

Template 1: Budget Initiative template

Overview and context

Key Question/area	Comment/answer
Agency to complete	
Portfolio of lead Minister	Hon Dr David Clark, Minister of Health
Portfolio(s) of other Ministers involved (if this is a joint initiative)	N/A
Votes impacted	Health
Initiative title	Planned Care – Volume
Initiative description	This funding will purchase [REDACTED] Planned Care Interventions to improve access to Planned Care in line with population growth and aging.
Type of initiative	Priority aligning
If this initiative relates to a priority, please outline the specific priority/ies it contributes to	<p>This initiative directly aligns with the Budget priority areas of:</p> <ul style="list-style-type: none"> Reducing child poverty and improving child wellbeing Supporting mental wellbeing for all New Zealanders, with a special focus on under 24s <p>Additionally, this initiative has indirect/positive flow on impacts to the priority areas of:</p> <ul style="list-style-type: none"> Lifting Māori and Pacific incomes, skills and opportunities Creating opportunities for productive businesses, regions, iwi and others to transition to a sustainable and low-emissions economy
Does this initiative relate to a commitment in the Coalition Agreement, Confidence and Supply Agreement, or the Speech from the Throne?	No
Agency contact	Jess Smaling, Manager Electives and National Services, Ministry of Health Jason Tualima, Senior Business Investment Analyst, Ministry of Health
Responsible Vote Analyst	s 9(2)(a) [REDACTED] [REDACTED] [REDACTED]

Funding

Funding Sought (\$m)	2019/20	2020/21	2021/22	2022/23 & outyears	TOTAL
Operating	s 9(2)(f)(iv) [REDACTED]				

Funding Sought (\$m)	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	TOTAL
Capital ¹	-	-	-	-	-	-	-	-	-	-	-

¹ The first 10 years of capital investment is counted against the multi-year capital allowance. Please reflect the full 10 year profile in the table.

1. Executive Summary

1.1 EXECUTIVE SUMMARY

A. Short summary of the proposed initiative and expected outcomes.

This initiative is seeking new funding of \$ [REDACTED] million to increase Planned Care Interventions by [REDACTED] in line with population growth and aging.

This initiative builds on past initiatives for Elective Surgery but aims to support the new 'Planned Care' Strategic Approach due to be implemented from 2019/20. This initiative will grow Planned Care Interventions while encouraging delivery through contemporary models of care. These models of care could include delivery care in less intensive care settings or through the use of non-surgical alternatives in order to support patients get the right care, at the right time, in the right setting and improving wellness through prevention and early intervention and innovation.

Planned Care surgical interventions from inpatient, outpatients and community settings can help to address a range of conditions, from cancer and heart failure, through to loss of sight or functional movement, and includes:

- Curative surgery –treatment that will / can 'cure' a condition. For example, surgery that eliminates a malignant tumour, or bariatric surgery that reverses diabetes.
- Life enhancing surgery – treatment that improves a person's function, enabling better quality of life and personal contribution. For example, plastic surgery following a serious burn or hip replacement for debilitating osteoarthritis.
- Palliative surgery – minimising pain and discomfort for those living with incurable conditions. For example, surgery to ease pain, disability or other complications that come with advanced disease including cancer. Surgery may improve quality of life, but not cure the condition.

Planned Care non-surgical early interventions can help to address a range of conditions and in some instance prevent or delay the need for a surgical intervention. Current non-surgical early interventions are focused on musculoskeletal conditions such as osteoporosis arthritis of the hip and knees.

Access to Planned Care has clear benefits to improving the wellbeing of individuals, whānau and communities through curing or improving health conditions to improve quality of life through surgical and non surgical interventions. This has a positive flow on effects by reducing pain and anxiety, restore people's independence, enable them to return to full time work or reduce the number of days children spend out of school, and can delay the need for people to enter residential care. Planned care interventions both surgical and on surgical can save people's lives, or can allow them to live longer in good health. With a focus not just on surgical interventions but preventions and early intervention to improve wellness for all people.

Successive Budgets have continued to invest in Planned Care (elective surgery). Cabinet approved funding to increase elective surgery in 2006 - CBC (06) 238 and CBC Min (06) 16/23. Since that time there has been additional annual investment, with recent Budget allocations to support increases in volume in Budget 16 (\$12m), Budget 17 (\$6m), and Budget 18 (\$31.5m). Dedicated cost pressure funding was received in Budget 18 (\$8 m).

2. The Investment Proposal

2.1 Description of the initiative and problem definition

What is this initiative seeking funding for?

This initiative requires [REDACTED] million to directly purchase [REDACTED] Planned Care interventions. This supports the new Planned Care Strategic Approach which aims to increase access to services in line with population growth and aging, and encourage the use of less intense care setting and the use of non-surgical alternatives. The Initiative will purchase growth across the areas outlined below:

- s 9(2)(f)(iv)

This initiative directly aligns with the priority areas of Reducing child poverty and improving child wellbeing, and supporting mental wellbeing for all New Zealanders, with a special focus on under 24s. Regardless of age, ethnicity, and deprivation those who are physically well are more likely to be in paid employment, participate in education and the community. Children who are healthy are more likely to participate effectively in learning and educational environments. Access to Planned Care Interventions both surgical and non-surgical can support improved mental health, as if physical conditions are not addressed through Planned Care Interventions this can impact on people's mental health over their life time.

Why is it required?

Demand for Planned Care Interventions is continuing to increase. This partly reflects population aging, as people are living longer lives with complex long-term health conditions throughout their lifetime. It also reflects rising public expectations of the health service and innovations which have, over time, widened what can be cost-effectively treated.

Although the provision of Planned Care (elective surgery) has been rising since 2008, there still remains significant public concern around the level of 'unmet need', with many professionals advising that the level of need is still outweighing current publicly-funded resourcing allocations. This is communicated in sector feedback, private research findings, developmental National Patient Flow data, Ministerials and complaints, HDC and HQSC cases, and by community and social groups.

While doing more Planned Care surgical interventions would continue to support improved access to the population, we need to be thinking differently around how we use resources such as different workforce groups and the physical location of services to meet the ongoing population need. In order to address the challenges a new strategic approach for Planned Care is being developed for implementation in 2019/20. This new approach will grow Planned Care Interventions while encouraging delivery through contemporary models of care such as:

- delivering care in less intensive care settings (outpatients and community)
- the use of non-surgical alternatives
- and increased innovation

This new strategic approach will support patients get the right care, at the right time, in the right setting, and will build resilience in the health system and improving wellness through prevention and early intervention and innovation.

2.2 Options analysis and fit with existing activity

What other options were considered in addressing the problem or opportunity?

The following options were considered when considering the growth bid:

1. Disestablish the initiative, and instead of holding funding centrally, devolve funding to DHBs via the usual PBFF mechanism and rely on DHBs to effectively prioritise and deliver at existing levels, with performance management support from the Ministry. This option has been discarded as past trends have shown that without effective performance and funding

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	<p>levers in place, DHBs will prioritise access to services based on immediate demand and resource availability. This may mean acute demand takes priority over elective services, and inequities may increase, with DHBs delivering more services where specialist workforce and capacity availability exists, rather than based on local population need. There is also risk that local DHB financial pressures may impact on delivery.</p> <ol style="list-style-type: none"> 2. Scaling back the initiative by reducing the amount of funding sought and/or by extension, reducing the number of Planned Care interventions delivered. This bid has already been scaled to keep up with population and aging, if this is reduced then activity will not keep up and access would reduce. 3. Using marginal pricing instead of the National Price. Marginal pricing in this context would be where the price paid for a procedure includes just the costs required to provide the surgical intervention, with none of the overhead costs that are included in the National Price. This option has been discarded for the following reasons: <ul style="list-style-type: none"> • DHBs are likely to prioritise fully funded activity ahead of marginally funded activity, reducing any incentive to increase elective throughput and meet population need. • A change to marginal pricing would require a very complicated inter-district pricing approach to address variation in capacity and marginal cost across providers. DHBs also use various outsourced providers including both public and private facilities adding to the complexity of using marginal pricing. • Marginal pricing would be very difficult to administer. It would require a significant annual process to identify a marginal pricing framework, consult on changes to marginal pricing, and make payments via marginal pricing. This annual process would also need resourcing to a similar level of the current national pricing programme (which is commitment of Departmental Expenditure in FTE time and resources) from both DHBs and Ministry of Health.
<p>What other similar initiatives or services are currently being delivered?</p>	<p>The Planned Care initiative is unique and is the only programme funded (through DHBs and Ministry of Health) to support non acute interventions for conditions including surgical and non-surgical options. While the Accident Compensation Corporation (ACC) also fund for the delivery of surgical and non-surgical care, this is as a result of an Accident or misadventure and fits under the requirements for this national insurer. ACC does not fund care outside of these explicit scenarios.</p>
<p>What other, non-spending arrangements in pursuit of the same objective are also in place, or have been proposed?</p>	<p>Across New Zealand there are some charity programmes to support the delivery of surgical interventions (e.g. Canterbury Charity Hospital). These charities do not receive direct government support through the Ministry of Health but deliver surgical care for patients who have not been able to access Planned Care due to their condition not meeting the level need required to receive care within the public system.</p> <p>These groups believe they are addressing the 'unmet' demand from the public health system.</p>
<p>Strategic alignment and Government's priorities/direction</p>	<p>The Planned Care initiative is aligned to the overall government priorities of Achieving Equity and Child Wellbeing, which link into the Budget priority areas of 'Reducing child poverty and improving child wellbeing', and 'Supporting mental wellbeing for all New Zealanders, with a special focus on under 24s'.</p> <p>The alignment to government's priority of 'Achieving Equity' is strong as the Planned Care Initiative is to support delivery of Planned Care Interventions across the country, through contemporary model of care to enable people to receive the right care at the right time. Increasing Planned Care Interventions will have impacts across the country both geographically and for the different population groups. This would support achieving equity as we would be delivering more activity per population and for particular population groups such as those over 65 years old (44%,</p>

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84,700 discharges), children 0-14 year (11%, 20,792), and Māori and Pacific people (18% 35,200 discharges) (figures based on current Planned Care

This aligns with the government priority of **'Child Wellbeing'** with 11% (22,300 discharges) of all Planned Care (elective surgery) being delivered to children (aged between 0-14 years). This links strongly to **'Reducing child poverty and improving child wellbeing'**. Children who are healthy are more likely to participate effectively in learning and educational environments. Some examples of how Planned Care Interventions, specifically surgery support child wellbeing are outlined below:

- Surgery may relieve children of, or lessen the burden of, image related anxiety due to physical deformities. Orthopaedic surgery can also assist children born with disabling conditions such as scoliosis, cerebral palsy or club foot, enabling them to ambulate or move physically in ways that were not possible without surgical intervention.
- Plastic surgery can assist children born with a cleft palate or 'prominent ears'. It can help people of any age who are impacted by deformities or disfigurement, from burns, congenital defects, or as a result of cancer related trauma. Examples of impacts that have been linked to these conditions include bullying and depression.
- Ear Nose and Throat Surgery can assist with resolving ongoing middle ear infections, or throat infections in children have been linked to poorer educational outcomes, and even IQ loss. Some studies have gone further to link these educational outcomes to later behavioural issues and increased risk of obesity, hypertension, cancer and mental health issues.

In addition if conditions (such as the ones above) are not addressed through Planned Care (both surgical and non-surgical) this can impact on people's mental health over their life time. This aligns to Budget priority of **'Supporting mental wellbeing for all New Zealanders, with a special focus on under 24s'**.

This initiative has indirect/positive flow on impacts to the priority areas of **'Lifting Māori and Pacific incomes, skills and opportunities'**, and **'Creating opportunities for productive businesses, regions, iwi and others to transition to a sustainable and low-emissions economy'**. Planned Care Interventions both surgical and non-surgical can save people's lives, or can allow them to live longer in good health allowing them to contribute to their families, community and society. Regardless of age, ethnicity, and deprivation those who are physically well are more likely to have the income and the inclination to travel, participate in education and the community, volunteer, visit tourist facilities, and spend at retail outlets.

In addition to supporting the Government and budget priorities Planned Care is also one of the Ministry of Health's immediate priorities, with a priority workstream underway to support delivery of a new Planned Care Strategic Approach for 2019/10 to support the delivery of activity through more contemporary models of care.

2.3 Outcomes

Overall outcomes expected from this initiative

Planned Care Surgical Interventions (inpatients and some outpatients) can help to address a range of conditions, from cancer and heart failure, through to loss of sight or functional movement, and includes:

- Curative treatment – surgical treatment that will / can 'cure' a condition. For example, surgery that eliminates a malignant tumour, or bariatric surgery that reverses diabetes.
- Life enhancing treatment – treatment that improves a person's function, enabling better quality of life and personal contribution. For example, plastic surgery following a serious burn or hip replacement for debilitating osteoarthritis.

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- Palliative surgery – minimising pain and discomfort for those living with incurable conditions. For example, surgery to ease pain, disability or other complications that come with advanced disease including cancer. Surgery may improve quality of life, but not cure the condition.

Planned Care non-surgical early interventions can help to address a range of conditions and in some instance prevent or delay the need for a surgical intervention. Current non-surgical early interventions are focused on musculoskeletal conditions such as osteoporosis arthritis of the hip and knees.

Demand for Planned Care Interventions is continuing to increase. This partly reflects population aging, as people are living longer lives with complex long-term health conditions throughout their lifetime. It also reflects rising public expectations of the health service and innovations which have, over time, widened what can be cost-effectively treated.

Good access to Planned Care supports the wellbeing domains of Health, Jobs and earnings, Income and consumption, Housing, Civic engagement and governance, and Social connections and Subjective wellbeing. Benefits for the wellbeing domains include:

Health

Access to Planned Care Interventions supports:

- fewer GP visits and less pharmaceutical prescribing costs to manage conditions while waiting for surgery
- fewer community nursing visits as people who receive care will no longer need support at home from community nurses to manage their condition
- reduced growth of emergency department attendances and other acute presentations, reduced complexity and morbidity, and reduced average cost per procedure (which would otherwise grow faster as complexity increases)
- prevention of falls, which would reduce ambulance call outs, Emergency Department attendances/admissions, inpatient and outpatients attendances
- early interventions can prevent or delay the need for surgical intervention
- a reduction in hospice care for patients.

Jobs and Earnings, and Civic Engagement and Governance

A proportion of people may not be full time in paid employment, or may leave the workforce earlier due to the impacts of their condition. Access to Planned Care can enable people to stay in full time employment for longer or maintain their existing level of employment. This would result in more personal income, spending more, and increased tax revenues.

Income and consumption

Without access to Planned Care some people with debilitating conditions would qualify for a form of disability allowance. With timely access to Planned Care the need for disability allowances would reduce by providing care to people prior to disability occurring, or shortening the length of time the disability impacts.

Housing

A proportion of people may enter rest home care due to the impacts of their condition. Access to Planned Care can enable people to stay independent and living in their own home for longer.

Social connections and Subjective wellbeing

Planned Care can save people's lives, or can allow them to live longer in good health allowing them to contribute to their families, community and society. Regardless of age, ethnicity, and deprivation those who are physically well are more likely to have the income and the inclination to

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	travel, participate in education and the community, volunteer, visit tourist facilities, and spend at retail outlets.						
2.4 Implementation, Monitoring and Evaluation²							
How will the initiative be delivered?	<p>The management and implementation of the Initiative would be undertaken by the Elective and National Services team within in the Ministry of Health. The team has close engagement with DHBs, which enables clear expectation setting, setting of commitments in line with policy, allocation of funding, and related performance conversations. Conversations include senior clinical and management staff.</p> <p>Centrally-held funding allows the Ministry of Health to set targets, and monitor DHB performance and is effective in ensuring DHBs continue to prioritise access to Planned Care Interventions (both surgical and non-surgical). DHBs receive payment following patients' receipt of a Planned Care Intervention (i.e. a payment for delivery of surgery or early intervention attendance).</p> <p>As with the previous Elective Surgical Initiative, expectations for Planned Care Intervention delivery would be agreed as part of the annual planning cycle, and formalised as a Crown Funding Agreement variation.</p> <p>There are some risk around the delivery of the Planned Care initiative. The direct risks to delivery of this initiative are outlined below:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #e6f2ff;">Risk</th> <th style="background-color: #e6f2ff;">Mitigation</th> </tr> </thead> <tbody> <tr> <td style="background-color: #e6f2ff;">DHBs are unable to deliver the agreed interventions (due to workforce or capacity, see below)</td> <td style="background-color: #e6f2ff;"> <p>There are significant controls in place to mitigate this from happening, as are outlined in below under the implementation and monitoring section.</p> <p>There is extensive performance monitoring against agreed plans.</p> <p>Plans are negotiated each year with DHBs, and DHBs are supported to improve efficiencies and pathways through service improvement programmes supported by the Ministry of Health.</p> <p>A decision to moderate the growth expectations could be made in order to support achievability, but this would need to be considered in the context of our growing and ageing population and the need to 'keep up'.</p> </td> </tr> <tr> <td style="background-color: #e6f2ff;">Theatre capacity If theatre capacity is limited then DHB may not be able to deliver the discharges required</td> <td style="background-color: #e6f2ff;"> <p>Most DHBs currently provide surgery using a mixed model of internal workforce and physical capacity, and outsourcing to private hospital providers the proportion of privately delivered surgery has remained relatively consistent over past years, in an environment of increasing delivery.</p> <p>The Ministry believes that the implementation of the new Planned Care strategic approach will assist in addressing this through offering the ability to complete activity in more contemporary setting that may not be theatres. In addition the Ministry believes there is currently sufficient capacity in New Zealand to support maintaining current contract levels of inpatient surgery, though this has reduced significantly from past years and the specific impact will vary by DHB and region.</p> </td> </tr> </tbody> </table>	Risk	Mitigation	DHBs are unable to deliver the agreed interventions (due to workforce or capacity, see below)	<p>There are significant controls in place to mitigate this from happening, as are outlined in below under the implementation and monitoring section.</p> <p>There is extensive performance monitoring against agreed plans.</p> <p>Plans are negotiated each year with DHBs, and DHBs are supported to improve efficiencies and pathways through service improvement programmes supported by the Ministry of Health.</p> <p>A decision to moderate the growth expectations could be made in order to support achievability, but this would need to be considered in the context of our growing and ageing population and the need to 'keep up'.</p>	Theatre capacity If theatre capacity is limited then DHB may not be able to deliver the discharges required	<p>Most DHBs currently provide surgery using a mixed model of internal workforce and physical capacity, and outsourcing to private hospital providers the proportion of privately delivered surgery has remained relatively consistent over past years, in an environment of increasing delivery.</p> <p>The Ministry believes that the implementation of the new Planned Care strategic approach will assist in addressing this through offering the ability to complete activity in more contemporary setting that may not be theatres. In addition the Ministry believes there is currently sufficient capacity in New Zealand to support maintaining current contract levels of inpatient surgery, though this has reduced significantly from past years and the specific impact will vary by DHB and region.</p>
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² This doesn't necessarily have to include a full implementation and evaluation plan, however the information provided must provide confidence that the proposal will be successfully delivered and there is a plan to ensure that the outcomes described are actually achieved.

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	<p>Workforce There are already a number of surgical specialties where availability of specialist workforce is a constraint.</p>	<p>National and local initiatives are underway to support vulnerable workforce groups.</p>
	<p>National Bowel Screening Programme There will be ongoing downstream impacts on elective surgery demand during the roll-out of a National Bowel Screening Programme.</p>	<p>As part of agreeing Planned Care delivery plans we will be encouraging those DHBs who are rolling out bowel screening to plan investment and resource within General Surgery services to accommodate any increases.</p>
	<p>Private insurance market As New Zealanders reduce coverage or uptake of private insurance, the health costs are likely to transfer to the public system.</p>	<p>No mitigation or control identified</p>
	<p>Accident Compensation Corporation Ongoing interactions between the work of the Ministry of Health and that of ACC.</p>	<p>No mitigation or control identified, however work has begun through the Orthopaedic</p>
<p>How will the implementation of the initiative be monitored?</p>	<p>The Ministry's monitoring framework evaluates DHB performance against delivery expectations on a monthly, quarterly and annual cycle. Reporting is also completed against the Crown Funding Agreement outlining the agreement for funded Planned Care Interventions, including discharges, caseweight discharges, procedures and non-surgical interventions. Results are generated directly from National Collections, and take a cumulative year-to-date view of performance against plan.</p> <p>Performance information (as well as other key areas of focus) are reported to the Director-General of Health. Also on a quarterly basis, year to date performance against plan is examined and performance monitoring information is provided as part of the DHB accountability framework. DHBs report performance to their Governance Board monthly.</p> <p>Funding is paid quarterly on a payment-for-performance model, based on delivery against agreements, by DHB of Domicile as per the Crown Funding Agreement.</p>	
<p>Describe how the initiative will be evaluated</p>	<p>Evaluation activities outside of achievement of the Planned Care agreements include:</p> <ul style="list-style-type: none"> • Quality evaluation, with existing measures around timeliness of access, patient communication, and equity of access • Strategy and policy reviews of specific interventions to update advice on care models and benefits (review of particular procedures or new technology) • Development of National Patient Flow collection: as data quality is improved this collection will evolve to provide information on the number of people who are referred for a First Specialist Assessment or elective treatment, who are considered appropriate for surgery, and who don't get access due to funding and resourcing constraints 	

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- The Office of the Auditor-General has evaluated 'Scheduled Services' performance in 2011, 2013 and 2015. Reports are available on the OAG website.

A range of initiatives across primary and secondary care are important in supporting the appropriate delivery of additional Planned Care Interventions.

3. Wellbeing Impacts and Analysis

3.1 Wellbeing domains – People's experience of wellbeing over time

Identify and quantify how the initiative impacts on wellbeing domains

Please fill in Table 3.1 below. Impacts need to be grouped under the relevant domains, as provided in the key below. Use the relevant domains, ordering them from top to bottom according to which domain your initiative achieves the greatest impact in. This analysis must also capture any negative impacts.

The wellbeing domains are outlined here for you to use in your table:

Civic engagement and governance 	Jobs and earnings 
Cultural identity 	Knowledge and skills 
Environment 	Safety 
Health 	Social connections 
Housing 	Subjective wellbeing 
Income and consumption 	Time-use 
	Other

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3.1 Wellbeing domains – People’s experience of wellbeing over time

Hip and Knee Procedures

Domains	Impact(s) description	Who are affected?	Magnitude of impact	How big?	Realised in	Evidence base	Evidence quality
<p>List domains, using the key above, where there is an impact. Order domains by magnitude of impact, i.e. largest impact domain first³.</p> <p>Primary</p> <p>Health </p>	Fewer GP visits	The average age of a person who received a hip or knee procedure is 68, with 67% of patients aged over 65 years. 15% of the people that receive a hip or knee procedure identify as Māori or Pacific. 46% of people who receive a hip or knee replacement are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 34% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018).	Reduce visits for 50% of people, assuming they would visit their GP once per year due to this condition. Reduce visits for 50% of people, assuming they would visit their GP twice per year due to this condition.	s 9(2)(f)(iv)	<5 years ongoing	Nature of evidence and key references	Medium
	Fewer community nurse (or similar) visits	The average age of a person who received a hip or knee procedure is 68, with 67% of patients aged over 65 years. 15% of the people that receive a hip or knee procedure identify as Māori or Pacific. 46% of people who receive a hip or knee replacement are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 34% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018).	Assumes that 10% of people who do not receive a hip or knee procedure they need would receive services from a community nurse of similar on average ½ hour per week for a three year period while they wait for surgery. If they received surgery those people (10%) would give eight weeks of ½ hour visits while they recovery from surgery		<5 years ongoing		Medium
	Reduced number of falls	The average age of a person who received a hip or knee procedure is 68, with 67% of patients aged over 65 years. 15% of the people that receive a hip or knee procedure identify as Māori or Pacific. 46% of people who receive a hip or knee replacement are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 34% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018).	Assumes that in each year that people wait for surgery with this condition, 2% would experience a fall and the effect of a fall. Modelling based on 2% falling in the first year, 2% in the second year and 2% in the third year. If surgery is received, in the first year after surgery there is still a risk of falling but this is ¼ of what it was before surgery. In subsequent year the risk is insignificant.		<5 years ongoing	Patients with osteoarthritic joints are more likely to fall: http://www.sportsarthritisresearchuk.org/seoa/news/osteoarthritis-affected-joints-can-increase-a-persons-fall-risk.aspx Robertson MC, Campbell AJ. Falling costs: the case for investment. Report to Health Quality & Safety Commission. University of Otago: Dunedin, New Zealand, December 2012.	Medium
	Incremental quality adjusted life years gained	The average age of a person who received a hip or knee procedure is 68, with 67% of patients aged over 65 years. 15% of the people that receive a hip or knee procedure identify as Māori or Pacific. 46% of people who receive a hip or knee replacement are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 34% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018).	QALYs assumed to be gained for 90% of people. For 80% of people: 0.16 per year for 3 years (based on a total of 0.8 QALYs per person over 5 years). For 20% of people (0.16 per year for 15 years based on the average age of those receiving surgery (68 years) through to the life expectancy of a 68 year old (89 years). Assumes 80% will get surgery but on a delayed timeframe and 20% will never receive surgery.		<5 years ongoing	QALY: Fordham R. et al: The Economic Benefit of Hip Replacement: A 5 year follow-up of costs and outcomes in the Exeter Primary Outcomes Study. BMJ. 2012 Life expectancy – March 2018 update https://www.stats.govt.nz/topics/life-expectancy	Medium

³ Please note that in CFISnet, you will need to include the primary domain impacted, and up to two secondary domains impacted by the initiative. You can include as many domains as relevant in this table.

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<p><i>Secondary</i> Housing </p>	<p>Reduced number of people entering rest homes</p>	<p>Primary impact is for people requiring hip and knee replacement surgery who may need to enter a rest home early to support their care. A secondary impact is on their families/caregivers who need to support more intensive rest home care, and the community who no longer benefit from their contribution.</p> <p>Government – District Health Boards</p>	<p>5% of people requiring surgery would experience a deterioration of health status, injury, and mental health issues over a 3 year wait, which would lead to moving into a rest home where they would spend an average of 15 years (based on life expectancy of 68 year old). Assumption that if the people receives surgery they need, it would cut this rate in half (i.e 2.5% move into a rest home). Assume 50:50 public and private rest home contribution.</p>	<p>s 9(2)(f)(iv)</p>	<p><5 years ongoing</p>	<p>Life expectancy – March 2018 update https://www.stats.govt.nz/topics/life-expectancy</p>	<p>Medium</p>
<p>Jobs and earnings </p>	<p>Extra personal income generated (after tax and adjusted to 25%)</p>	<p>Primary impact is for people requiring hip and knee surgery who may not be able to work due to their condition. A secondary impact is on their families/caregivers who may also need time off work to support their care, and the community who no longer benefit from their contribution.</p>	<p>Assumes 10% of people are not in paid employment due to the effects of their condition 75% of those people (7.5% of all people) who were out of paid employment due to their condition returned to paid employment two months after surgery. Length of impact is calculated based on proportion of elective Hip and Knee patient under 65 (33% in 2017/18), and the average age of those under 65 (57 years old). Assumes 80% will get surgery but on a delayed timeframe and 20% will never receive surgery.</p>		<p><5 years ongoing</p>	<p>The Effect of Total Hip Replacement on the Employment Status of Patients Under the Age of 60 Years: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1964053/</p>	<p>Medium</p>
<p>Income and consumption </p>	<p>Reduced need for disability allowance for three years</p>	<p>The average age of a person who received a hip or knee procedure is 68, with 67% of patients aged over 65 years. 15% of the people that receive a hip or knee procedure identify as Māori or Pacific. 46% of people who receive a hip or knee replacement are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 34% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018).</p> <p>Government – primary health sector Government – District Health Boards</p>	<p>10% of people requiring a hip/knee procedure would qualify for disability allowance for 3 years.</p>		<p><5 years ongoing</p>		<p>Medium</p>
	<p>Reduced need for disability allowance for two years</p>	<p>The average age of a person who received a hip or knee procedure is 68, with 67% of people aged over 65 years. 15% of the people that receive a hip or knee procedure identify as Māori or Pacific. 46% of people who receive a hip or knee replacement are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 34% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018).</p> <p>Government – Primary Health Sector Government – District Health Boards</p>	<p>10% of people requiring a hip/knee procedure would qualify for disability allowance initially, but would qualify by the end of the second year of waiting.</p>		<p><5 years ongoing</p>		<p>Medium</p>
<p>Civic engagement and governance </p>	<p>Extra tax income generated (adjusted to 25 %)</p>	<p>Primary impact is the government who would see a reduction in tax income generated from people requiring hip and knee surgery who may not be able to work due to their condition. A secondary impact is on their families/caregivers who may also need time off work to support their care, and whose tax income generated may also reduce.</p>	<p>Assumes 10% of people are not in paid employment due to the effects of their condition 75% of those people (7.5% of all people) who were out of paid employment due to their condition returned to paid employment two months after surgery. Length of impact is calculated based on proportion of elective Hip and Knee patients under 65 (33% in 2017/18), and the average age of those under 65 (57 years old). Assumes 80% will get surgery but on a delayed timeframe and 20% will never receive surgery.</p>		<p><5 years ongoing</p>	<p>The Effect of Total Hip Replacement on the Employment Status of Patients Under the Age of 60 Years: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1964053/</p>	<p>Medium</p>

BUDGET SENSITIVE

Cataracts

Domains	Impact(s) description	Who are affected?	Magnitude of impact	How big?	Realised in	Evidence base	Evidence quality
List domains, using the key above, where there is an impact. Order domains by magnitude of impact, i.e. largest impact domain first ⁴ .	Identify the impacts, with a separate line for each impact relating to a specific domain	Individuals/families/government/etc? Be as specific as possible. Are there distributional differences?	Relative to the counterfactual key assumptions, quantified to extent possible, and where possible monetised	High/ Moderate/ Low, or where possible present value	<5 / 5-10 / 10+ years	Nature of evidence and key references	High/ Medium/ Low
Primary Health 	Fewer GP visits	The average age of a person who received a cataract procedure is 73, with 81% of people aged over 65 years. 18% of the people that receive a cataract procedure identify as Māori or Pacific. 51% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 29% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018). Government – primary health sector	Assumes 90% of people will visit their GP (or optometrist) due to issues related to cataracts/worsening vision once per years.	s 9(2)(f)(iv)	<5 years ongoing		Medium
	Fewer community nurse (or similar) visits	The average age of a person who received a cataract procedure is 73, with 81% of people aged over 65 years. 18% of the people that receive a cataract procedure identify as Māori or Pacific. 51% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 29% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018). Government – primary health sector	Assumes that 10% of people who do not receive cataract surgery they need would receive services from a community service nurse or similar, on average ½ hour per week for a three year period while they wait for surgery.		<5 years ongoing		Medium
	Reduced number of falls	The average age of a person who received a cataract procedure is 73, with 81% of people aged over 65 years. 18% of the people that receive a cataract procedure identify as Māori or Pacific. 51% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 29% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018). Government – District Health Boards Government – Accident Compensation Corporation	Assume 34% of people requiring cataract surgery would fall on average once per year (assumed across three years). For the 34% of people the risk of falling reduces following cataract surgery to 30% of what it was previously.		<5 years ongoing	Robertson MC, Campbell AJ. Falling costs: the case for investment. Report to Health Quality & Safety Commission. University of Otago: Dunedin, New Zealand, December 2012.	Medium
	Incremental quality adjusted life years gained	The average age of a person who received a cataract procedure is 73, with 81% of people aged over 65 years. 18% of the people that receive a cataract procedure identify as Māori or Pacific. 51% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 29% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018).	QALYs assumed to be gained for 90% of people. For 80% of people: 0.165 per year for 3 years (based on a total of 3.3 QALYs per patient over 20 years). For 20% of people (0.165 per year for 13 years based on the average age of those receiving ophthalmology surgery (73 years) through to the life expectancy of a 73 year old (90 years). Assumes 80% will get surgery but on a delayed timeframe and 20% will never receive surgery.		<5 years ongoing	QALY: Reference: Brown, M. 2014. Life expectancy – March 2018 update https://www.stats.govt.nz/topics/life-expectancy	Medium

⁴ Please note that in CFISnet, you will need to include the primary domain impacted, and up to two secondary domains impacted by the initiative. You can include as many domains as relevant in this table.

BUDGET SENSITIVE

<p>Health </p>	<p>Reduced the number of road accidents</p>	<p>The average age of a person who received a cataract procedure is 73, with 81% of people aged over 65 years. 18% of the people that receive a cataract procedure identify as Māori or Pacific. 51% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 29% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018).</p> <p>Government – primary health sector, District Health Boards, Accident Compensation Corporation, and Police. Families and the community.</p>	<p>1% of people with vision impairment caused by cataracts have an accident each year (assumed vision impairment makes road accidents 5 times more likely than for the general population).</p> <p>Discounted fully due to not using “Value of a Statistical Life”.</p>	<p>s 9(2)(f)(iv)</p>	<p><5 years ongoing</p>	<p>Road accidents: General population risk of 0.2% of being involved in a crash causing injury or death from transport.govt.nz (Reported injury crashes 2014 section 1 Historical Excel file). 3% of road accidents are fatal, 1.1 fatality per fatal accident (transport.govt.nz: Motor Vehicle Crashes in New Zealand 2014). 1% x 3% = 0.003% risk of fatal car accident in which 1.1 statistical lives are lost. Surgery reduces risk of road accidents (assumed all types of road accidents) by 13% (from Karmel, M. New Data Focus on Safety, QOL and Cost Benefits of Cataract Surgery. www.aao.org). 13% reduction in 0.003% risk means post intervention risk of 0.00261%.</p>	<p>Low</p>
<p>Secondary Housing </p>	<p>Reduced number of people entering rest homes</p>	<p>Primary impact is for people requiring cataract surgery who may need to enter a rest home early to support their care. A secondary impact is on their families/caregivers who need to support more intensive rest home care, and the community who no longer benefit from their contribution.</p> <p>Government – District Health Boards</p>	<p>Due to the effect of falls or other effects of vision impairment, 5% of people requiring cataract surgery will go into a rest home, on average by the end of the second year of waiting. They will remain in a rest home for an average of 13 years. The risk of going into a rest home would be halved following cataract surgery. Assumed 50:50 public and private rest home contributing in cost impacts.</p>		<p><5 years ongoing</p>	<p>Robertson MC, Campbell AJ. Falling costs: the case for investment. Report to Health Quality & Safety Commission. University of Otago: Dunedin, New Zealand, December 2012.</p>	<p>Medium</p>
<p>Jobs and earnings Secondary </p>	<p>Extra personal income generated (after tax and adjusted to 25%)</p>	<p>Primary impact is for people requiring cataract surgery who may not be able to work due to their condition. A secondary impact is on their families/caregivers who may also need time off work to support their care, and the community who no longer benefit from their contribution.</p>	<p>Assume 10% of people are not in paid employment due to the effects of their condition. 80% of those people would resume to paid employment after surgery. Length of impact calculated based on the proportion of elective ophthalmology patients who are under 65 (19% in 2017/18), and the average age of those under 65 (55 years old). Assume 80% will get surgery but on a delay timeframe and 20% will never get surgery.</p>		<p><5 years ongoing</p>		<p>Medium</p>
<p>Income and consumption </p>	<p>Reduced need for disability allowance for three years</p>	<p>The average age of a person who received a cataract procedure is 73, with 81% of people aged over 65 years. 18% of the people that receive a cataract procedure identify as Māori or Pacific. 51% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 29% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018).</p> <p>Government – primary health sector Government – District Health Boards</p>	<p>10% of people requiring hip/knee replacement surgery would qualify for disability allowance for 3 years.</p>		<p><5 years ongoing</p>		<p>Medium</p>
<p>Civic engagement and governance </p>	<p>Extra tax income generated (adjusted to 25 %)</p>	<p>Primary impact is the government who would see a reduction in tax income generated from people requiring cataract surgery who may not be able to work due to their condition. A secondary impact is on their families/caregivers who may also need time off work to support their care, and whose tax income generated may also reduce.</p>	<p>Assumes 10% of people are not in paid employment due to the effects of their condition. 80% of those people would resume paid employment after surgery. Length of impact is calculated based on proportion of elective ophthalmology people who are under 65 (19% in 2017/18), and the average age of those under 65 (55 years old). Assumes 80% will get surgery but on a delayed timeframe and 20% will never receive surgery.</p>		<p><5 years ongoing</p>		<p>Medium</p>

BUDGET SENSITIVE

Cancer Surgery

Domains List domains, using the key above, where there is an impact. Order domains by magnitude of impact, i.e. largest impact domain first ⁵ .	Impact(s) description Identify the impacts, with a separate line for each impact relating to a specific domain	Who are affected? Individuals/families/government/etc? Be as specific as possible. Are there distributional differences?	Magnitude of impact Relative to the counterfactual key assumptions, quantified to extent possible, and where possible monetised	How big? High/ Moderate/ Low, or where possible present value	Realised in <5 / 5-10 / 10+ years	Evidence base Nature of evidence and key references	Evidence quality High/ Medium/ Low
Primary Health 	Reduced outpatient hospital appointments	The average age of a person who received a cancer related procedure is 70, with 68% of people aged over 65 years. 8% of the people that receive a cancer related procedure identify as Māori or Pacific. 43% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 35% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018). Government – District Health Boards	Assumes all people waiting for cancer-related surgery have two outpatient hospital visits per year	s 9(2)(f)(iv)	<5 years ongoing		Medium
	Reduced ambulance call out	The average age of a person who received a cancer related procedure is 70, with 68% of people aged over 65 years. 8% of the people that receive a cancer related procedure identify as Māori or Pacific. 43% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 35% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018). Government – District Health Boards	Assumed 2% of people waiting for cancer related surgery will experience health effects that lead to an ambulance call out		<5 years ongoing		Medium
	Reduced emergency department presentations	The average age of a person who received a cancer related procedure is 70, with 68% of people aged over 65 years. 8% of the people that receive a cancer related procedure identify as Māori or Pacific. 43% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 35% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018). Government – District Health Boards	Assumed 2% of people waiting for cancer related surgery will experience health effects that lead to an emergency department presentation		<5 years ongoing		Medium
	Reduced hospital inpatient visits	The average age of a person who received a cancer related procedure is 70, with 68% of people aged over 65 years. 8% of the people that receive a cancer related procedure identify as Māori or Pacific. 43% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 35% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018). Government – District Health Boards	Assumed 2% of people waiting for cancer related surgery will experience health effects that lead to a hospital admission		<5 years ongoing		Medium

⁵ Please note that in CFISnet, you will need to include the primary domain impacted, and up to two secondary domains impacted by the initiative. You can include as many domains as relevant in this table.

BUDGET SENSITIVE

Primary Health 	Reduced number of GP visits	The average age of a person who received a cancer related procedure is 70, with 68% of people aged over 65 years. 8% of the people that receive a cancer related procedure identify as Māori or Pacific. 43% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 35% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018). Government – primary health sector	Assumes 100% of people waiting for cancer related surgery see their GP once a year regarding their condition	s 9(2)(f)(iv)	<5 years ongoing		Medium
	Reduced number of community nurse (or similar) visits required	The average age of a person who received a cancer related procedure is 70, with 68% of people aged over 65 years. 8% of the people that receive a cancer related procedure identify as Māori or Pacific. 43% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 35% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018). Government – primary health sector	Assumes that 10% of people who do not receive cancer-relate surgery they need would receive service from a community services nurse of similar, on average ½ hour per week.		<5 years ongoing		Medium
	Reduced hospice care support	The average age of a person who received a cancer related procedure is 70, with 68% of people aged over 65 years. 8% of the people that receive a cancer related procedure identify as Māori or Pacific. 43% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 35% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018). Government – primary health sector	Assumes that 2% of people waiting for cancer related surgery have two days of hospice care (conservative).		<5 years ongoing		Medium
	Incremental quality adjusted life years gained	The average age of a person who received a cancer related procedure is 70, with 68% of people aged over 65 years. 8% of the people that receive a cancer related procedure identify as Māori or Pacific. 43% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 35% are classified as least deprived (1-2). (Source National Minimum Data Set (NMDS), extracted November 2018).	Assumed conservative values based on mastectomy QALYs gained (0.615 per year over 5 years). This is conservative because other elective cancer surgeries can have far higher QALYs gained, e.g. lung cancer surgery is associated with 11.66 over 7 years. QALYs assumed to be gained for 90% of people. Length of benefit assumed at 0.62 per year for 3 years (assumption is that all people with cancer conditions would be accepted).		<5 years ongoing	Lung cancer: http://www.sciencedirect.com/science/article/pii/S0169500214003481 Mastectomy: http://co.ascopubs.org/content/21/6/1139.full	Medium
Secondary Jobs and earnings 	Extra personal income generated (after tax and adjusted to 25%)	Primary impact is for people requiring cancer related surgery who may not be able to work due to their condition. A secondary impact is on their families/caregivers who may also need time off work to support their care, and the community who no longer benefit from their contribution	Assumes 30% of people are not in paid employment due to the effects of their condition. Assume 50% will return to paid employment after surgery. We note that the proportion of elective surgery people who are under 65 was 55% in 2016/17, and the average age of those under 65 was 37 years old.	<5 years ongoing		Medium	
Civic engagement and governance 	Extra tax income generated (adjusted to 25 %)	Primary impact is the government who would see a reduction in tax income generated from people requiring cancer related surgery who may not be able to work due to their condition. A secondary impact is on their families/caregivers who may also need time off work to support their care, and whose tax income generated may also reduce	Assumes 30% of people are not in paid employment due to the effects of their condition. Assume 50 % will return to paid employment after surgery. Length of impact capped at 3 years assuming all people will get access over this timeframe. We note that the proportion of all elective surgery patients who are under 65 was 55% in 2016/17, and the average age of those under 65 was 37 years old.	<5 years ongoing		Medium	

BUDGET SENSITIVE

<p>Housing </p>	<p>Reduced number of people entering rest homes</p>	<p>Primary impact is for people requiring cancer related surgery who may need to enter a rest home early to support their care. A secondary impact is on their families/caregivers who need to support more intensive rest home care, and the community who no longer benefit from their contribution</p> <p>Government – District Health Boards</p>	<p>Assumed that each year, 1% of people waiting for cancer-related surgery will experience a decline in health status, mental health or premature aging that would result in a move into rest home, where they will stay for 3 years. Assumed 50:50 public and private rest home contribution in cost impacts.</p>	<p>s 9(2)(f)(iv)</p>	<p><5 years ongoing</p>		<p>Medium</p>
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BUDGET SENSITIVE

Cholecystectomy

Domains	Impact(s) description	Who are affected?	Magnitude of impact	How big?	Realised in	Evidence base	Evidence quality
List domains, using the key above, where there is an impact. Order domains by magnitude of impact, i.e. largest impact domain first ⁶ .	Identify the impacts, with a separate line for each impact relating to a specific domain	Individuals/families/government/etc? Be as specific as possible. Are there distributional differences?	Relative to the counterfactual key assumptions, quantified to extent possible, and where possible monetised	High/ Moderate/ Low, or where possible present value	<5 / 5-10 / 10+ years	Nature of evidence and key references	High/ Medium/ Low
Primary Health 	Reduced emergency department presentations	The average age of a person who received a cholecystectomy is 52, with 27% of people aged over 65 years. 20% of the people that receive a cataract procedure identify as Māori or Pacific. 49% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 31% are classified as least deprived. (Source National Minimum Data Set (NMDS), extracted November 2018). Government – District Health Boards	33% of people waiting for this surgery will present to the Emergency Department twice in the first and second years with acute cholecystitis or other related condition.	s 9(2)(f)(iv)	<5 years ongoing	Assumptions on number of presentations & pharmacy: http://www.qualitasconsortium.com/index.cfm/reference-material/delivering-value-quality/focus-on-cholecystectomy-commissioners-guide/ http://www.gponline.com/acute-cholecystitis/gi-tract/article/897919	Medium
	Reduced inpatient hospital visits	The average age of a person who received a cholecystectomy is 52, with 27% of people aged over 65 years. 20% of the people that receive a cataract procedure identify as Māori or Pacific. 49% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 31% are classified as least deprived. (Source National Minimum Data Set (NMDS), extracted November 2018). Government – District Health Boards	The same 33% would be admitted to hospital after presenting to the Emergency Department.		<5 years ongoing	Assumptions on number of presentations & pharmacy: http://www.qualitasconsortium.com/index.cfm/reference-material/delivering-value-quality/focus-on-cholecystectomy-commissioners-guide/ http://www.gponline.com/acute-cholecystitis/gi-tract/article/897919	Medium
	Reduced outpatient hospital appointments	The average age of a person who received a cholecystectomy is 52, with 27% of people aged over 65 years. 20% of the people that receive a cataract procedure identify as Māori or Pacific. 49% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 31% are classified as least deprived. (Source National Minimum Data Set (NMDS), extracted November 2018). Government – District Health Boards	53% of patient waiting for surgery will have an outpatient attendance each year (assessment, follow up).		<5 years ongoing	Assumptions on number of presentations & pharmacy: http://www.qualitasconsortium.com/index.cfm/reference-material/delivering-value-quality/focus-on-cholecystectomy-commissioners-guide/ http://www.gponline.com/acute-cholecystitis/gi-tract/article/897919	Medium
	Reduce Ambulance call out	The average age of a person who received a cholecystectomy is 52, with 27% of people aged over 65 years. 20% of the people that receive a cataract procedure identify as Māori or Pacific. 49% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 31% are classified as least deprived. (Source National Minimum Data Set (NMDS), extracted November 2018). Government – District Health Boards	Assumed 20% of people with acute bout of cholecystitis will call and ambulance, once in the first year and once in the second year.		<5 years ongoing	Assumptions on number of presentations & pharmacy: http://www.qualitasconsortium.com/index.cfm/reference-material/delivering-value-quality/focus-on-cholecystectomy-commissioners-guide/ http://www.gponline.com/acute-cholecystitis/gi-tract/article/897919	Medium

⁶ Please note that in CFISnet, you will need to include the primary domain impacted, and up to two secondary domains impacted by the initiative. You can include as many domains as relevant in this table.

BUDGET SENSITIVE

Primary Health 	Incremental quality adjusted life years gained	The average age of a person who received a cholecystectomy is 52, with 27% of people aged over 65 years. 20% of the people that receive a cataract procedure identify as Māori or Pacific. 49% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 31% are classified as least deprived. (Source National Minimum Data Set (NMDS), extracted November 2018).	QALYs assumed to be gained for 90% of people. For 80% of people: 0.84 per year for 3 years (based on a total of 4.18 QALYs per patient over a five year horizon). For 20% of people (0.84 per year for 14 years based on the average age of those receiving colectomy (52 years) through to the life expectancy of a 52 year old (87 years). Assumes 80% will get surgery but on a delayed timeframe and 20% will never receive surgery.	s 9(2)(f)(iv)	<5 years ongoing	QALY: https://tspace.library.utoronto.ca/bitstream/1807/43545/6/de%20 Mestral_Charles_W_A_201311_PhD_thesis.pdf. Life expectancy – March 2018 update https://www.stats.govt.nz/topics/life-expectancy	Medium
	Pharmaceutical costs – cholecystitis	The average age of a person who received a cholecystectomy is 52, with 27% of people aged over 65 years. 20% of the people that receive a cataract procedure identify as Māori or Pacific. 49% of people who receive a cataract procedure are classified as most deprived (dep 4 and 5 of a 1-5 scale), and 31% are classified as least deprived. (Source National Minimum Data Set (NMDS), extracted November 2018). Government – District Health Boards	Assumes that 90% of people would require drugs worth approx. \$100 per year while waiting for surgery (assumed over 3 years)		<5 years ongoing	Assumptions on number of presentations & pharmacy: http://www.qualitasconsortium.com/index.cfm/reference-material/delivering-value-quality/focus-on-cholecystectomy-commissioners-guide/ http://www.gponline.com/acute-cholecystitis/gi-tract/article/897919 Likely medical treatment: http://www.gponline.com/acute-cholecystitis/gi-tract/article/897919	
Secondary Housing 	Reduced number of people entering rest homes	Primary impact is for people requiring cholecystectomy surgery who may need to enter a rest home early to support their care. A secondary impact is on their families/caregivers who need to support more intensive rest home care, and the community who no longer benefit from their contribution. Government – District Health Boards	Assumed that after waiting three years for surgery, 2% would have experienced declining health status, mental health issues and premature aging that would result in a move into a rest home for an average of 10 years. Assumed 50:50 public and private rest home contributing in cost impacts.		<5 years ongoing		Medium
Jobs and earnings 	Extra personal income generated (after tax and adjusted to 25%)	Primary impact is for people requiring cholecystectomy surgery who may not be able to work due to their condition. A secondary impact is on their families/caregivers who may also need time off work to support their care, and the community who no longer benefit from their contribution.	Assume 10% of people are not in paid employment due to the effects of their condition. 75% of these (7.5% of all) resume to pay employment after two months recovery from surgery. Length of impact calculated based on the proportion of people who received a colectomy who are under 65 (73% in 2017/18), and the average age of those under 65 (44 years old). Assume 80% will get surgery but on a delay timeframe and 20% will never get surgery.		<5 years ongoing	High level assumptions on work impacts: http://www.biomedcentral.com/1471-2458/7/164	Medium
Civic engagement and governance 	Extra tax income generated (adjusted to 25 %)	Primary impact is the government who would see a reduction in tax income generated from people requiring cholecystectomy surgery who may not be able to work due to their condition. A secondary impact is on their families/caregivers who may also need time off work to support their care, and whose tax income generated may also reduce.	Assumes 10% of people are not in paid employment due to the effects of their condition. 75% of these (7.5% of all) would resume paid employment after two months of recovery after surgery. Length of impact is calculated based on proportion of elective general surgery patients who are under 65 (73% in 2017/18), and the average age of those under 65 (44 years old). Assumes 80% will get surgery but on a delayed timeframe and 20% will never receive surgery.	<5 years ongoing	High level assumptions on work impacts: http://www.biomedcentral.com/1471-2458/7/164	Medium	

BUDGET SENSITIVE

Non-Surgical Intervention – Early Intervention orthopaedic programmes

Domains	Impact(s) description	Who are affected?	Magnitude of impact	How big?	Realised in	Evidence base	Evidence quality
<p>List domains, using the key above, where there is an impact. Order domains by magnitude of impact, i.e. largest impact domain first⁷.</p>	Identify the impacts, with a separate line for each impact relating to a specific domain	Individuals/families/government/etc? Be as specific as possible. Are there distributional differences?	Relative to the counterfactual key assumptions, quantified to extent possible, and where possible monetised	High/ Moderate/ Low, or where possible present value	<5 / 5-10 / 10+ years	Nature of evidence and key references	High/ Medium/ Low
<p>Primary</p> <p>Health </p>	Reduction in the need for Knee Replacement surgery.	Approximately 669,756 New Zealanders are living with arthritis, 56% of these people have Osteoarthritis, 406,411 people. 63% of people who are living with Osteoarthritis are females, and 37% are female. 59 % of people with Osteoarthritis are aged over 65 (Source: the economic cost of arthritis in New Zealand 2018). Government – District Health Boards	Assumes that 10.7% of people who participate in an early intervention programme will no longer needed a knee replacement. Assumed that the length of the impact will be 15 years based on the average age of those who receive a Hip of Knee procedure (68 years) through to the life expectancy of a 68 year old (89 years).	s 9(2) (f) (iv)	<5 years ongoing	Deloitte Economics: Osteoarthritis Care Program (OACCP) https://www.aci.health.nsw.gov.au/data/assets/pdf_file/0009/259794/oaccp-evaluation-feb-2015.pdf	Medium
	Reduction in the need for Hip Replacement surgery.	Approximately 669,756 New Zealanders are living with arthritis, 56% of these people have Osteoarthritis, 406,411 people. 63% of people who are living with Osteoarthritis are females, and 37% are female. 59 % of people with Osteoarthritis are aged over 65 (Source: the economic cost of arthritis in New Zealand 2018). Government – District Health Boards	Assumes that 4.2% of people who participate in an early intervention programme will no longer needed a hip procedure. Assumed that the length of the impact will be 15 years based on the average age of those who receive a Hip of Knee procedure (68 years) through to the life expectancy of a 68 year old (89 years).		<5 years ongoing	Deloitte Economics: Osteoarthritis Care Program (OACCP) https://www.aci.health.nsw.gov.au/data/assets/pdf_file/0009/259794/oaccp-evaluation-feb-2015.pdf	Medium
	Fewer GP Visits	Approximately 669,756 New Zealanders are living with arthritis, 56% of these people have Osteoarthritis, 406,411 people. 63% of people who are living with Osteoarthritis are females, and 37% are female. 59 % of people with Osteoarthritis are aged over 65 (Source: the economic cost of arthritis in New Zealand 2018). Government – primary health sector	Assumes 100% of people with Osteoarthritis will visit their GP on average 5.1 times over a 12 month period due to issues related to this condition compared to an average of 4.45 visits over 12 months for those who do not have Osteoarthritis. Assumes that 100% of people who attend early intervention programme this will reduce GP visits by 9.8% to an average of 4.6 over a 12 month period. The impact is shown five months post the early intervention programme.		<5 years ongoing	Deloitte Economics: The economic cost of arthritis in New Zealand 2018 https://www2.deloitte.com/nz/en/pages/economics/articles/economic-cost-of-arthritis-in-nz.html	Medium
<p>Jobs and earnings </p> <p>Secondary</p>	Extra personal income generated (after tax and adjusted to 25%)	Primary impact is for people suffering with lower back pain who may not be able to work due to their condition. A secondary impact is on their families/caregivers who may also need time off work to support their care, and the community who no longer benefit from their contribution.	Assume 20.2% of people are not in paid employment due to the effects of their condition (back pain). 25% of these (5.1% of all) resume to pay employment five months post the early intervention programme. Assumed that the length of the impact will be 15 years based on the age of those who suffer Osteoarthritis.		<5 years ongoing	Robert I. Mitchell, MD, FRCS(C), FRCS, FRACS, and Glenn M. Carmen, BSc. (1990) "Results of a multicentre trial using an intensive active exercise programme for the treatment of acute soft tissue and back injuries". Spine 16(6): 514:521	Medium
<p>Civic engagement and governance </p>	Extra tax income generated (adjusted to 25 %)	Primary impact is for people suffering with lower back pain who may not be able to work due to their condition. A secondary impact is on their families/caregivers who may also need time off work to support their care, and the community who no longer benefit from their contribution.	Assume 20.2% of people are not in paid employment due to the effects of their condition (back pain). 25% of these (5.1% of all) resume to pay employment five months post the early intervention programme. Assumed that the length of the impact will be 15 years based on the age of those who suffer Osteoarthritis.		<5 years ongoing	Robert I. Mitchell, MD, FRCS(C), FRCS, FRACS, and Glenn M. Carmen, BSc. (1990) "Results of a multicentre trial using an intensive active exercise programme for the treatment of acute soft tissue and back injuries". Spine 16(6): 514:521	Medium

⁷ Please note that in CFISnet, you will need to include the primary domain impacted, and up to two secondary domains impacted by the initiative. You can include as many domains as relevant in this table.

BUDGET SENSITIVE

3.2 Wellbeing capitals – Sustainability for future wellbeing

Wellbeing capitals

Please fill out the table below to demonstrate how your initiative may contribute positively, negatively or neutrally to the four capitals.

 Capitals	Describe the impact and its magnitude	Realised in <5 / 5-10 / 10+ years
Financial/Physical	Increase. This initiative draws down financial and physical capital to continue to fund and deliver increases in Planned Care Interventions.	<5 years and ongoing
Human	Increase. This initiative is focussed on improving health by increasing Planned Care Interventions including at non-surgical alternatives and investing in innovation. Planned care helps build the stock of human capital by in by increasing the quality of life for an individual to lead normal life without pain and discomfort. This results in a reduction of burden on primary care, acute services, and welfare agencies and enables people to contribute to society through their contribution as employees, as family members, or as members of society.	<5 years and ongoing
Natural	Maintain. This initiative has no impact on natural capital.	N/A, as no impact
Social	Increase. This initiative is focussed on improving health by increasing Planned Care Interventions including at non-surgical alternatives and investing in innovation. Planned care helps build and increase social capital through enabling individuals to participate in society and is a reputational impact that society/government will help those who are in living with complex or debilitating health conditions which impacts on their ability to lead a normal life.	<5 years and ongoing

3.3 Risk and resilience narrative

Does the initiative respond to or build resilience?

This initiative contributes to building the resilience of the population and the health system by ensuring people get access to care before they reach an unreasonable level of ill health and distress, and allowing for innovation and use of alternative settings. Planned care interventions can address physical conditions that can have profound emotional impacts and can affect the wellbeing of individuals, families and communities. Access to care enables people to work, attend school, and participate in their communities. This in turn leads to increases in physical, human and social capital.

BUDGET SENSITIVE

4. Costing understanding and options

This section will provide further information on the costs of delivering the initiative and options for scaling and phasing to support assessment, prioritisation and decision-making.

4.1 Detailed funding breakdown

Please provide a breakdown of the costs of this initiative

Total cost of this initiative are assumed on the purchasing of activity based on past delivery cost at the estimated 2019/20 National IDF prices ('National Price') were this exists, and agreed costing estimates were National Price is not available.

Below outlines the average cost per Planned Care Intervention and how much this will cost to deliver the total [REDACTED] interventions.

	Average Cost per Procedure 2019/20	No#	Total Cost
Surgical Discharges	§ 9(2)(f)(iv)	[REDACTED]	[REDACTED]
Inpatient Minor Procedures	[REDACTED]	[REDACTED]	[REDACTED]
Outpatient Minor Procedures	[REDACTED]	[REDACTED]	[REDACTED]
Non Surgical Interventions	[REDACTED]	[REDACTED]	[REDACTED]
Service Improvement	[REDACTED]	[REDACTED]	[REDACTED]
Total			

The National Price reflects a fair and efficient price for hospital based activity and is based on actual costs. The National Price is developed using DHB average costs (fully absorbed cost) for activity. The National Price is a common price that is used to consistently and fairly manage Inter District Flows of activity between DHBs.

4.2 Options for scaling and phasing

Scaling, phasing or deferring - including 75% and 50% scenarios

This initiative has been designed to keep up with population and aging and any scaling would be detrimental to this achieving this and would reduce levels of delivery per head of population. Alternative options which could also be considered options for scaling are outlined under "section 2.2 - What other options were considered in addressing the problem or opportunity?" There are no suitable options for deferring this would just require much larger lift in growth of Planned Care Interventions in the future, which may be different to achieve (see risks and mitigations outlined in section 2.4).

To demonstrate the impact of scaling this initiative we have modelled what Planned Care Interventions can be purchase at 75% and 50%. This approach has been scaled proportionally over the components to be purchased but once funded is decided there is flexibility over which component might be scaled if full funding is not received (i.e. if 75% of funding is receive we might decide to reduce the service improvement funding to [REDACTED] and scale the rest of the funding across surgical and non-surgical interventions).

If this cost pressure was initiative was funded at 75 percent:

This would reduce the initiative to a total of [REDACTED] Planned Care Interventions. This would be broken down by:

- § 9(2)(f)(iv) [REDACTED]
- [REDACTED]
- [REDACTED]

BUDGET SENSITIVE

If this cost pressure was initiative was funded at 50 percent:

This would reduce the initiative to a total of \$ 9(2)(f) to purchase Planned Care Interventions. This would be broken down by:

-
-
-



BUDGET SENSITIVE

5. Collaboration

This section provides information on how agencies have engaged both within and outside of their own departments in the development of this initiative. Cross-agency and cross-portfolio collaboration are both important in this context. Please ensure this section is clear and succinct, and no longer than one page.

5.1 Collaboration and evidence	
What type of cross-agency and/or cross-portfolio initiative is this?	This Planned Care Interventions bid is not a cross-agency and/or cross-portfolio bid where there is collective responsibility, but there are cross-agency relationships and implications as the delivery of Planned Care Interventions are delivered by District Health Boards and the flow on impact other aspects of health and social agencies.
Agencies and Ministers that have been engaged in initiative development	<p>This is a long standing initiative (in place since 2007/08). No specific collaboration has been undertaken this year in relation to the initiative. While there has not been formal collaboration, stakeholders who have been engaged in relation over the life time of this initiative have included:</p> <ul style="list-style-type: none"> • District Health Boards • The Office of the Auditor-General • The Treasury • Accident Compensation Corporation • Ministry of Social Development <p>As Planned Care is a priority area for the Ministry of Health, the Planned Care Strategic Approach to be implemented in 2019/20 has been developed in conjunction with representation across the Health Sector, through the use of a Sector Advisory Group (SAG). The SAG has been comprised of representatives from the following areas:</p> <ul style="list-style-type: none"> • District Health Board – CEOs (two) • District Health Board – General Manager Planning and Funding • Primary Care (GPNZ) • New Zealand Medical Council • Health and Disability Commissioner • Equity expert – Professor of Research, Centre for Maori Health and Development, Massey University • Ministry of Health staff (Chief Medical Officer, Executive Leadership Representation, Managers and Team Leader Electives and National Service). <p>Several other groups have been consulted or involved included a 'Measurement' working group and consultations with District Health Board consumer councils.</p>
Impact of cross-agency collaboration	NA – see response above
Risks and challenges	The risk and challenges of this initiative are that the delivery of the Planned Care surgical activity is undertaken by a third party – District Health Boards. To overcome the risk and challenges robust implementation, monitoring and evaluation is undertaken, see section 2.4