

Response to the TSSSC and others
re “Role Delineation and green paper”.

Dear all,

I have found it difficult to respond to the role delineation framework in an impartial and non parochial manner. My obvious declaration of conflict of interest is that I have worked almost all of my post fellowship working life, in a small rural center that arguably is subject to a greater change in complex service delivery than other areas of the state as a result of the “role delineation” process.

I think it is important that I state that I believe it is timely and appropriate to focus on Rebuilding Tasmania’s Health Service generally and on hospital / regional role delineation in particular. For the last decade or so, there has been a focus on the scope of practice of clinicians within an organisation, but now, we follow in the footsteps of others, who are assigning broader classification levels for service delivery within a region based on a more generalised assessment of the abilities to deliver the service in relation to both regionally and state wide context.

It is important for all, including patients (consumers) and service providers and in particular to the credibility of the Department of Health, that the white paper determinations are evidenced based. This is not to say that there should not be a political or bureaucratic or pragmatic input into the proposed solutions. It is however, important, from a credibility point of view, that the known facts concerning performance, quality, risk, sustainability are not embellished or exaggerated in order to achieve a political goal. Reference to performance specifying the percentage of elective surgery patients waiting longer than 365 days should be seen in the context of whole of organisation issues (including a funding issue) rather than specifically related to surgical process issues. Similarly, project slides highlighting high rates of unplanned re-admissions should be seen in context. (Is this a generalised state side issue or localised to specific centers?)

At this point, I want to commend the work of Kelly Shaw to bring together a principled approach to the role delineation framework. I am of the opinion that every effort has been made to correctly consider the factors required to deliver services in a safe, efficient and sustainable manner. In general terms, the work has been exceptional. I also want to state at this point, that I support the broad direction of the role delineation model. That is, all surgeries should not be performed in all centers.

It may surprise some that there is an existing strong culture to only perform surgery where it is safe to do so!. It is probably not recognised by the non clinician that many surgeries are referred beyond the boundaries of the local regions or alternatively, help is procured into the local regions to perform particular surgeries. This has occurred in all four hospitals over some decades. No matter how big the hospital (including the biggest of the metropolitan hospitals), no hospital is a silo. All hospitals and service providers

must be integrated with others who hold particular expertise and capacity. I have not seen any recognition of this point in the various departmental submissions.

There is no doubt that services should be performed in a safe environment. In relation to surgery, it is the surgeons, nurses, ICU and anaesthetic staff and the administrators that need to demonstrate safety outcomes for their patients.

The difficulty with the Role Delineation Model is, however, that despite the model attempting to give a principled evidenced based approach, that there are assumptions built within the model that are assigned without evidence. For example, what is the value of accredited registrars to the delivery of complex services? While not attempting to understate the role of the accredited registrars, does the non accredited registrars model mean that complex surgery (eg Orthopaedic surgery) should not be performed. Where is the evidence to support this? Does the absence of a plastic surgeon to respond within 30 minutes mean that complex Orthopaedic trauma should not be performed within the region. With almost 20 years of experience treating trauma within the NW region, I can comfortably say that plastic surgeons may be a necessary part of the complete rehabilitation process, but not usually required in the first 30 minutes. Where is the evidence that the presence or absence of a plastic surgeon should determine whether complex surgery can be performed in an otherwise integrated service region? What is the evidence that referral of complex Orthopaedic procedures (over and above those patients that we currently refer within and without the state) is likely to lead to improved patient outcomes? What is the evidence of what we currently refer and whether we do this appropriately? There is much that is missing from the current body of evidence.

That said, I think there is room for a closer inspection and deliberation of operations performed in each of the areas and I welcome the opportunity for the surgical CAG to lead this discussion. In general terms, I think the department and the minister are keen for the clinicians to give them sound advice based on the broader principles and it our responsibility to make sure we do it well.

At this point, I want to give some input into the focus on surgical volume and surgical safety as it seems that much of the argument supporting the role delineation change has this association as a focus point. Much has been written in recent times around the association between these two parameters.

Once again, with a focus on Orthopaedic surgery, a recent article by Ravi¹ et al, addresses in a balanced way, the issues in relation to surgical volume and quality, when specifically assessing total hip arthroplasty. The paper attempts to tease out covariate influence on the association between volume and outcome. The conclusion of this paper is that hospital total hip joint replacement numbers in excess of 35 arthroplasties /

¹ Bheeshma Ravi et al . Relation between surgeon volume and risk of complications after total hip arthroplasty: propensity score matched cohort study . BMJ. 2014 May 23;348:g3284. doi: 10.1136/bmj.g3284.

annum are required to materially mitigate against dislocation of the hip (and hence the need for revision of the hip).

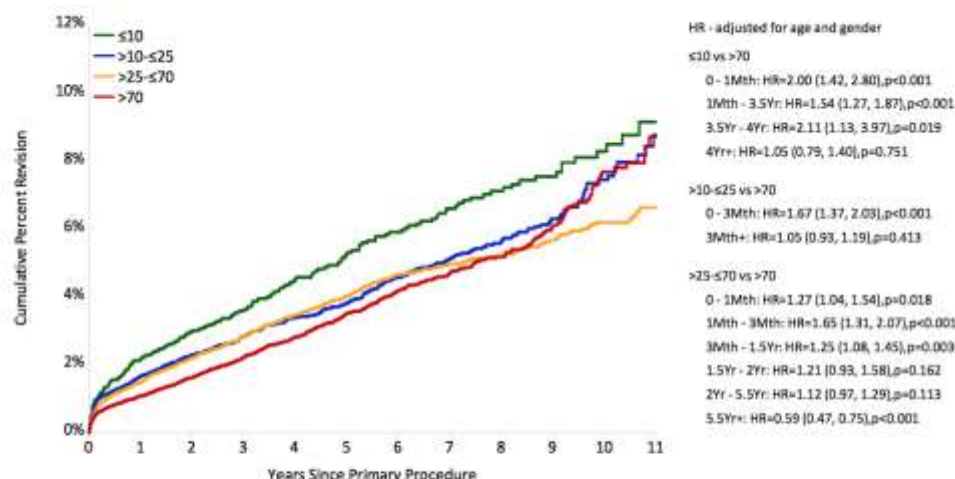
It should be noted that the three regional hospitals all perform joint arthroplasties well in excess of this number.

This type of conclusion is supported by our own (Australian) National Joint Replacement Registry (NJRR). In 2012 the association between volume and outcome (as measured by revision) was addressed.² In general terms, Cumulative Percent Revision (CPR) of primary conventional total hip arthroplasty was less if the number of procedures performed was greater. In particular, if the number of arthroplasty procedures performed was less than 10 per annum, then the CPR, and in particular the early CPR within the first year was higher. This is consistent with the message of Ravi.

It is not only volume but also experience that counts. In 2013, the issue of prior experience was addressed by the NJRR. In general terms, this assessment demonstrated ...”that surgeon experience has an effect on the outcome of primary total conventional and primary total knee replacement. When considering the outcome across all prostheses, more experienced surgeons have a lower rate of revision. The effect of experience on the rate of revision varies depending on the choice of prosthesis”. This means that volume cannot be considered in isolation but must be considered in the context of experience.

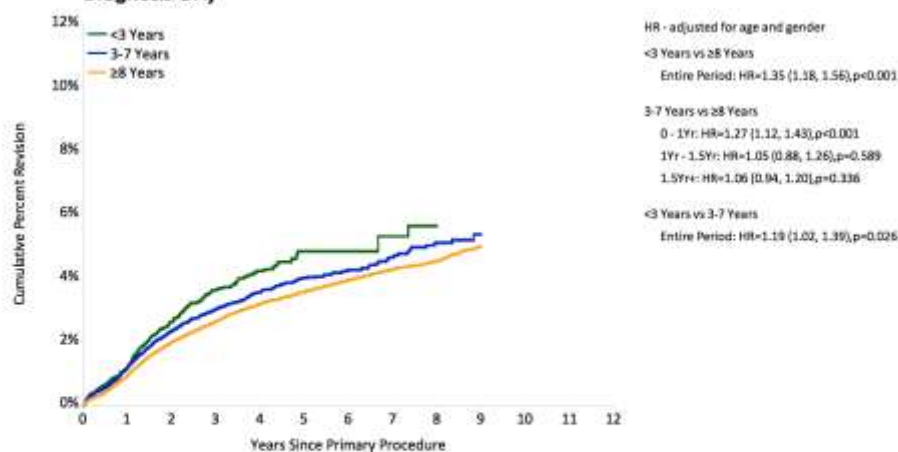
² Hip and Knee Arthroplasty. Annual Report 21012, National Joint Replacement Registry.
<https://aoanjrr.dmac.adelaide.edu.au/documents/10180/60142/Annual%20Report%202012?version=1.3&t=1361226543157>

Figure SE1: Cumulative Percent Revision of Primary Total Conventional Hip Replacement by Average Number of Procedures Performed per Year (Primary Diagnosis OA)



Number at Risk	0 Yr	1 Yrs	3 Yrs	5 Yrs	10 Yrs	11 Yrs
≤10	5150	4212	2693	1723	453	150
>10-≤25	18932	14937	8765	5401	837	274
>25-≤70	56068	44119	23783	13378	1582	423
>70	28941	23680	14450	8670	877	276

Figure SE5: Cumulative Percent Revision of Primary Total Knee Replacement by Surgeon Experience (Primary Diagnosis OA)



Number at Risk	0 Yr	1 Yr	3 Yrs	5 Yrs	7 Yrs	10 Yrs	12 Yrs
<3 Years	6573	5268	3106	769	356	0	0
3-7 Years	28926	22611	11502	4636	2345	0	0
≥8 Years	147425	118454	68552	30566	15648	0	0

Intuitively, (departing from peer reviewed literature) I think that we can loosely agree, that given a standardisation of other factors, that surgical outcomes can be affected not

only by volume but also by the experience of the surgeon in performing the particular procedure. As such, I am of the opinion that the best outcome is achieved by :

1. A well trained surgeon with a substantial set of recency of experience, with documented appropriate performance, safety and quality credentials in an appropriately supported environment.

Unfortunately, within the practice of surgery, this scenario is not always possible. The factors to include are

1. Training and qualifications of surgeons
2. Recency of experience of the surgeon
3. Practicing within a suitable peer reviewed environment
4. Quality junior doctor support
5. Demonstrable safety and quality audit
6. Sustainability / Efficiency of Practice.
7. Patient issues

In order of safety, the following may apply (the list not necessarily comprehensive)

2. A well trained surgeon with recency of experience above that determined as minimum best practice , with documented appropriate performance, safety and quality credentials, practicing in a supportive environment.
3. A well trained surgeon with recency of experience above that determined as minimum best practice , with documented appropriate performance, safety and quality credentials, practicing in isolation, in an otherwise supportive environment.
4. A well trained surgeon with recency of experience below that determined as minimum required for best practice , with documented appropriate performance, safety and quality credentials in an otherwise supported environment.
5. A well trained surgeon, with recency of experience below that determined as best practice , with documented appropriate general performance, safety and quality credentials, practicing in isolation in an otherwise supported environment.
6. A surgeon in training, with recency of experience below that determined as best practice , with documented appropriate general performance, safety and quality credentials, practicing in supported environment.
8. An inexperienced surgeon with recency of experience below that determined as best practice , without documented appropriate performance, safety and quality credentials in an inappropriately supported environment.

I think we can all agree that allowing an inexperienced surgeon, practice in an isolated un-supported environment is not good for either the surgeon nor the patient. (number 8)

Note that a surgeon in training, lacks the experience of others and therefor subject to mistakes learnt by his more experienced colleagues. It is not my intention to suggest that that we should not be training junior surgeons, but emphasise that the supervision needs to be appropriate for the experience level.

The hot issue to be addressed is what to do with an experienced surgeon who practices evidenced based surgery and who has contemporary audit evidence of safety of practice from performing complex surgery when he / she performs such operations infrequently. (Item 5) A novice to the area, would see the obvious rationale to transfer these operations to a single center where there can be a concentrations of the cases so as to allow volume and experience to accumulate. Those experienced in the profession would however, recognise that within our individual surgical practices, if we were to extend this principle more widely, we would have a collapse of the surgical service delivery. Surgeons regularly perform operations for which we are well trained and qualified and, over an extended period of time, operations that we have performed with reasonable volume with demonstrable quality patient outcomes, but we still perform infrequently. Orthopaedic examples may include an ankle arthrodesis, a sub-talar fusion, a knee arthrodesis, a below knee amputation, shoulder replacements. Generalists with experience may feel comfortable performing these operations because they are well trained, are professionals and understand when it appropriate to refer and when it is entirely reasonable to perform the operation locally, despite the lack of high volume. If it were otherwise, then the reduction in elective work is likely to compromise the acute work service delivery and the ability to get an overall volume, breadth and depth of experience required to practice.

The practical way forward is to provide collegial support such that the surgeon is not professionally isolated and where he or she may be involved in a greater number of these complex cases in a supportive environment. This may involve movement of the patient or the surgeon or both. This is a patient centered approach. This does not necessarily equate to transferring **all** cases to a different center (**Process centered solution**).

Given this back ground, I now want to make the point of this paper. Health is a complex entity. The role delineation process is a valuable tool that sits within and alongside other valuable tools and other considerations that make up a well functioning health system with efficiency, safety, and sustainability. The Role Delineation should “guide”³ our practice regionally and across the state. It is however, in itself, a blunt tool, simplistic in its approach, in a complex health environment. Solutions to these complex environments should be flexible and adaptive, rather than flat and regimented. Health

³ Working Draft Tasmanian Role Delineation Framework. pdf Page 5

service frameworks that are rigid need to be viewed with caution. This is why the following statement on page 5 of the draft paper assumes great significance “It is intended that there is a level of flexibility between the margins of the (Delineation) levels.”

I am of the opinion that much greater gains are to be made by truly concentrating on a patient centered approach, rather than a role delineation focused approach. The priorities of efficiency and sustainability, performance and safety, led by access to the correct data presented in the right way in a timely fashion and by a more flexible, integrated approach between regions. As iterated by a number of investigations, the state’s health system needs to be better governed and I am of the opinion that the transition to a single state health service will give the state a better opportunity to be better governed and lead to the improved outcomes that are required “...for Tasmania to have the healthiest population in Australia by 2025 and a world class health system where people get treatment and support where they need it”.

In practice this does mean a transition of location of surgical health service delivery over the coming years, in a flexible and adaptive way, rather than a rigid simplistic way. There will be greater support for complex cases performed infrequently and there will be more integrated governance over surgical service delivery. More importantly, Tasmanian needs a strengthening of the those other aspects (strong evidence based approach, patient centered, integrated and connected within and without hospitals (including primary health), strong Information, Communication Technology platform that informs performance, quality and risk, an emphasis on education, training and research and a culture of continual improvement. This is the evidence of quality systems and the key to the 2025 vision.

Finally, I wish to make a statement on the role of the TSSSC. I think that this body should be the peak advisory body for surgery within the state. While there is a need for it to improve its representation to the broader church of surgical service delivery, I think that it has the nidus and capability to move forward with the (new, evolving) state health organisational structure. That said, I am of the opinion that it needs much improved information of surgical performance, surgical quality data, including patient surgical incidents and complaints. It will need to become more professional and adequately financed in its activities if it is to assume the role of peak body for surgical advice. The relationship of the TSSSC / CAG to the broader health organisational structure will be key.

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