Low Back Pain (LBP)
Tier 2 Assessment

National Health Committee Hunga Kaitiitiro i te Hauora o te Tangata	*In confidence*	**Committee report number** 2015165

Low Back Pain (LBP) Tier 2 Assessment

Paper for meeting on: **2 September 2015**

NHC reference: **Action point from NHC December 2014 meeting**

Executive summary

1. The Tier 2 low back pain (LBP) assessment report has been completed with the insertion of relevant data (Appendix 1).

2. This additional data analysed has identified the highest value areas for further assessment.

3. Subject to committee agreement, the executive proposes to run a sector consultation on the proposed areas for further Tier 3 assessment work arising out of the Tier 2 LBP assessment report. The proposed Tier 3 assessment areas include: community and primary care services for chronic LBP patients; and multi-disciplinary care for chronic severe LBP patients.

It is recommended that the committee:

a) **Note** the Tier 2 Low Back Pain assessment report. Yes / No

b) **Agree** to further Tier 3 assessment work in the areas of:

i) Primary and community based care for chronic LBP patients to enable appropriate selection of further interventions within the model of care. This includes pain services, the provision of manual therapy services, and diagnostic imaging. Yes / No

ii) Specialist multi-disciplinary care for chronic severe LBP patients, including: pain management, musculoskeletal assessment and surgical interventions. Yes / No

c) **Approve** the LBP consultation plan proposed for publication of the Tier 2 assessment report on the NHC website. Yes / No

d) **Note** the Aide Memoire to the Minister of Health on undertaking a sector consultation. Yes / No

Appendix 1: Low back pain Tier 2 assessment report
Appendix 2: Draft NHC Aide Memoire to the Minister of Health
Appendix 3: Consultation plan
Appendix 4: Feedback template

Peer review

General Manager	Implementation Manager
✓	✓

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Purpose

4. This paper presents the Tier 2 assessment of low back pain (LBP) and proposes two assessments at the Tier 3 level. The Tier 2 LBP assessment is presented in Appendix 1.

5. The Tier 2 assessment analyses the current delivery of chronic low back pain services, the evidence for effective interventions and proposes the development of a complete model of care for chronic low back pain. The Tier 2 assessment does not analyse and discuss the two payer funding model for this patient group.

6. The committee is asked to agree on the Tier 3 assessment(s) they wish to undertake, subject to consultation feedback when the Tier 2 document is published.

Background

7. A referral for assessment of spinal fusion was put forward by Waitemata and Auckland District Health Boards (DHBs) as part of the 2013/14 sector reactive referral round.

8. The draft Tier 2 assessment of LBP was previously presented to the committee. The committee requested additional data to provide greater clarity of the materiality of LBP issues. A Tier 2 assessment of the model of care for LBP patients was required in order to understand the role and appropriate intervention level of spinal fusion in order to respond to the reactive referral received.

9. The aim of the assessment was to identify the current approach to care for low back pain, and therefore understand if the level of surgical intervention outlined by the referrers was appropriate and what, if anything, might amend the level of demand for this intervention.

10. Interventions which might impact on service demand and improved patient outcomes across the model of care were identified and a new model of care developed. Service gaps in this new model of care were then prioritised for further work by the NHC.

Low back pain Tier 2 assessment report

11. Low back pain is a common condition and frequently experienced. The care of these patients is funded by: Vote:Health, Vote:ACC and private insurance/out of pocket funding. Care is provided regardless of funding source by primary and community services and secondary care hospitals.

12. The rate of care delivery varies by funding source. The following diagram provides a summary overview for Vote:Health and ACC funded patients over the model of care of LBP.

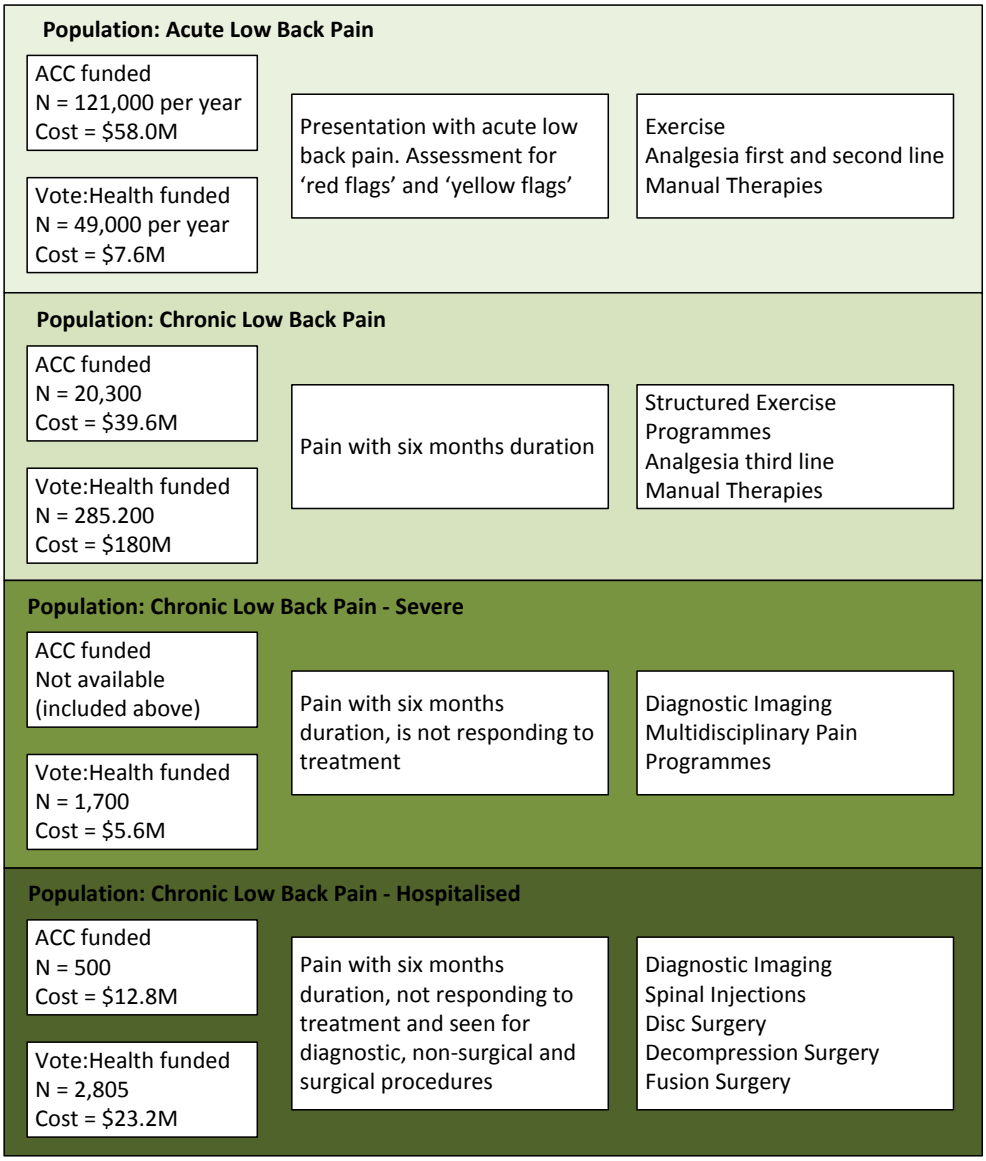

Diagram 1: National Health Committee Tier 2 Assessment: Low Back Pain: A pathway to prioritisation Sept 2015

Discussion

13. There are significant economic costs for the country from prolonged loss of function leading to decreased work productivity and disability payments covered by ACC or other social welfare benefits. The estimate of non-health care costs of LBP is $2.6 billion, putting the total costs of LBP at close to $3 billion.

14. New Zealand, through Vote:Health and Vote:ACC, spends $321.2 million per annum on the care of patients with acute and chronic low back pain, with $36 million on direct hospitalisation costs.

15. Over the three-year period 2011/12 to 2013/14, approximately 11% of spinal fusions done were not clinically indicated. These hospital events totalled approximately $2.5 million over this period, which might have been better invested in services in other settings that delay or avoid the need for surgery.

16. In addition to unwarranted surgery costs, the patient benefit and return on investment from $321.2 million in other cares is also likely to be limited, given New Zealand does not currently operate a complete evidence-based model of care for the treatment of chronic low back pain.

17. Developing the missing components of the model of care is likely to be of considerable benefit to patients by reducing the level of incapacity and disability by intervening early in their clinical course.

18. For all funders (Vote:Health, Vote:ACC and private insurers), having certainty around the requisite levels of investment in services to effectively care for low back pain patients is essential in order to ensure the maximum return on investment is achieved within fixed resources.

19. For service providers, a complete model of care provides clear guidance around where and when services need to be provided. By providing the right type of care, unnecessary service utilisation is avoided and better use is made of scarce surgical resources.

Proposed Tier 3 assessments – appraisal against NHC domains and decision-making criteria

20. Options and appraisal of potential interventions for further assessment at the Tier 3 level are presented in the Tier 2 document and are summarised below.

Clinical safety and effectiveness

21. Evidence-based model of care pathways only partly exist for acute and chronic LBP and the optimum level of the provision of various therapies is unclear. There is evidence for the positive effect of analgesia, physical therapy and psychological interventions.

22. The effectiveness of surgical interventions varies between indications and surgery is recommended only after other options have been exhausted. Analysis performed by the executive suggests that about 11% of Vote:Health spinal fusion procedures in the last three years were performed for indications with low evidence of benefit.

Health and independence gain

23. When care is sub-optimal, patient outcomes may be worse, with increased risk of progression to chronic LBP, and there will be need for more complex services in the long-term. A stratified approach to the provision of physiotherapy shows improvement in disability, quality of life and cost savings compared to standard care.

24. Accepting that specialised chronic pain services are effective, improved access to services could give improved clinical care to an appropriate patient population. Effective care may then reduce the uptake in surgery in patients who are better managed with alternative means as an outcome.

Materiality

25. The largest patient groups for LBP in New Zealand are Vote:Health funded chronic patients, at over 285,000 people; followed by ACC acute LBP patients at 120,000 per annum; then Vote:Health acute LBP patients at around 50,000 per annum.

26. The estimated number of patients seen annually in specialised pain services (around 1,700), is about two and a-half times the number of Vote:Health total surgical cases. This number may be considered low in light of the expected benefits of MDPP (multi-disciplinary pain programme) services and the selection of appropriate patients for surgery. There is also possibly sub-optimal access to physiotherapy for these patients.

Societal and ethical (equity and acceptability)

27. Access to clinical services and therapists is easier to identify for the ACC funded individuals and appears to occur at a higher level than for Vote:Health publicly funded patients with LBP (though the available data has limitations). For both acute and chronic LBP patients, the level of services accessed and the average cost of care funded by ACC is significantly greater than that estimated from available data for Vote:Health public system provision.

28. This may be explained by ACC's entitlement-based and self-funding system and their focus on return to work. Though it is not known what the optimal level of treatment should be, the apparent difference between ACC funded and Vote:Health funded patients may indicate that the latter are receiving less than optimal early care while the former may be over treated.

29. If the data presented is a true reflection of service provision, then patients having surgery funded in the Vote:Health public system receive less rehabilitation services than those funded by ACC. While the data analysed needs to be viewed with some caution, it indicates that a greater proportion of surgical patients have greater contact with additional care services than non-surgical patients and that ACC funded patients have greater contact with additional care services.

30. The provision of specialist pain services appears under-provided. Additionally, the provision of services varies across geographical regions, potentially affecting patient care. The variation in the rate of spinal fusion and laminectomy procedures between DHBs suggests that there may be geographical inequity in access to these procedures. While this may relate to funding issues, it also may reflect a lack of consensus in clinical opinion on the effectiveness of spinal fusion and which patients will benefit.

Cost effectiveness

31. Limited cost effectiveness evidence has been found in the Tier 2 assessment, but studies indicate stratified and targeted approaches based on severity and the use of combination therapies are the most effective. A stratified approach shows improvement in disability, quality of life and cost savings compared to standard care.

32. From an ACC perspective, their costs of treatment and rehabilitation are offset by reduced compensation for ACC clients, eg compensation for lost earnings. This is not the case for Vote:Health funded patients, where optimal treatment in the earlier stages of the patient pathways may prevent later costs for more specialised and expensive interventions.

Feasibility of adoption

33. Assessing the feasibility of an expansion of various interventions is beyond the scope of this Tier 2 assessment. However, any further assessment work will need to consider the impact and feasibility of adoption of any recommended changes to the model of care for LBP. For example, workforce implications.

Policy congruence

34. In Budget 2015, an extra $98 million was announced to provide more New Zealanders with timely elective surgery and to improve the prevention and treatment of orthopaedic conditions. This includes $30 million over three years to lift surgery for people with a range of orthopaedic conditions (such as hip, knee, shoulder and spinal conditions) and $6 million to create community based multi-disciplinary early interventions teams for diagnosis and management of orthopaedic conditions to help improve patients' quality of life and avoid unnecessary hospital visits.

35. The costs of LBP are greater than the health care costs alone. An improvement in health and independence for patients with LBP can be expected to have a positive impact on other social support costs and economic productivity.

Tier 3 assessment approach

36. The Tier 2 assessment indicates that further assessment work could be of high value in the following areas:

    a. Primary and community based care for chronic LBP patients to enable appropriate selection of further interventions within the model of care. This includes: pain services, the provision of manual therapy services, and diagnostic imaging.

    b. Specialist multi-disciplinary care for chronic severe LBP patients focused on specialist multi-disciplinary pain management.

37. Diagram 2 below illustrates the proposed Tier 3 assessments within the model of care for chronic low back pain. These Tier 3 assessments will provide evidence-based commissioning advice for service funders and care providers on the following:

- Service components and service delivery design including service connectivity requirements within community and primary care settings.
- Size and description of target populations.
- Service level investment requirements for operational costs, workforce and capital.
- The expected return on investment including the impact on referrals to secondary care for first specialist assessments, investigations and medical and surgical admissions and procedures.
- Service performance expectations and indicators, including for example, the levels of intervention at part of the model of care.

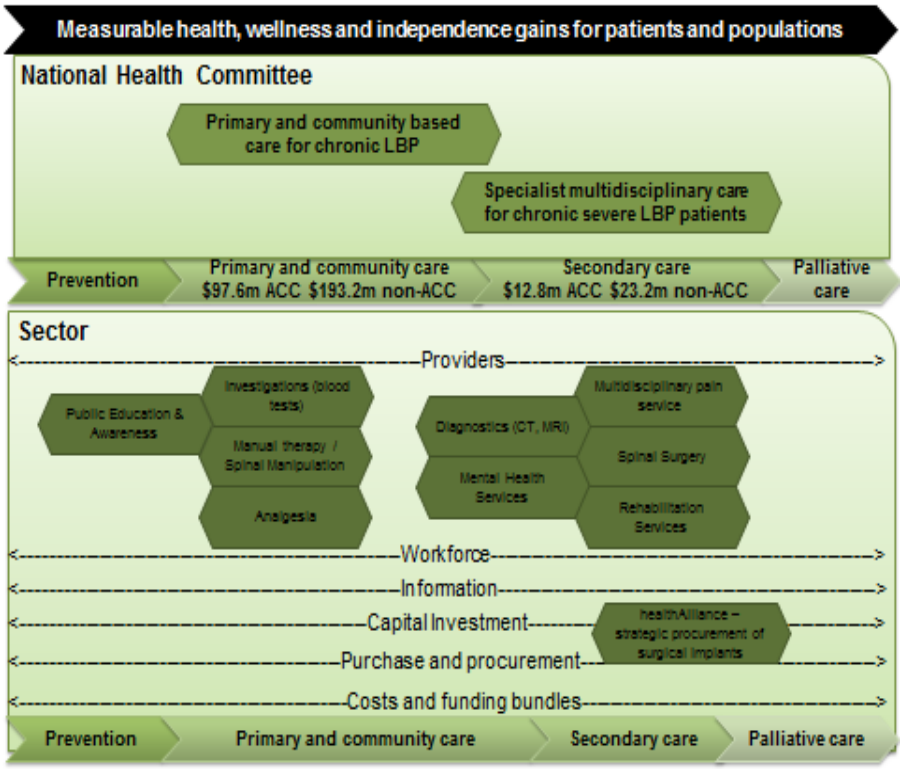

Diagram 2: Chronic Low Back Pain Model of Care illustrating proposed Tier 3 Assessments

38. The NHC uses an inclusive approach in its tiered business cases for change working with our four stakeholder groups to develop appropriate assessments. For the two Tier 3 assessments proposed here, it will be extremely important to work collaboratively with the relevant service funders (Vote:Health and Vote:ACC), to ensure that the resulting model of care and advice to the Minister and sector accurately describes the changes needed to improve patient care and recognises the different roles and responsibilities of the two funding agencies.

39. A draft of this Tier 2 assessment report has been shared with ACC for their review and advice on the accuracy of the information and analysis, and to allow them to advise the ACC Board and the Minister of ACC regarding the likely publication of this assessment. ACC have not raised any concerns regarding the accuracy or materiality of the analysis.

Next steps

40. Subject to the committee's agreement, it is intended to consult on the LBP Tier 2 assessment and the committee's decision-making paper (this paper) for a six-week period.

41. An Aide Memoire (Appendix 2) will be provided to the Minister of Health, following the principle of 'no surprises'. A consultation plan (Appendix 3) and feedback template (Appendix 4) will also be provided.

42. Feedback, along with draft project plans, will be brought back for the committee's consideration in December 2015.