

# SSII Programme: Orthopaedic coordinator and champion survey

Surgical Site Infection Improvement  
Programme

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**SSII** Surgical Site Infection  
Improvement Programme

## Introduction

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This report highlights the findings of the Surgical Site Infection Improvement (SSII) Programme coordinator and champion survey.

SSII coordinators have an overall coordination and liaison role, are the key contact between district health boards (DHBs) and the SSII Programme team, and oversee data collection and submission. Champions act as advocates for the programme to drive practice change.

Knowing what perceptions exist about the SSII Programme will help the national SSII Programme team to better address and respond to the needs of key stakeholders.

An online survey, designed to gain a better understanding of the perceptions of SSII Programme coordinators and champions was distributed in December 2015. It was open for responses for two weeks, with a follow up request and two-week extension for DHBs which hadn't responded within that timeframe.

## Executive summary

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Twenty-seven coordinators and champions responded to the survey, representing 19 DHBs. Most respondents worked in infection prevention and control (IPC) departments.

General perceptions about the SSII Programme were positive with most identifying the programme as 'very important' or 'somewhat important'. Overall, respondents said that they were 'well supported' or 'moderately supported' by their senior leadership team to deliver the SSII Programme, and most felt 'well supported' or 'moderately supported' by surgeons and anaesthetists.

However, two less positive themes were reiterated strongly throughout the survey:

1. that the SSII Programme is time consuming and resource intense
2. that manual data collection and data entry processes for orthopaedic surgery is regarded as a significant burden.

This is the second consecutive survey in which the time-consuming aspect of the programme was emphasised by respondents. This is expanded on below.

Most respondents (67 percent) said they discussed the national orthopaedic SSII Programme reports with their local surgeons and/or senior leadership teams. This is an increase on the 2014 survey, when 50 percent of respondents discussed the results with surgeons. Several of those that didn't cited time constraints, which made it difficult for them to get access to busy managers and clinicians. They also noted that even if they didn't discuss results with senior surgeons and/or senior management teams, the reports were still distributed by email and discussed at IPC committee meetings.

More than half of respondents (59 percent) had a multidisciplinary project team in their DHB who supports the programme. Most (93 percent) said they felt either 'well supported' or 'moderately supported' by the national SSII Programme team.

Many identified the standardisation of antibiotic prophylaxis (dose and timing) as their most satisfying quality improvement achievement. It was encouraging that several also identified the development of a collaborative approach among teams in relation to the programme as a quality improvement achievement.

As mentioned above, the greatest dissatisfaction with the programme related to the time involved in data collection and data entry. Respondents believed this could be addressed and/or resolved through better IT support and/or solutions, or additional personnel resources.

## Demographic data

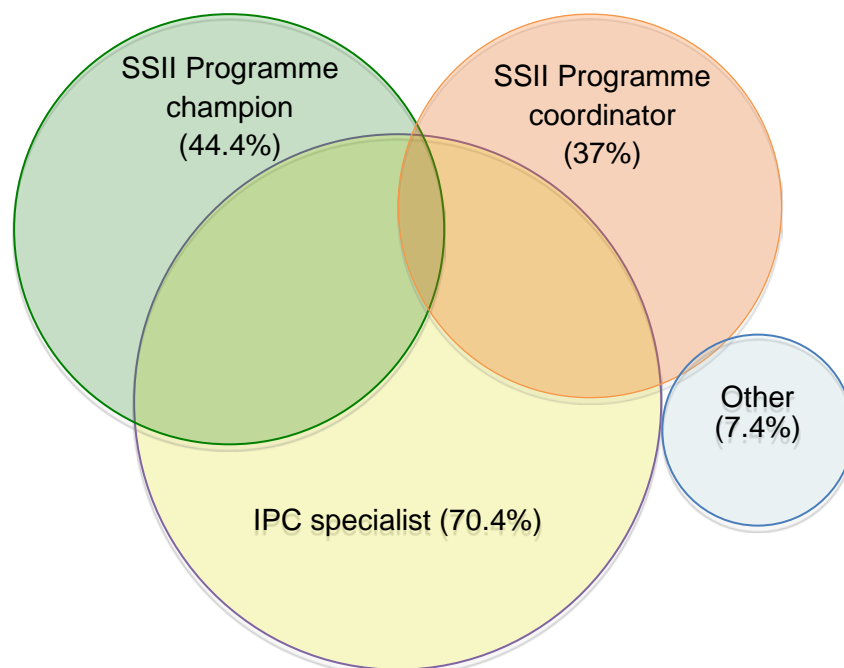
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Nineteen DHBs responded to the survey, with a total of 27 respondents. This included four responses from one DHB and two from three other DHBs.

## What is your role?

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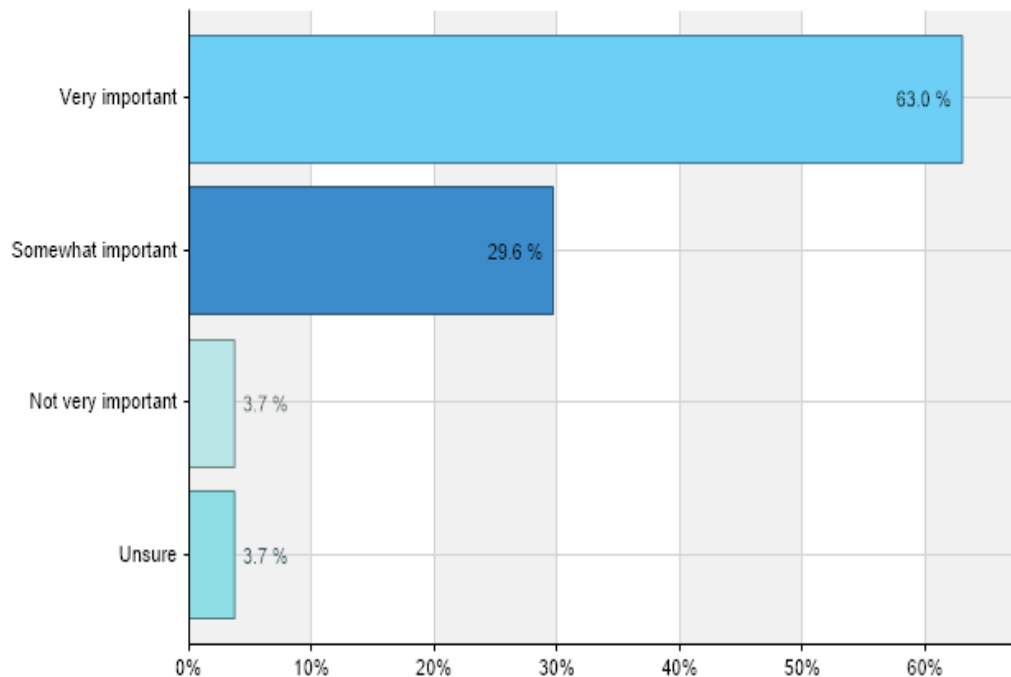
Nineteen respondents work in their DHB's IPC team, supporting the view that programmes such as SSII and Hand Hygiene New Zealand are seen as the 'domain' or responsibility of the IPC team. Ten respondents stated they are the SSII Programme coordinator and 12 are SSII Programme champions. Two identified as 'other': one as CNM-IPC (charge nurse manager of infection prevention and control) overseer, and one as SSII Programme data collector.



## How important do you think the SSII Programme is to patient outcomes?

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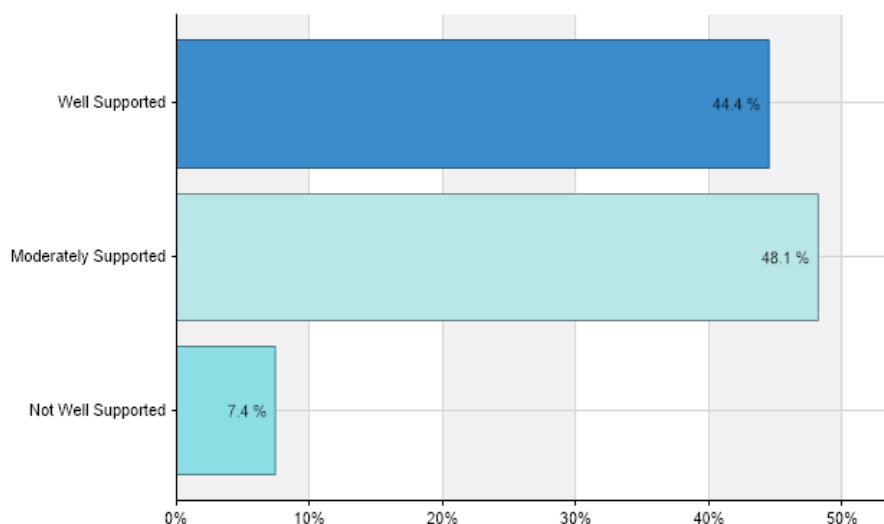
It was encouraging to find that 63 percent of respondents think the SSII Programme is 'very important' to patient outcomes, and 27 percent think that it was 'somewhat important'. Only one stated that it is 'not very important' and one was 'unsure'.



## Do you feel supported by your senior leadership team to deliver the SSII Programme within your DHB?

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The majority of respondents stated they are either 'well supported' (44 percent) or 'moderately supported' (48 percent) by their senior leadership teams to deliver the SSII Programme.



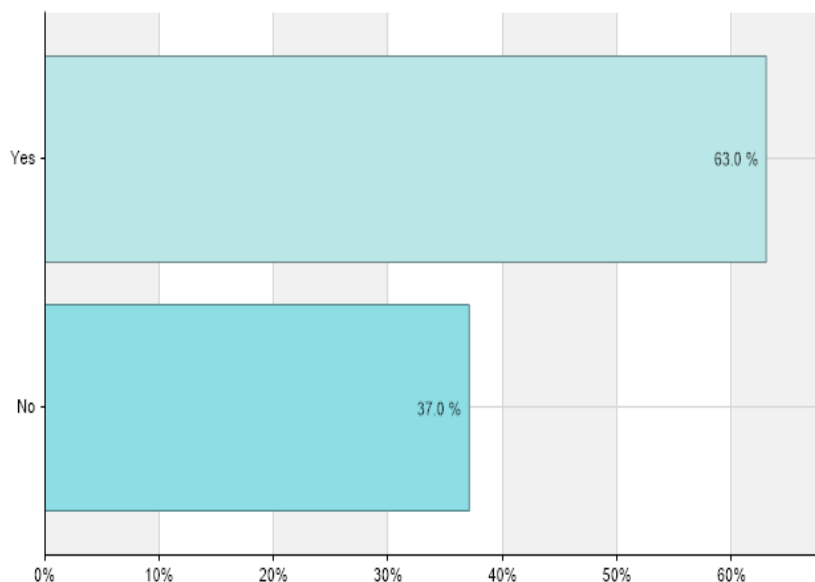
## Do you feel supported by surgeons and anaesthetists to deliver the SSII Programme within your DHB?

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Thirty-one percent of respondents stated they are 'well supported' by their surgeons and anaesthetists to deliver the programme and 41 percent are 'moderately supported'. However, almost a third of respondents stated they are 'not well supported' by surgeons and anaesthetists to deliver the programme. The programme may need to consider ways that DHBs can be supported to address this.

## Do you discuss the national quarterly SSII Programme reports with your local surgeons and/or senior leadership teams?

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Seventeen (63 percent) of respondents said they discuss the national orthopaedic SSII Programme reports with their local surgeons and/or senior leadership teams. This is an improvement on the response to the same question in the 2014 survey in which 50 percent (of 24 respondents) said they discuss results with key personnel.

Respondents to this survey who do not discuss the quarterly reports said this was largely due to time constraints (difficulty getting access to busy managers and surgeons and scheduling a time to suit everybody) rather than lack of engagement and/or interest from surgeons and/or senior management. Those who do not discuss the report verbally with those teams, noted that the reports are distributed widely by email and discussed at IPC committee meetings.

One respondent also noted their local surgeons had requested their own DHB data be presented in graph format, this request has been made by some DHBs both in this survey and at regional meetings. This request is being investigated by the programme team.

Local data is provided to each DHB to check before the national report is finalised. DHBs can use this data to generate their own graphs. Moreover, graphs showing surgical site

infection (SSI) rates and quality and safety marker (QSM) compliance over time for each DHB is now (since the July–September reporting period) included in the national report.

In response to requests from DHBs, the programme is exploring providing DHBs with access to their own local data through the SSI national monitor. This would allow DHBs to access their data in their own time (to, for instance, track the results of quality improvement initiatives) rather than rely on the national report timeframes.

### **Do you have a multidisciplinary project team in your DHB that supports your work with the SSII Programme?**

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Sixteen (59 percent) respondents said they have a multidisciplinary team that supports their work in the SSII Programme.

### **Can you identify any particular barriers to your work on the SSII Programme?**

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All respondents (27) provided answers to this question, 17 of which stated that the SSII Programme is too time consuming and resource intense. This was widely attributed to the lack of automated data collection processes or national IT solutions. Responses indicate that, while most believe the SSII Programme to be important, there is ongoing frustration with aspects of coordinating and managing the SSII Programme locally. Responses largely attributed the problem to:

- manual data entry
- lack of electronic surveillance software
- lack of administrative support for data collection
- lack of useful technology for uploading data.

Comments included:

*“The project in its current guise is too resource intense.”*

*“Primarily, manual collection and entry of data is a slow process.”*

*“Manual data collection, accuracy of the data collected. No administrative support for data entry. This is additional work with no additional resources. It is on top of an existing surgical surveillance programme.”*

*“Gathering data for the programme can be quite time consuming and I think the time it takes to do this is underestimated.”*

**(See Appendix 1 for a full list of comments.)**

Other difficulties referred to included:

- lack of engagement from surgeons
- lack of opportunity to have face-to-face feedback from surgeons and anaesthetists

- misinterpretation of the manual
- timeliness and (perceived) inaccuracies of quarterly reports.

### **Do you have any recommendations on how barriers could be addressed?**

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Some of the responses to this question identified solutions that would not necessarily resolve the concerns around time involved in data collection. However, it was widely believed that the difficulties with the programme could be resolved through technological solutions. The most commonly suggested solutions included:

- nationally funded software for all DHBs
- automated data collection systems
- more resourcing for data collection, either more personnel support or more efficient IT systems.

*(See Appendix 2 for a full list of comments.)*

This is the second survey in which concerns about the time involved in data collection and entry have been raised by a majority of respondents. The Programme should investigate supporting DHBs to configure the SSI national monitor to import data from existing hospital systems to reduce manual data collection (this has been configured at Auckland DHB). Please see the summary and recommendations section below for more detail.

### **The national reports are no longer anonymised. Do you think this has made any difference to your work on the SSII Programme?**

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Five respondents felt that the reports no longer being anonymised made a difference and 22 did not. Those who added more detail commented that this allowed them to compare their results with DHBs of a similar size and population; highlighted where they were doing well; that being open and transparent 'lifts everyone's game'. One respondent noted: 'it has stopped short of what it could be. Also our surgeons want to know how they as individuals are doing compared with others. We are not able to provide them with the level of data on this they would like.'

### **Tell us briefly what your greatest SSI quality improvement success has been so far.**

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There was a wide variety of responses to this question, from 27 respondents. This included:

- increasing awareness about SSIs
- a more collaborative approach toward the Programme between teams (eg, between theatre and IPC teams)
- building a closer relationship with orthopaedic surgeons
- more areas within DHBs taking ownership of the programme
- 'that we are improving overall'
- reducing infection rate.

The most often referenced quality improvement (by seven respondents) was improvement in the dose and timing of pre-operative antibiotic prophylaxis.

Comments included:

*“Convincing all consultants to use the 2 g cefazolin prophylaxis and getting the post op dose charted in PACU [post anaesthesia care unit] before the patient leaves, therefore the 24 hour timeframe is met.”*

*“I have only been doing the surveillance for three months now but the most satisfying [success] in this program is how well we work together as a group – the data collector and the ID physician.”*

*“Appropriate/correct dose of prophylactic antibiotic, correct skin preparation and better communication with orthopaedic service in general.”*

### **Do you feel well supported by the national SSII Programme team?**

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Over 93 percent of respondents (25) stated they feel ‘well supported’ or ‘moderately supported’ by the programme.

### **Please tell us one thing you think the SSII Programme team could do better.**

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There was a range of responses to this question, including recommendations for a more accessible/better designed implementation manual and suggestions on changing the formatting of the national quarterly reports. Some respondents said they would like access to their own data, and would like to generate their own local reports. As mentioned previously, the SSII Programme team is following up on this request, and has conducted a survey to identify how many DHBs would like access to their individual data, what purposes this would be used for and what technical support might be needed to use the local data results in a meaningful and useful way. However, many responses focused on the time-consuming nature of data collection.

Comments included:

*“Support drive for national surveillance software with the Ministry of Health.”*

*“Develop better IT solutions so that we are not used for basic data collection and data entry. I would also like to have some control over the ability to do this work in other surgical areas at a DHB level, so the ability to use the ICNet system for other projects even if this is a option [that is] in process.”*

*“Acknowledge that this is an additional burden to an overworked work force – support the implementation of an IT programme to assist. Enable the generation of reports that will reflect the local situation.”*

*“Develop database generated reports to relieve the report writer from the tedious task of manual assembly.”*

*“Understand the IT issues on a national level.”*



*“Acquisition of software to allow data collection forms to be pre-populated with theatre information. Acknowledgement by the Ministry of Health that no extra direct resourcing is given to participants in any of their projects!”*

## **Final comments**

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Respondents were asked if they would like to provide any further comments about the SSII Programme. Some reiterated concerns that staff were overburdened and this was a resource intense programme (“with a lot required for not a lot of gain in respect to our DHB”), while some repeated the request for DHBs to have access to individual DHB data. On a positive note, while responses suggested that respondents would like participation in the programme to be less resource intense, they still supported it and would like to see it applied more broadly.

Comments included:

*“The implementation of this programme has been a good opportunity to discuss good rationale for the care of our patients.”*

*“When is the next surgical procedure being introduced?”*

*“This programme is very top down in its approach. This review is essential so thanks for that. It is very labour intensive I also wonder if all hospitals have the same approach to SSIs. The private sector needs to be included as well.”*

*“I think it’s really valuable but I worry what it will become going into the future without an external force pushing DHBs. I think it’s very easy for managers to put on their ‘too-busy’ hats and move on to other more pressing projects.”*

*“I think it is a great national programme and it will be great to review infection over time and see whether the QSMs have made a difference to patient outcomes. I am pleased that DHBs are no longer anonymised.”*

## **Summary and recommendations**

The results of this survey suggest that the SSII Programme is widely supported by SSII Programme coordinators, champions and IPC staff in DHBs and makes a difference to patient outcomes. The survey received many positive comments on the way the programme is run and managed.

However, the results suggest SSII coordinators and champions do not have equal access to software, data collections systems, IT support or an equal understanding of data collection processes. This makes participation in the programme more onerous for some than others.

In 2014–15, a method was introduced and developed by the SSII Programme team which has semi-automated data collection at Auckland DHB. This involves uploading a CSV file of the data collected from existing databases. (A CSV file is a comma-separated values file that stores tabular data in plain text.) This has made data collection largely automated for the SSII Programme champion for orthopaedics at Auckland DHB, resulting in a significant reduction in time spent on data collection. This approach is also being used for the SSII Programme in relation to cardiac surgery at Auckland DHB.

The programme is exploring supporting other DHBs to configure semi-automated data collection. This may involve additional resourcing, as it will involve engaging with business intelligence units (or the equivalent) at various DHBs. This would be necessary to identify what existing systems could export data as a CSV file, and the development of a process that is relevant to the individual DHB. This may also involve supporting champions and coordinators to use this method. It has been suggested that this approach could be trialled in a selection of DHBs, perhaps one from each of the regions.

Making data collection more automated will support the implementation of the cardiac surgery workstream.

Investing in an IPC information technology (IT) solution such as (ICNet NG) would increase automation. Auckland, Canterbury, Taranaki and Waitemata DHBs are either using or are in the process of implementing ICNet NG, while other DHBs are considering investing in the software. One of the long-term goals of this programme is to support DHBs to build a case for IT investment.

## APPENDIX 1

*Can you identify any particular barriers to your work on the SSII Programme?*

The responses highlighting concerns about the time-consuming aspect of the programme are listed below.

1. Huge time resource – manual data entry, no electronic surveillance software.
2. No particular barriers to this work, however it remains time consuming and majority is manual data collection.
3. Clumsy database therefore time consuming to enter data. No backup for a/l – accumulation of work on return. Poor compliance with recording of ASA by anaesthetists/pre-assessment clinics.
4. Manual data collection, accuracy of the data collected. No administrative support for data entry. This is additional work with no additional resources. [This] is on top of an existing surgical surveillance programme.
5. Time. Accessibility to information/data. Opportunity to have face-to-face feedback with surgeons and anaesthetists.
6. Our database system is not fully automated.
7. The project in its current guise is too resource intense.
8. Gathering data for the programme can be quite time consuming and I think the time it takes to do this is underestimated.
9. Having to enter data manually from the theatre database to the SSII form is too time consuming. General lack of resources to pull patient notes to gather data.
10. Time to invest.
11. Primarily, manual collection and entry of data is a slow process. Whilst we have individuals who support the programme, meeting collectively with surgical teams has proven challenging to arrange.
12. Data entry takes a lot of time.
13. Engagement with surgeons – convincing them that the QSMs are relevant / lack of useful technology for uploading data / clinical nurse specialists required to undertake extensive clerical work eg, data entering.
14. Time restrictions, cover for annual leave.
15. Time and manual collection of data.
16. I am fortunate to have IT support, pathways and senior staff to help support the SSII programme and I am always mindful that this isn't every DHB's story. Time is always going to be a barrier when it comes to checking data, especially if you have a lot of data to check. Follow up of infections is always time intense. However, the electronic upload of data allows for a lot of time saving, allowing you to concentrate on the infections.
17. Data entry takes a lot of time, which wasn't considered fully when under taking this project, no data entry person available so all data reviewed and entered by myself.

## APPENDIX 2

*Do you have any recommendations on how this could be addressed?*

Responses to this question mostly related to concerns about the time-consuming aspect of data collection and entry. These are listed below.

1. Nationally funded surveillance software for all DHBs.
2. More data needs to be collected electronically within the DHB so this can be driven automatically and free up infection control specialists to spend more time educating and spreading SSII programs to other surgical specialties to continue to improve SSI rates for more consumers.
3. More time.
4. At the beginning a proper system of data collection and the people involved should have been adopted. If this had been done the project would have been more visible. People have left or moved on, with no real communication links or strategies and no evidence of primary or secondary quality systems in place.
5. Automated data collection.
6. There needs to be some funding associated with the programme for the DHBs to enable more FTEs available for the additional work continuous surveillance and reports require.
7. Need to get ICNet.
8. Automation of the data collection. If this is not possible then drop the collection of data on the bundle (QSMs) and focus on numerator cases for analyses and have periodic auditing of the bundle.
9. Acquisition of software to allow data collection forms to be pre-populated with theatre info. Acknowledgement by the Ministry of Health that no extra direct resourcing is given to participants in any of their projects!
10. Our surgical team would like us to present visual data in graph format showing local stats and also comparative data locally with national. If this cannot be supplied, access to the national database to this information would be helpful.
11. Have admin support to assist. Now have buy-in from ward staff to collect data manually.
12. Prioritise with National IT Board the need for DHBs to have the same patient management system. Only progress with national programmes when there is definite engagement with surgeons and end users. Currently the cardiac surgeons are mostly indifferent or not on board the SSII programme. Emphasise the requirement for DHBs to provide clerical/administrative support for data entry.
13. Stop the lip service and get the project the weight and attention it deserves.
14. More than one person collecting data.
15. Our DHB needs to provide an additional/dedicated computer in the operating theatre [IT?] so that the staff could electronically collect this info.
16. Develop database-generated reports to relieve the report writer from the tedious task of manual assembly. This can be done in access [sic] or any other database report generation system.
17. For those DHBs that struggle with completing data... more support should be given to highlight the necessity for electronic data and work with DHBs directly to get this established rather than the champions in those areas.