifies the impacts of running a unit under double bunked conditions, and identify critical issues which must be attended to in order to ensure the successful management of units when double bunking is in place on a greater scale.

Research objectives identified in the original project plan were as follows:

1. To examine the personal experiences of, and reactions to, double bunking for prisoners, and their coping strategies in terms of cell sharing
2. To examine how existing double bunked units are managed by staff and how any barriers to their successful running are negotiated
3. To inform the development of strategies related to double-bunking that would minimise adverse impacts on prisoners and staff, and promote effective and efficient prison operations
4. To assess the extent to which extended double bunking may be associated with any changes in frequency of different types of prison incidents, across different types of units.

Objectives 1 - 3 are primarily informed by this first stage of research. This stage involved qualitative interviews with a range of staff and prisoners in a range of prisons which have historically had a degree of double bunking. Research objective 4 is informed by the second stage of the research.

The findings serve to inform development of strategies to minimise adverse impacts on prisoners and staff, and promote effective, efficient, safe and secure prison operations.

Phase 1 methodology

A qualitative research approach was used for the first phase, involving interviews with key informants. Structured interview guides were developed by SPP staff in consultation with an external researcher. Interviews were conducted by an externally contracted researcher, in conjunction with a Corrections research staff member. The contracted researcher also undertook analysis and reporting of data from staff and prisoners. Corrections research staff undertook the analysis and reporting of data from Unit Managers and Prison Managers.

Twelve units across six prisons were selected as fieldwork sites. Prisons were selected on the basis of having at least two units which were more than 60 percent double bunked. A cross-section of units and prisoner types (remand and sentenced, segregated and mainstream) were chosen.

Initial telephone contact was made with the Prison Manager at each of the selected sites, who was briefed on the research, informed of the requirements, and their cooperation enlisted. The researcher then liaised directly with the Unit Manager for each selected unit, who was asked to take part in an (on-site) interview. These individuals were also asked to identify staff and prisoners to participate in further interviews.

Staff and prisoners sought for inclusion in the study were those with current or recent experience of double bunking. Prior to taking part in an interview, each research participant was provided with an information sheet (see Appendix A) and asked to sign a consent form (see Appendix B). The research was also verbally explained to each participant and they

were given opportunity to ask questions (the semi-structured interview guide developed for each interviewee type is included as Appendix C).

Fieldwork was undertaken between December 2009 and February 2010. Seventy-seven interviews were undertaken in total (see Appendix D). Apart from telephone interviews with Prison Managers, interviews were undertaken face-to-face at the prisons. Interviews ranged in length from 30-45 minutes (prisoners) to 45-60 minutes (staff). Data from interviews were recorded as notes, and subsequently coded using N-Vivo software.

Profile of participating units, staff and prisoners

Profile of participating units

Units that were selected for the research (for details refer to Appendix E) had the following characteristics:

- a higher security classification, except for units at Wellington Prison
- just over half housed remand prisoners
- of those units that housed sentenced prisoners, prisoners tended to have a range of security classifications
- close to half housed prisoners on segregation
- most had about three-quarters or more beds in shared cells (Hawke's Bay Prison had about 50% beds in shared cells).

Profile of participating managers, staff and prisoners

In terms of the profile of managers who participated in the research (refer to Appendix F):

- six Prison Managers, nine Unit Managers and one Principal Corrections Officer took part in the research
- over 80 percent had at least 16 years prison service (over half had 21 years or more) and most had worked in the participating unit or prison for more than one year (56% for more than three years)
- 70 percent of Unit Managers who took part in the research had worked in units with both single and double bunked cells, while 30% had worked only in double bunked units.

In terms of the profile of staff who participated in the research (refer to Appendix F):

- about equal numbers of Corrections Officers and Senior Corrections Officers were selected to take part in the research
- nearly two-thirds had at least six years prison service (approximately one-third had eleven years or more) and the majority had worked in the participating unit for at least one year or more (28% for three years or more)
- all but two had experience of managing prisoners in single cells and double cells.

In terms of the profile of prisoners who participated in the research (refer to Appendix F):

- all were male and almost all were housed in a double cell (two of the interviewees were in single cells but had been housed in a double cell in the past)

- about one third identified as European, one third identified as Māori and about one sixth identified as Māori and European (these three identifications accounted for 81 percent of participating prisoners)
- there was a broad range of ages: 31 percent were between 20-29 years, 25 percent between 30-39 years, 33 percent between 40-49 years, 12 percent were 50 years plus
- the majority had spent between one month and six months in the unit
- there was a broad range in terms of how much time these prisoners had spent in prison over their lifetime (31% less than two years, 30% between 2-9 years, 39% 10 years or more).

Research findings

Preferences

Prisoner preferences

Overall a majority of prisoners expressed a preference for a single cell: 58 percent of those interviewed. Thirty-nine percent stated that they preferred serving their sentence in a double cell; a single individual expressed a more complex view: he preferred to be in a double when on remand, but once sentenced, to be in a single cell.

Prisoners who preferred a single cell reported a range of reasons for their view. The most common reasons given were obvious ones: privacy, having one's "own space", and avoidance of conflict.

Prisoners who preferred a double cell reported companionship and "support" as the main reasons; some suggested that having a cellmate distracted them from their own thoughts.

Somebody to talk to, to share feelings with. (Prisoner)

To learn from each other. This is a dark place so it helps to have an experienced cellmate. ...Yes, if you're locked up alone it gets lonely and you start worrying about things. (Prisoner)

Double bunking makes prison easier for me, time goes faster. When you're alone there's too much time to think about family, kids etc. (Prisoner)

When the profile of participants who prefer a double vs single are compared (see Appendix G for more details), there was a tendency for younger prisoners, and those who had spent less time overall in prison, to prefer cell sharing. A small number had only experienced a double cell, and they tended to express a preference for a double cell.

Interestingly, when prisoners were asked whether they "got on with" their current cellmate², all but one reported that they did (though this may reflect a degree of bias in the prisoners selected to take part in an interview).

Staff views

Staff were also asked for their general views about working in double bunked units, and whether they would be happy to work in one of the five prisons where extended double bunking was to be introduced. Most said they would be happy to do so, but three-quarters qualified this, for example, as long as the units are adequately staffed with sufficiently experienced officers and supported by other resourcing for emergencies. A commonly expressed concern with working in a double bunked unit related to perceived increased risk

² Or their most recent cellmate if currently in a single cell.

to staff as a result of, for example, an increased number of prisoners in the unit, an increased level of volatility in the unit, cellmates supporting each other against staff, or particular risks/difficulties associated with unlock. These kinds of issues, it was claimed, resulted in more stress on staff.

Prison and Unit Managers were asked if they thought double bunking, as currently implemented, was sustainable in the long term. Over two thirds of managers thought that it was sustainable in their prison, but some qualified their response (e.g., only because they have short term remand prisoners, or it would be with more staff). Those Prison Managers who did not think the double bunking situation in their prison or unit was sustainable mostly cited insufficient facilities (e.g., yards, programmes).

Specific impacts of double bunking on prisoners

Positive impacts for prisoners

The benefits of companionship were considered by almost all interviewees (prisoners and staff) to be the primary benefit of double bunking. These benefits were noted as, for example, cellmates keeping one another occupied through conversation or games, making time go faster, preventing prisoners from “stewing” on their own thoughts, and receiving support and reassurance from one’s cellmate.

Someone to talk to at night, share stories about the outside, play cards with ... it matters more to a lonely sort of person. (Prisoner)

Other frequently-mentioned benefits included cellmates providing support when there is tension with other prisoners in the unit, being able to share food, tobacco and personal items, and having someone else to protect possessions during unlock hours when the other cellmate was away from the cell. A small number of prisoners felt that being in a double cell can positively support the learning of cellmates (particularly in terms of literacy); also mentioned was the idea that living in a shared cell helped prisoners learn patience and tolerance.

Staff and managers were often of the view that, as long as the prisoner was celled with the right person, double bunking could protect prisoners who were vulnerable (for example, first timers, those at risk of self-harm, and the medically unwell). A cellmate might, for example, deter the vulnerable prisoner from attempting to self-harm, or summon staff if help was needed.

Staff also noted that double bunking allows some prisoners access to resources they would not otherwise have – for example, a television or radio. Also mentioned was the possibility that double bunked prisoners sometimes promoted fitness through cellmates encouraging each other to train. Other possible benefits including encouraging better hygiene, and helping foreign prisoners to improve their English.

Potential negative impacts for prisoners

Conflict

Managers and staff expressed a general concern that two people constrained in close physical proximity to each other over lengthy periods had potential to increase physical conflicts between prisoners. Most of the staff and managers interviewed had observed an incident or issue in a double bunked situation where emotions or stress appeared to have been aggravated by double bunking arrangements. Acts of physical aggression typically will have escalated from initially minor disagreements or annoyances.

A number of prisoners described the double bunk experience as an on-going “battle of wills”, where basic issues such as television channel selection could be a long-standing source of argument. Sharing a cell with another prisoner meant, in one prisoner’s words “having to put up with a lot ... (sometimes) keeping quiet just to avoid conflict”.

Different standards of hygiene and cleanliness were also noted as a source of tension. Prisoners also needed to find an accommodation with each other over sharing of tasks (e.g., cell cleaning), which could be a source of ongoing frustration for some. Also noted as frustrating was having a cellmate who snored. As might be expected, stronger and more dominant cellmates usually had an easier time in the double bunking situation, as they tended to get their own way, and suffer less criticism, rebukes or demands for changed behaviour.

Some staff appeared to believe that double bunking had an impact not so much on the immediate relationship between cell-sharing prisoners, but instead that higher rates of double-bunking within a unit tended to increase tensions between prisoners in the unit as a whole.

Lack of privacy

Nearly all of the prisoners interviewed complained about privacy issues when cell sharing. Complaints centred on physical privacy (e.g., dressing/undressing), emotional privacy (not wanting the other person to observe moments of distress) and privacy of personal items (e.g., personal letters). Of all such issues raised by prisoners, the one which triggered the most feeling was use of the toilet, both in terms of having another person in close proximity when sitting on the toilet, as well as having to endure the sounds and smells of the other person when they went. Similar feelings were reported over the practice of masturbation.

Emotional privacy also emerged as a potent concern; prisoners talked about having to hide their emotions.

Definitely physical privacy goes, but it's actually mainly the emotional – you can't afford ... to let your emotions go too easily. (Prisoner)

A quarter of prisoners interviewed felt that being double bunked meant having to “bottle up” feelings, for instance after having a bad day. For some this was related to not wanting to be seen as vulnerable or weak. Another scenario mentioned was personal information being shared with a cellmate who then disclosed it to other prisoners, which could lead to teasing or being picked on.

Without privacy in here you have to tough it out ... to bottle it up, wear a mask ... can't be seen to be vulnerable. (Prisoner)

Others expressed a different view: that having a cellmate express unhappy feelings was unwelcome as it emotionally “dragged down” the listener also.

About two-thirds of prisoners interviewed said they were frustrated over a lack of time alone. This appeared to be more common when a unit operated on a schedule of restricted hours of unlock.

Finally, another common privacy theme was concern for the protection of personal items such as photos and letters. Prisoners generally felt the need to guard their belongings from prying eyes (either their cellmate’s or others); such material, it was feared, might be used to embarrass them. Others described being careful about telling their cellmate anything of a personal nature, for similar reasons.

For some, having a cellmate meant less control over who came into the cell (a cellmate allowing other prisoners he or she was friendly with). A few expressed concerns about the risks of theft by others.

Contraband

Most prisoners raised the issue of what might happen if contraband were found in a double bunk situation. Of concern was the possibility that one prisoner could be hiding banned items, but when found, deny all knowledge of them and blame the other person. At the very least, both prisoners would end up being targeted for drug testing. Other issues raised were fears that a weaker prisoner might be bullied into taking “the rap”, or that the enforced closeness of cell sharing meant that, if one prisoner was using drugs, the other would be much more likely to participate also. On the other hand, several of the interviewed prisoners denied ever having heard of, or observed, problems occurring between cellmates over drug and contraband possession. Some staff interviewed were also concerned about establishing culpability when contraband was located in a double cell, although none reported it as a major problem.

Physical space

In some of the units visited, the double bunked cells were originally designed as singles. Most prisoners acknowledged that the amount of physical space was an issue. Lack of physical space meant that simply being able to move around the cell required more patience and effort. Cellmates sometimes had to take turns to do certain things, such as using the desk for writing or eating. In summer, the temperatures in some cells were reported as becoming “unpleasant”, increasing in some people a sense of claustrophobia. Other prisoners mentioned the fact that there could be too few places to put things in the cell (e.g., inadequate shelving, which meant more effort in having to get things out of less accessible places. Positioning the television where both cellmates can view it equally well was a problem in some cells.

Impact of double bunking on running a unit

Staff were asked to comment on specific issues which arose for them working in a double bunked unit. A wide range of concerns were pointed out.

Routine cell searches

The majority of staff interviewed felt that double bunking made cell searches more time-consuming and challenging. Identifying who was culpable when drugs or other contraband were found was mentioned, while others mentioned the fact that double bunked cells tended to be more cluttered.

It's double the work of single cells – twice as much kit, bedding and clutter. It takes longer, not just because there's twice the gear, but also removing a mattress is awkward on bunks (Staff member)

Lock ups/unlocks

In general the main concern with double bunking for staff at lock/unlock times was that the process took more time. However, staff and managers were generally aware that unlocking two prisoners rather than one meant that heightened vigilance was necessary. In some cells, visibility could be restricted with one prisoner not immediately being within line of sight. On those (infrequent) occasions when staff needed to enter a cell to restrain or remove a prisoner, the presence of the extra bunk and prisoner's gear meant access and egress was less straightforward.

Case management

Some staff in double bunked units expressed the view that it was more challenging keeping tabs on prisoners, getting to know them, and thus being able to engage productively in one-to-one interactions. Issues raised included the lack of places in which to have private conversations with prisoners, and generally a reduced level of awareness of what was going on amongst prisoners in the unit. On the other hand, many of the units visited for the study were remand units, and high custodial workloads meant that case management was less of an emphasis.

Meals

In some units, meals were eaten in the cell rather than a shared dining area. Also noted was that many double bunk cells lack chairs and a table for prisoners to eat their food at, which led to prisoners eating on their bed, using shelves as tables or a toilet as a seat.

Other specific impacts

Other specific issues raised included the following:

- added demands on staff in having to remove a prisoner's personal property for safe keeping when that prisoner is temporarily moved, such as to hospital or for an out-of-town court hearing (such prisoners in a single cell can simply have their cell locked for the duration)
- the pressure of getting all prisoners to and from showers, exercise yards, visiting areas, and allowing sufficient access to telephones and interview rooms
- complaints over ventilation in cells
- issues with cell layout and furniture
- storage space in the wider unit
- equipment and space for the added complement of staff required (number of desktop computers, space in the guardhouse etc).

Cell placement and changes

Placement of new prisoners

Staff were asked to offer observations on the process used to assign prisoners to double cells. This primarily involved making an assessment based on review of the prisoner's file information, staff knowledge of the prisoner, and an interview. Where possible, prisoners were observed by staff in order to gauge their behaviour and reactions to other prisoners before placement decisions were made for them. Staff then entered this information into the Shared Accommodation Cell Risk Assessment (SACRA) form to generate a score indicating suitability for co-placement³.

All staff sought placements that achieved safety of the prisoner and harmony within the wider unit. In terms of the variables used to match cellmates, the following were most commonly mentioned as important:

- age, level of maturity
- prisoner personality (e.g., compliant, aggressive)

³ The intended purpose of this assessment instrument is to indicate the level of risk that arises if a prisoner is placed in a shared cell. The assessment is completed by staff in the unit/wing where the prisoner is to share a cell, ideally prior to placement decisions. SACRA scores are designed to inform, but not substitute for, staff judgment.

- offending history or gang affiliation
- smoker/non-smoker
- mental health and other vulnerability-related issues
- ethnicity, language or nationality
- standard of cleanliness and hygiene.

Staff appeared to hold different views in relation to the age of prisoners. Some felt that prisoners of a similar age would be more likely to have common interests, relate to each other and be less likely to get irritated with each other. Others, however, felt that placing a younger prisoner with (the right) older prisoner could have positive outcomes, such as helping to calm the younger prisoner down, preventing the younger prisoner getting into mischief, and providing advice to a younger and usually less experienced prisoner.

Staff also appeared to vary in the degree to which they took into account prisoner preferences. About half of the staff interviewed said they took requests, preferences or input from prisoners into account when making their placement decision. About a third reported that they tried to ensure a good balance in their unit (and sometimes across the whole prison) when making placement decisions, particularly in relation to gang status and ethnicity.

Staff identified a number of challenges that sometimes diminished their ability to make optimal placements. Muster pressure and availability of beds was the most common impediment, as flexibility of placement became progressively more difficult as units came closer to maximum capacity. Also raised as issues by staff were:

- having to make decisions before all necessary reports and file information was available
- placement decisions having to be made by Custodial Support Unit (CSU) staff outside of normal working hours, as CSU staff may have less information available to them on a prisoner's needs or characteristics
- prisoner dissatisfaction and complaints about changes to placements or replacement of a cellmate.

Some staff commented that prisoner behaviour always involved a degree of unpredictability. As a result there was no certainty that problems could be avoided, even when decisions on placement had been made very carefully, and were based on a full range of information.

Use of Shared Accommodation Cell Risk Assessment (SACRA)

Staff varied in their level of experience with the cell placement assessment tool SACRA⁴. Differing opinions were expressed about the value it added to decision making. One interviewee was unclear about the use of SACRA when the results conflicted with personal judgement. Most felt that their own judgement was as important as SACRA scores in decision making, and should be used. Several managers were of the view that SACRA was a particularly important resource for less experienced staff, and those who had only limited exposure to the prisoner concerned, such as staff in the CSU.

Changing cellmates

Prisoners were asked about whether they had had the same cellmate since being in their current unit (at the time of being interviewed). About a quarter had had the same cellmate. The rest had experienced changes in cellmates and reported a range in terms of the total

⁴ Not every staff member had received SACRA training at the time of the research.

number of changes – fifteen changes over a period of less than a year was the maximum claimed.

Staff reported that it was not uncommon to be asked by prisoners for a change in cell or cellmate. In general this would simply involve asking the prisoner for their reasons for the request, and making the change if the request was deemed reasonable and there were cells (or cellmates) available to effect the change. If they felt that there was any risk of harm to a prisoner then they would act quickly. Requests might be denied, or responses delayed, if the issue was considered less serious (for example, simply complaining of a cellmate's laziness, or snoring). In general, however, staff reported that wherever possible they tried to make requested cellmate/cell changes happen, as it reduced tension in the unit and likelihood of incidents or issues occurring. In some units, Saturdays were "cellmate change day", with multiple swaps and changes carried out simultaneously, a practice that was (it appears) appreciated by the prisoner population.

In most units visited, single cells were the exception, and were generally sought after by prisoners. However, staff indicated that single cells were generally reserved for prisoners with psychiatric problems, ill-health, transsexuals, and those who had 'earned' the privilege (such as long-term prisoners with a good behaviour record). Single cells were also sometimes reserved for short term (1 – 3 night) placements where going through the process of assessing for cellmate matching was not warranted.

Some staff talked about some prisoners being inclined to manipulate the process of cell placement, for example, vociferously complaining in the hope of getting moved to a single cell, or to get a change to a cellmate whom they could then dominate. This is largely managed by reliance on staff experience and active management, as well as good file information on prisoners and good communication across units and prisons. It was recognised as important not to allow prisoners to expect that there was a choice in the matter of whether they were double bunked. Most prisoners accepted that staff "are not dumb" and generally know what is going on within a unit. A number of prisoners believed that their good or bad behaviour influenced the stability of a unit and their cell allocation, but did not admit to taking advantage of this in any serious way.

Some staff also acknowledged that arranging cellmate changes did involve a degree of work in trying to locate a suitable alternative cell, negotiating between prisoners, and some paperwork also. In one prison, however, staff apparently permitted prisoners to work out a plan amongst themselves, then bring the agreed plan to staff for approval, thus removing the need for staff to spend time negotiating cell changes amongst prisoners.

At times staff responded to suspicions of problems between cellmates, despite neither cellmate raising a concern. Depending on the nature of the concern, some staff would instigate a change, while others stated that no changes were made without an explicit complaint or request. Prisoners inevitably were cautious around appearing to be an informer; asking for a cell or cellmate change was acceptable as long as the request was made without accusing the existing cellmate of misconduct.

While staff agreeing to a request for change of cellmate was generally welcomed, changes could occur for a range of other reasons, such as prisoner transfers and releases. Prisoners generally found the process of change under these circumstances to be quite stressful.

I don't like changing cellmates, you learn to get on with someone, but the new one might not get on with you. (Prisoner)

A number of prisoners made comments that indicated confidence in staff members' willingness to try to create compatible cellmate combinations. It was rare for prisoners to feel that staff were indifferent to the situation if problems arose from a placement decision.

“Making it work”

Prisoner strategies

Prisoners were asked to describe strategies they employed to make the double bunking arrangement work for them, and thereby avoid continuous conflict or frustration.

Good match

Most prisoners were aware that it was important to find a compatible person with whom to share a cell. The main issues mentioned in this context were as follows:

- similar age or maturity
- similar standards in terms of cleanliness, tidiness and hygiene
- both smokers or non-smokers
- feeling safe (no stealing, bullying or violence)
- common interests
- if gang affiliated, not with someone from a rival gang.

If a prisoner found themselves to be in a situation involving a poor “match”, most claimed that they would feel confident about asking staff for a change, and most appeared confident that they would be listened to.

Decision-making

Prisoners were asked how decisions were made in their cell about issues such as choice of television channel, the time the light went off at night, and whether smoking in the cell was OK. Over half of the prisoners interviewed acknowledged the importance of “considering and respecting each other’s needs”, and the need for compromise.

We both make decisions for ourselves, but double check to see if it's OK with each other. We even share each other's canteen. We communicate ... both make decisions about things like TV channels, noise. (Prisoner)

Other important decisions related to which other prisoners were permitted to come into the cell, and how the cell is protected from other prisoners. A number of prisoners mentioned cell rules they had either discussed and agreed on, or that were unwritten and assumed from general prison culture.

Prisoners talked about resolving conflicts themselves through discussion and compromise. Sometimes the matter was simply left unresolved – agreeing to disagree. A commonly mentioned thought was that staff should generally not be approached for advice or input. This in part reflected an assumption that prisoners “have our own rules and way of resolving issues”, but also the concern about being labelled as an informer or ‘nark’, which tended to lead to more serious problems. Although this was something of a grey area, one prisoner commented that “anything that doesn’t end in a charge isn’t narking”.

Many prisoners stated that being respectful, courteous and considerate to each other and compromising was important. At times this extended to “being a peacemaker” – actively

working to avoid conflict and tension. Many also commented on the importance of being clean, tidy and orderly. Some talked also about doing things for each other and taking tasks in turns.

Also acknowledged was the reality that conflict would occur, but that cellmates usually just got on with life regardless.

Yeah, we have little scraps with each other, tiffs. Over nothing, too close, annoying each other. In a way it's a microcosm of the outside. They annoy you so you do things to purposefully annoy them – change the channel when they're watching TV ... then we laugh a bit, make light of it. (Prisoner)

A smaller number of prisoners talked about things just working out naturally, not being conscious of a deliberate decision-making process.

Allowing space

Many prisoners were aware of the need to give their cellmate “space” and privacy. This could be achieved, for example, by:

- cellmates taking turns going to the yard to allow the other time alone in the cell
- avoiding prying, asking personal questions
- not disturbing the cellmate when he is writing letters or reading.

Rules on toilet use

Prisoners discussed strategies for addressing this vexed issue. A common theme was adopting a rule that the cell toilet should be used only to urinate in; toilets in the yard or at place of employment should be used for defecation unless in “an emergency”. It was generally acceptable to use the cell toilet during unlock hours when the cellmate was not present. Most agreed it was an important courtesy to avert one’s gaze when the cellmate was getting dressed or using the toilet.

A couple of prisoners also talked about having a routine around showering which helped to afford each other some privacy (in most cases showers were in the unit, not the cell).

Staff strategies

Managers and staff were also asked their views on the most important factors for making double bunking work in their unit/prison. Their responses fall into six main areas:

- the importance of staff knowledge, experience and professional judgement (to, e.g., make better placement decisions, build more effective relationships with prisoners, have greater confidence, and better detect and address actual or potential issues when they arise)
- an emphasis on good practice and operating good processes and systems (e.g., being firm and fair, focusing on personal safety and duty of care, good communication between staff and with prisoners, and ensuring that prisoners get their entitlements)
- the importance of staff teamwork in the unit and across the prison (e.g., supporting each other, utilising each other’s strengths and experience, presenting a united front to prisoners, being able to trust each other, and working flexibly with staff across the prison to manage the placements)
- the importance of treating prisoners with respect, building rapport and communicating appropriately with them while ensuring appropriate boundaries (this can increase compliance, reduce incidents, create trust so prisoners are more likely to communicate,

and manage expectations to prevent agitation)

- the need for sufficient staffing levels and resources
- active conscious management of double bunking (through staff: making good placement decisions at the outset; addressing problems as they arise and preventing small issues from becoming bigger issues; constantly monitoring activity in the unit; and effectively and strategically juggling the placement of prisoners).

The following suggestions were also mentioned by some managers and/or staff:

- ensuring there is a staff presence on the floor in the unit to build relationships with prisoners and to get intelligence (this requires sufficient staffing of the unit)
- having single cells available for those that need them
- having a routine where prisoners are engaged in activities to keep them busy and let them “blow off steam” so that the likelihood of conflict is reduced
- employing committed staff, as it is staff who make double bunking work
- managing prisoner expectations
- having a controlled rather than open environment
- providing sufficient storage for prisoners in the cell to help maintain security, help searching and maintain cell standards
- ensuring the right mix of prisoners in the unit.

Summary and conclusions

This first phase in a research investigation on prisoner double bunking was based on interviews with prisoners and prison staff who were asked to share their thoughts, feelings, experiences and observations. The purpose was to shed light on the extent to which double bunking was consistent with the safe, secure and humane containment of prisoners, and efficient operation of prisons.

The majority of prisoners preferred single cell accommodation in prison, as it provided privacy, and reduced exposure to conflict. However, the overall impression gained from the interviews was that, when assigned to a double bunked cell, prisoners simply got on with things and made the best of the situation. Although many had stories to tell of previous cell sharing experiences that were unpleasant, almost all prisoners reported that their current cell sharing arrangement was satisfactory. Prisoners appeared able to change cellmates reasonably readily, which meant that, within a reasonable period of time, they were usually able to find a tolerable, if not agreeable companion to share a cell with. Interviews suggested that the majority of staff took care in thinking through the implications of placement decisions.

On the other hand, there was sufficient evidence to show that, in some cases, double bunking had been unpleasant for one or both cellmates and led to bullying and exploitation. However, such behaviour is not uncommon amongst prisoners generally, and cannot necessarily be attributed to the double bunking dynamic.

Despite some disadvantages, a sizeable minority of prisoners expressed a distinct preference for being double bunked, citing positive benefits of companionship, mutual support, and the sharing of resources.

Maintaining safety and humane containment requires that risks are monitored and managed. Important risk management strategies identified are as follows:

- considered placement decisions that avoid prisoners being placed with another prisoner who has potential to cause them emotional or physical harm
- monitoring of cellmate combinations by staff to ensure that interpersonal conflict and tension is not becoming unduly elevated
- facilitating time away from the cell so that cell-sharing prisoners have time to themselves
- providing options for prisoners to securely store personal information and items.

With respect to physical elements of the experience, the issue of toilet use emerged as a major source of frustration, indicating that improved ventilation, fittings such as modesty screens, as well as access to extra toilets in the unit, might mitigate a factor that diminishes quality of life of cell-sharing prisoners.

Double bunked units were found to create a number of challenges for staff working within them, mainly related to the demands associated with the greater volume of prisoners within the unit confines. However, staff appeared to be managing these challenges adequately through good practice, processes and systems. Staff practice is critical in preventing or mitigating risks and potential downsides of double bunking. The knowledge, experience and level of professionalism they bring to the job makes the difference in ensuring the safety, security and humane containment of prisoners and the effective running of units where cells are double bunked. Operating in a thoughtful, responsive and flexible way to the needs of prisoners can help to minimise the likelihood of problems occurring and to reduce the severity of negative outcomes when problems do arise.

Finally, the strategies that prisoners used to cope with the challenges that double bunking creates raises an interesting issue. A number of prisoners spoke of having to learn patience and tolerance, and to find ways to negotiate and compromise, as essential skills for achieving a tolerable living environment. These qualities are of course antithetical to criminality, which typically evidences itself in pronounced egocentricity, low tolerance for frustration, and desire for immediate gratification. It is therefore possible that, for some prisoners, the challenges inherent to double bunking potentially act as a catalyst for confronting and learning to overcome the very aspects of their personality that predispose them to continued offending.

Introduction to Phase 2

This section provides a purely statistical analysis of association between double bunking in prisons.

Changes in rates of incidents are considered to be an important indicator of the extent to which prisoners are coping with their imprisonment experience.

The section reports on the relationship between extended double bunking and incidents, taking a range of perspectives on this association. Of central interest is whether, or the extent to which, incident rates increased, as the extended double bunking implementation programme was rolled out.

Methodology

Data for the analysis were selected from 54 specific units in the four newest prisons in which the extended double bunking project applied – Auckland Region Women’s Corrections Facility (ARWCF), Northland Region Corrections Facility (NRCF), Otago Corrections Facility (OCF) and Spring Hill Corrections Facility (SHCF). Units included in the analysis are listed in Appendix H.

Incident, muster and cell sharing data were sourced from a range of tables within the Department’s data warehouse (CARS⁵), and sequentially merged into a stand-alone dataset. This was subsequently exported to SPSS for detailed statistical analysis.

To allow a sufficient “bedding down” period for extended double bunking to have been in place for some time in selected units and prisons, analysis was undertaken for all incidents and associated characteristics for the 19-month period 1 September 2009 to 31 March 2011. This approach had the advantage of accommodating the incremental increase in double bunking rates. That is, it avoids any artificiality of electing a nominal date to represent when a unit moved from being single bunked to double bunked, as the actual proportion of any unit’s total muster that is double bunked at any given time was observed to move both up and down over the period.

Descriptive analysis

The table below provides an overall summary of the four prisons analysed, excluding outliers⁶. Key characteristics include:

- An average overall muster of 1,361 across the 19-month analysis period, ranging from as low as 999 to as high as 1,795.
- An average double bunking count of 556 across the period, from as low as 4 (early in the time period) to as high as 1,224 (more recently).
- An average incident count per day of 9 (from a total of 5,771 incidents recorded across

⁵ Corrections Analysis and Reporting System

⁶ Removal of “outlier” data is critical to the integrity of the statistical analysis conducted here; outliers in the current analysis included, for example, a significant disorder event involving a large number of prisoners at one prison on a single day in January 2009, resulting in 80+ recorded incidents. Outlier analysis led to exclusion of around 3.5% of records.

units in the analysis period), ranging between zero (i.e. no incidents on a specific day) and 23.

The bulk of this average incident count of 9 per day was accounted for by the following sub-groups (together comprising 83% of the overall daily average incident count):

- Prisoner behaviour, non-notifiable⁷ – on average 3.6 incidents per day
- Other incidents, non-notifiable – on average 1.2 incidents per day
- Contraband, non-notifiable – on average 1.1 incidents per day
- Prisoner management, non-notifiable – on average 0.9 incidents per day
- Contraband, drugs, notifiable – on average 0.8 incidents per day
- An average overall incident rate of just 0.7 per 100 muster, ranging between zero and 2.0.
 - An average notifiable incident rate of 0.2 per 100 muster, from zero to as high as 1.4
 - An average non-notifiable incident rate of 0.5 per 100 muster, from zero to as high as 1.6.
- An average double bunking rate of 36.2 per 100 muster, ranging from 0.4 (early in the time period) to as high as 68.4 (more recently).
- A virtually non-existent average shared cell (that is, incidents recorded in IOMS as being explicitly associated with cell sharing) incident rate of 0.02 per 100 muster, ranging only as high as 0.3 per 100 muster.

Summary Statistics by date (Prisons and Units combined)

01-Sep-2009 to 31-Mar-2011

	Mean	Minimum	Maximum
Muster	1361	999	1795
Sharing cell count	556	4	1224
Incident count	9	0	23
Notifiable incident count	2	0	18
Non-notifiable incident count	7	0	22
Incident rate per 100 muster	.69	.00	1.99
Double bunking rate per 100 muster	36.25	.36	68.41
Shared cell incident rate per 100 muster	.02	.00	.30
Notifiable incident rate per 100 muster	.16	.00	1.38
Non-notifiable incident rate per 100 muster	.52	.00	1.61

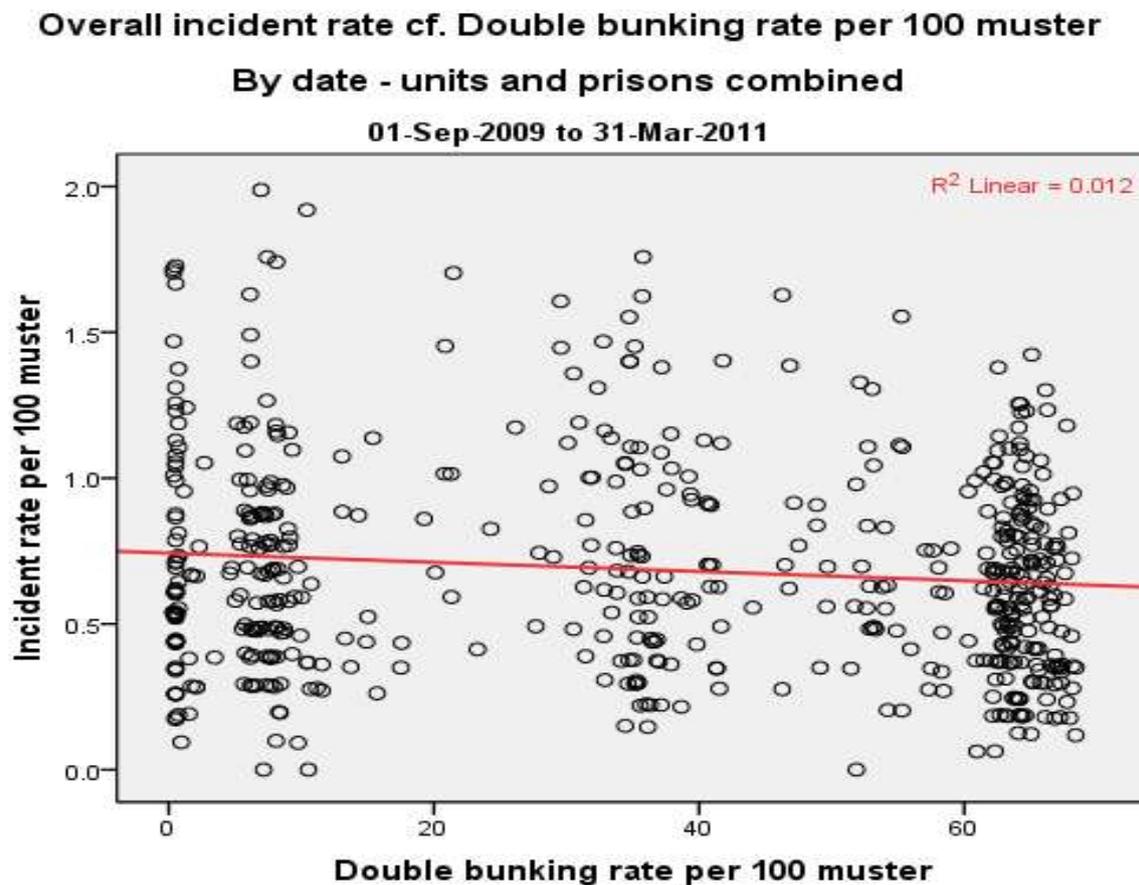
⁷ Incidents recorded by staff in prison are classed as either “notifiable” or “non-notifiable” depending on seriousness of the event; for example, prisoner-on-prisoner assaults resulting in injury are notifiable, while minor assaults are not. A notifiable incident requires that senior staff are promptly advised, and significantly greater amounts of information must be recorded.

Analyses of association

Correlation analyses were performed for incidents and double bunking from a range of perspectives. Note that a similar analytic approach, broken down by individual prison, is provided in Appendix 1.

Overall incident rate and double bunking rate

A significant negative correlation of $-.112$ ($p=.008$) was found. This implies that as the rate of double bunking increased during the analysis period, the overall incident rate trended down. The downward sloping trend line in the following chart illustrates this overall negative association.⁸

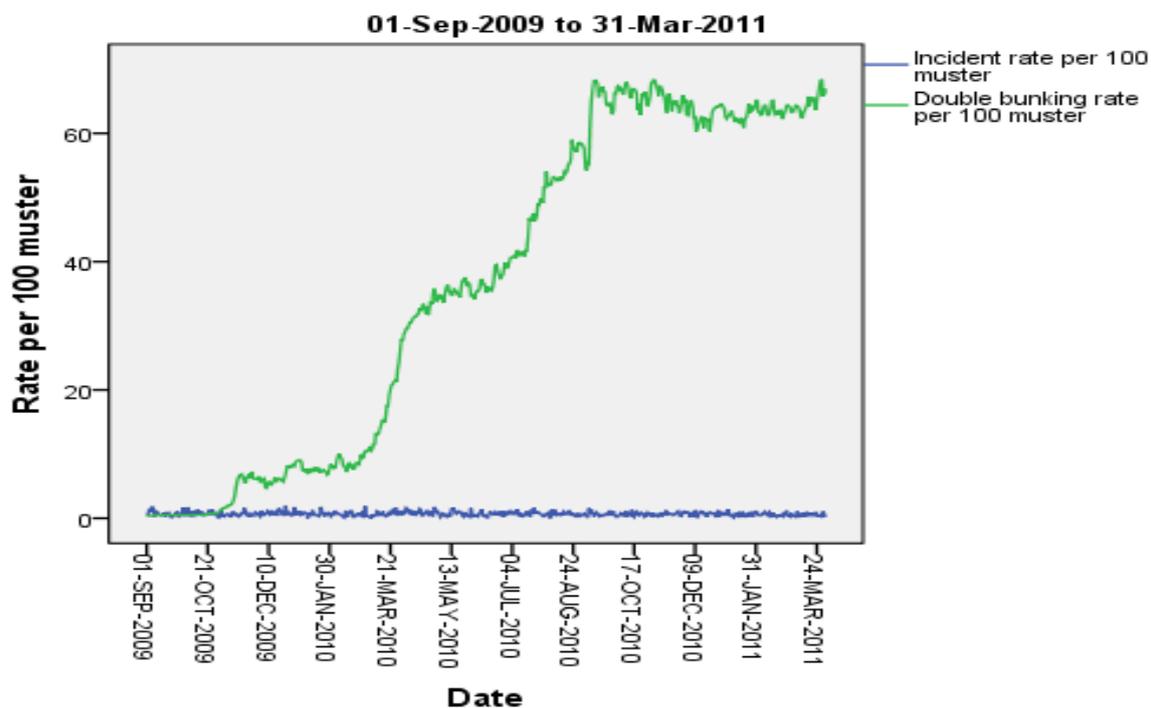


The following three time series charts also illustrate the relationship between the incident and double bunking rates per 100 muster, as well as clearly illustrating the rapid increase in double bunking rate during the analysis period, while at the same time the overall incident rate gradually trends down.

⁸ This chart also illustrates that the share of overall variation explained by this (linear) trend line association between the overall incident and double bunking rates is very low (R -squared = 0.012), which means very little of observed changes in incident rate are explained by observed changes in the double bunking rate. However, this finding is itself consistent with the relatively low correlation coefficient of $-.112$.

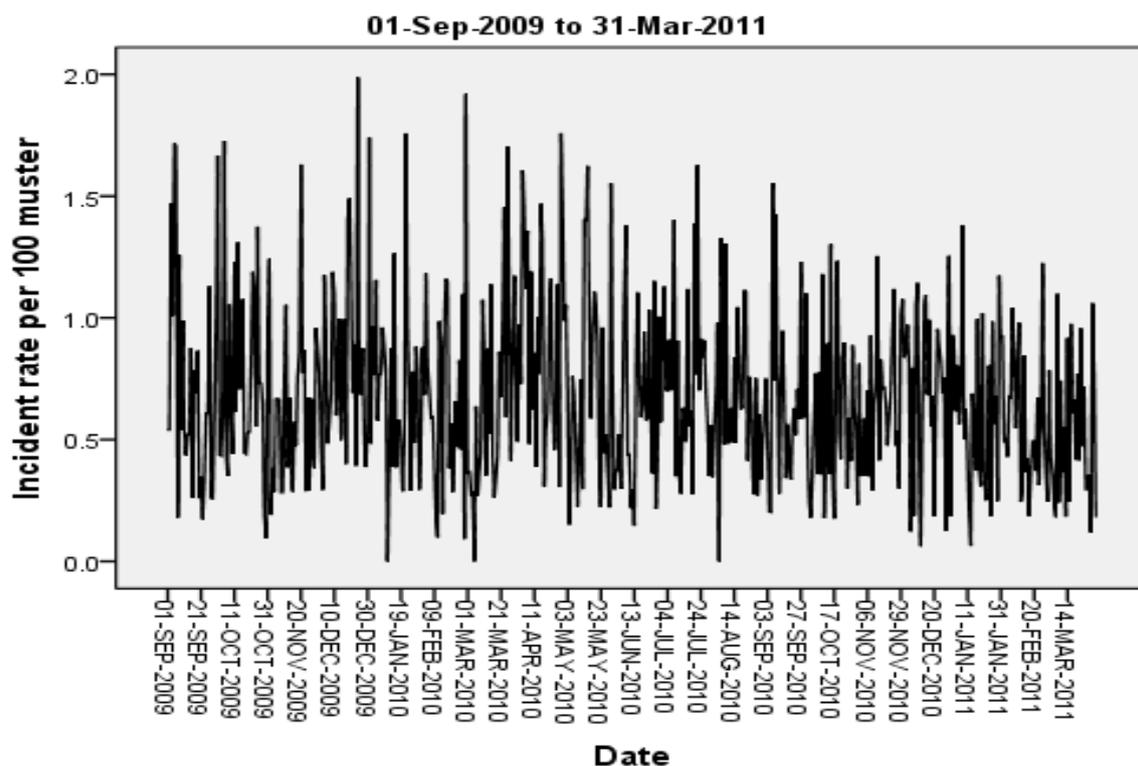
Overall incident rate cf. Double bunking rate per 100 muster

By date - units and prisons combined



Overall incident rate per 100 muster

By date - units and prisons combined



As an additional integrity check, the relationship between the overall incident rate and double bunking rate was subject to a regression analysis, with incident rate the dependent variable and double bunking rate the independent variable. This analysis supported the findings of the correlation analysis – an inverse relationship between incident and double bunking rates. However little variability in the overall incident rate was actually explained by variability in the double bunking rate (R-squared = .012). This implies that the modest variation in the overall incident rate observed in this 19-month analysis period is attributable to either chance, and/or other factors not measured here.

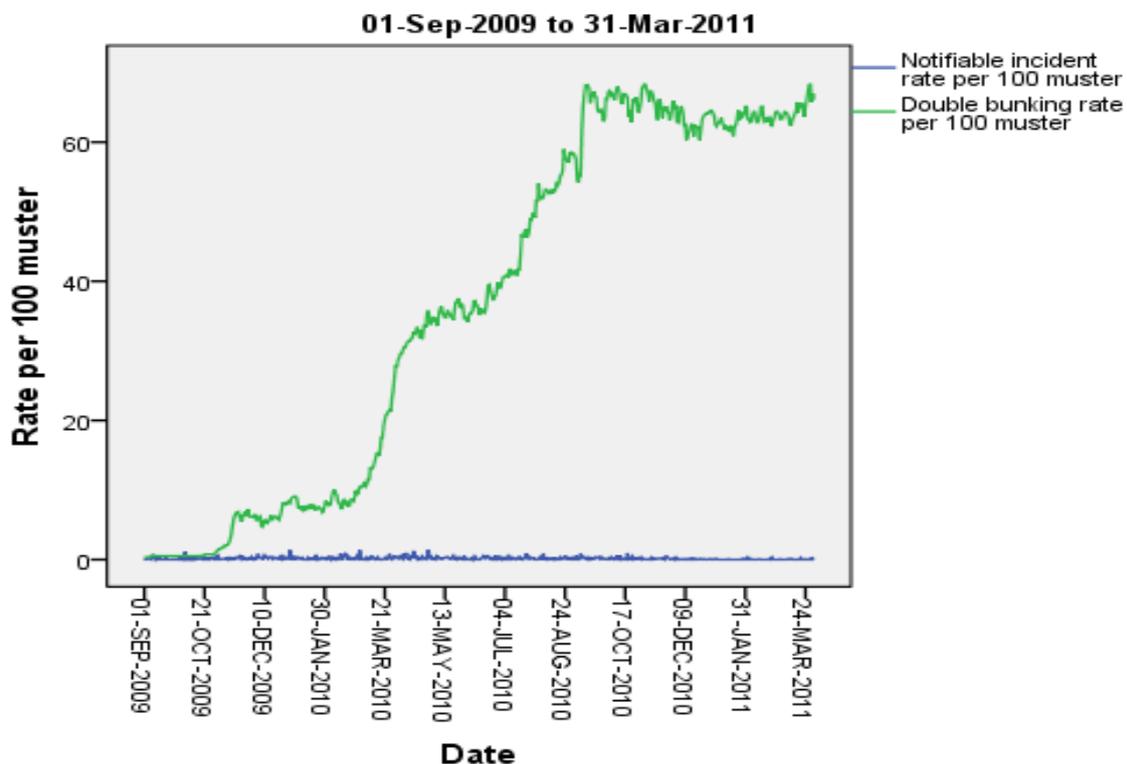
Notifiable incident rate and double bunking rate

As for the overall incident rate, a significant negative correlation of -0.201 ($p < .0005$) was found. This implies that, as the rate of double bunking has increased during the analysis period, the notifiable incident rate has in fact been trending down – as observed for the overall incident rate.

The following two time series charts also illustrate the relationship between the notifiable incident and double bunking rates per 100 muster; again they clearly illustrate the rapid increase in the double bunking rate during the analysis period, while at the same time the notifiable incident rate was gradually trending down.

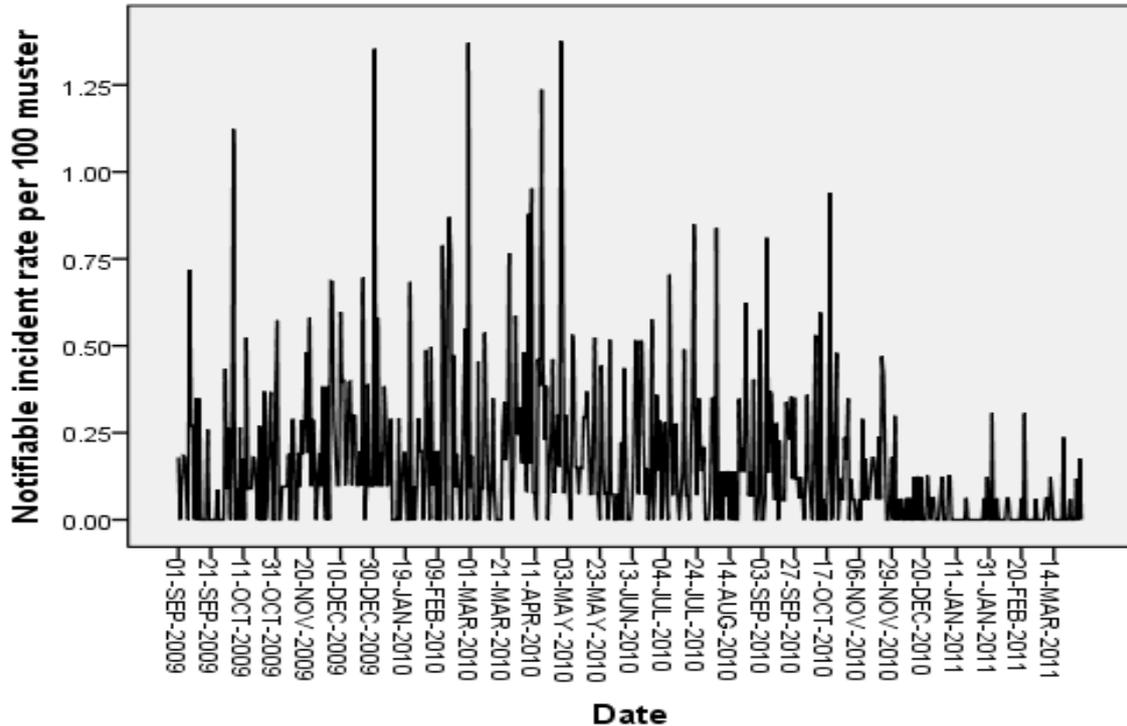
Notifiable incident rate cf. Double bunking rate per 100 muster

By date - units and prisons combined



Notifiable incident rate per 100 muster By date - units and prisons combined

01-Sep-2009 to 31-Mar-2011



Non-notifiable incident rate and double bunking rate

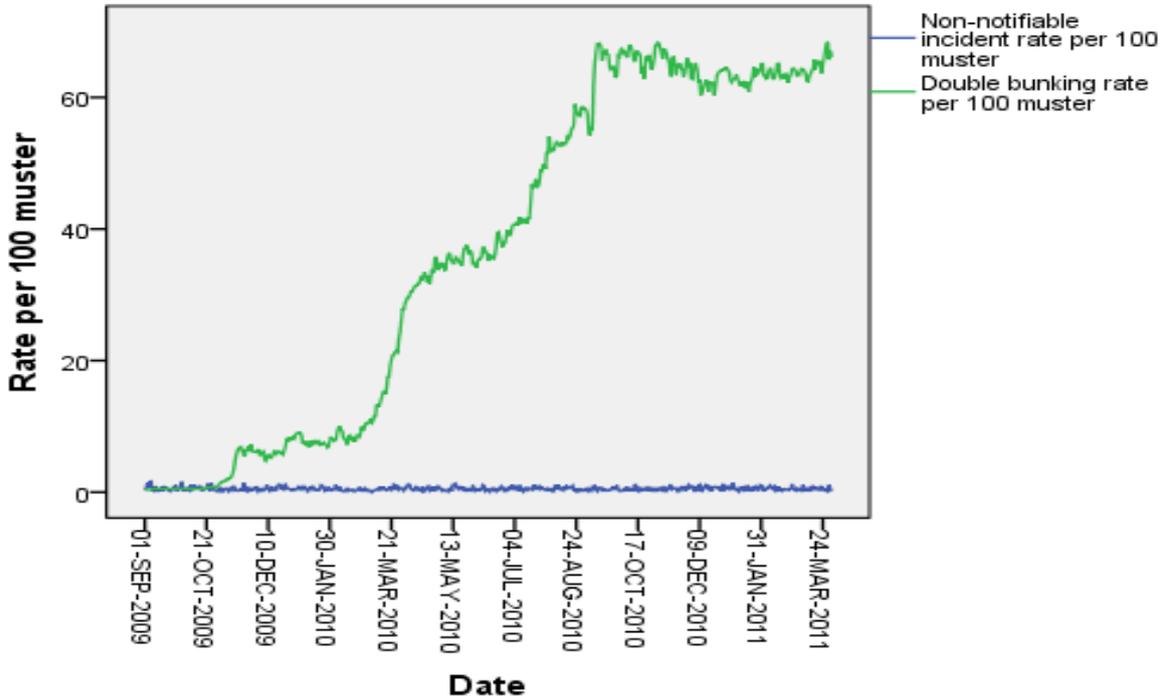
In this case, a positive but non-significant correlation of .012 ($p=.781$) was found. This implies no association between the rate of non-notifiable incidents and the double bunking rate.

The following time series charts also illustrate the relationship between the non-notifiable incident and double bunking rates per 100 muster; again they clearly illustrate the rapid increase in the double bunking rate during the analysis period, while at the same time the non-notifiable incident rate remains relatively static:

Non-notifiable incident rate cf. Double bunking rate per 100 muster

By date - units and prisons combined

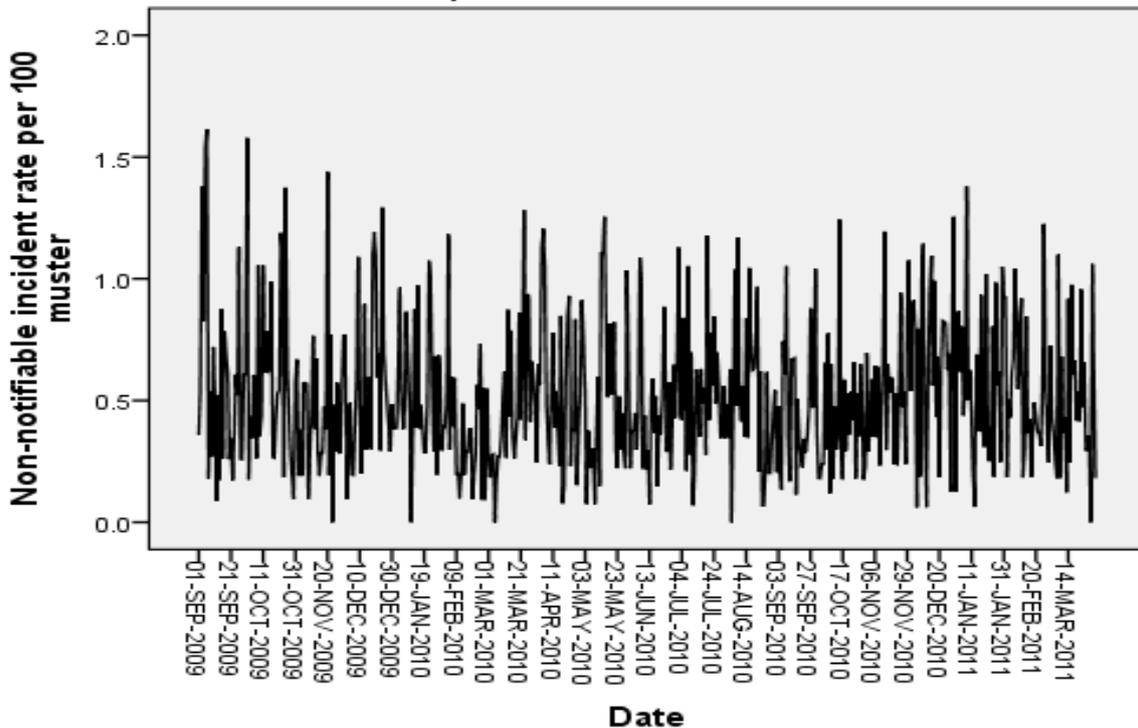
01-Sep-2009 to 31-Mar-2011



Non-notifiable incident rate per 100 muster

By date - units and prisons combined

01-Sep-2009 to 31-Mar-2011



Conclusion

The second phase of the research was purely statistical in nature. Prisoner incidents (e.g., assaults, resisting staff, self-harming) were monitored across 54 separate prison units within the four newer prisons within which cell-sharing was being progressively increased. Incident data for each unit was monitored over the course of 19 months as the proportion of double-bunked cells in each unit rose progressively from zero to around 70 percent.

The findings of this phase of the research can be summarised very simply: as double-bunking in each prison unit ramped up, rates of incidents (per 100 prisoners) remained stable. In fact, a slight *decrease* in the rate of incidents was recorded in many of the units studied: that is, during the analysis period, as the rate of double bunking increased, overall incident rates actually decreased slightly.

A few caveats on findings summarised here are noted. It is accurate to state that there appears to be little or no association between rates of double bunking, and incidents. However, incidents are not the only indicator of prisoner stress and tension. It is possible that changes on other potential indicators (e.g., prisoner alerts) may have shown an association with double bunking. Further, findings reported here may not necessarily hold true for every prison where double bunking is extended.

Summary and overall conclusions

The current report outlines the findings of two separate phases of research exploring double bunking in New Zealand prisons. Of particular interest in the first phase were the perceptions of double bunking held by prisoners who had been housed in this manner, and staff. The objective of this research was to identify issues which should be addressed before double bunking was extended. Findings are based on interviews undertaken with managers, staff and prisoners in twelve prison units.

The second phase occurred during the period over which the level of double bunking was being expanded. This examined rates of incidents (such as prisoner assaults and incidents of disorder) for the purpose of determining whether such events were increasing as double bunking expanded. The objective of this phase of the research was to clarify the extent to which double bunking, on the scale planned, remained consistent with the goals of safe, secure and humane containment of prisoners.

The majority of prisoners interviewed preferred single cell accommodation in prison, as it provides privacy, and reduces exposure to conflict. However, the overall impression gained from the interviews was that, when assigned to a double bunked cell, prisoners simply got on with things and made the best of the situation. Although many had stories to tell of previous cell sharing experiences that were unpleasant, almost all prisoners reported that their current cell sharing arrangement was satisfactory. Prisoners appeared able to change cellmates reasonably readily, which means that within a reasonable period of time they were usually able to find a tolerable, if not agreeable companion to share a cell with. Interviews suggested that the majority of staff took care in thinking through the implications of placement decisions.

Some prisoners expressed a distinct preference for being double bunked, stating that it has positive benefits such as companionship, mutual support, and the sharing of resources.

The research findings indicate that maintaining safety and humane containment under double bunking conditions requires that risks are monitored and managed. Important risk management strategies discussed by staff and prisoners were as follows:

- considered placement decisions that avoid prisoners being placed with another prisoner who has potential to cause them emotional or physical harm
- monitoring of cellmate combinations by staff to ensure that interpersonal conflict and tension is not becoming unduly elevated
- facilitating time away from the cell so that cell-sharing prisoners have time to themselves
- providing options for prisoners to securely store personal information and items.

In addition, the issue of toilet use emerged as a potent concern. Improved ventilation, and fittings such as modesty screens and access to extra toilets in the wider unit, were regarded as important for mitigating this aspect of cell-sharing for prisoners.

Double bunked units were found to create a number of challenges for staff working within them, mainly related to the demands associated with the greater volume of prisoners within the unit confines. However, staff were managing these challenges through good practice, processes and systems. Staff practice is critical in preventing or mitigating risks and potential downsides of double bunking. The knowledge, experience and level of professionalism they bring to the job makes the difference in ensuring the safety, security and humane containment of prisoners and the effective running of units where cells are double bunked. Operating in a thoughtful, responsive and flexible way to the needs of

prisoners helps minimise the likelihood of problems occurring and reduces the severity of negative outcomes when problems do arise.

A comprehensive statistical analysis of incidents in prison units, within which double bunking increased, indicated no measurable increase in the rate of incidents involving prisoners in those units during periods over which the proportion of double-bunking increased from zero to around 70% of each unit. Thus, no evidence was found to support an hypothesis that double bunking is associated with, or predictive of, increased incident rates. Instead, with regard to the rate of both overall and “notifiable” incidents, the analysis found an inverse relationship (negative correlation) with the rate of double bunking as it increased through the 19-month analysis period. That is, during this analysis period, as the rate of double bunking increased, the overall and notifiable incident rates actually decreased.

The two phases of the analysis point to a conclusion that, while sharing cells with other prisoners presents challenges, the practice *per se* is consistent with principles of safe and humane containment of prisoners.

Appendix A: Information Sheets

Information sheet for prison staff and managers

Researchers from the Department's Policy, Strategy and Research group, with support from an external researcher, are undertaking research on the impact of double bunking in prisons.

Information is being gathered from prisoners and staff to improve the Department's understanding of the impact of double bunking on staff activities, the safety, security and humane containment of prisoners, and activities related to rehabilitation and reintegration of prisoners, the results will feed in. Findings from these interviews will potentially feed into the development of training materials for prison officers working on the newly double bunked sites, and to any adjustments that need to be made to the new operational procedures for double bunking.

Results from these interviews will be used to inform the Department's approach to the implementation of extended double bunking at the new prison sites.

You are invited to participate in an interview that will take between 30 and 60 minutes and will be held in work time, at a time designated by you or your manager. The discussion will be private and confidential and your name will not be used in the research report. If you agree, quotes from your contribution to the discussion may be anonymously used in reports. Any notes taken in the interview will be securely stored, and then destroyed six months after completion of the research.

It is your choice whether you take part in the interview and you can choose not to answer some questions.

Thank you for giving consideration to participating in this research project. If you have any questions, or would like more information please talk to the researcher.

Information Sheet for Prisoners

Researchers in the Department of Corrections with support from an external researcher are gathering information from prisoners about their experience of sharing a cell. This is known as double bunking. They are also talking to Prison Staff about double bunking.

The research is being conducted in twelve different units around the country where more than half of the residents are double bunked.

You are invited to take part in a confidential interview as part of this research, which may last up to 60 minutes. If you agree, your thoughts and comments will help the Department of Corrections to improve its understanding of the effect that double bunking has on prisoners and staff, and to ensure that prisoners who are double bunked are treated safely and humanely.

It is your choice whether you take part in the interview and you can also choose not to answer any of the questions. Whether you take part or not won't affect your sentence in any way. In addition, nothing you say in an interview will affect your entitlement to services provided by the Department or have any negative consequences of any sort. Only the researchers will be present at the interview.

What you say in the interview will be kept private and confidential. After all of the interviews have been undertaken, the research team will write a summary of what has been said. It will not be possible for anyone to know from this summary what you personally have said. The research team will not use your name or any other identifying details in any research report. Quotes from your interview may be used anonymously in the research report with your agreement.

If you have any questions please talk to the researcher. Thank you.

Appendix B: Consent Forms

Consent form for prison based staff

I _____ am a _____ [INSERT job title]
at _____ [INSERT name of Prison]

By signing this form I consent to participate in an interview facilitated by (name) (“the Researcher”) for the purpose of a Research Report on “Research on the Impact of Double Bunking” (“the Research Report”).

The Research Report will be used to inform the Department of Corrections’ (“the Department”) understanding of the impact of double bunking on the day-to-day work of staff, safety, security and humane containment of prisoners, and their rehabilitation and reintegration.

I understand and agree that:

1. My participation is voluntary; that I can refuse to answer any of the questions asked by the researcher, and that I can stop and withdraw from the interview at any time.
2. Quotations from statements I make during the interview may be used in reports but that my name will not be used. I understand that any information I provide is confidential, and that no information that could lead to the identification of any other individual (e.g. offenders or victims) will be in any reports.
3. The information I provide may be published in the Research Report only for the purpose set out above.
4. The Department will hold the original of this signed consent form on a relevant secure file.
5. The fact that I have signed this consent form does not guarantee that any information from the interview will be used in the Research Report.

6. I have not been pressured by the Department, or by the Researchers or any other person and I freely give my informed consent.

7. I have read the contents of this form and the attached '*Research on the Impact of Double Bunking - Information Sheet for Prison Staff and Managers*'. I have had time and opportunity to consider the contents of this form and the Information Sheet before signing. I may keep a copy of the Information Sheet for my records.

I _____ (full name) hereby consent to take part in an interview for the research '*Research on the Impact of Double Bunking*'.

Signature: _____

Date: _____

Consent form for prisoners

By signing this form I agree to talk about double bunking with (Researcher name).

This will contribute to a Research Report to help improve the Department of Corrections' understanding of the effect of double bunking on prisoners and staff.

I understand and agree that:

- 1 My participation is voluntary.
- 2 I can stop the interview at any time or refuse to answer particular questions if I want to.
- 3 I have not been pressured by anyone to be interviewed.
- 4 Some things I say in the interview may be used in the Research Report but my name will not be used, and not everything I say will be used in the final report.
- 5 The information I provide will be kept confidential and information that could lead to the identification of myself or any other people will not be used in any reports.
- 6 The information I provide may be published in the Research Report only for the purpose above.
- 7 The Department will keep this signed consent form in a secure file.
- 8 I have read, or have had read to me, this form and the Information Sheet, and I understand what they say.

I _____ [full name] agree to be interviewed about the impact of double bunking.

Signature: _____

Prison: _____

Date: _____

Appendix C: Interview Guides

CO/SCO Interview Guide

A. Background Information

Record:

- **Prison**
- **Unit**
- **First name**

1. What is your job position?
2. How long have you been working in the Prison Service? How long have you been working in this unit?
3. To what extent were units you have previously worked in double bunked?

B. Your work and double bunking

4. Describe the process which you undertake when assigning new prisoners to cells in this unit?
5. In your experience, what types of prisoners are best suited for cell sharing? And what types of prisoners are least suited for cell sharing? Why?
e.g. younger/older, experienced/inexperienced, segs/mainstream, remand/sentenced, high/low security, different offence types
6. What, in your experience, are the most important factors in terms of choosing:
 - whether to double bunk a prisoner?
 - who to double bunk a prisoner with?
7. Have you experienced any issues or barriers with being able to make the best double-bunking placements? How often? Is there anything that would help?
8. What is the process when prisoners want to change cellmate? How often does this happen? What are the reasons for why this might happen? Is it always possible to make the requested change happen?
9. Do you have any experience of an incident/ issue which has occurred which, in your opinion, was as a result of double bunking or was compounded by double bunking?
 - How was this managed?
 - Was it resolved successfully?
10. Are any of the following tasks managed differently or affected by double bunking? In what way?
 - Lock ups / unlocks?
 - Meals?
 - Movements?
 - Routine cell searches?
 - Active management (interaction with prisoners)?
 - Sentence / case management?

- Anything else?
11. What are the benefits, if any, for staff systems of working in a unit which is double bunked?
 12. What are the drawbacks or risks, if any, for staff systems of working in a unit which is double bunked?
 13. Would you be happy working in a unit in one of the prisons where *extended* double bunking is to be introduced? Why/why not?
 14. What in your experience are the most important factors in terms of making double bunking *work* in a unit like this? What can help make double-bunking work as well as possible?

C. Impact of double bunking on prisoners

15. In your experience, what are the benefits, if any, *for prisoners* of cell sharing?
16. In your view, what are the drawbacks or risks, if any, *for prisoners* of cell sharing?
17. What is your understanding of the dynamics of the relationships between prisoners who share cells?
 - Is there always a dominant cellmate?
 - How are decisions made? e.g. what TV to watch, smoking
 - How are conflicts resolved?
 - What can help with conflict resolution?
18. In your experience, does living in a shared cell affect any of the following for prisoners:
 - Participation in programmes?
 - Participation in employment?
 - Access to visits / phone calls?
 - Use of drugs or other contraband?
 - Rate of incidents - especially prisoner on prisoner assaults?
 - Overall physical well-being?
 - Overall mental well-being?
 - Tendency to self-harm?
19. Do you have any other comments about double bunking in this unit or in general?

Prisoner Interview Guide

A. Background Information- firstly these background questions are to make sure that we talk to a range of different types of prisoners.

Record:

- **Prison**
- **Unit**
- **First name**
- **Gender**
- **Whether cellmate has or will also be interviewed and the first name of that cellmate**

1. What is your age?
2. What is your ethnicity?
3. Approximately how much time have you spent in prison over your life? Have you experienced both single and double bunking during this time?
4. How long have you been housed in this unit?

B. Relationship with cellmate

5. Have you had the same cellmate since you have been in this unit? If no, how many different cellmates have you had? What were the reasons for the changes?
6. Why do you think you were placed with your current cellmate?
7. If it were up to you, what type of person, or who, would you be placed with? Why?
8. Would you say that you get on with your cellmate? Why? Why not?
9. How do you and your cellmate spend your time after lock-up?
10. Between you and your cellmate, how are decisions made about your shared living arrangements (e.g. what TV to watch, smoking etc.)?
11. Are there any things you do or strategies you use to make it easier to live in a shared cell?
12. Can you describe any issues or conflict you have ever had with your current cellmate (most recent if there are many)? *Probe for:*
 - What caused the issue/ conflict?
 - How was the issue/ conflict resolved?
 - Were staff involved or did you resolve it between yourselves?
13. If no experience of issues with current cellmate, can you describe any other occasions from the past where you (*or another prisoner you know*) have had issues or conflict with a cellmate? *Probe for:*
 - What caused the issue/ conflict?
 - How was the issue/ conflict resolved?
 - Were staff involved or did you resolve it between yourselves?

C. The impact of cell sharing

14. The following are some questions to find out about how living in a shared cell affects life for you.

In your opinion, how does living in a shared cell affect...? *Probe as appropriate for: How? Why does this matter?*

- Lock ups / unlocks?
- Eating meals?
- Accessing yards / recreation facilities/ gym?
- Going to visits?
- Making phone calls?
- Movements?
- Meetings with your case manager?
- Participating in programmes?
- Participating in employment?
- Drug / contraband use?
- Amount of time to yourself?
- Amount of privacy?
- Amount of physical space you have to live in?
- Use of toilet and washing facilities?
- Ability to do activities in your cell such as exercise, reading, hobbies?
- Your overall physical well-being?
- Your overall mental well-being?

15. Is there anything else that living in a shared cell affects? How? Why does this matter?

16. Are there any good things or benefits (not already mentioned) about living in a shared cell?

17. Overall, do you prefer having a cellmate or being in a single cell? Why?

D. Final Questions

18. Thinking about what you have just described about how you feel about double bunking and its impact on you – do you think that this is how other prisoners in your unit feel? Do they hold different views? What makes you think that?

19. Do you think that particular types of prisoners are more suited to cell sharing than others? Why do you think that?

20. Do you have any suggestions for things staff or prisoners can do in double-bunked units to help make sure double-bunking works as well as it can work?

21. Do you have any other comments on double bunking that we haven't covered already?

Appendix D: Interviewees by location and title

The following table provides a breakdown of the interviews by type of interviewee.

Prison	Unit	Prisoners	COs/SCOs	Managers
Auckland Central Remand Prison (ACRP)	Level 4, Unit F	3	2	Prison Manager 2 Unit Managers
Auckland Central Remand Prison (ACRP)	Level 2, Unit B	3	2	
Mt Eden Men's Prison	North Block	3	2	Prison Manager 2 Unit Managers
Mt Eden Men's Prison	East Block	3	3 ⁹	
Waikeria Prison	Central South	3	2	Prison Manager 2 Unit Managers
Waikeria Prison	West North	3	2	
Hawke's Bay Prison	Unit 1H-3	3	2	Prison Manager 1 Unit Manager
Hawke's Bay Prison	Unit 1I-1	3	2	
Wellington Prison	Unit 2 North	3	2	Prison Manager 1 Unit Manager
Wellington Prison	Unit 1	3	2	
Christchurch Men's Prison	PRC/Block A	3	2	Prison Manager 2 Unit Managers
Christchurch Men's Prison	PRC/Block B2 ¹⁰	3	2	
Total		36	25	16

Note: at Hawke's Bay Prison and Wellington Prison the Unit Manager interviewed was responsible for both identified units.

⁹ A staff member requested that his colleague join into his interview. Their data was analysed separately.

¹⁰ It was originally intended that fieldwork would occur in C Block but this unit was closed during the fieldwork period and the Prison Manager proposed that B Block should be substituted.

Appendix E: Unit profile

Profile of units that participated in the research (at the time of fieldwork)

Prison	Unit	Unit Security Classification	Prisoner Security Classification (see note 1)	Offender Status	Unit Type	Total beds	Single cells	Double cells	% of beds in shared cells (see note 2)	Fieldwork dates
Auckland Central Remand Prison	Level 4, Unit F	High	Unclassified	Remand	Mainstream	52	0	26	100%	17-19 February 2010
Auckland Central Remand Prison	Level 2, Unit B	High	Unclassified	Remand	Mainstream	52	0	26	100%	
Mt Eden Prison	North Block	High	Unclassified	Remand	Mainstream	64	0	32	100%	2-4 February 2010
Mt Eden Prison	East Block	High	Most unclassified; some AA, AB, BB	Remand/Sentenced	Mainstream	64	2	31	97%	
Waikeria Prison	Central South	High	Most BB; some remand unclassified	Remand/Sentenced	Mainstream	71	3	34	96%	26-28 January 2010
Waikeria Prison	West North	High	Most BB; some AB	Sentenced	Segregation	71	9	31	87%	
Hawke's Bay Prison	Unit 1H-3	High	Unclassified	Remand	Mainstream	12	4	4	67%	19-21 January 2010
Hawke's Bay Prison	Unit 1I-1	High	BB	Sentenced	Mainstream/Segregation	12	4	4	67%	
Wellington Prison	Unit 2 North (see note 3)	Low	AA, AB	Sentenced	Segregation	50	6	16	88%	2-3 December 2009
Wellington Prison	Unit 1	Low	BB	Sentenced	Segregation	49	3	23	94%	
Christchurch Men's Prison	PRC/Block A	High	AA, AB, BB	Sentenced	Segregation	56	12	22	79%	10-12 February 2010
Christchurch Men's Prison	PRC/Block B2 (see note 4)	High	Most AA, AB, BB; some remand unclassified	Remand / Sentenced	Mainstream	28	6	11	79%	

Note 1: Prisoner Security is reported under the old classification system as the current classification system had not been implemented at the time of research fieldwork.

Note 2: "% of beds in shared cells" is calculated on the basis of **maximum** operating capacity (not necessarily the true muster on the days research fieldwork took place). The percentage provided is intended to be indicative only.

Note 3: Wellington Prison Unit 2 North includes three 4-bed "association" (dormitory) cells. For the purpose of calculating the proportion of unit beds in shared cells, these 12 beds (4 beds in each of 3 "association" cells) have been included in the overall count of "shared" cells.

Note 4: It was originally intended that fieldwork would occur in C Block but this unit was closed during the fieldwork period and the Prison Manager proposed that B Block would be an appropriate substitute.

Appendix F: Interviewee profiles

Table 1: Profile of managers who participated in the research

n=16		
Length of time working in prison (Prison Managers) or unit (Unit Managers)	n	%
< 1 year	3	19%
1-2 years	4	25%
3-5 years	6	38%
6-10 years	3	19%
Length of prison service	n	%
< 2 years	1	6%
2 - 5 years	0	0%
6 - 10 years	1	6%
11 - 15 years	1	6%
16 - 20 years	4	25%
21+ years	9	56%
Experience of working in units with different types of cells (Unit Managers)	n	%
Experience of double cells only	3	30%
Experience of single and double cells	7	70%

Note 1: Percentages may add to more/less than 100% due to rounding.

Table 2: Profile of staff who participated in the research

n=25		
Length of time working in unit	n	%
< 1 year	3	12%
1-2 years	15	60%
3-5 years	6	24%
6-10 years	1	4%
Length of prison service	n	%
< 2 years	0	0
2 - 5 years	9	36%
6 - 10 years	7	28%
11 - 15 years	4	16%
16 - 20 years	2	8%
21+ years	3	12%
Experience of working in units with different types of cells	n	%
Experience of double cells only	2	8%
Experience of single and double cells	23	92%

Note 1: Percentages may add to more/less than 100% due to rounding.

Table 3: Profile of prisoners who participated in the research

	n=36	
	n	%
Self identified ethnicity		
European	11	31%
Māori	12	33%
Māori and European	6	17%
Māori and Pacific	1	3%
Pacific	3	8%
New Zealander/Kiwi	2	6%
Mix of ethnicities – unspecified	1	3%
Age		
20-24 years	6	17%
25-29 years	5	14%
30-39 years	9	25%
40-49 years	12	33%
50-59 years	1	3%
60-69 years	2	6%
70+ years	1	3%
Approximate length of time in unit		
< 1 month	3	8%
1-3 months	15	42%
4-6 months	13	36%
7-12 months	3	8%
More than 12 months	2	6%
Approximate length of time in prison over lifetime		
< 2 months	1	3%
At least 2 months but less than 2 years	10	28%
2-4 years	4	11%
5-9 years	7	19%
10-14 years	7	19%
15-19 years	2	6%
20-24 years	3	8%
25+ years	2	6%
Experience of living in single and double cells		
Experience of double cells only	5	14%
Experience of single and double cells	31	86%

Note 1: Percentages may add to more/less than 100% due to rounding.

Appendix G: Prisoner profile by cell preference

Profile of prisoners by cell preference

	<i>Preference for single cell (n=21)</i>		<i>Preference for double cell (n=14)</i>	
	<i>n</i>	<i>%</i>	<i>n</i>	<i>%</i>
Note: Percentages may add to more/less than 100% due to rounding.				
Self identified ethnicity				
European	8	38%	3	21%
Māori	6	29%	5	36%
Māori and European	3	14%	3	21%
Māori and Pacific	0	0	1	7%
Pacific	2	10%	1	7%
New Zealander/Kiwi	1	5%	1	7%
Mix of ethnicities – unspecified	1	5%	0	0
Age				
20-24 years	2	10%	4	29%
25-29 years	3	14%	2	14%
30-39 years	4	19%	4	29%
40-49 years	11	52%	1	7%
50-59 years	0	0	1	7%
60-69 years	1	5%	1	7%
70+ years	0	0	1	7%
Approximate length of time in prison over lifetime				
< 2 months	0	0	1	7%
At least 2 months but less than 2 years	4	19%	6	43%
2-4 years	1	5%	3	21%
5-9 years	4	19%	2	14%
10-14 years	6	29%	1	7%
15-19 years	2	10%	0	0
20-24 years	3	14%	0	0
25+ years	1	5%	1	7%
Experience of living in single and double cells				
Experience of double cells only	1	5%	4	29%
Experience of single and double cells	20	95%	10	71%

Appendix H: Units included in the Phase 2 analysis

Prison	Unit
ARWCF	BLDG 21 ASSESSMENT E BLDG 21 ASSESSMENT F BLDG 22 REMAND G BLDG 22 REMAND H BLDG 23 HIGH SECURITY I BLDG 23 HIGH SECURITY J BLDG 25 LS2 K BLDG 25 LS2 L BLDG 26 LS2 M BLDG 26 LS2 N BLDG 28 LS1 O BLDG 28 LS1 P BLDG 29 LS1 Q BLDG 29 LS1 R BLDG 30 LS1 S BLDG 30 LS1 T
NRCF	BLDG 6 KEA BLDG 7 PIIPIIWHARAUROA 1 BLDG 7 PIIPIIWHARAUROA 2 BLDG 7 PIIPIIWHARAUROA 3 BLDG 7 PIIPIIWHARAUROA 4 BLDG 7 PIIPIIWHARAUROA 5 BLDG 7 PIIPIIWHARAUROA 6 BLDG 7 PIIPIIWHARAUROA 7 BLDG 14 PUUKEKO NORTH BLDG 14 PUUKEKO SOUTH BLDG 15 KAAKAA NORTH BLDG 15 KAAKAA SOUTH BLDG 17 KAAHU NORTH BLDG 17 KAAHU SOUTH BLDG 18 WEKA NORTH BLDG 18 WEKA SOUTH BLDG 23 KUUAKA 3 BLDG 23 KUUAKA 4
OCF	BLDG 30 PUKEKO A BLDG 30 PUKEKO B BLDG 33 PIWAKAWAKA G BLDG 33 PIWAKAWAKA H BLDG 34 TAKAHE I BLDG 34 TAKAHE J BLDG 35 TOKOEKA K BLDG 35 TOKOEKA L
SHCF	BLDG 14A KATAHI BLDG 14A VAKA FA'AOLA BLDG 14B KA-RII WING C BLDG 14B KA-RII WING D BLDG 14C E WARA WING E BLDG 14C E WARA WING F BLDG 15 KATUKOKI WING A BLDG 15 KATUKOKI WING B BLDG 16A MANU KII WING A BLDG 16A MANU KII WING B BLDG 16B MANU KOI WING C BLDG 16B MANU KOI WING D

Appendix I: Analysis by Prison

Descriptive analyses

The following table provides an overall summary of descriptive analyses for each of the four prisons separately, excluding outliers. Key characteristics include:

- An average prison muster of 343 across the 19-month analysis period, ranging from as low as 147 to as high as 716.¹¹ For each prison separately:
 - Auckland Region Women's Corrections Facility (ARWCF)– average muster of 226, from 172 to 354
 - Northland Region Corrections Facility (NRCF)– average muster of 368, from 265 to 486
 - Otago Region Corrections Facility (OCF)– average muster of 260, from 147 to 350
 - Spring Hill Corrections Facility (SHCF)– average muster of 513, from 358 to 716.
- An average per prison double bunking count of 142 across the period (cf. 556 for all prisons), from as low as zero (early in the time period) to as high as 510 (more recently). For each prison separately:
 - ARWCF – average double bunking count of 73, from zero to 306
 - NRCF – average double bunking count of 160, from 4 to 336
 - OCF – average double bunking count of 118, from zero to 252
 - SHCF – average double bunking count of 217, from zero to 510.
- An average per prison incident count per day of 2 (from a total of 5,771 incidents recorded across all prisons and units in the analysis period), ranging between zero (i.e., no incidents on a specific day/prison combination) and 17. For each prison separately:
 - ARWCF – average incident count of 1, from zero to 7
 - NRCF – average incident count of 3, from zero to 10
 - OCF – average incident count of 1, from zero to 8
 - SHCF – average incident count of 3, from zero to 17.
- An average per prison incident rate of 0.6 per 100 muster, ranging between zero and 2.6. For each prison separately:
 - ARWCF – average incident rate of 0.6, from zero to 2.6
 - NRCF – average incident rate of 0.8, from zero to 2.6
 - OCF – average incident rate of 0.5, from zero to 2.6
 - SHCF – average incident rate of 0.5, from zero to 2.6.
- An average notifiable incident rate of 0.1 per 100 muster, from zero to as high as 2.2. For each prison separately:
 - ARWCF – average notifiable incident rate of 0.1, from zero to 2.2
 - NRCF – average notifiable incident rate of 0.2, from zero to 2.0
 - OCF – average notifiable incident rate of 0.1, from zero to 1.8
 - SHCF – average notifiable incident rate of 0.1, from zero to 2.2.
- An average non-notifiable incident rate of 0.5 per 100 muster, from zero to as high as 2.5. For each prison separately:
 - ARWCF – average non-notifiable incident rate of 0.5, from zero to 2.4
 - NRCF – average non-notifiable incident rate of 0.6, from zero to 2.4
 - OCF – average non-notifiable incident rate of 0.4, from zero to 2.5
 - SHCF – average non-notifiable incident rate of 0.4, from zero to 2.5.
- An average per prison double bunking rate of 36.0 per 100 muster, ranging from zero

¹¹ Despite the different outlier treatment for prison-level analysis cf. overall analysis reported in Part 1, the per-prison average muster of 343, multiplied by four (prisons) = 1,372. This compares very closely to the overall average muster of 1,361 reported in Part 1. A consistent pattern of similarity was also observed for other measures summarised in this section.

- (early in the time period) to as high as 87.8 (more recently). For each prison separately:
- ARWCF – average double bunking rate of 28.9, from zero to 87.8
 - NRCF – average double bunking rate of 40.4, from 1.4 to 72.2
 - OCF – average double bunking rate of 39.0, from zero to 74.9
 - SHCF – average double bunking rate of 35.9, from zero to 73.0.
- A virtually non-existent average per prison shared cell (that is, incidents recorded in IOMS as being directly associated with cell sharing) incident rate of 0.02 per 100 muster, ranging only as high as 1.1 per 100 muster. For each prison separately:
 - ARWCF – average shared cell incident rate of 0.01, from zero to 1.1
 - NRCF – average shared cell incident rate of 0.00, from zero to 0.7
 - OCF – average shared cell incident rate of 0.03, from zero to 1.1
 - SHCF – average shared cell incident rate of 0.03, from zero to 0.9.

**Summary Statistics by Date and Prison (Units combined)
01-Sep-2009 to 31-Mar-2011**

	Prison														
	ARWCF			NRCF			OCF			SHCF			All Prisons		
	Mean	Min.	Max.	Mean	Min.	Max.	Mean	Min.	Max.	Mean	Min.	Max.	Mean	Min.	Max.
Muster	226	172	354	368	265	486	260	147	350	513	358	716	343	147	716
Sharing cell count	73	0	306	160	4	336	118	0	252	217	0	510	142	0	510
Incident count	1	0	7	3	0	10	1	0	8	3	0	17	2	0	17
Notifiable incident count	0	0	5	1	0	8	0	0	5	1	0	13	0	0	13
Non-notifiable incident count	1	0	7	2	0	10	1	0	7	2	0	16	2	0	16
Incident rate per 100 muster	.60	.00	2.61	.76	.00	2.62	.53	.00	2.56	.53	.00	2.57	.61	.00	2.62
Double bunking rate per 100 muster	28.90	.00	87.79	40.42	1.35	72.17	38.95	.00	74.91	35.86	.00	72.96	36.00	.00	87.79
Shared cell incident rate per 100 muster	.01	.00	1.12	.00	.00	.70	.03	.00	1.06	.03	.00	.91	.02	.00	1.12
Notifiable incident rate per 100 muster	.13	.00	2.20	.16	.00	1.97	.12	.00	1.82	.11	.00	2.15	.13	.00	2.20
Non-notifiable incident rate per 100 muster	.47	.00	2.45	.60	.00	2.41	.41	.00	2.49	.43	.00	2.42	.48	.00	2.49

Analyses of association (correlation)

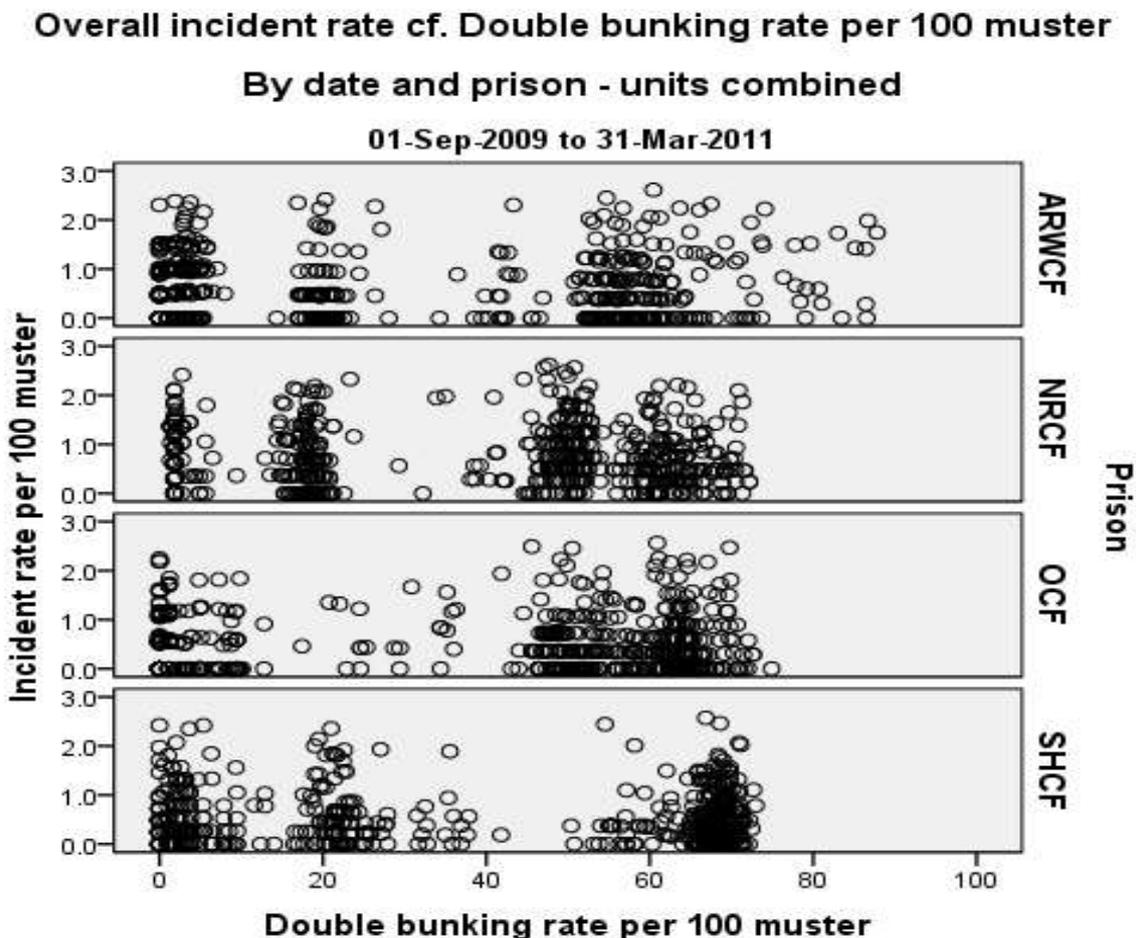
Correlation analyses were also performed for various incident and double bunking measures, at the individual prison level. Findings are summarised in the following sub-sections.

Overall incident rate and double bunking rate

For each prison separately, as follows:

- ARWCF – a small, non-significant positive correlation of .062 ($p=.143$). This implies no association between the overall incident rate and the double bunking rate at ARWCF.
- NRCF – a small, non-significant negative correlation of $-.045$ ($p=.300$). This implies no association between the overall incident rate and the double bunking rate at NRCF.
- OCF – a small, non-significant positive correlation of .010 ($p=.823$). This implies no association between the overall incident rate and the double bunking rate at OCF.
- SHCF – a small, non-significant positive correlation of .009 ($p=.828$). This implies no association between the overall incident rate and the double bunking rate at SHCF.

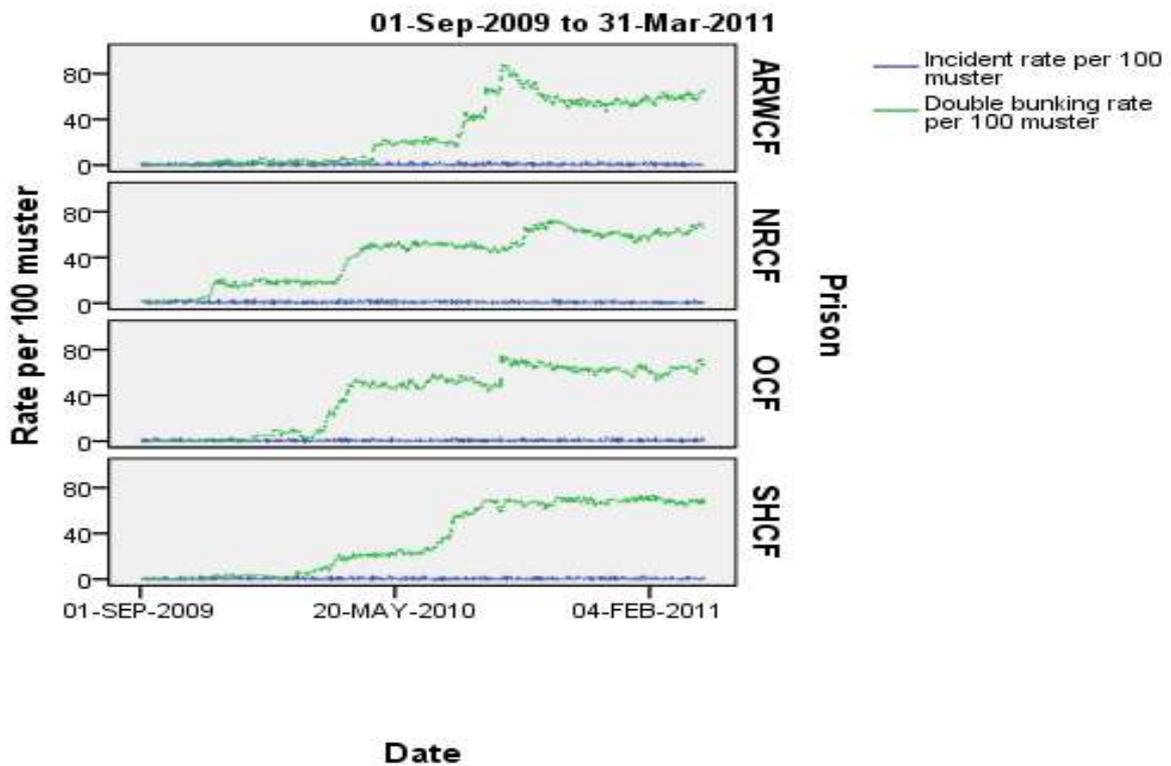
This incident/double bunking rate relationship is illustrated in the following chart.



The following three time series charts also illustrate the relationship between the incident and double bunking rates per 100 muster at the prison level, again clearly illustrating the

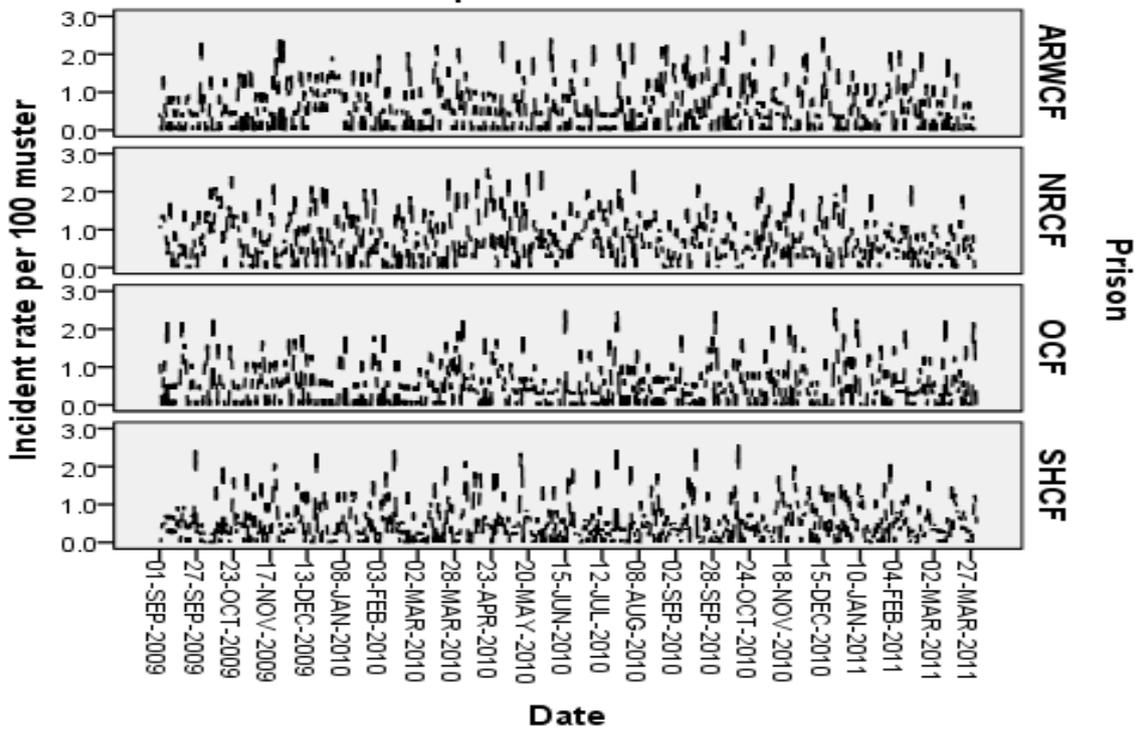
rapid increase in double bunking rate during the analysis period, while the overall incident rate remained more or less stable at the individual prison level.

Overall incident rate cf. Double bunking rate per 100 muster By Date and Prison - units combined

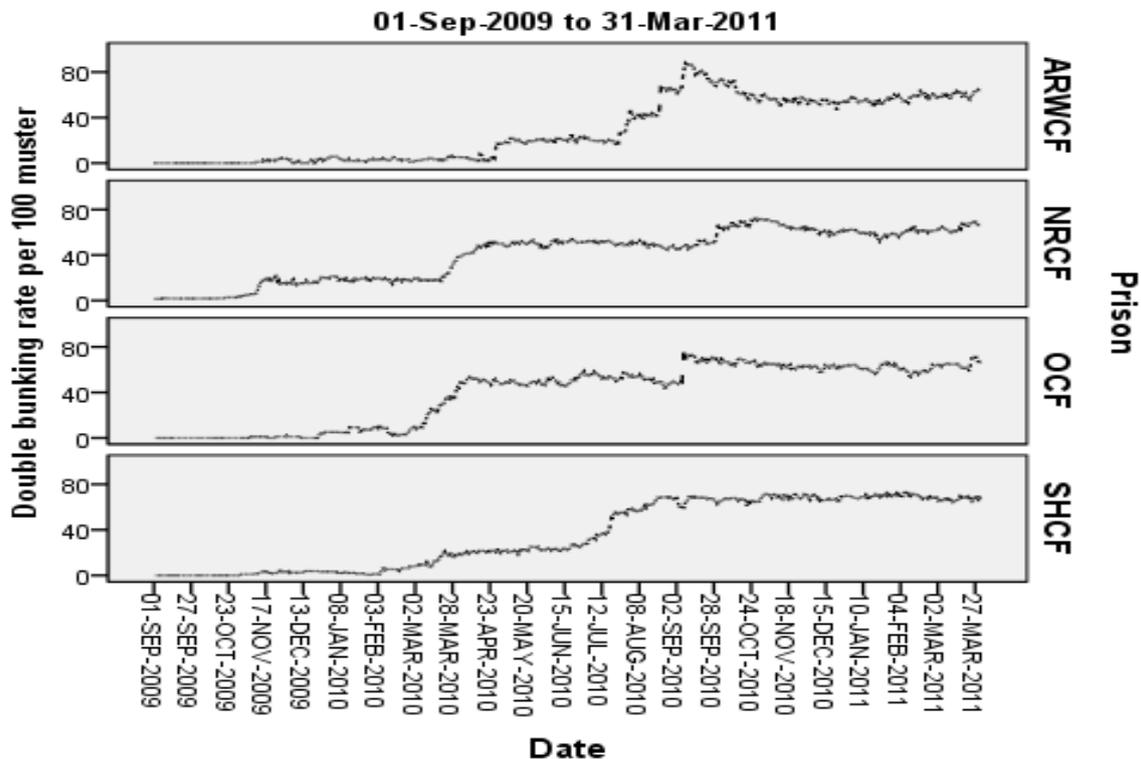


Overall incident rate per 100 muster
By date and prison - units combined

01-Sep-2009 to 31-Mar-2011



Double bunking rate per 100 muster
By date and prison - units combined



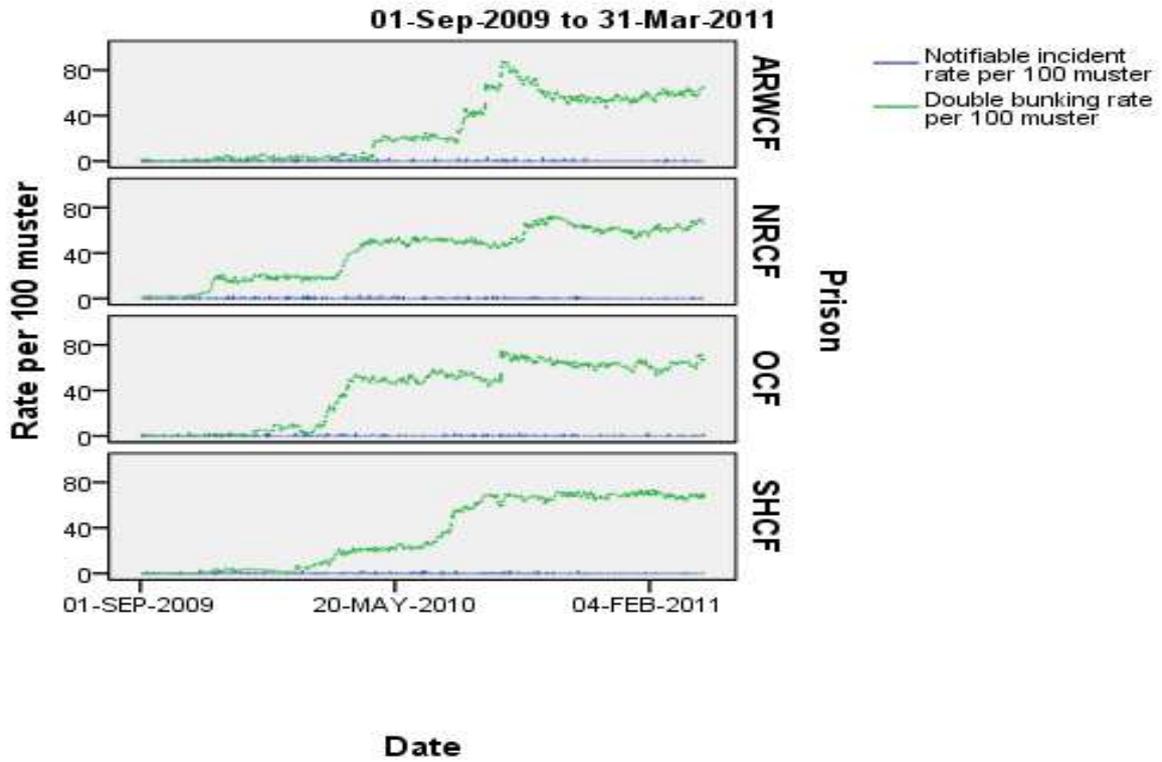
Notifiable incident rate and double bunking rate

For each prison separately, as follows:

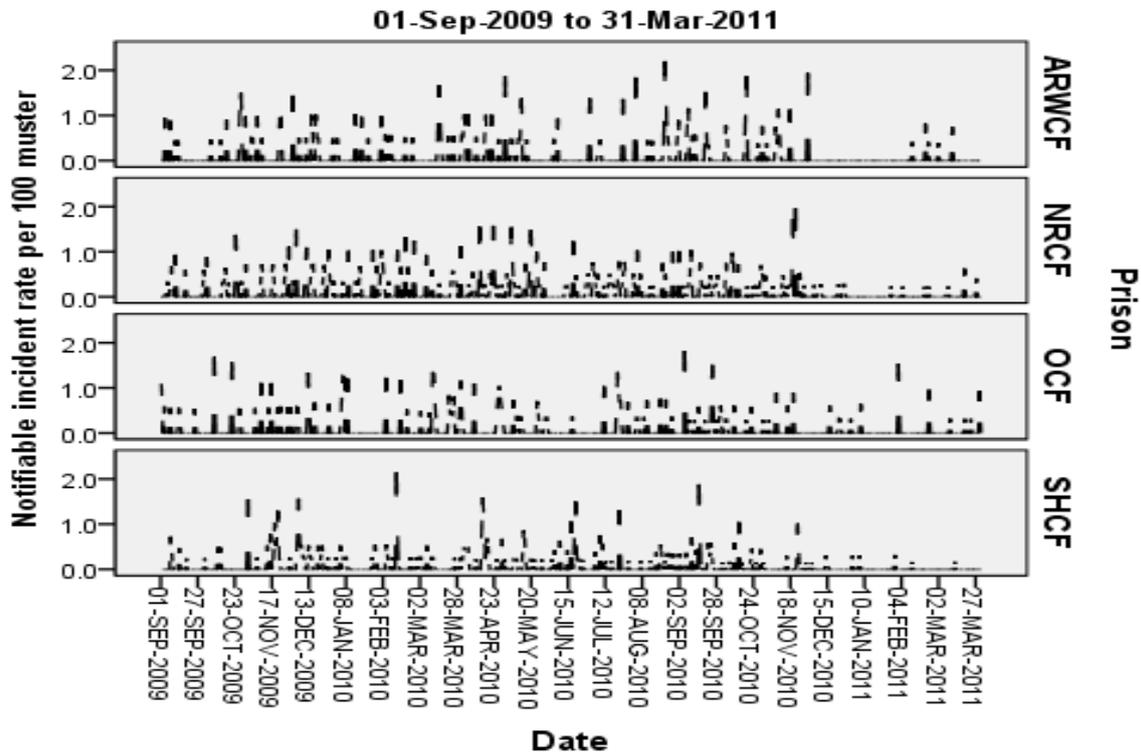
- ARWCF – a small, non-significant negative correlation of $-.026$ ($p=.539$). This implies no association between the notifiable incident rate and the double bunking rate at ARWCF.
- NRCF – a small, non-significant negative correlation of $-.059$ ($p=.173$). This implies no association between the notifiable incident rate and the double bunking rate at NRCF.
- OCF – a significant negative correlation of $-.086$ ($p=.044$). This implies a (weak) inverse association between the notifiable incident rate and the double bunking rate at OCF.
- SHCF – a significant negative correlation of $-.117$ ($p=.005$). This also implies an inverse association between the notifiable incident rate and the double bunking rate at SHCF.

The following two time series charts also illustrate the relationship between the notifiable incident and double bunking rates per 100 muster at the prison level; again clearly illustrating the rapid increase in the double bunking rate during the analysis period, while the notifiable incident rate gradually trended down:

Notifiable incident rate cf. Double bunking rate per 100 muster
By date and prison - units combined



Notifiable incident rate per 100 muster
By date and prison - units combined



Non-notifiable incident rate and double bunking rate

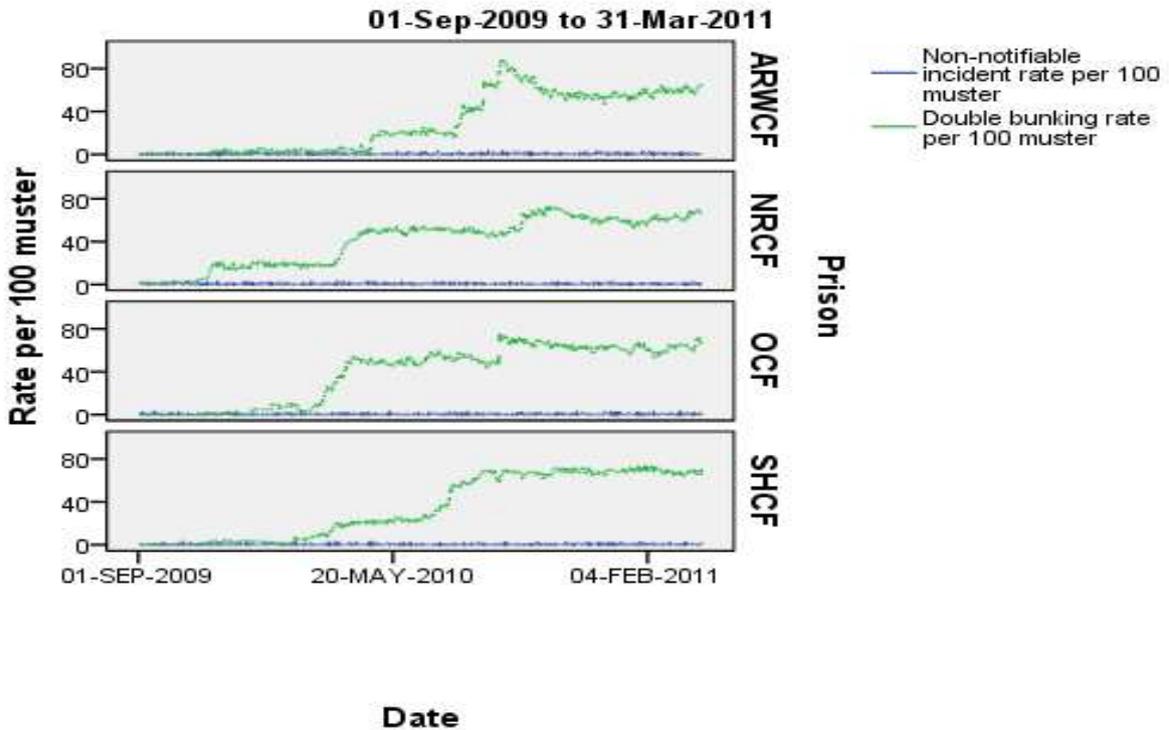
For each prison separately, as follows:

- ARWCF – a significant positive correlation of $-.088$ ($p=.039$). This implies a (weak) association between the non-notifiable incident rate and the double bunking rate at ARWCF.
- NRCF – a small, non-significant negative correlation of $-.017$ ($p=.699$). This implies no association between the non-notifiable incident rate and the double bunking rate at NRCF.
- OCF – a small, non-significant positive correlation of $.061$ ($p=.149$). This implies no association between the non-notifiable incident rate and the double bunking rate at OCF.
- SHCF – a small, non-significant positive correlation of $.077$ ($p=.067$). This also implies no association between the non-notifiable incident rate and the double bunking rate at SHCF.

The following two time series charts also illustrate the relationship between the non-notifiable incident and double bunking rates per 100 muster at the prison level; again clearly illustrating the rapid increase in the double bunking rate during the analysis period, while the non-notifiable incident rate remained relatively static.

Non-notifiable incident rate cf. Double bunking rate per 100 muster

By date and prison - units combined



Non-notifiable incident rate per 100 muster

By date and prison - units combined

