Smokefree Hospital Self-Assessment Tool

an overview

April 2008

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www.efc.co.nz
ISBN 978-0-9582884-4-6 (print)
ISBN 978-0-9582884-5-3 (pdf)

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Introduction

This paper sets out to provide an overview of the Smokefree Hospital Self-Assessment process designed by Education for Change as part of its *Systems First* programme and to assist with the Smokefree Hospital Coordination contract with the Ministry of Health.

History

In 2003, Education for Change was contracted by the Ministry of Health to prepare a report on the status of New Zealand hospitals with regard to their smokefree activity. That report[1], published in 2004, examined the extent of smokefree practice within hospitals at that time. A companion report[2] was released shortly thereafter to serve as a resource guide for district health boards endeavouring to strengthen smokefree hospital practice. Both documents were presented to a national meeting of hospital leaders and others from various smokefree services in March 2004.

Subsequent to that meeting, the Ministry of Health contracted Education for Change to develop the ideas contained in these reports into a set of practical guidelines to support DHBs strengthen smokefree systems and practice within their hospitals, and to provide ongoing support to those DHBs/hospitals seeking additional guidance in following the guidelines. The guidelines, entitled *Systems First– supporting smokefree leadership in New Zealand hospitals*[3] were published in October 2004 and subsequently a revised edition was released in August of 2005.

The *Systems First* guidelines included a smokefree hospital standard featuring a range of attributes against which the question was posed: “to what extent does your hospital provide a supportive environment for assisting people to become and stay smokefree?”

In the course of providing ongoing support to hospitals, the practical use of the smokefree hospital standard was formalised with the development of a document template. The template (refer Appendix One) became known as the Smokefree Hospital Best Practice Self Assessment and allowed the current status of hospital smokefree practice to be assessed and documented.

Purpose

The primary objective in developing the Smokefree Hospital Best Practice Self-Assessment tool was three fold:

- **Assessment Tool:** to assist hospital smokefree coordinators develop a good understanding of the current situation prevailing in the hospital

[1] Cowan S & Langley L. Identifying and addressing the exposure to smoking for patients in New Zealand Hospitals. A report on a national assessment of policies, systems, practices and staff attitudes. Christchurch. Education for Change. Jan 2004

[2] Cowan S & Langley L. Smokefree Hospitals – supporting a systems approach to change – Lead Comments and Sample Systems. Christchurch. Education for Change. Mar 2004

[3] Cowan S & Smith D. Systems First – supporting smokefree leadership in New Zealand hospitals. Christchurch. Education for Change. Oct 2004

- **Planning Tool:** to assist smokefree coordinators develop a well considered, focused plan of action so as to achieve the desired change as rapidly as possible and in a way that would be sustained over time
- **Measurement Tool:** to enable measurement of that change and a visible tracking of progress to improve service capability. For the purposes of clarity, we describe the scores as 'smokefree capability scores'.

Capability versus Practice

The intent of the tool is to establish the extent to which "a supportive environment" exists within a hospital setting. As such, the tool is designed to assess a hospital's **capability** to support smokefree practices in clinical and administrative teams. It is not designed to evaluate practice *per se.*

Setting specific

Systems First takes a DHB by DHB, hospital by hospital, service by service approach to coordination. The intended use of the tool was, and still is, setting-specific. It is designed to inform action planning specific for that setting. It is most meaningful when used as designed. Users have been cautioned against attempting to use the tool to compare one setting or service against another.

Status Indicator

Given the formative work of this contract, aggregated assessment scores were used to add some meaning in describing a shift in capability across hospitals and services. Actual scores for any one assessment do not give the meaning. It is the differences at re-assessment that do.

Design

Principles

Key **principles** in the design of the Smokefree Hospital Best Practice Self Assessment tool were:

- **Assessment and feedback:** To enhance motivation for action with a simple assessment-feedback-reassessment approach to coordinating improvements
- **Consistency with framework:** To reflect the 5 steps of the Systems First framework of process analysis
- **Focused action:** To focus on the key best practice features as identified in the literature and noted in the forgoing reports
- **Recognition of all effort:** To provide recognition of all progress as well as to ensure any aspect not fully achieved was recognised
- **Documentation trail:** To document all specifically identified hospital attributes (eg systems, processes, resources, tools, etc) supporting the ratings given

Features

Design **features** of the Smokefree Hospital Best Practice Self Assessment tool include:

- Items grouped as per the five steps of the *Systems First* model's: policy; systems; education; roles and intervention
- Key best practice features included under each of these steps.
- Five best practice features identified for each step to balance the relative importance of each step to overall capability. While more items and in varied weightings may achieve a more intensive analysis, this would have increased the complexity of the process and would have deflected from the primary purpose of informing planning.

Responses

For each item, three distinct recording responses are required.

- **'Yes/No' Response:** The first recording is a yes/no response to signify whether that item is **fully** achieved or not. The number of 'yes' responses provides a very simple indication of achievement relative to the standard. Conversely, any area recorded as "no" is clearly seen as requiring further attention.
- **'Scaled Rating' response:** The second recording is to rate the extent to which each item is achieved on a 1 to 5 scale where 1 = minimal; 2 = limited; 3 = moderate; 4 = substantial; and 5 = full. (Note: a 5 corresponds with a "yes" on the yes/no response, and ratings of 1 -4 correspond to a "no" response. The intention behind this scale was to enable recognition of progress and partial achievement based on a programme principle of building on strengths.
- **'Narrative" response:** The third recording is a narrative documentation, usually in bullet points, so as to provide a history, to exemplify and provide details of achievements, and to highlight the basis for the ratings given. This comments component informs the detail of the picture of current status being developed through the process and provides important reference information during subsequent reassessment.

Scoring

Scoring is tabulated within each of the five steps and an overall total '**capability score**' is produced. Scores are of a total 25 for 'Yes/No' scores and 300 for 'scaled rating' scores. The step-wise subtotals allow ready understanding of where current organisational strengths are and in which areas greater work may be required.

Process

The tool was designed to support a best practice self-assessment process. The **process** has been:

- **Guided first assessment:** Generally, initial assessments have involved the *Systems First* National Project Leader guiding the process, eliciting the self-assessment responses, and providing a moderating role in determining ratings. This input has generally been face-to-face during the initial assessments.
- **Discussion:** For each item, the question "how well does your hospital provide a supportive environment for assisting people to become and stay smokefree?" is used to

initiate discussion during which key observations are noted in the narrative comments section as described above.

- **Scoring:** Once all discussion pertinent to the item has been completed, the appropriate yes/no classification and 1 – 5 point rating is decided. Again, this is generally self-assessed with the moderation of the Systems First National Project Leader.
- **Totals:** Once all items have been addressed, points for each section are subtotaled and overall scores are calculated. A total maximum score for 'Yes/No' assessments is 25 and for 'scaled ratings' is 150.
- **Analysis:** The self-assessment discussions and the resulting ratings provide an appropriate information base for analysis
- **Planning:** Careful appreciation of the information developed in the course of the self-assessment process can identify: areas of current strength; key issues requiring more immediate attention; particular issues to be addressed in developing an action plan.

Re-assessment:

Repeat self-assessment is undertaken after a period of time so as to enable comparisons of the capability scores of the hospital or service before and after the period of activity. Changes in smokefree capability scores have been used to identify and report on progress and where action may need to focus next.

These follow-up assessments have generally again involved the support of the *Systems First* National Project Leader either in person, or via telephone.

Validity and reliability

Content Validity:

Content validity is the extent to which a concept (smokefree capability) is translated into a function (assessment). The Smokefree Hospital Self-Assessment tool has strong content validity. Component items, used as the standard for judgment, are drawn directly from relevant published literature, in particular from what was recognised at the time of development as the landmark best practice guide, the US Surgeon General's Clinical Practice Guideline.[4]

The *Systems First* guidelines first published in 2004 included the Smokefree Hospital Standard which served as the basis for the Smokefree Hospital Self-Assessment tool. The *Systems First* guidelines, endorsed by the Ministry of Health and recommended to New Zealand hospitals have been widely used as a basis for action.

Reflecting best practice at the time of development, the tool featured the '5-As' in the intervention step. A revised version of the tool has been developed reflecting the 'ABC' intervention guidelines detailed in the 2007 revision of the New Zealand Smoking Cessation Guidelines[5]. This revised version of the tool is available via the EFC website forum.

Intra-rater Reliability:

[4] Fiore M, Bailey WC, Cohen SJ, et al *Treating tobacco use and dependence.* Clinical Practice Guideline. Rockville MD: US department of Health and Human Services. Public Health Services. June 2000.
[5] Ministry of Health. 2007. New Zealand Smoking Cessation Guidelines. Wellington. Ministry of Health.

Intra-rater reliability is the degree of stability exhibited when a measurement is repeated under identical conditions by the *same* rater. The Smokefree Hospital Self-Assessment tool was designed to be a useful measure of progress over time in developing organisational smokefree capability. It was also expected that it would be used by the smokefree coordinator. As such, intra-rater reliability is an important aspect of the tool. It is most strong in the 'Yes/No' assessment of attributes and less so in the scaled ratings where the attributes contributing to assessment are less discrete.

Several design features to strengthen intra-rater reliability were incorporated in to the tools and the process for using to the tool.

- The inclusion of the narrative comments assists in exemplifying the rating for each item.
- Reference to these documented features upon re-assessment ensures that any change in rating reflects additional or adjusted features and where no such changes are able to be identified, there is no justification for any change in rating.
- The involvement of the Systems First National Project Leader in moderating the process of self-assessment assists in maintaining a consistent perspective across initial and subsequent self-assessments.

Inter-rater Reliability:

As noted previously, the primary purpose of the Smokefree Hospital Self-Assessment tool has been to inform planning and the secondary purpose has been to demonstrate changes within a particular setting over time. Care has been taken to avoid use of the tool to make comparisons between settings hence the issue of inter-rater (inter-hospital) reliability has not arisen.

Results

As at December 2007 Smokefree Hospital Self-Assessments have been completed by 16 hospitals across 13 DHBs.

In general, hospitals that have completed a Smokefree Hospital Self-Assessments have gone on to develop a **Key Current Issues List** and a **Smokefree Work Action Plan** using the information deriving from the self-assessment process to inform understanding and the development of strategy.

Changes in smokefree capability scores

Aggregated smokefree capability scores from both 'Yes/No' and 'scaled ratings' responses were collated for the 12 hospitals that had completed reassessments at the time of publication. This included one hospital for which a series of three assessments had been made over time.

Across the twelve hospitals, the improvement in aggregated smokefree capability scores between first assessment and reassessment was:

- **For 'Yes/No' scores:** 59.3% improvement (from 86/300 to 137/300)
- **For 'scaled rating' responses:** 32.3% improvement (from 992/1800 to 1312/1800)

The following figures illustrates the percentage change in 'Yes/No' scores (Total: 25x12=300) and 'scaled rating' scores (Total: 150x12=1800) averaged across all twelve hospitals.

Figure 1. Changes in 'Yes/No' smokefree capability scores of hospitals (n=12) between initial assessment and reassessment

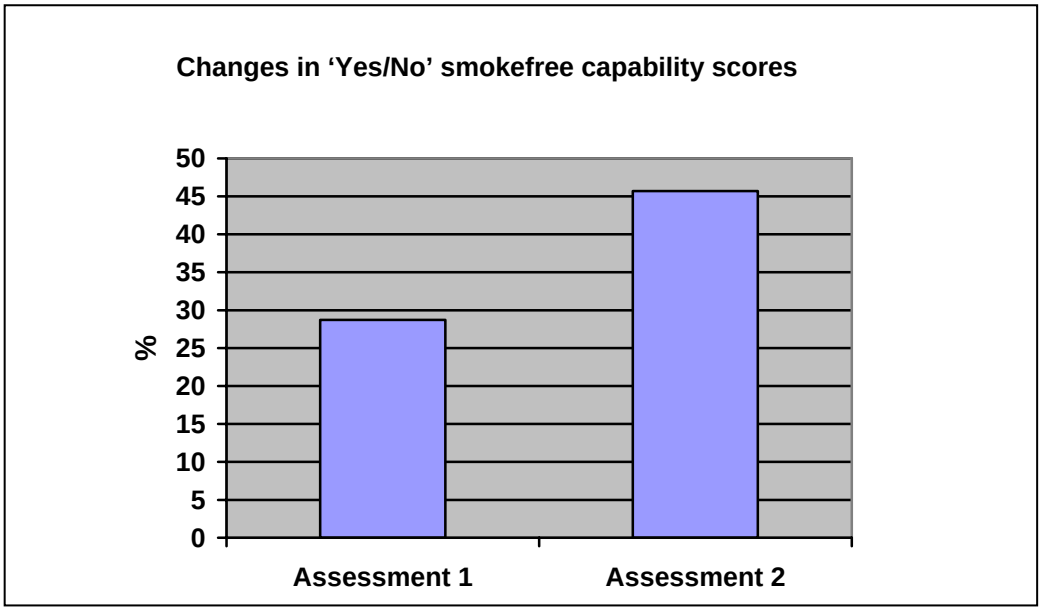
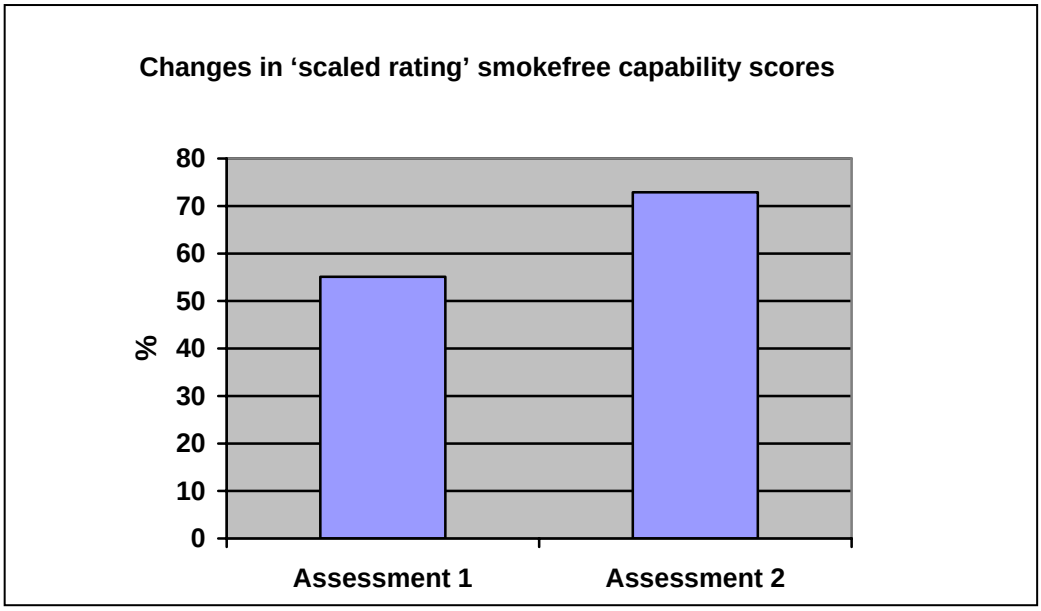


Figure 2. Changes in 'scaled rating' smokefree capability scores of hospitals (n=12) between initial assessment and reassessment



Practical Experience

Evidence of the experiences of smokefree coordinators in using the Smokefree Hospital Self-Assessment tool is captured in their feedback and a selection of written comments by coordinators is provided in Table 1, with the full list attached as Appendix Two.

Comments support a high value from using the tool. This value has been in:

- Ensuring a sound understanding of the setting and the needs for action
- Providing a "shape and focus" for considering the hospital's status and the areas requiring attention
- Ensuring the critical areas requiring attention to create impact which has the greatest value are prioritised in action plans
- Demonstrating progress and enabling that progress to be acknowledged and celebrated
- Assisting communication between smokefree coordinators and others both in gaining support and in formally reporting on progress
- Providing smokefree coordinators with confidence

Table 1. Examples of comments from smokefree coordinators describing their experience using the Smokefree Hospitals Self-Assessment tool.

Support	**Sample comments from Smokefree Coordinators**
Orientation	"Taught and enabled me as I worked into the smokefree coordination role."
Planning	"Easy to see where the gaps were – did the planning for us!"
Action	"I was able to put deadlines on the various tasks and they got done!"
Strategic	"Helped address things systematically not ad hoc or just going with the flow."
Motivational	"Rewarding to see and measure the change."
Reporting	"This was a fantastic tool to include in formal reporting to senior management"
Coordination	"Seeing the breakdown of the six items under each of the five steps was great – it made the thing "real" and tangible."
Confidence	"Formalised nature showed this was not all "off the top of my head" and meant it wasn't challenged - excellent for gaining support."
Empowering	"Having rating scores was empowering."
Credibility	"Strong face validity – all aspects "fit" with evidence and with practice."

Further developments

Recognising the usefulness of the Smokefree Hospital Self-Assessment tool, a number of service-specific variants have been developed. The increasingly service-specific focus assists in providing the service with a more tangible description of the best practice elements;

and in developing ownership and leadership of change within the various clinical management teams.

Service-specific self assessment checklists have been developed for:

- Pregnancy services
- Paediatric services
- Mental health services
- Primary Health Organisations (PHOs)
- Primary health service providers
- Hospital ward/department level (currently being developed)

We would like to acknowledge the close cooperation of Kaaren Beverley (ADHB) in the development of the Mental Health Service Provider Best Practice Checklist.

Conclusion

People appointed to smokefree coordinator roles came from a variety of work backgrounds, many from smoking cessation work and personal health services. Yet coordination is strategic work, not service work and its purpose is to develop organisational capability for effective intervention. The Smokefree Hospital Self-Assessment Tool has supported smokefree coordinators to take this strategic approach to smokefree best practice in hospitals by providing shape and focus to planning, action and reporting and enabling a documented trail of progress. Their comments, also attest to personal benefits in terms of supporting increased confidence, motivation, timeliness and accountability.

Recommendations

1. That use of Smokefree Hospital Best Practice Self-Assessment tools be supported especially where hospitals or services are at an appropriate (relatively early) stage of implementing smokefree change
2. That the use of the service-specific Smokefree Best Practice Self-Assessment tools be developed, encouraged and supported

Appendix One

Smokefree Hospital Best Practice Self Assessment Tool

Systems First

Smokefree Hospital Standard – Self Assessment

Hospital:
Date:
Information Provided by:

Ratings:
- 5 Full
- 4 Substantial
- 3 Moderate
- 2 Limited
- 1 Minimal

Notes:
- This assessment is designed to:
  - provide an overall assessment of *status quo*
  - highlight achievements
  - identify current issues and challenges
- Y/N rating indicates fully present or not
- Numerical rating indicates level of achievement as shown at left

STEP 1 Policy	Y/N	Rating	Comments
All DHB buildings smokefree			
All DHB grounds, vehicles, and non DHB vehicles in grounds smokefree			
Smokefree status of all patients identified			
Assistance to become smokefree offered to all patients identified as smoke exposed			
Ongoing smokefree education offered to all staff			
Dedicated responsibility for smokefree coordination within the hospital/DHB			
STEP 1 Total			

STEP 2 Systems	Y/N	Rating	Comments
for promoting smokefree environments			
for identifying smoke exposed patients			
for documentation			
For guiding patient			

interventions			
▸ for referral and discharge planning			
▸ for ongoing smokefree education and performance feedback			
STEP 2 Total			

STEP 3 Education	**Y/N**	**Rating**	**Comments**
▸ on evidence of damage from smoking			
▸ on effective interventions			
▸ on behaviour change/ addiction theory			
▸ on brief intervention skills			
▸ on pharmacotherapy/ counselling			
▸ on roles, responsibilities and hospital smokefree systems			
STEP 3 Total			

STEP 4 Intervention	**Y/N**	**Rating**	**Comments**
▸ ask: about exposure to first and second hand smoking			
▸ record: in patient notes			
▸ advise: smoking risks/ smokefree benefits			
▸ assess: risk, readiness and interest in support			
▸ assist: with brief discussion, NRT, written resources, etc			
▸ arrange: follow-up or referral			
STEP 4 Total			

STEP 5 Responsibilities	**Y/N**	**Rating**	**Comments**
▸ Smokefree Project Group			
▸ Smokefree Project Leader			
▸ dedicated responsibilities for: nurses, midwives, allied health staff			
▸ dedicated responsibilities for:			

medical consultants, junior medical staff			
▸ dedicated responsibilities for: managers, administrators, others			
▸ referral programmes accessed			
STEP 5 Total			

OVERALL TOTALS	**Y/N**	**Rating**
Actual		
Possible		

Appendix Two

Smokefree Hospital Best Practice Self Assessment Tool - Feedback

1. In what way(s) has the Smokefree Hospital Best Practice Self Assessment tool and process been useful?

- Gives structure
- Helps find out what is already done
- Helps see where the gaps are
- Helps you write your action plan
- Focus - helps achieve focus
- Helps with clarity of purpose
- Later on it helps review change and progress
- Can represent visually so it is a good way to report to others
- Aligns with best practice hence gives confidence
- Gave a clear picture of the starting point
- Gave us a picture of what we should be looking for
- Let us measure change
- Good tool to report with to management
- Guided my Work Action Plan
- Easy to see where the gaps were – did the planning for us!
- Put where we were at into perspective
- Gave us somewhere to aim for
- Was a great orientation to the role
- Broke down the various issues and allowed me to see the steps
- The comparison later on made me feel good
- Focusing!
- Helped as a way of identifying and holding on to all the different things you had to do
- Making it all visible
- Helped counter the tendency to lose sight of the big picture
- Helped me to see “everything”
- Helped in picking out the priorities
- Helped address things systematically not *ad hoc* or just going with the flow
- Allowed us to “hang our hat” on something which was really helpful when communicating to other people
- Had a clearer idea of things and a stronger basis for arguing when necessary
- Was able to let people know there was indeed a big plan behind what was going on
- Upon reassessment it was really positive to see progress
- Rewarding to see and measure the change
- Affirmed the sense of direction
- Good to see results/progress
- Felt was achieving something that might otherwise have gone unnoticed
- Showed exactly where progress being achieved
- Great morale boost
- Help me get a handle on where we were at and where we should be aiming to be
- Provided a simple “gap” analysis
- Broke things into “bite size” chunks
- Gave direction
- The assessment, especially the narrative comments, flowed on to the action plan
- Made the task seem “do-able”
- Showed I didn’t have to do everything at once
- I was able to put deadlines on the various tasks and they got done!
- The formal-looking presentation of the self assessment meant it was very useful to take to managers
- Formalised nature showed this was not all “off the top of my head” and meant it wasn’t challenged - excellent for gaining support

- Re-doing the assessment was great for showing how far we had come
- Having rating scores was empowering
- Good to take the reassessment back to management to continue the process of them buying in
- Gave a sense of importance
- Showed the ideal/end point

2. What were the most notable features of the Smokefree Hospital Best Practice Self Assessment tool and process?

- Wide scope/comprehensive - ensured not missing something
- Linkage with Systems First model – integrated
- Internal consistency
- Framed work (and work action planning)
- Work action plan became working document so didn't need to go back to self assessment often
- Wee bit daunting at first – seemed quite lengthy – but in fact easy to use
- Having the Yes/No and rating scales was good – able to acknowledge progress on the "journey" even if scored as "No"
- Realised how little had been done prior to the project
- Made it obvious what work did need to be done
- Clarity
- Could see exactly what needed addressing and these things hung together
- Seemed to give a kind of three dimensional view – could see where things link
- Gave clarity
- Provided confidence
- Kept the "raft of things" in order
- Would otherwise have got into a "mish-mash" but the tool kept things focused
- Able to focus effort and communicate with others
- Made me realise why all aspects are important and must be considered in balance
- Seeing the breakdown of the six items under each of the five steps was great – it made the thing "real" and tangible
- It showed the linking of the five steps
- It gave the "full picture"
- Also saw how much we had in fact already achieved; validated that we were on the right track; and showed where we needed to head

3. Other comments

- Operational tool rather than a measurement/empirical tool
- Strong face validity – all aspects "fit" with evidence and with practice
- The length issue was a "Catch 22" – any shorter and would inevitably miss aspects – just need to "bite the bullet" and do it
- Helped me set goals and to attach deadlines to those
- Very useful
- Used the Mental Health version recently and again clearly showed how much (and what) work needs to be done
- Helped me shift perspective – with a background in cessation it helped me see this was about more than just cessation
- Provided orientation and was direction-giving
- Taught and enabled me as I worked into the smokefree coordination role
- This was a fantastic tool to include in formal reporting to senior management
- It added legitimacy via the measurements/graphs