

# **Quality Dimensions of the Elective Waiting**

## **Time Goals – High Level Review**

**May 2013**

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## **The Review Panel**

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- Mr. Ron Dunham, CEO Lakes DHB
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## 1. Background

One of the Government priorities is reducing waiting times for patients who are accepted for elective assessment and treatment. Faster access to assessment and treatment is good clinical practice. Reduced waiting times are associated with improved patient satisfaction and improved clinical outcomes for individual patients<sup>i</sup>.

The key objectives<sup>ii</sup> to improving access to elective services are:

1. A maximum waiting time of six, five and four months (as at 1 July 2012, 1 July 2013 and 1 January 2015 respectively) for first specialist assessment or treatment
2. Delivery of a level of publicly funded service which is sufficient to ensure access to elective surgery before patients reach a state of unreasonable distress, ill health, and/or incapacity
3. National equity of access to elective services - so that patients have similar access to elective assessment and treatment irrespective of where they live

The Office of the Auditor General's (OAG) June 2011 report<sup>iii</sup> reviewed the elective services strategy and made five priority recommendations:

- Patients are more consistently selected for first specialist assessment
- Patients are more consistently prioritised for treatment
- A greater proportion of patients receive scheduled services within the prescribed time limits
- A greater proportion of patients are treated in priority order
- Progress is made in quantifying the level of unmet need for scheduled services

The Minister has asked for assurance that the pursuit of the elective waiting time goals does not lead to unintended consequences for patient care.

In response the Director General of Health convened an expert panel with support from the Ministry of Health's (MOH) electives team, to determine if there were any unintended consequences for patient care and consider whether there is a need for any additional guidance or support for DHBs in the implementation of their strategies to meet elective waiting time goals.

## 2. Method

Over a five-week period the Panel:

- Completed a review of a range of quantitative information, at a national level, that is routinely collected by the MOH as part of monitoring progress against the elective waiting time objectives

- Completed a review of information prepared for use by members of the New Zealand Chapter of the Health Roundtable Ltd (HRT) and other published information from the following sources - Accident Compensation Corporation (ACC), New Zealand Orthopaedic Association (NZOA), Health and Disability Commissioner (HDC), Perioperative Mortality Review Committee and the Health Quality and Safety Commission (HQSC).
- Considered the findings of the 2013 OECD Health Policy Studies Publication<sup>iv</sup> *Waiting Time Policies in the Health Sector: What Works?* And the OAG report, June 2011
- Interviewed / received information from a selection of staff from 13 DHBs (that included Chief Executive Officers, Chief Operating Officers, Service Managers, Clinical Heads of Department, Quality and Risk Managers, Nurse Managers, Performance Analysts). The information came from discussions around the following questions:
  - How is your DHB measuring patient care outcomes in elective services?
  - In advancing towards the elective waiting time goals are you or your team aware of any adverse or unintended consequences for patient care?
  - Do you require any additional guidance or support for your DHB to achieve these goals?

### **3. Limitations of the review**

Some information was unable to be collected either because it was not readily available or because of time constraints. This is particularly relevant with respect to information on cases that are declined for First Specialist Assessment or treatment, qualitative feedback from primary care and in-depth analysis on individual DHB performance.

The Panel was unaware of any robust, systematic data on unmet need. There has never been national data collected on cases returned to Primary Care without assessment or treatment, nor is there any national data collected regarding subsequent health outcomes for these patients.

## 4. Findings

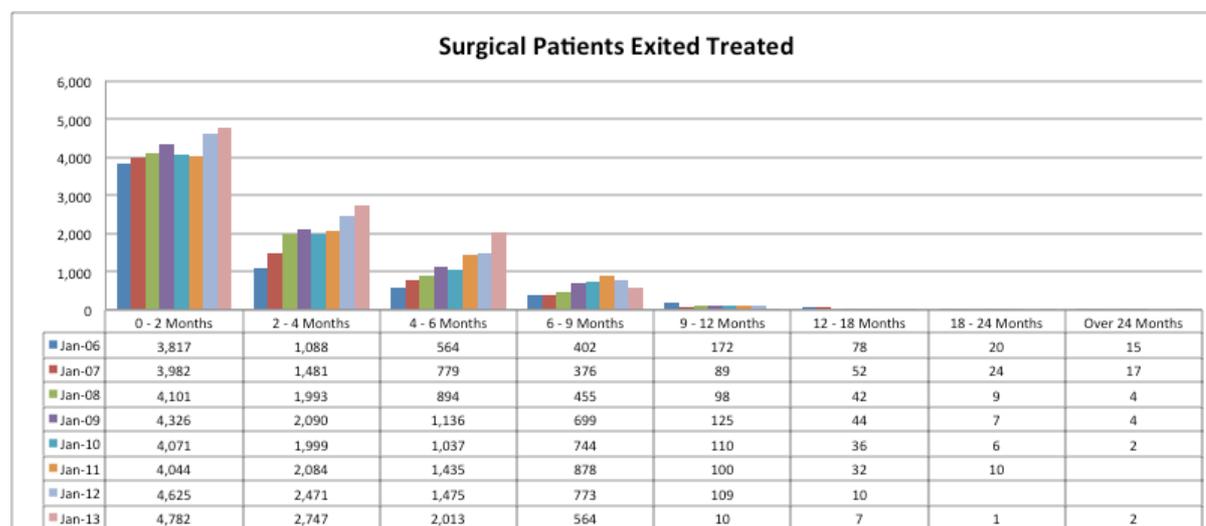
### 4.1 Overall activity and waiting time process measures

Total acute and arranged activity has increased in line with population growth whilst elective activity has significantly exceeded population growth.

	2006/07	2011/12	% change
Acute	132,899	145,150	9%
Arranged	21,407	18,513	-14%
<b>Sub-total acute and arranged</b>	<b>154,306</b>	<b>163,663</b>	<b>6%</b>
Elective	113,161	153,069	35%
<b>Total</b>	<b>267,467</b>	<b>316,732</b>	<b>18%</b>

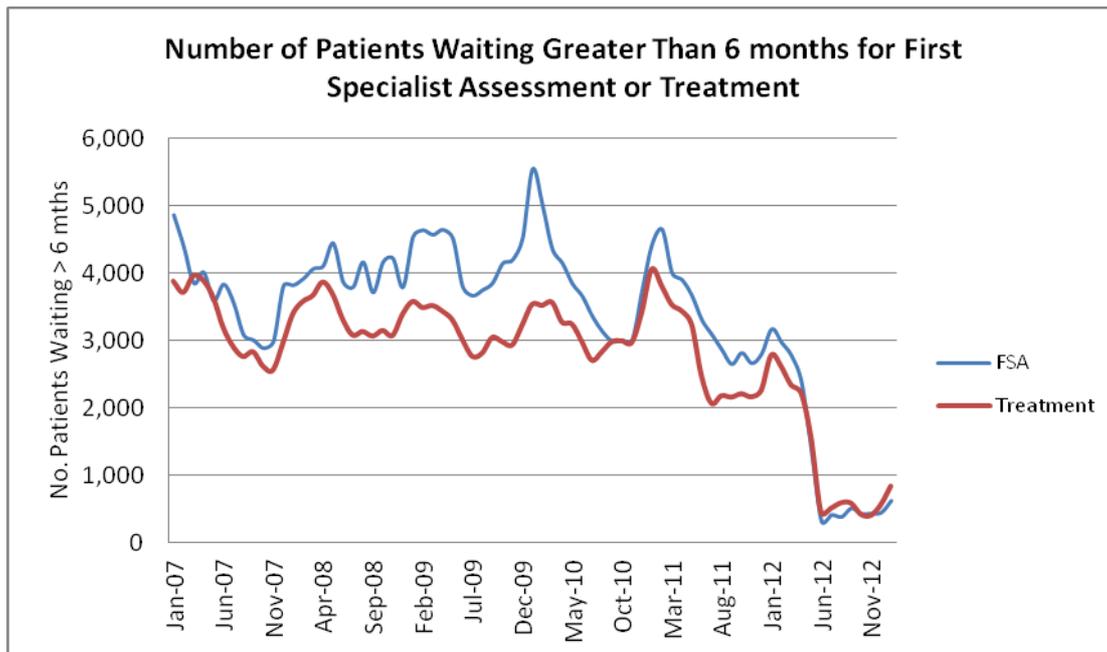
Source: Extracted from National Minimum Dataset in March 2013. Discharges from a surgical purchase unit.

Over the same period, there has been no statistically significant increase in unplanned readmissions<sup>v</sup> and no recorded increase in patients being exited because they were treated acutely or were returned to primary care.



Source: Extracted from the National Booking and Reporting System in March 2013. Patients receiving treatment in January of each year by months waited for treatment.

Over the last six years there has been a significant reduction in the number of patients waiting greater than six months for either First Specialist Assessment or treatment.



Source: Extracted from National Booking and Reporting System in March 2013. Patients with assured status only, Excludes Active Review and Planned and Staged.

The average case-weighted discharge has not significantly changed from 1.37 in 2007/08 (1.34 in 2011/12). While not a comprehensive measure of complexity the measure provides some indication that the complexity of patients has not increased.

The number of patients on active review has reduced from 12,428 in 2006 to 2,496 in 2012. The number of patients with a status of staged or planned has reduced from 12,613 in 2006 to 10,292 in 2012. One way of managing waiting list growth is to move patients to these categories, as these patients are not included in the waiting time targets. This is not occurring.

#### 4.2 Clinical Quality Measures

There are no specific clinical quality indicators that relate solely to the impact of waiting times on elective services. The indicators referenced below have been selected as surrogate measures for the quality of elective services. There will be a number of reasons why quality increases or decreases, some of which will be organisational and broader than just changes due to the pursuit of waiting time goals.

It should be noted that this information has been analysed at a national level. There are individual DHBs that are outliers in some areas. The utilisation of this information to improve the quality of services would be recommended.

**ACC:** Annual reports over the last five years through to 2012 show no increase in Treatment Related Injury (TRI) claims that were accepted. TRI includes injury secondary to a delay in diagnosis or treatment as well as injuries sustained from treatment. Over the same period elective surgery numbers funded as a result of a successful TRI claim were static. This suggests there has been no overall national deterioration in clinical performance.

**HDC:** Specific information on complaints related to access and funding has been available since 2011-12. In 2011-12 there were 69 complaints relating to access / funding from 1564 total complaints received by HDC (4.4%). Given the high volume

of cases referred for First Specialist Assessment and for Treatment in 2011-12, this level of complaint is very low.

**HQSC:** Specific information regarding "delay in treatment" has been collected within the Serious & Sentinel event reporting since 2010-11. In 2010-11 there were 14 cases and 17 cases in 2011-12. The increase is not statistically significant.

**NZOA:** National Joint Registry 13 Year Report (to December 2011): The percentage of hip and knee joint replacements revised in the first 12 months has remained stable and below 1.4% (comparable to international standards) over the last 5 years. A low rate of early revision of joint replacements is considered to be an indicator of quality.

**Perioperative Mortality Review Committee:** The March 2013 report examined mortality following cholecystectomy, 30-day mortality in elective admissions with the first ASA score of 1 or 2 and pulmonary embolus-associated mortality. The 2011 report examined mortality after colorectal resection, cataract surgery, hip and knee arthroplasty and general anaesthesia. Whilst reported over a five-year period, and not year by year, the reports conclude that the rates in New Zealand are comparable, if not better, than published international benchmarks. Recent HRT information supports this conclusion.

**HRT:** The national information has been reviewed year by year since 2008 in the following categories: risk-adjusted rate of postoperative sepsis for elective patients, postoperative wound dehiscence, postoperative haemorrhage or haematoma, postoperative respiratory failure and the rate of accidental puncture or laceration. The data shows that there has been no increased incidence in any marker except the rate of accidental puncture or laceration. This measure shows an increase from 0.1% to 0.25% - a change that is not considered significant.

The Panel also examined national HRT data relating to delays to acute surgical intervention for the repair of fractured neck of femur. This is considered to be a valuable surrogate measure for quality of care. There has been an improved performance over the previous two years.

### **4.3 Qualitative Information from the DHB Staff Interviews**

#### **a) *How is your DHB measuring patient care outcome in elective services?***

All DHBs spoken to were monitoring the quality of care through a variety of Key Performance Indicators (KPIs). These KPIs ranged from process measurement (e.g. Average Length of Stay and % acute patients accessing an acute theatre within 24 hours of admission) to patient outcomes (utilisation of the EQ-5D<sup>vi</sup> tool in specific specialties and variation against clinical pathways). The KPIs included the consideration of adverse outcomes (e.g. Surgical Site Infection Rates, unplanned recovery room stays > 2 hours) and patient satisfaction (general surveys as well as tailored surveys for elective pathways that included patient feedback on their elective care). Clinical audit activity, tailored to the specialty, generally complemented specialty or organizational wide monitoring.

This information is considered at a range of levels within the DHBs – specialty, departmental, executive and Board. Action is then taken as required to address any concerning trends.

There was a recurring theme that the measurement of patient care outcomes (as distinct from process measures or intervention measures), particularly with respect to those patients that did not meet the eligibility criteria for assessment or treatment, could be improved.

**b) *In advancing towards the elective waiting time goals are you or your team aware of any adverse or unintended consequences for patient care?***

There was unanimous support for a reduction in waiting times to access elective services.

It was acknowledged that the sophistication of scheduling practices and capacity management required improvement. This is in order to mitigate the risk of clinically less urgent patients being treated ahead of more urgent patients simply because of the potential for the less urgent case to exceed maximum waiting times or the potential for acute surgery to be delayed to meet elective pressures.

Most DHBs have invested additional resources in elective services, while others have considered the appropriate clinical threshold in the context of resource limitations. DHBs were clear in their desire to achieve clinical and geographical consistency of access. Capacity is being routinely examined at a regional level in order to identify opportunities for enhanced resource utilization.

There was agreement that hospital staff commit significant energy and time towards the management of waiting lists. There is a concern from DHBs that the day-to-day focus on this activity is diverting resources from the robust consideration of the longer-term strategy and impact.

DHBs highlighted the unknown impact on patients and staff with a move to a maximum waiting time of four months. There was concern about the ability of local systems to adjust within the timeframe of achieving the four-month target by 1 January 2015.

It is important to note concerns raised by DHBs in relation to achieving the 4 month target are predominantly around the ability of DHBs to cope with the “hump” of increased volumes required to clear cases that otherwise would have had certainty of assessment or treatment within a longer time frame. All DHBs acknowledge that *maintaining* the 4 month target is less concerning than *reaching* the target. Maintenance of the target requires scheduling and planning over 4 months rather than 5 or 6 months as is currently the case whilst reaching the target requires an increase in clinical output above the maintenance level.

Some DHBs expressed concern that the successful reduction in maximal waiting time could result in increased referrals to specialist services over and above that expected by population change as a result of the DHB being perceived to “be providing a better service”.

**c) Do you require any additional guidance or support for your DHB to achieve these goals?**

There were four common themes with respect to the provision of additional guidance or support:

- The requirement for nationally consistent prioritisation tools for both assessment and treatment, and the further development of referral guidelines and referral systems across all specialties
- Additional support to implement increasingly sophisticated booking, scheduling and capacity / acuity management tools and processes
- The enhancement of informal peer support networking across senior clinicians/ Heads of Department
- Support to implement robust patient outcome monitoring within primary care

## 5. Conclusion

There is no evidence that the pursuit of elective waiting time goals has resulted in unintended consequences for patient care. This is based on the available surrogate measures of quality at a national level and anecdotal feedback gathered during the DHB interviews.

Nationally, FSA and elective treatment waiting times have reduced – these reductions in themselves could be considered surrogates for improved quality especially as the clinical quality indicators examined have remained static or have improved.

The absence of robust national outcome data on those patients not accepted for a First Specialist Assessment or treatment limits the Panel's ability to conclude definitively that patient outcomes are not compromised for this group. However, the Panel noted the very low number of ACC and HDC complaints regarding "access to services". At an individual DHB level there is insufficient and inconsistent quality measurement specific to elective services waiting times. Some DHBs are collecting longitudinal information on cases declined for FSA. This is ad hoc, but could form the basis for a nationally consistent process.

The Panel notes that the Health Roundtable information is of particular value in assessing various quality outcomes at a national and local DHB level.

The next stage of system development to meet the four month maximum waiting time goal represents a major challenge to DHBs that will require increased attention and monitoring, particularly in the area of patient outcomes and quality of care.

To achieve the four-month maximum waiting time will require ongoing system and process redesign. Efficient and sustainable scheduling processes are essential over the transition period to shorter waiting times. Clinical acceptance of the need to establish scheduling guidelines and practices that allow maximally efficient use of resources is strongly encouraged, as is clinical engagement in constructing such processes. The Panel was provided with examples of innovative practice and clinical engagement that could be shared nationally.

## 6. Recommendations

1. Develop a nationally consistent framework of quality and patient outcome measures specific to elective waiting times, including the outcomes for those patients not accepted for a First Specialist Assessment or treatment. The information reported under this framework should be used to inform decisions around the implementation of the four-month maximum waiting time target. This framework should be developed by the MOH in conjunction with DHBs and the HQSC
2. Full utilization and enhancement of nationally consistent prioritization tools for treatment, and the development of prioritization tools for First Specialist Assessment
3. Implementation of nationally consistent referral guidelines for First Specialist Assessment
4. DHBs continue to support clinical / management partnerships in managing elective waiting time processes. Clinical engagement and leadership in this process is critical. The release of the engagement/communication document developed by Chief Operating Officers is encouraged
5. Increase the dissemination of successful scheduling and capacity management processes and tools, and management practices. Consideration should be given to creating opportunities for schedulers and elective services managers to undertake professional development specific to their roles.
6. Facilitation of informal networking / peer support opportunities for Heads of Department
7. More systemic use of data to identify and target quality variances at a DHB level

## References / Footnotes

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<sup>i</sup> Improving Patient Flow. The Health Foundation (UK), Learning Report 2013

<sup>ii</sup> Reduced Waiting Times for Public Hospital Elective Services March 2000 and Addendum August 2012, Government Strategy Paper

<sup>iii</sup> Progress in Delivering Publicly Funded Scheduled Services to Patients, June 2011, Officer of the Auditor General New Zealand

<sup>iv</sup> Siciliani, L., Borowitz, M. and Moran, V. (eds.) (2013), *Waiting Time Policies in the Health Sector: What Works?* OECD Health Policy Studies, OECD Publishing.

<sup>v</sup> Health Quality and Safety Indicator set data 2012, Health Quality and Safety Commission: % of hospital admissions followed by an acute readmissions within 28 days of discharge

<sup>vi</sup> Applicable to a wide range of health conditions and treatments, it provides a simple descriptive profile and a single index value for health status. EQ-5D is primarily designed for self-completion by respondents and is ideally suited for use in postal surveys, in clinics and face-to-face interviews. It is cognitively simple, taking only a few minutes to complete. EQ-5D™ is a trade mark of the EuroQol Group

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## **Surgeon's User Guide: Initiatives to Improve Elective Waiting Times**

Explanatory Note: This appendix has been requested by surgeons to aid in the delivery of shorter waiting times. It is designed to detail some steps clinicians and service managers can take to address the challenges of meeting Waiting Time targets. In addition it is designed to raise some questions clinicians and managers should ask regarding service configuration in their DHB.

Circumstances in each DHB and within services at each DHB will greatly influence the relevance or otherwise of these initiatives, but the consideration of the role of such initiatives is advised.

- 1. FSA grading:** It is crucial to ensure consistency across each specialty. Grading should be done by the same person(s) for the same set of referrals for a longitudinal period. Services need to determine if they sub-specialise elective surgery. If yes, grading by sub-specialty is regarded as a positive step. Grading requires resourcing in terms of time and information systems. Electronic referrals (with the ability for clinicians to set mandatory data fields) are regarded as essential. "Ad hoc graders" are to be discouraged.
- 2. Consistency in clinical decision-making:** Departments need to invest in clinical debate to ensure consistency of entry to the waiting lists for each broad clinical condition – in other words entry to the waiting list should not be significantly dependent on the surgeon the patient sees. Regular clinical meetings enhance clinical debate. Attendance of registrars at such meetings is vital.
- 3. Pooled lists:** Pooled elective lists, at least for low-complexity, high volume cases, is a logical option. The keys to successful pooling of lists are departmental agreement on the type of case-mix and consistency of clinical decision-making as per (2) above. Pooled lists allow considerable scheduling flexibility.
- 4. Elective theatre flexibility:** Services should construct timetables to allow flexibility of staffing so that "elective theatre vacancies" created by annual leave etc. are taken by colleagues. *No elective theatre should ever lie idle for want of staff.*
- 5. Scheduling Services:** Consistent practice and knowledge of the state of each waiting list is essential. Schedulers need to regularly meet surgeons to discuss cases that are approaching time limits. Regular meetings also need to identify upcoming circumstances such as leave so alternative surgical staff can be scheduled. A lack of advanced notice of annual or conference leave is frequently cited as a reason for unused theatre capacity.

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6. **Theatre start & finish times:** All day lists are inherently more efficient than half-day lists. Teamwork by the entire theatre team will often allow uninterrupted surgical activity throughout the day.
  7. **Acute & Elective Separation:** Depending on acute volume and acute theatre access, each service needs to determine if acute and elective rosters can be separated. There is no doubt a dedicated acute service each day allows other staff to perform dedicated elective work without the risk of list-disruption by acute cases.
  8. **Pre-admission processes:** Each DHB needs to determine its preadmission policies and processes to minimize the risk of a day of surgery cancellation. Consistent processes across the DHB are essential. Anaesthesia input is central to early identification of clinical conditions that would preclude or delay elective surgery.
  9. **Identify barriers to elective surgery:** Each DHB should examine “roadblocks” such as access to diagnostic tests that may delay elective surgery. An example is access to ECHO if requested by the Anaesthesia service. Solutions such as anaesthetists becoming credentialed in basic echocardiography should be explored.
  10. **Efficient Acute processes:** The efficient care of acute cases is essential to reduce unnecessary length of stay (and therefore bed –block) and barriers to elective theatre access. Acute care must not deteriorate in the face of elective waiting time reduction.
  11. **Identifying extent of additional work to reach four months:** All DHBs are close to a maximum waiting time of five months for elective surgery. The Ministry has set the goal at 1 July 2013 with a goal of reaching the four-month target by 1 January 2015.

Modeling of weekly additional volumes to achieve this is highly complex due to the variance introduced by the clinical priority of new cases entering the waiting lists.

However if all services are starting with a maximum of five months waiting times, essentially 20 months elective work needs to be done in 18 months to achieve the goal of no one waiting more than four months.

Twenty months is 86 weeks, 18 months is 78 weeks

A **simplistic** mathematical model based on “20 months work in 18 months” generates the following formula for weekly additional volumes:

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“Steady State” average per week to stay at five months =

$$\frac{\text{Annual contracted Volumes}}{52 \text{ weeks}}$$

Weekly volumes to reduce to four months over next 18 months =

$$\frac{\text{Annual contracted Volumes}}{52} \quad \frac{x 86}{x 78}$$

$$= \frac{\text{Annual Contracted Volumes}}{47.2}$$

**Subtract this number from the “steady state number” to give increase per week in elective cases.**

Example: 2000 elective discharges for next 12 months, with the same estimated volume for following 12 months.

The current waiting time maximum is five months; therefore if the five-month target were to be maintained and not reduced the average weekly elective discharges would be 2000/52 or 38.4 per week. Given the aim is four months, these 38 need doing plus an increase to ensure the five months reduces to four months. To achieve aim of no one waiting more than four months the team needs to do 42.4 cases per week or an increase of four per week across all elective lists for that specialty each week for 78 weeks.

Increases of this magnitude should be possible through efficiency gains especially around all day lists, pooled lists, use of vacant lists, and reduction in day of surgery cancellation rates.

Given elective theatres do not run a full 52 weeks of the year, the simplistic formulae for 50 and 48 weeks respectively are:

*Steady State equals:*

$$\frac{\text{Annual contracted Volumes}}{50 \text{ weeks}}$$

or: 
$$\frac{\text{Annual contracted Volumes}}{48 \text{ weeks}}$$

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Weekly volumes to reduce to 4 months over next 18 months on a 50 week elective cycle =

$$\begin{array}{r} \text{Annual contracted Volumes} \\ 50 \end{array} \begin{array}{r} \times 84 \\ \times 76 \end{array}$$

=  $\frac{\text{Annual Contracted Volumes}}{45.2}$

Example: Elective contract of 2000 cases in 12 months = 40 per week over 50 weeks, with an additional 4.2 cases per week over 18 months to reduce time to 4 months

To reduce to 4 months via a 48-week elective cycle, the formula is:

$$\begin{array}{r} \text{Annual contracted Volumes} \\ 48 \end{array} \begin{array}{r} \times 82 \\ \times 74 \end{array}$$

=  $\frac{\text{Annual Contracted Volumes}}{43.3}$

Example: Elective contract 2000 cases in 12 months = 41.7 cases per week over 48 weeks, with an additional 4.5 cases per week over 18 months to reduce time to four months.

The Ministry figures for 2014–15 show a small increase in most elective contracts. This will affect the latter 1/3<sup>rd</sup> of the 18-month period. For a DHB with a contracted volume of 2000 cases a 1% rise (as signalled by the Ministry) would add a total of 10 additional cases above the 1000 baseline for the first 6 months of 2014–15. This is not considered a significant increase per week.

It is vital to note that once the four-month target is reached, no additional cases need doing over and above the “steady state” because steady state is simply the annual contract per unit of time. *Therefore the 18 months to reach 4 months is far more challenging than the maintenance of the four month target post-1 January 2015.*

Ministry Publications:

- Improving the System: Meeting the Challenge – Improving patient flow for electives, 2012.
- Proposed publication: By November 2013 a modular resource pack covering main topics detailed above.

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