Scheme Actuarial Valuation as at 31 December 2021

ReturnToWorkSA

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finity

14 March 2022

Mr Greg McCarthy
Chair
ReturnToWorkSA
400 King William Street
ADELAIDE SA 5000

Dear Mr McCarthy

Scheme Actuarial Valuation as at 31 December 2021

Enclosed is our report on the 31 December 2021 scheme actuarial valuation.

Following the High Court's refusal to allow leave to appeal the *Summerfield* decision, there has again been another material increase in the scheme's claim liabilities.

Furthermore, as has been the case now over a number of years, there continue to be more claimants seeking to access the Serious Injury benefit package than expected, many of whom are in dispute. The uncertainty around how WPI assessments should be undertaken, when combined with the high rates of dispute, large number of open disputes and slow rate of dispute resolution, means there is still a material risk to the valuation results that Serious Injury claim numbers will be higher than we have allowed. In the absence of a clear legal decision on how these legislative provisions should operate in practice, it is likely to be a number of years before there is any real likelihood this will change.

More pleasingly, RTW rates have again continued to improve over the last six months.

We would be pleased to discuss our review and findings with your executive and Board as required.

Yours sincerely

Andrew McInerney - FIAA | Tim Jeffrey - FIAA | Claire White - FIAA

Glossary

Active Claim	A claim is regarded as 'active' in the valuation models if it had a payment in the relevant period.
Actuarial Release	A 'like with like' measure of how claims management activity has impacted on scheme financial performance since the previous valuation. See Section 11.3 for additional information.
APR	Average Premium Rate – the premium charged by ReturnToWorkSA to registered employers, on average, as a percentage of leviable wages.
BEP	Break Even Premium – the estimated cost of running the scheme for a year, including all future payments for claims incurred in the year after allowing for investment earnings, expressed as a percentage of leviable wages.
Development Quarter or DQ	The number of quarters between the injury date of a claim and the relevant activity (whether a claim report or claim payment).
EnABLE	The internal claims management team at ReturnToWorkSA that manage Severe Traumatic Injury claims.
ER	Incentives for early reporting of claims, introduced in 2008.
General Claims	Claims lodged for all injuries other than Hearing Loss claims.
Hearing Loss claims	Claims lodged for noise induced hearing loss that has arisen from 'noisy work'. Also referred to as Noise Induced Hearing Loss claims.
IBNER	Incurred But Not Enough Reported – an allowance for cost growth on known claims in addition to the reported cost.
IBNR	Incurred But Not Reported – claims where the accident has occurred, but ReturnToWorkSA is yet to be notified.
IS	Income Support (also known as weekly benefits) payments.
NWE	Notional Weekly Earnings.
OSC	Outstanding claims liability.
PPAC	Payments per active claim.
PPCI	Payments per claim incurred.
RTW	Return to work.
RTW Act	The Return to Work Act 2014, which governs the scheme.
Serious Injury or Serious Injury claim	A claim that meets the definition of a "Serious Injury" under the RTW Act.
Short Term claim	A claim that does not meet the Serious Injury threshold.
WRCA ('old Act')	Workers Rehabilitation and Compensation Act 1986, the previous Act which governed the scheme.
WPI	Whole Person Impairment.

1 Executive summary

1.1 Introduction

Finity Consulting Pty Limited ("Finity") has been engaged by ReturnToWorkSA to undertake an actuarial review of the Return to Work Scheme ("the scheme") as at 31 December 2021.

Our previous actuarial review was as at 30 June 2021, and was documented in a report dated 3 September 2021.

1.2 Scope of the review

The scope of the review is specified in our contract with ReturnToWorkSA.

The primary purpose of the mid-year review is to provide ReturnToWorkSA with an independent estimate of the liability for outstanding claims and projected claim costs for registered (non self-insured) employers. ReturnToWorkSA uses this estimate to update its financial position, and as an input in determining the average premium rate for the coming year.

The actuarial review also aims to provide analysis of the major features of the recent scheme claims experience, and a projection baseline against which ReturnToWorkSA can manage outcomes and monitor emerging experience in the coming year.

1.3 Valuation approach

Our estimate of the outstanding claims liability is a central estimate of the liabilities. This means that the valuation assumptions have been selected such that our estimates contain no deliberate bias towards either overstatement or understatement.

Our estimates of the outstanding claims liabilities project future benefits separately for Serious Injury claims and for Short Term claims, reflecting the differences in benefits available between the two groups under the RTW Act.

For this valuation we continue to estimate the valuation liabilities as two separate components, in order to understand the underlying scheme experience and to separately identify the impacts of the *Summerfield* legal decision. As such our valuation work has been split into two stages:

1. Baseline Valuation – what our liability would have been if not for the *Summerfield* decision.
2. Summerfield Valuation – the overall liability estimate we have recommended after including an allowance for the *Summerfield* decision.

We have also provided a recommended provision for outstanding claims which increases the central estimate to a level intended to achieve 75% probability of sufficiency. We emphasise that the adopted risk margin loading has **not** been set at a level that would guarantee coverage of all potential additional costs relating to the *Summerfield* decision, or other key cases like it. It is also worth observing that despite a number of apparently 'key cases' in relation to the operation of the RTW Act having resolved over recent years, new avenues of challenge to the way the provisions of the Act are applied have continued to emerge, in particular in relation to the operation of WPI assessments.

Two modelling changes have been made at this valuation: (1) Hearing Loss claims are now valued separately from other claims, following the major growth in new claims in recent years, and (2) some payment group changes have been implemented to align with ReturnToWorkSA's internal reporting.

1.3.1 Return To Work Corporation of South Australia v Summerfield

While the legal standing of the *Summerfield* decision has now been confirmed, as there are no further avenues of appeal, there is still significant uncertainty about the scale and likelihood of the impacts that will result from it.

The combination of: (1) very significant financial consequences, (2) limited historical claims information that can be used to directly assess the financial impacts of the decision, and (3) the unknown extent to which behavioural responses will impact the real world implementation of the decision (whether by ReturnToWorkSA in attempting to mitigate the impact, or by plaintiff lawyers who seek to maximise the impact of the *Summerfield* decision), makes this an unusual impact that needs to be considered in the valuation work.

Our estimates of *Summerfield's* financial impact have again been built up by considering a range of scenarios as to the financial outcomes that will result. A detailed description of our approach is provided in Section 9.

1.3.2 COVID-19 impacts

Our valuation basis assumes that claims related to COVID-19 infections continue to remain low in South Australia and that there are no additional lockdowns of substance, further economic disruption or major impacts on business confidence.

The experience over 2020 and 2021 has been used to guide the setting of the valuation assumptions as to the claims experience in a COVID-19 impacted world; in doing this, when interpreting the recent claims experience we have been conscious to identify areas where the experience is not, or might not be, the best indicator of ongoing performance (for example where there was a large dip in claim numbers during the initial lockdown, and when hospital costs dropped as surgeries were restricted). Under this approach the valuation assumptions implicitly incorporate the impacts of COVID-19 to some extent.

While we have made assessments that we consider to be reasonable, it is impossible to estimate the impact of COVID-19 on ReturnToWorkSA's liabilities with any level of certainty at the current time. The unique set of circumstances means there is more than the general level of uncertainty around the valuation outcomes.

1.4 Scheme environment

In addition to the *Summerfield* decision and the COVID-19 situation, recent developments which affect the scheme's operating environment and/or the liability estimate include:

- **Legal precedent**: the RTW Act continues to be tested through the scheme's dispute resolution processes, and clear and accepted implementation of a number of key legislative provisions is still not in place. The result is that the real-world operation of the Act is still yet to be confidently known, and it is possible that more claims will access longer periods on benefits than has currently been projected. Of particular importance to our assessment are the provisions around WPI assessments, including how and when a claim is determined to be a Serious Injury.
- **Dispute resolution and appeals**: related to the above, there has been a step-change increase in the number of new disputes in the last year, the number of open disputes remains high, and the resolution of disputes is slow. The slow resolution appears to be related to the fact that more claims are moving into the later stages of the dispute resolution process (including into appeal) following changes in the RTW Act that mean legal costs are no longer at risk until after the early stages of an appeal. Additional analysis undertaken at this valuation suggests that disputes are continuing to emerge similarly to the previous 'long tail' scheme, in part due to continued very late commencement of WPI assessments; there is no legal time limit that prevents claims seeking new assessments.

- **Evolution of the claims management model**: the claims management model continues to evolve, including proactive steps to support the earlier identification of Serious Injury claims, changes to the WPI assessment process, ensuring eligibility decisions are made efficiently and appropriately, and additional focus on early and sustainable RTW. On the back of these activities we have seen clear signs that RTW rates have improved.
- **Growth in Hearing Loss claim numbers:** there has been very rapid growth in the numbers of Hearing Loss claims over the last three years, which appears to be the result of targeted provider activity. The financial implications of this increase are growing.
- **Increasing numbers of claims seeking to add 'additional injuries':** using additional datasets, we have identified that there is already evidence of increases in both the number of claims who seek to add an additional injury, and in the number of additional injuries per claim. Further, this experience seems to have worsened since the Supreme Court *Summerfield* decision.

1.5 Recent claim experience

The key features of the claims experience in the six months to 31 December 2021 were:

- For claims managed entirely under the RTW Act:
  - Overall new claim numbers increased slightly, mainly due to higher numbers of Hearing Loss claims.
  - There has been strong growth in the proportion of claims receiving at least two weeks of wage replacement benefits, which is the threshold to be included in our Income Support claims count; this puts upward pressure on scheme costs. However, more than offsetting this increase is continued improvement in RTW rates at mid to longer durations.
  - After slowing down in the years immediately after reform, payment of lump sums has been faster in the last two years. However, across all duration cohorts there are still considerable levels of late emergence, with lump sum numbers increasing many years post-injury.
  - The number of disputes per month has continued to rise, as noted above.
- For transitional claims, there continues to be ongoing activity across a range of areas, and additional work in the last six months suggests this will continue for the foreseeable future.
  - This continued ongoing assessment activity and high level of legal activity also appears to be leading to additional claims gaining access to the Serious Injury benefit package over time. Further, the existence of such a large cohort of older claims still 'in the system' has exacerbated the financial consequences of the *Summerfield* decision.
- The level of Serious Injury activity (applications, disputes and new determinations) remains higher than expected, and has again resulted in an increase in our expected ultimate numbers of Serious Injury claims.
  - Late tail claims continue to emerge as Serious Injury claims, although over the past six months this has been at a reduced level.
  - For fully RTW Act claims, more Serious Injury claims are being identified at earlier stages for more recent accident years; while we know there were conscious efforts to identify likely Serious Injury claims sooner, it seems clear now that this is not just a speeding up in the identification process, and that at least part of the higher numbers since 2018 is due to deterioration.

    For now, we have not fully extrapolated the higher level of claims for 2018 into the more recent accident periods. This partially reflects a reluctance to rely just on a single accident year when setting our valuation assumptions, particularly given it is not fully developed and the identification pattern has also been changing. Secondly, it acknowledges the outcomes of a review by ReturnToWorkSA to identify reasons for higher than originally expected Serious Injury numbers; there were a number of areas where 'tighter' decision making earlier in the life of a claim could reduce the likelihood of some claims becoming Serious Injuries, and ReturnToWorkSA is now in the early stages of implementing these findings.

Underpinning our IBNR allowance is the assumption that the speed-up in the identification of Serious Injury claims in recent years reduces the tail of claims identified well beyond the two year Income Support cap. If this does not hold, or the late identification of Serious Injury claims for older years does not start to run off soon, there will need to be material increases in both the outstanding claims liability and the breakeven premium rate for future years.

Overall, there continues to be a high level of uncertainty about how many Serious Injury claims will ultimately emerge, which is compounded by new areas of legal challenge emerging over time. It remains possible that our estimates will prove to be too low, even without adverse legal decisions.

> Medical and treatment costs for Serious Injury claims have continued to generally be lower in the periods after initial treatment is completed. As previously noted, the only qualitative explanation we have received for this is that claimants "no longer need to look sick" to remain on benefits. Offsetting this in the last six months were a number of material increases in care needs for Severe Traumatic Injury claims.

Total net claim payments in the six months were $9.7m (4%) higher than projected at the previous valuation. Lump sums and legal payments were the key drivers of the higher than expected payments.

1.6 Liability valuation results

1.6.1 Summary of results

Our central estimate of the scheme's outstanding claims liability for registered employers as at 31 December 2021 is $3,886m. This is a discounted (present value) estimate, net of recoveries and including allowance for future expenses. Adding a risk margin of 15.8% (down from 16.5%) to produce a provision with a 75% probability of sufficiency, consistent with ReturnToWorkSA's policy, gives an outstanding claims provision of $4,501m, as shown in Table 1.1. The provision includes an allowance for future claims handling expenses equivalent to 9% of gross claim costs.

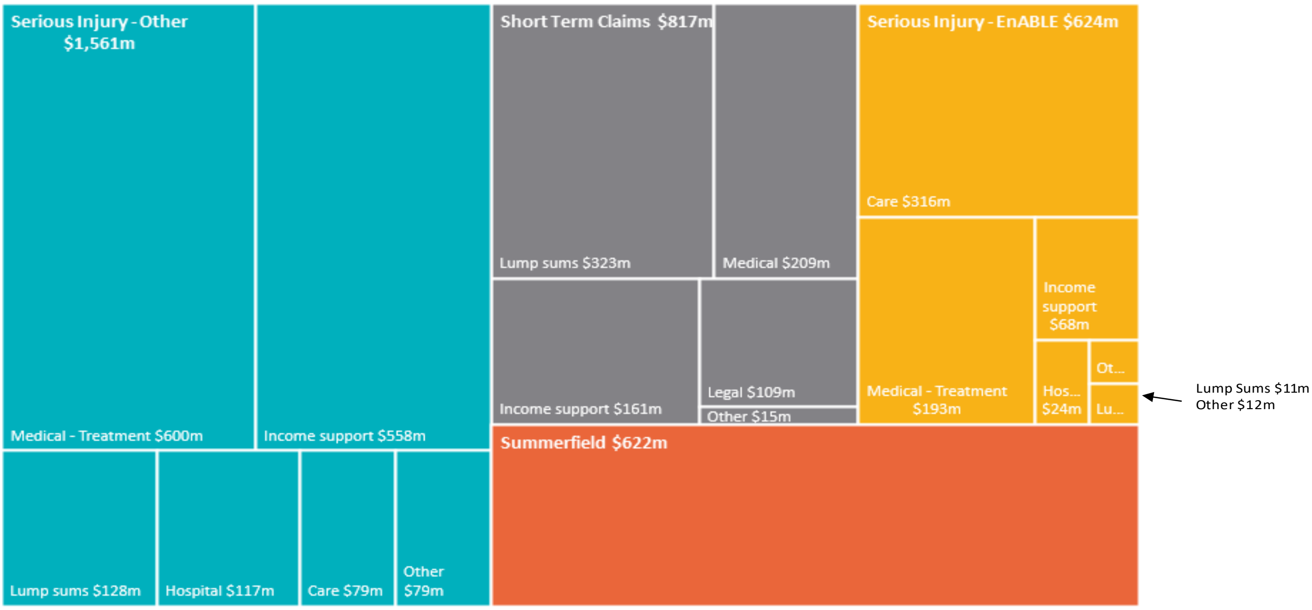
Table 1.1 – Recommended balance sheet provision

	Baseline Valuation	Additional cost due to Summerfield	Total
	$m *(a)*	*$m* *(b)*	*$m* *(a+b)*
Gross Claims Cost - Serious Injuries	2,185	668	2,853
Gross Claims Cost - Short Term Claims	817	-46	771
Claims Handling Expenses	291	43	334
Gross Outstanding Claims Liability	3,293	665	3,957
Recoveries	-71	0	-71
Net **Central Estimate** of Outstanding Claims Liability	3,222	665	3,886
Risk Margin	448	166	614
Recommended Provision	3,669	831	4,501

The risk margin loading is high for a scheme of this size, reflecting the uncertainty related to costs that will eventuate after the *Summerfield* decision as well as the high 'frictional costs' in the scheme (high levels of dispute, slow resolution of disputes and high rates of appeal).

Figure 1.1 below shows a breakdown of the gross claims liability, which demonstrates that the majority of the outstanding claims liability relates to Serious Injuries – noting also that the liability has been split between EnABLE claims, other Serious Injuries and the *Summerfield* allowances. The balance will continue moving toward Serious Injury liabilities over time due to the lifetime benefit package available to these claims.

Figure 1.1 – Gross central estimate (excl. expenses and risk margin) as at 31 December 2021



1.6.2 Additional cost due to *Summerfield*

Following the High Court's refusal of ReturnToWorkSA's application to appeal the *Summerfield* decision there is now no possibility of a 'no financial impact' outcome; at the previous valuation, nil liability impact was considered a possible outcome.

As shown in Table 1.1 above, our valuation results include an allowance of $665m (central estimate including CHE) relating to the *Summerfield* decision, which results in an increase in the recommended provision of $831m. This section briefly summarises our approach to determining these amounts, and the resulting cost estimates and uncertainties. Full detail can be found in Section 9.

Approach

In accordance with relevant actuarial and accounting standards, the central estimate is required to be the mean of the distribution of possible outcomes. To determine the central estimate related to *Summerfield* it is necessary to identify the range of possible outcomes, and attach likelihoods to each of them; the costs under the different possible outcomes are then combined with their likelihoods to determine the central estimate.

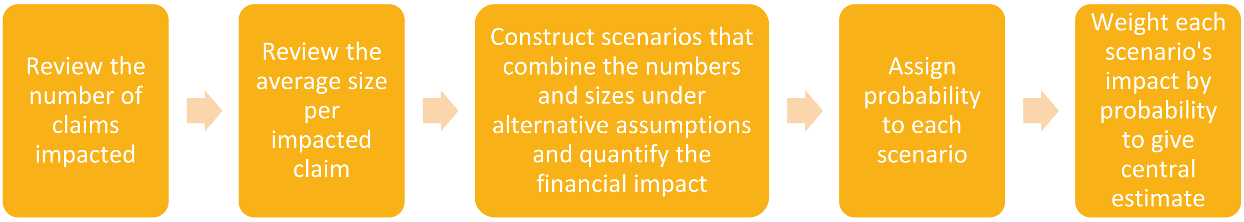
Our approach is largely unchanged from the previous valuation, and was to:

- Consider the appropriateness of the risk segments adopted at the June 2021 valuation, and adjust as necessary.
- Review the appropriateness of assumptions adopted for each risk segment by considering new information.

The number of claim reviews to support our work has not been as extensive as at the previous valuation, where a large number of reviews were performed. Recent reviews have focussed on assessing whether the conclusions from previous reviews remain valid, and assessing the reliability of information provided in the *Summerfield* valuation extract.

Figure 1.2 outlines the approach used to assess the additional cost due to *Summerfield*.

Figure 1.2 – *Summerfield* impact framework



The scenarios we have developed to assess the potential *Summerfield* impacts are:

1 **Lower impact scenario –** impacted claim numbers are similar in number to the claims identified in the *Summerfield* valuation extract for 2018 and prior accident years. 2019 and more recent accident years are set close to the 2018 accident year estimates.

2 **Mid-range impact scenario** – findings from file review work performed at the June 2021 valuation continue to be applied to identified high risk segments, with some allowance for the impact of the progression of claimant circumstances, before an additional 'actuarial best guess' IBNR is included. A small allowance for observed behavioural changes in relation to additional injuries is built into the estimates.

3 **More adverse impact scenario** – further behavioural responses from claimants and their advisors lead to additional claims being impacted over time.

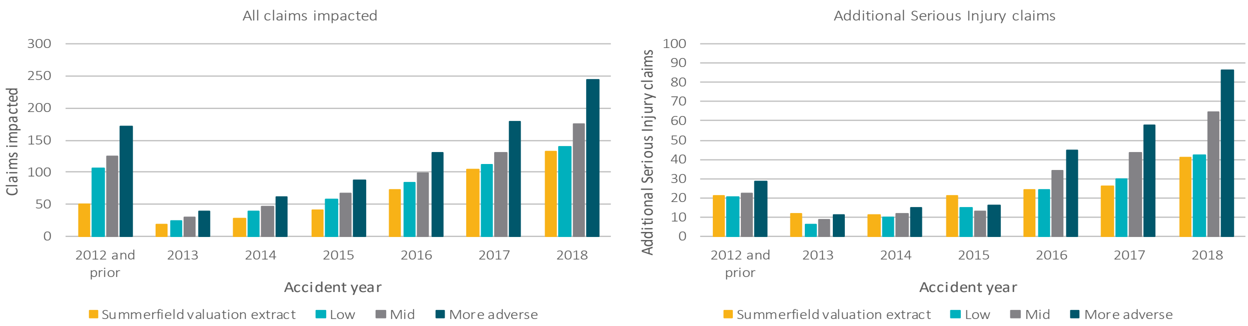
(We note that scenario 3 is not intended to represent a maximum possible impact scenario)

The scenarios and their likelihoods are combined to estimate the additional central estimate cost due to *Summerfield*.

Results

Figure 1.3 shows the estimate of the number of claims impacted by *Summerfield* under each scenario, and compares this with those identified in the *Summerfield* valuation extract (only 2018 and prior accidents have sufficiently developed claims experience to rely on this approach); as described in Section 9, we consider the number of claims that are identified in the *Summerfield* valuation extract (the yellow columns in each graph) as representing a minimum number of claims impacted.

Figure 1.3 – Estimated number of claims impacted by *Summerfield*



Our low scenario (blue columns) anticipates only a small margin above those claims already identified in the *Summerfield* valuation extract. Considering the continued WPI and Serious Injury activity that already exists in the Scheme, we consider it unlikely that this margin is sufficient, particularly for more recent accident years (hence this is considered a 'low' scenario).

Our mid-range scenario represents a small increase in the number of total claims impacted but a larger increase in the number of additional Serious Injury claims, particularly for RTW Act periods. Considering the importance of the Serious Injury boundary to the level of benefits under the RTW Act and the continued late identification of Serious Injury claims in recent years, we believe this is consistent with current behaviour in the system.

Our more adverse scenario represents a further increase, with a more pessimistic view of the number of claims impacted and the resulting additional Serious Injury claims. It is by no means intended to represent a worst case outcome.

For additional Serious Injury claims we have allowed an average claim size of $1.3m, plus lump sum costs, this is unchanged from the previous assumptions. This is based on analysis undertaken at the June 2021 valuation of the claims identified as being impacted by *Summerfield* through the file review work.

For the impacted lump sum claims, the impact varies depending on the starting and ending circumstances of the claim. For example, in many cases if a claim becomes a Serious Injury as a result of its combined WPI score, it will actually receive a *lower* lump sum than it otherwise would have – since as a Serious Injury claim it will no longer receive a Future Economic Loss benefit. Details of the lump size adjustments are in Section 9.5.2.

Table 1.2 below summarises the estimated financial impacts under each of the *Summerfield* scenarios (including the no longer relevant 'no impact' scenario, for completeness), along with the likelihoods we have adopted to produce the central estimate.

Table 1.2 – Results by scenario and overall estimated *Summerfield* impact

	No impact scenario	Lower impact scenario	Mid-range impact scenario	More adverse impact scenario	Total	Jun-21 OSC
Assumed Probability	0%	20%	60%	20%		
Additional Ser. Injury claims		296	455	603		
Lump sum claims impacted		1,092	1,416	1,948		
Ser. Injury estimate		$383m	$683m	$905m	$668m	$438m
Lump sum estimate		-$23m	-$50m	-$63m	-$46m	-$34m
Total claims impact		$360m	$634m	$842m	$622m	$404m
CHE loading		$25m	$44m	$58m	$43m	$28m
Total impact		$385m	$677m	$901m	$665m	$431m

The probability weighted central estimate relating to the *Summerfield* decision is $665m; this has increased by $234m since June 2021 (up from $431m). The increase in the estimate from the previous valuation is almost entirely due to the reassessment of the probabilities attached to each scenario – effectively removing the 'nil impact' scenario means the overall result is now much higher. The over $500m difference between the lower and more adverse scenarios highlights the uncertainty around the impact of *Summerfield*.

In determining the likelihoods to apply to the different scenarios we considered a range of different information, although ultimately these are judgmental decisions. In particular we benefited from legal input from both ReturnToWorkSA's internal lawyers and their external lawyers, and ReturnToWorkSA's operational staff.

Table 1.3 summarises our adopted likelihoods and the rationale.

Table 1.3 – Rationale for adopted scenario likelihoods

Scenario	Probability weighting	Reasoning
Low scenario	20% (1 in 5 chance)	Given the low margin above already identified claims, this scenario represents an optimistic view of the potential number of claims impacted. As noted in our pre-*Summerfield* Serious Injury estimates, the tail of newly identified Serious Injury claims continues to be much longer than originally anticipated and claims continue to be identified outside high risk segments. We have no reason to believe this feature would not translate to *Summerfield* impacted claims, which has informed the low probability attached to this scenario.
Mid-range impact scenario	60% (3 in 5 chance)	By construction, this is our actuarial 'best estimate' of the outcome. Given (1) it has been developed based on actual claim outcomes, and (2) it is deliberately not biased toward optimistic or conservative assumptions, we believe it should have a higher weight than the 'lower' and 'more adverse' scenarios where a difference from past outcomes is also anticipated. As such, it we consider it the centre of the distribution of outcomes. We note that the margin for additional Serious Injury claims above those already identified appears reasonable based on existing features of the Scheme's experience (e.g. Serious Injury claims continuing to emerge well beyond short-term benefit caps) and emergence of pre-*Summerfield* Serious Injury claims.
More adverse impact scenario	20% (1 in 5 chance)	This scenario anticipates further behavioural changes in respect of claims adding additional injuries, leading to the number of impacted claims being higher than the mid-range scenario. While this is a possible outcome, the range of behavioural change or under-estimation through some other means is material so we adopt only a 1 in 5 likelihood.

As more information emerges over time, both the scenario cost estimates and the adopted likelihoods will change in response, and as this occurs the central estimate will change accordingly.

Finally, we have used the scenarios above to inform the risk margin allowances in relation to *Summerfield*. The result is that we believe the post-*Summerfield* risk margin needs to go much of the way toward the more adverse scenario (noting also that the more adverse impact scenario has an adopted probability that puts it above the 75th percentile).

This results in a much higher percentage loading than the normal risk margin, which we believe is appropriate given the unique circumstances presented by this case at the current time. In determining the *Summerfield* risk margin, we made an adjustment (reduction) to allow for the amount of 'Serious Injury claim number risk' included in the baseline risk margin; some of the Serious Injury claim number risk was already being recognised, and it would be double counting if we were to add the full additional cost on top of the existing risk margin. As a result of this adjustment, the overall *Summerfield* provision ($831m) is lower than the more adverse impact scenario ($901m).

1.6.3 Movement in liability

Our central estimate is $197m higher than projected at the previous valuation. We have broken down the change in central estimate to two components:

- Movement in liability due to claims performance – this covers the components that are due to claim outcomes (such as changes in the number and mix of claims), as well as the impact of revisions to our valuation assumptions. This step also includes the impact of changes to the *Summerfiel*d allowance.
- Impact of changes in economic assumptions – this component is mandated by accounting standards, and therefore outside ReturnToWorkSA's control.

This split also allows calculation of the actuarial release, where we add the difference between actual and expected payments to the movement in the liability due to claims experience, to give a measure of the profit impact of claims performance relative to the previous valuation, as shown in Table 1.4 below.

Table 1.4 – December 2021 central estimate and determination of actuarial release/(strengthening)

	Central Estimate				Actuarial Release	
	Liability Estimate[1] *Excl. Summerfield*	Liability Estimate[1] *Summerfield*	Liability Estimate[1] *Total*		AvE Payments in 6 mths to Dec-21	Actuarial Release/ (Strengthening) [2]
	$m	$m	$m		$m	$m
Liability at Jun-21 Valuation	3,137	431	3,569			
Projected Liability at Dec-21 (from Jun-21 valuation)	3,214	475	3,689			
Claims Movement - Short Term Claims	40	-18	22	Short Term Claims	0	-39
Claims Movement - Serious Injury	-20	209	189	Serious Injury	4	16
Impact of Change in economic assumptions	-12	-2	-14	Summerfield	6	-197
Recommended Liability at Dec-21	3,222	665	3,886			
Total Actuarial Strengthening						-221

[1] Net central estimate of outstanding claims liability, including CHE

[2] Includes change in OSC and Act vs Exp payments.

There is an actuarial strengthening (increase) of $221m for the period, an unfavourable result for the scheme. There is an increase in the 'baseline' valuation, and an increase in the estimated additional cost of *Summerfield.* Changes to the economic assumptions decreased the central estimate by $14m. Each of these items is discussed briefly below.

1.6.4 Components of the actuarial release/(strengthening)

Table 1.5 shows the $221m actuarial strengthening by entitlement group, and split between Short Term Claims, Serious Injuries and the additional cost due to *Summerfield*.

Table 1.5 – Actuarial release/(strengthening) by entitlement group

Entitlement Group	Short Term Claims[3]	Serious Injury Claims[3]	Additional cost due to Summerfield	Total Actuarial Release [3]	Release (Strengthening) as %
	$m	$m	$m	$m	
Income & Related	10	-16	-83	-89	-9%
Lump Sums	-9	-12	-22	-43	-9%
Legals	-20	-1	0	-22	-18%
Treatment Related [1]	-13	42	-80	-50	-3%
Rehabilitation	-1	4	-1	1	4%
Other Costs [2]	-1	0	0	-1	-11%
Recoveries	0	-1	0	-2	-2%
Total Claim Costs	-34	15	-185	-205	-6%
Expenses	-5	1	-12	-16	-5%
Net Central Estimate	-39	16	-197	-221	-6%

[1] Medical, hospital, allied health, travel, other

[2] Investigation, common law, commutation, LOEC

[3] Includes change in OSC and Act vs Exp payments.

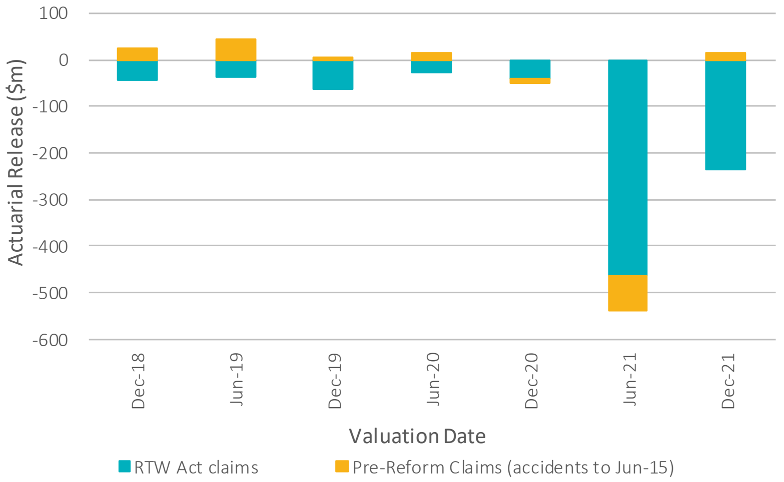
The major factors contributing to the $221m actuarial strengthening are:

- The **change in *Summerfield* allowance** resulted in an increase of $197m, as discussed in Section 9.
  - > This is almost entirely due to a reassessment of the probabilities assigned to the scenarios, as there is no longer any chance of a 'nil impact' outcome.
- For **Short Term claims** there is an actuarial strengthening of $39m, which is the result of:
  - > An increase of $20m for Legal costs, following a step-change increase in the number of new disputes in the last year; many of these disputes continue to progress into later stages of the disputation process where costs are high.
  - > An increase of $13m for Treatment Related payments, due to a combination of higher medico-legal assessment costs and an increased allowance for hearing aid fitting fees. These are partly offset by a reduction in the future superimposed inflation assumption, following modelling changes that now more directly capture the cost drivers for growing Hearing Loss claims.
  - > Income Support costs decreased by $10m, with favourable RTW experience more than offsetting the impacts of more claims commencing on income replacement benefits.
  - > Transitional claims continue to cost more than expected, due to the slow run-off and continuation of new WPI assessments. This, along with recently higher WPI scores, adds $9m to the Lump Sum liability.
- For **Serious Injury claims** there was a net actuarial release of $16m due to:
  - > Higher claim numbers (including IBNR numbers) resulted in a strengthening of $42m. This strengthening is in response to the continued late emergence of Other Serious Injury claims for 2017 and prior accident periods, and already very high claims for the 2018 year. The increase was slightly offset by a $7m decrease for Severe Traumatic Injury claims.

    We caution that, even after including this strengthening, there is still only a very small allowance for remaining ongoing claims to ultimately reach the Serious Injury boundary, as explained earlier.
  - > Revisions to our mortality assumptions, most notably the reduction in future mortality improvement on identified claims to reflect updated ABS publications, resulted in a release of $55m, impacting both Other Serious Injury claims and Severe Traumatic Injury claims.
  - > Other changes, largely the various average size components, decreased the liability by $5m in aggregate. There were, however, offsetting impacts behind this change:
    - Other Serious Injury claims had a release of $24m: recent medical and treatment spend continues to be lower than long-term levels, and the impact of mortality changes in the average size assumption for IBNR claims also reduced the liability.
    - Severe Traumatic Injury claims had an increase of $18m, largely due to significant Care estimate increases for a small number of claims.
- Other changes had more minor impacts on the scheme liability.

Figure 1.4 shows the actuarial release/(strengthening) at each valuation over the last few years. The current results are the seventh in a row where there has been cost growth on RTW Act claims – and even without the *Summerfield* allowance this still would have been the case.

Figure 1.4 – History of actuarial releases/(strengthenings)



1.6.5 Impacts of economic assumption changes

As noted, changes to inflation and discount rate assumptions decreased the net central estimate by $14m.

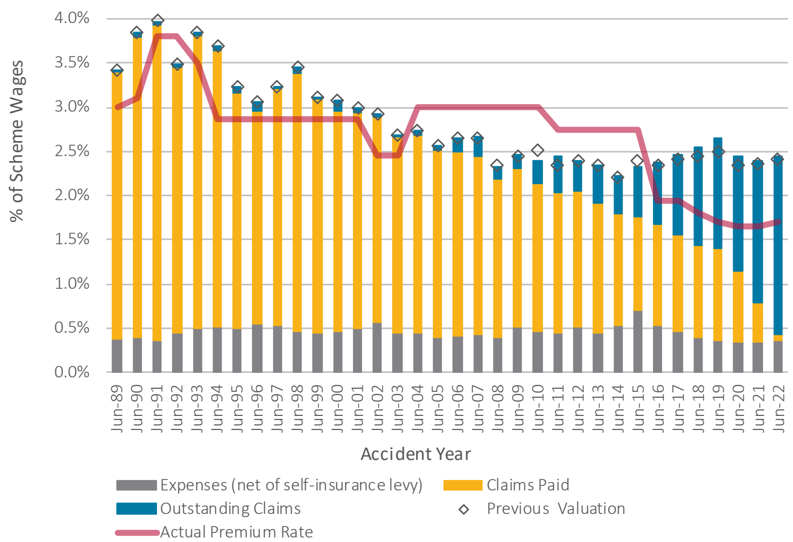
Overall, the gap between discount and inflation rates has increased compared to what was adopted at the June 2021 valuation. The main contributor is an increase in the yield curve at short durations.

1.7 Historical scheme costs

We have estimated the 'historical premium rate', otherwise known as the Break Even Premium rate (BEP), for each past accident year; this is the amount that would have been sufficient to fully cover claim costs, expenses and recoveries, assuming the scheme achieved risk free investment returns each year and that the current actuarial valuation is an accurate forecast of future payments. The BEP is calculated by dividing the total projected costs for the accident year (discounted to the start of that year at risk free rates) by the total scheme leviable remuneration in that year. We present the costs on this basis, using risk free discount rates, so that a like with like comparison can be made over the history of the scheme, allowing current scheme performance to be assessed in a long term context.

Figure 1.5 shows a summary of the estimated BEPs, including a comparison with the estimates at our previous valuation and the scheme's actual average premium rate charged for each year.

Figure 1.5 – Break even Premium rate* and actual premium rate charged



* The Break Even Premium Rate in this Figure is calculated using the risk free rate, so that a like with like comparison can be made over the history of the scheme. For clarity, this is not the same as the scheme's pricing basis, as the scheme targets a higher than risk free rate of return when premiums are set.

The main points to note are:

- The introduction of the RTW Act reduced the BEP for accident years between 2008 and 2010 to under 2.5% of wages.
- For accident years between 2011 and 2014 the costs were progressively lower again, as claims had less opportunity to remain on long term benefits.
- The impact of *Summerfield* pushes the 2016 and later BEP estimates to be in line with or in some instances above the pre-RTW Act periods, eroding much of the savings introduced with the reforms. Now that the *Summerfield* High Court appeal has been rejected there is now no chance of a 'nil cost' outcome, which results in a further increase in the BEP since the previous valuation.
- The 2019 year is developing as a high cost year, due to a combination of high Income Support claim numbers, poor early RTW outcomes and a higher than normal Serious Injury cost (due to a number of very expensive Severe Traumatic Injury claims). The BEP estimates for 2020 and 2021 are lower than 2019, due to fewer Severe Traumatic Injury claims.
- The current estimate of the BEP (using risk free rates) for the 2022 accident year is 2.45% of wages, up from 2.41% at the June 2021 valuation. This increase is due to the increased *Summerfield* allowance.

We note that these calculations assume past and future investment earnings at the risk-free rate, and adopt the annual cost of expenses in the year. All else being equal, any earnings above the risk-free rate or additional sources of income would act to reduce the required premium rate.

We emphasise that (as seen in the graph) the BEP estimates for recent accident years include a significant outstanding claims estimate and are therefore likely to change as experience emerges. Compounding the uncertainty is the impact of *Summerfield* which is subject to a high degree of uncertainty. We also note that the adopted wages figure for 2022 involves a degree of estimation.

1.8 Key uncertainties

There is considerable uncertainty in the projected future claim costs, in particular around how and when claims are determined to be Serious Injuries. Section 12 details some of the uncertainties and sensitivities of our advice, in order to place our estimates in their appropriate context.

The main areas of uncertainty in our current estimates of the liabilities are:

- **The impacts of *Summerfield*** – as discussed in Section 9, there is no reliable history on which to estimate the cost of *Summerfield*, and we are already observing signs of claimants changing their behaviour by seeking to add 'additional injuries' to their claims. Although we believe we have constructed plausible scenarios given the information available, the uncertainty is very high (as demonstrated by the range between our low and more adverse scenarios). In particular, the ability of claimants and their advisors to achieve higher WPI scores than in the past, and how they respond to these incentives, will be the key determinant of the ultimate financial outcomes. Given the high level of legal involvement in the scheme, the risk of adverse behavioural change is high.
- **Legal precedent risk** – risks here relate to the possibility of decisions which are unfavourable to the scheme or the culture and behaviour of its participants. Given the high dispute rate, very high volume of open disputes, and despite a number of apparently 'key cases' having resolved

over recent years, this risk is also assessed as high. Until a clear and decisive legal position is established as to how the scheme should operate in practice, this risk will remain.

- **WPI assessments** – under the RTW Act, there are significant differences between the compensation available to claims above the 30% WPI threshold and those below. Even below 30% WPI, small changes in the WPI score can equate to many tens of thousands of dollars in the lump sum payable to Short Term claims. The scheme will face significant financial consequences if this leads to any form of 'WPI creep'. The robustness of the 'once and for all' WPI assessment rules under the RTW Act is an important area of risk.
- **Serious Injury claim costs** – these claims are entitled to benefits for life, and the risks for this group relate to factors that are common across most claims; deviations from our assumptions could therefore compound across multiple years. For the current valuation the key uncertainties are:
  - Ultimate numbers of claims – there are several areas of uncertainty in relation to Serious Injury claim numbers. These include the impact of late emerging claimants (due to delayed WPI assessments, late surgeries, etc) as well as the number of outstanding Serious Injury application disputes and other WPI related disputes that could see claims ultimately meet the 30% WPI threshold.
  - Life expectancy – the future life expectancy of Serious Injury claimants has a significant impact on future cost projections.
  - Cost escalation – the potential for future cost escalation in a number of medical, care and treatment related items poses a risk. One example is the extent to which care costs that are currently not compensated by the scheme may become compensable in future, as family-based carers age and claimants increasingly require paid attendant care and/or move into residential care facilities; on the flip side of this, we have in the past seen that less severely injured claims will often cease their connection to the scheme once they reach retirement age, and if this occurred it could lead to lower costs. Another example is the potential increase in costs for care related specialists due to competition with the NDIS.
- **Claim durations for Short Term Claims** – over the last 12 months we have seen improvement in claim durations, after a period of deterioration between 2018 and early 2020. There is uncertainty around both future RTW rates and the number of claimants who will commence Income Support benefits.
- **Outcomes for claims with current disputes** – risks here include the possibility of decisions which are unfavourable to the scheme, as well as the behavioural consequences of the large numbers of open disputes; more claims are moving into the later stages of the dispute resolution process at which much higher legal costs eventuate.
- **Hearing Loss claim numbers** – there has been unprecedented growth in Hearing Loss claim numbers in the last few years, and the valuation basis has been lagging this growth. If upward pressure continues, further liability increases are likely.
- **Economic environment** – there is considerable uncertainty in financial markets, and this has impacted the discount rates used to determine the valuation results, which are low by historical standards. While the employment related impacts of COVID-19 have been less significant than originally feared, there is still a higher than normal risk that the economic environment could change in adverse ways.
- **COVID-19 impacts** – while the impacts on claim outcomes to date have been modest, there is still uncertainty about how COVID-19 will impact over time. If the health and/or economic situation changes for any reason, for example if there is an unexpected spike in infections linked to the workplace, this could potentially lead to material disruption to claim outcomes.

Even though the RTW Act provisions commenced 6.5 years ago, there are still key areas of the Act being tested in the courts, and it is still not clear how many Serious Injury claims will ultimately emerge. The current valuation basis reflects our best estimate of how this experience will eventuate. Over time, our basis will further reflect the developing post-reform experience, and it is possible that the experience will differ materially from our current expectations.

To place these uncertainties and risk in context, Figure 1.6 shows some of the key risks and uncertainties in the central estimate (orange), as summarised in Section 12 of the report, relative to the risk margin adopted in the liability reserves (blue). The risk areas below are largely independent of each other, so it is possible that a number of these risks could crystallise at the same time.

Figure 1.6 – Comparison of reserving risk margin to key risks and uncertainties

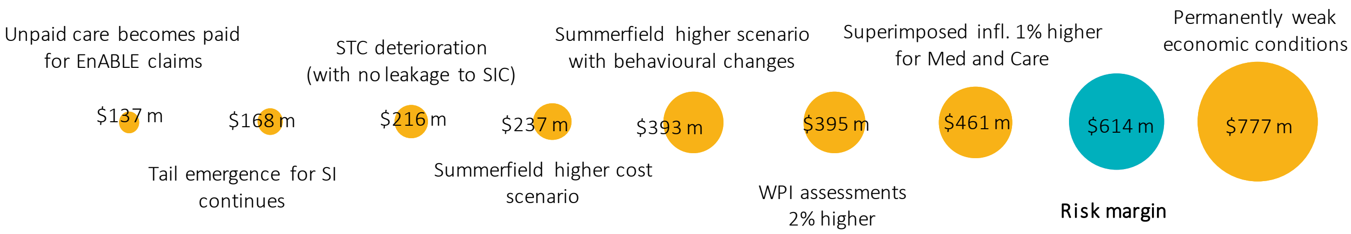


Figure 1.6 indicates that there is a range of plausible scenarios that could see the liability move by several hundreds of millions of dollars. While the most significant scenario relates to long term economic conditions (which will most likely continue to be the case now for the fund given its very long mean term of liabilities), most of the other scenarios relate primarily to Serious Injury claim numbers and/or costs.

We observe that while most of the larger uncertainties would emerge over the long term, a significant increase in the liability reserves could occur more quickly – in particular, any change that led to more claims meeting the criteria for Serious Injury benefits would have immediate consequences for the liability, as demonstrated by the *Summerfield* case.

1.9 Reliances and limitations

Our results and advice are subject to a number of important limitations, reliances and assumptions. This executive summary must be read in conjunction with the full report and with reference to the reliances and limitations set out in Section 13 thereof.

This report has been prepared for the sole use of ReturnToWorkSA's board and management for the purpose stated in Section 2. At ReturnToWorkSA's request, we consent to the release of our report to the public, subject to the reliances and limitations noted in the report.

Third parties, whether authorised or not to receive this report, should recognise that the furnishing of this report is not a substitute for their own due diligence and should place no reliance on this report or the data contained herein which would result in the creation of any duty or liability by Finity to the third party.

While due care has been taken in preparation of the report Finity accepts no responsibility for any action which may be taken based on its contents.

This report, including all appendices, should be considered as a whole. Finity staff are available to answer any queries, and the reader should seek that advice before drawing conclusions on any issue in doubt.

2 Introduction and scope

2.1 Introduction

Finity Consulting Pty Limited ("Finity") has been requested by ReturnToWorkSA to undertake an actuarial review of the Return to Work scheme as at 31 December 2021.

Our previous actuarial review was as at 30 June 2021, and was documented in a report dated 3 September 2021.

2.2 Scope of the review

The scope of the review is specified in our contract with ReturnToWorkSA.

The primary purpose of the mid-year review is to provide ReturnToWorkSA with an independent estimate of the liability for outstanding claims and projected claim costs for registered (non self-insured) employers. ReturnToWorkSA uses this estimate to update its financial position, and as an input in determining the average premium rate for the coming year.

The actuarial review also aims to provide analysis of the major features of the recent scheme claims experience, and a projection baseline against which ReturnToWorkSA can manage outcomes and monitor emerging experience in the coming year.

2.3 Compliance with standards

Professional Standard 302 issued by the Institute of Actuaries of Australia sets out the expectations of actuaries preparing estimates of the liability for outstanding claims of statutory authorities involved in general insurance activities. Our valuation, and this valuation report, have been prepared in accordance with PS 302's requirements (refer to Appendix L).

We understand that Australian Accounting Standard 1023 (AASB1023) is adopted by ReturnToWorkSA in preparing its financial statements, and we have prepared our estimate of the outstanding claims to be consistent with our understanding of AASB1023's requirements.

2.4 Control processes and review

Our valuation and this report have been subject to Technical and Peer Review as part of Finity's standard internal control process:

- Technical review focuses on the technical work involved in the project. The technical reviewer reviews the data, models, calculations and results, and also reviews our written advice from a technical perspective.
- Peer review is the professional review of a piece of work. The peer reviewer reviews the approach, assumptions and judgements, results and advice.

2.5 Structure of this Report

Section 3	Describes the approach we have taken to the valuation, and provides a brief overview of the information provided to us.
Section 4	Summarises the current operational landscape impacting on the scheme.
Section 5	Summarises high level recent claims experience.
Sections 6 to 8	Detail our analysis of scheme experience and valuation assumptions for different segments of the portfolio; all these sections are prior to the inclusion of costs related to the recent *Summerfield* decision, which is summarised in Section 9.
Section 9	Describes the additional costs that have been included due to *Summerfield.*
Section 10	Sets out other valuation assumptions, including the economic assumptions of inflation and discount rates, and the risk margins and claim handling expenses adopted in setting accounting provisions.
Section 11	Shows detailed tabulations of the outstanding claims valuation results.
Section 12	Provides sensitivity analysis of the valuation to key assumptions and highlights some of the key uncertainties in our projections.
Section 13	Sets out important reliances and limitations.
Section 14	Summarises the key events and changes in the South Australian scheme over time.

The appendices include detailed specifications of the valuation models and results.

Figures in the tables in this report have been rounded. There may be instances where the rounded information does not calculate directly to the total shown.

In this report, we use the current titles “ReturnToWorkSA” and “RTW scheme” to include the previous authority (WorkCoverSA) and scheme (WorkCover scheme), where relevant.

3 Approach and information used

3.1 Approach

The Return to Work Act 2014 ("RTW Act") made significant changes to entitlements and to the scheme operations, with all of the new features commencing on or before 1 July 2015. Under the RTW Act, Serious Injury claims have very different entitlements from other claims, as such we have modelled these claims separately. The remaining claims are described as 'Short Term claims' and are modelled in two segments: 'General Claims' and 'Hearing Loss claims'.

Hearing Loss claims have an ongoing entitlement to hearing aids (beyond the normal medical entitlement cap) and in recent years the volume of these claims has increased significantly. It is for these reasons that Hearing Loss claims are now modelled separately to General Short Term Claims, starting from this December 2021 valuation.

Serious Injury Claims are valued using an individual claim-based approach by payment type, and Short Term Claims are valued using aggregate methods, by payment type.

For this valuation we continue to identify our valuation basis as two separate components in order to understand the underlying scheme experience and separately identify the impacts of the recent *Summerfield* legal decision. As such our valuation work has been split into two stages:

1. Baseline valuation – what our liability would have been if not for the *Summerfield* decision.
2. Summerfield valuation – the overall liability estimate we have recommended after including an allowance for the *Summerfield* decision.

The *Summerfield* decision and its implications are briefly described in Section 4.2.1, before the details of our *Summerfield* valuation allowance are summarised in Section 9. Table 3.1 summarises where the entitlement and claim cohorts are documented in this report.

Table 3.1 – Report Structure by Claim Cohort

	Short Term Claims	Serious Injury Claims	Additional cost due to Summerfield	Other Assumptions	Overall Results
Valuation Basis and Results	Sections 6 & 7	Section 8	Section 9	Section 10	Section 11
Economic Impacts	Section 10 (basis) and Section 11 (results)				

Our approach to undertaking the 'Baseline valuation' and 'Summerfield valuation' are summarised below. Additional technical detail is provided in the appendices.

3.1.1 Baseline valuation and underlying Scheme experience

For this part of our work, all claims have been valued on a *pre-Summerfield* legal basis – this is the starting point in determining the outstanding claims liability. That is, Short Term Claims and 'pre-*Summerfield*' Serious Injuries have been valued in a manner that is consistent with previous work, including preparation of a 'pre-*Summerfield*' risk margin.

This allows us to understand and quantify the underlying scheme experience, before the impacts of the *Summerfield* decision are added.

3.1.2 *Summerfield* valuation

While the legal standing of the *Summerfield* decision has now been confirmed, as there are no further avenues of appeal, there is still significant uncertainty about the scale and likelihood of the impacts that will result from it.

The combination of: (1) very significant financial consequences, (2) limited historical claims information that can be used to directly assess the financial impacts of the decision, and (3) the unknown extent to which behavioural responses (whether by ReturnToWorkSA in attempting to mitigate the impact, or by plaintiff lawyers who seek to maximise the impact of the *Summerfield* decision) will impact the real world implementation of the decision, make this an unusual impact that needs to be considered in the valuation work.

This unusual set of circumstances impacts on both the central estimate of the claims liability and the recommended provision. Our approach to quantifying the potential financial impacts and determining the recommended central estimate and provision are explained in detail in Section 9.

3.1.3 Basis of the valuation

Our estimate of outstanding claims is a central estimate of the liabilities. This means that the valuation assumptions have been selected such that our estimates contain no deliberate bias towards either overstatement or understatement. The estimates are shown discounted to allow for the time value of money using a risk free discount rate, consistent with accounting standards.

In a technical sense, the central estimate is 'intended to be an unbiased estimate of the mean (statistical expectation) of the outstanding claims liability', having considered the relevant experience of the entity and taking into account any special features in the claims experience. As noted above, the *Summerfield* decision is a quite unique 'special feature' and so a different approach to standard actuarial projections has been adopted for this work – this methodology is unchanged from the June 2021 valuation, and is explained more fully in Section 9.

We have also provided a recommended provision for outstanding claims which increases the central estimate to a level intended to achieve 75% probability of sufficiency. Again, given the unusual nature of *Summerfield*, our normal approach has required modification to come up with the overall post-*Summerfield* risk margin that we have recommended ReturnToWorkSA should hold.

We emphasise that the adopted risk margin loading has **not** been set at a level that would guarantee coverage of all potential additional costs relating to the *Summerfield* decision – or other key cases like it. It is also worth observing that despite a number of apparently 'key cases' in relation to the operation of the RTW Act having resolved over recent years, new avenues of challenge to the way the provisions of the Act are applied have continued to emerge, in particular in relation to the operation of WPI assessments.

3.1.4 Revised Actuarial Modelling Groups

At the December 2021 valuation we have made two changes to the modelling approach used to assess the outstanding claims liability, namely:

1. Completely segmenting out Hearing Loss claims, due to the material growth in the number of new claims being reported and different payment profile for these claims. All other Short Term Claims are now modelled as 'General Claims'.
2. Updating payment groupings to better align with ReturnToWorkSA's internal financial reporting; essentially this is a reassignment of some payment types into different segments of our models, impacting both Short Term Claims and Serious Injuries.

Additional detail regarding these changes is provided in Appendix A.1. Where our work has been impacted by the above changes, we have highlighted this in the relevant sections of our report.

3.2 Information

3.2.1 Standard data extracts

Claims data was provided in the form of a transaction file with complete scheme history to 31 December 2021. We have not independently verified or audited the data, but we have reviewed it for general reasonableness and consistency, including reconciliations to the previous actuarial review information and to information from ReturnToWorkSA's financial statements. The claims data appears to be of high quality and contains extensive detail.

As for previous valuations, our experience analysis excludes all claims related to employers who have become self-insurers (including claims before they became self-insured).

Appendix B shows summaries of the claims data, including data reconciliations.

3.2.2 Qualitative and additional information

In addition to the standard data extracts, we obtained additional information from ReturnToWorkSA and its claims agents EML and Gallagher Bassett. This included briefing sessions in early December 2021 and operational information that was provided separately.

The additional information we received included:

- Tableau-based monthly monitoring reports showing:
  - Claim reports.
  - Payments by benefit type.
  - Open, closed and lodged disputes by month.
  - Income Support continuance rates and numbers.
- Serious Injury claim list containing:
  - All claims that are currently included in our ultimate claims, with the information as to why they have been included.
  - Flags to indicate whether they should be valued for Income Support and medical benefits.
  - General information pertinent to Serious Injury claims such as determination status and WPI.
  - Information on any disputes relating to Serious Injury applications.
- EnABLE case estimates covering:
  - Estimated half-yearly costs by payment type.
  - The level of care that is currently unpaid (that is, where there is gratuitous care that is generally provided by a family member).
  - Description of the injury and current condition.
- Information on WPI assessments including:
  - Completed and in-progress assessments by claim number.
  - Disputed assessments by claim number.
  - Lump sum payment status of completed disputes.

- Information on disputes including:
  - List of open and finalised disputes by year and latest disputation phase.
- Additional information including:
  - List of pre-approved surgeries and current status.
  - Remuneration projections for 2020/21 and onwards.

3.2.3 Additional information relating to the *Summerfield* decision

To support our work in relation to the *Summerfield* decision we have required a range of additional information to normal:

- An extract containing potential *Summerfield* impacted claims identified by ReturnToWorkSA, its external panel law firms and/or claims agents containing the following key information:
  - Claim number.
  - How the claim was identified (e.g. ReturnToWorkSA staff).
  - Whether the claim was only expected to be lump sum impacted, or else be an additional Serious Injury claim.
  - What category the claim fell into (i.e. how directly does *Summerfield* apply).
- Reviews by ReturnToWorkSA staff on claims from high risk segments.
- Discussions with lawyers and relevant subject matter experts on the ways *Summerfield* can impact on claim outcomes and costs.
- Datasets showing the lodgement of 'additional injuries' over time.
- Lump sum data showing the individual WPI scores from key accident periods for all claims with a recorded WPI score.

4 Scheme environment

This section summarises changes in the scheme's legislative and operational landscape which are considered in our valuation.

4.1 Legislation and scheme rules

There have been no changes to the scheme's legislation or Regulations since the June 2021 valuation.

4.1.1 Updated impairment assessment guidelines

ReturnToWorkSA has released the second edition of its Impairment Assessment Guidelines. The Guidelines are effective for assessments where the date of injury for the claim being assessed is on or after 24 August 2021.

Given most assessments of whole person impairment occur many years after the injury, it will take a number of years before any changes in behaviour and/or outcomes as a result of the new guidelines can be observed. We have not anticipated any change to WPI outcomes as a result of these changes at this time, but will watch the emerging experience for any signs of change.

4.2 Legal precedent under the RTW Act

The RTW Act continues to be tested through the scheme's dispute resolution processes. As has been the case for a number of years, there remain a large number of open disputes, including a higher than usual number of cases on appeal to the Full Bench of SAET and to the Supreme Court. Until there is a settled legal basis that provides clarity around how the scheme's key boundaries should operate in practice there will be uncertainty as to the financial costs which eventuate under the RTW Act benefit package.

The types of cases that are key to the long term operation of the Return To Work scheme that are still to be resolved include:

- 'Combining' of injuries for WPI assessment and lump sums – many claims remain in various stages of dispute relating to the WPI assessment rules. Despite a number of apparently 'key cases' having resolved over recent years, there has not been any noticeable reduction in the number of such disputes, and indeed new avenues of challenge to the operation of WPI continue to emerge.
- Technical details related to WPI assessments, such as how deductions should be made for prior impairments, precise quantification of what constitutes a specific body part (e.g. the spine, a knee joint, etc).
- Whether employment is the significant cause of secondary injuries or injuries away from the workplace – these types of cases have the potential to extend the benefit eligibility period beyond the 104 week cap by 're-starting the clock' on account of a new injury being recognised.

Given the lack of clarity that still remains about how the RTW Act boundaries apply in practice – in no small part due to the continued emergence of new legal challenge to the legislative rules, and then slow rate of dispute resolution thereafter – it will likely be a number of years before there is confidence about how the various RTW Act legislative provisions apply in practice (despite the fact the RTW Act has now been operational for more than six years).

4.2.1 Return To Work Corporation of South Australia v Summerfield

On 11 March 2021 a decision was handed down by the Full Court of South Australia in the case of *Return To Work Corporation of South Australia v Summerfield*[1] *("Summerfield").* This decision substantially

[1] *Return To Work Corporation of South Australia v Summerfield*, [2021] SASCFC 17, 11 March 2021

differed from ReturnToWorkSA's previously adopted position in relation to how key aspects of WPI assessments should be undertaken.

ReturnToWorkSA applied for special leave to appeal the *Summerfield* decision to the High Court of Australia, its last avenue of legal appeal. The High Court refused ReturnToWorkSA's application to appeal, at a hearing on 5 November 2021[2]; as there are no further avenues for appeal, the legal precedent set by the *Summerfield* decision stands, and ReturnToWorkSA has commenced implementing it across currently open disputes.

The key consequences from *Summerfield* as they relate to the actuarial valuation work are that:

- Assessed WPI scores will in some cases be higher, as a result of injuries being 'combined' to determine the WPI score.
- As a result of the higher WPI scores:
  - More claims will be assessed as Serious Injuries (SI). Claims assessed as SI will gain access to the legislated lifetime benefit package, and this will therefore lead to higher claim costs than would otherwise have been incurred.
  - Some claims will gain access to additional permanent impairment lump sums.

The very significant financial consequences of this decision and limited historical claims information that is available to directly assess the financial impacts, make this a somewhat unusual impact that needs to be considered in the valuation work – our approach to quantifying the potential financial impacts and determining the recommended central estimate and provision are explained in Section 9.

4.3 COVID-19 impacts

The COVID-19 pandemic and related health and economic response has been an evolving issue over the last two years. The unique set of circumstances associated with the COVID-19 pandemic means there is greater than normal uncertainty in relation to the broader financial and economic landscape, although thankfully the impacts in South Australia to date have been far less severe than in other places.

Key uncertainties at this time include the length of the pandemic and effectiveness of vaccination programs in containing and preventing infection, the potential for 'later waves' of outbreak, the related impacts of any slow-down in the broader economy, and the effectiveness of government initiatives to mitigate these impacts.

Depending on how these issues play out in South Australia, ReturnToWorkSA's liabilities may be impacted. While the impacts to date have been small, it is possible that this could change given how the situation has evolved over the last year; for example, outbreaks in other parts of Australia have highlighted how quickly circumstances can change and therefore demonstrate that the level of uncertainty is heightened at the current time.

COVID infections in the community vs COVID workers compensation claims

Following a period of extended travel restrictions, South Australian opened its borders for interstate travel on 23 November 2021[3]. This, combined with the emergence of the Omicron strain, resulted in around 10,000 SA community COVID cases being identified by 31 December 2021[4]. Over this period only eight COVID claims were reported to 31 December 2021 (the date of our data extract), although some

[2] [2021] HCATrans 183 https://cdn.hcourt.gov.au/assets/registry/special-leave-results/2021/05-11-21_SLA_Canberra.pdf

[3] Borders open to travel between NSW, VIC and ACT on 23 November 2021 https://indaily.com.au/news/2021/12/28/another-995-sa-cases-more-than-5000-since-borders-opened/

[4]https://www.sahealth.sa.gov.au/wps/wcm/connect/public+content/sa+health+internet/conditions/infectious+diseases/covid-19/about+covid-19/latest+updates/covid-19+dashboard

development in this number would be expected since that time. Earlier COVID outbreaks in South Australia in 2020 and early 2021 had resulted in only eight COVID claims, all of which were reported within one year of 'injury'.

Between 1 January 2022 and late February 2022, South Australia had recorded more than 125,000 COVID cases. We have been verbally advised that the number of COVID claims reported to the end of February 2022 is 80, with 64 of these currently accepted.

Based on the above information our current assessment is that the likelihood of a COVID infection leading to a workers compensation claim is very low. In the context of the overall size of ReturnToWorkSA's claim liabilities and other areas of (we have assessed) more immediate financial risk, we have not undertaken detailed modelling of future COVID cases.

Current assessment of impacts from COVID-19

Table 4.1 summarises a number of areas where COVID-19 has or may impact on the scheme's operations, and our assessment of the current impact of each.

Table 4.1 – Potential COVID-19 impacts

Impact	What we know
Actual COVID-19 claims	Very few actual COVID-19 claims have been reported. Given the fast rate of notification to date, IBNR cases should be trivial in relation to the overall valuation; any future outbreak could impact future premiums.
Disruption to patterns of work	There have been industries with major changes to work patterns, including a shift to working from home at times. At an overall level, the insured workforce has grown by more than expected, despite these disruptions. It largely appears that South Australia has been on a trajectory back towards normal work operations across most employment indicators, albeit with some disruptions when brief lockdown restrictions have been in place.
Changes in RTW opportunities	We are not aware of any material ongoing impacts in relation to the availability of suitable duties as a result of COVID restrictions.
Claims processing disruptions	Mobile claim management has at times been temporarily suspended during lockdown periods throughout 2020 and 2021, with the claims management workforce utilising working from home arrangements. Claims management processes have evolved to incorporate 'telehealth' and 'remote' meetings where face to face opportunities are not currently available. Dispute resolution slowed in some cases due to restrictions on cases being heard in person.
Delays to treatment	We are not aware of any material levels of treatment delay at this time.
Cost escalation	Some treatment and assessment providers are charging RTWSA additional fees for remote consultations. We expect these additional fees will be limited and not have ongoing cost implications.
Economic factors	There has been major disruption to investment markets and the economic outlook. The inflation expectations and risk free yields incorporate this outlook as explained in Section 10.

Allowances for COVID-19 impacts in the valuation

Our valuation basis assumes that COVID-19 workers compensation claims remain low in South Australia, and that there is no material level of late reported COVID-19 claims that are yet to emerge.

Our valuation basis also assumes no additional lockdowns of substance, further economic disruption or major impacts on business confidence that impacts return to work options for claimants – experience over the last two years, where RTW rates have improved rather than deteriorated, support this approach.

The experience over 2020 and 2021 has been used to guide the setting of the valuation assumptions as to the claims experience in a COVID-19 impacted world; in doing this, when interpreting the recent claims experience we have been conscious to identify areas where the experience is not, or might not, be the best indicator of ongoing performance (for example where there was a large dip in claim numbers at the initial lockdown, and when hospital costs dropped as surgeries were restricted). Under this approach the valuation assumptions implicitly incorporate the impacts of 'COVID-19' to some extent.

While we have made assessments that we consider to be reasonable, it is impossible to estimate the impact of COVID-19 on ReturnToWorkSA's liabilities with any level of certainty at the current time. While the unique set of circumstances means there is more than the general level of uncertainty around the valuation outcomes.

4.4 Other operational and environmental changes

This section describes recent trends in the scheme environment. Section 14 provides an overview of earlier operational and legislative changes which are useful in understanding the scheme's historical experience.

4.4.1 Evolution of the claims management model

Earlier identification and proactive management of potential serious injury claims

Since 2017 ReturnToWorkSA has progressively improved its claims management approach to identify 'likely' Serious Injury claims much earlier. This allows targeted activity to take place earlier in the claim and helps to ensure that those with the most serious injuries do not 'slip through the cracks' due to incomplete or unresolved WPI assessments.

While there (necessarily) still remains a high degree of uncertainty as to the ultimate number of Serious Injury claims that will emerge over time, particularly given the slow process to resolve disputes, the earlier identification of most serious injuries is a positive step. The impact of this change on observed Serious Injury claim numbers is discussed further in Section 8.

Further to the above point, the improved knowledge relating to serious injury claimants is also leading to proactive decision making that leads to better social and financial outcomes. Two examples of this are:

- For the EnABLE cohort, where it was identified that some providers operate at materially higher cost than others, changes to purchasing arrangements and/or providers are forecast to save many millions of dollars.
- Serious Injury RTW Project – additional targeted support to those with serious injuries has led to increased levels of re-training and other RTW related activity. In some cases, claimants have already returned to work who would otherwise have remained on Income Support benefits.
- If there is further success in this program over time then it is possible that it could lead to material financial savings in the serious injury claims liability, particularly so now that the *Summerfield* decision is expected to see the Serious Injury cohort become much larger in size.

"Back to basics"

Following a period of deterioration in 2018 and 2019, a number of strategies commenced in 2020 and 2021 that are intended to lead to improved claim outcomes; a key enabler of this has been an increase in the number of claims managers, to help return key case load and 'mobile claim manager' metrics back to the level they were operating at prior to 2018. This had led to:

- Improved RTW outcomes. We are advised that the reduced caseloads and refinement in the model to have more experienced resources undertaking key roles, have driven this improvement, along with mobile claims managers increasingly being aligned to key industry sectors to ensure they have the best possible knowledge of potential RTW options.
- Changes in claim acceptance practices, including tighter calculation of pre-injury earnings and overtime amounts.
- More focus on the appropriate goal for each claimant, whether that be at the pre-injury employer or with a new employer.
- More targeted referrals to vocational rehabilitation providers.

As discussed in Section 6, the aggregate impact of these changes is improving income support RTW rates, which is also leading to financial savings for the scheme.

The strategies above also consider transitional claims and Hearing Loss claims which are discussed below.

4.4.2 Continued activity on transitional claims

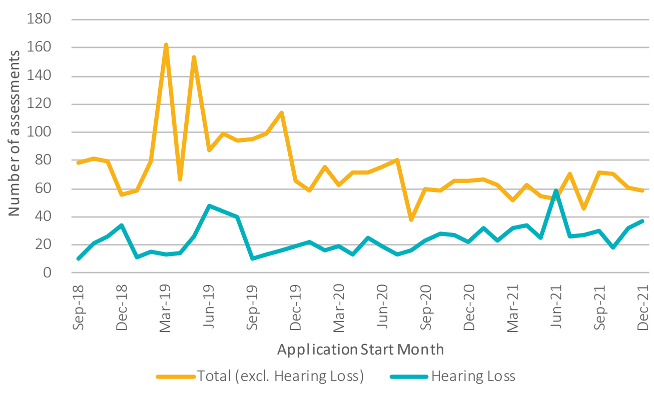
For the last three years ReturnToWorkSA and their claims agents have been proactively working with claimants to try and resolve as many 'old Act' claims as possible. For the most part these claimants ceased receiving income support and medical treatment a number of years ago, as per the scheme's legislative provisions, and so remaining costs are largely to do with lump sums, medico-legal assessment, and the resolution of disputes.

While the need to await key legal precedent somewhat explains the slow progress in resolving this cohort, more so it is the continued commencement of new activity on very old claims that has meant the timeline has been extended over time.

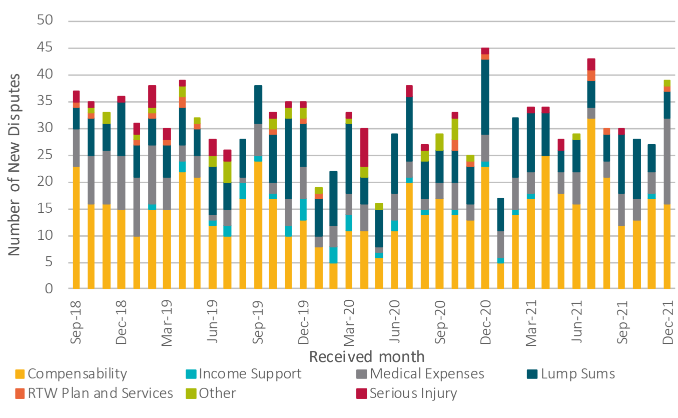
Work over the last six months indicates that the commencement of new WPI assessments on these older claims is unlikely to quickly run off, as had been previously assumed, as there is an ongoing 'pipeline' of reactivations of transitional claims. The number of transitional claims that are reopening has been relatively steady over the last two years, as demonstrated by Figure 4.1 below.

Figure 4.1 – Activity from transitional claims (i.e. pre-June 2015 injuries only)

New Applications for WPI Assessments



New Disputes Commencing



As this shows, for claims with injury dates prior to June 2015 (that is, more than six years in the past):

- The number of transitional claimants still commencing WPI applications continues to be high, and there has been no significant reduction in numbers in the last 18-24 months. Completing the assessments, finalising disputes that follow the assessments, and then completing outstanding lump sum payments on eligible claims is therefore likely to take a number of years.
- The number of new disputes continues to average around 30 per month, with only a very slow 'runoff' pattern (that is, there is only a very slow downward trend toward zero).
- Of the Transitional claims that get a WPI assessment, on average around 25% receive a lump sum payment. However, all such claims incur medical assessment costs, and 20-25% of WPI assessments completed since 2018 have resulted in some form of dispute that also attracts material costs.

It is unclear when there will be finality to these processes on Old Act claims, as there is no legal time limit that prevents claims seeking new assessments. Compounding this, the continued pipeline of activity also appears to be leading to additional claims gaining access to the Serious Injury benefit package over time, as discussed in Section 5.2, and the existence of such a large cohort of older claims has exacerbated the financial consequences of the *Summerfield* decision.

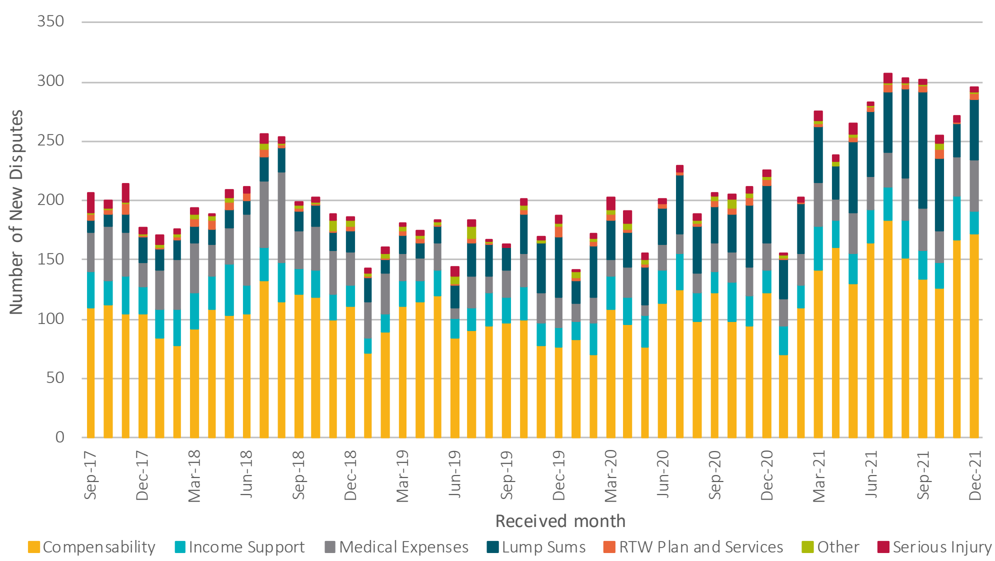
At the current valuation this continued activity on older claims has led to further increases in our cost projections, particularly for legal costs, lump sums, medical assessment/report costs and serious injury benefits. On current trends, it seems that there will be at least another 18 months of assessments at the current level before any meaningful runoff is possible; if the activity levels on these older claims continue for longer than our basis anticipates then further valuation increases will result.

4.4.3 Dispute numbers and dispute resolution

Since the RTW Act commenced in 2015, dispute numbers have tended to be between 150 and 200 new disputes per month, although there have been a number of 'spikes' as key boundaries commenced: medical expense disputes spiked after June 2016, due to a significant number of disputes around future surgery applications, and Serious Injury disputes increased around June 2017.

However, dispute volumes increased in March 2021, and have since averaged around 275 per month, as shown in Figure 4.2.

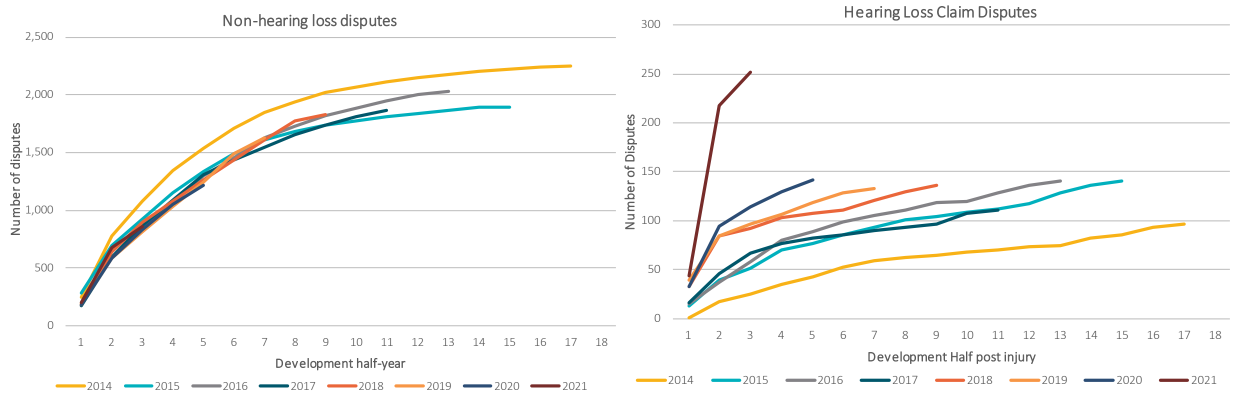
Figure 4.2 – New Disputes by Dispute Type (monthly)



The increase in disputes relates primarily to 'compensability' and 'lump sum' disputes and can be linked to an increased operational focus on compensability decisions as more claims are seeking to add on 'additional injuries' to their claim, which follows recent legal precedent decisions allowing people to combine additional injuries over time in certain circumstances. Growing volumes of Hearing Loss claims have also been a key driver of increased dispute activity.

Figure 4.3 below shows the cumulative number of disputes for each accident year since 2014.

Figure 4.3 – Number of disputes commenced by accident year

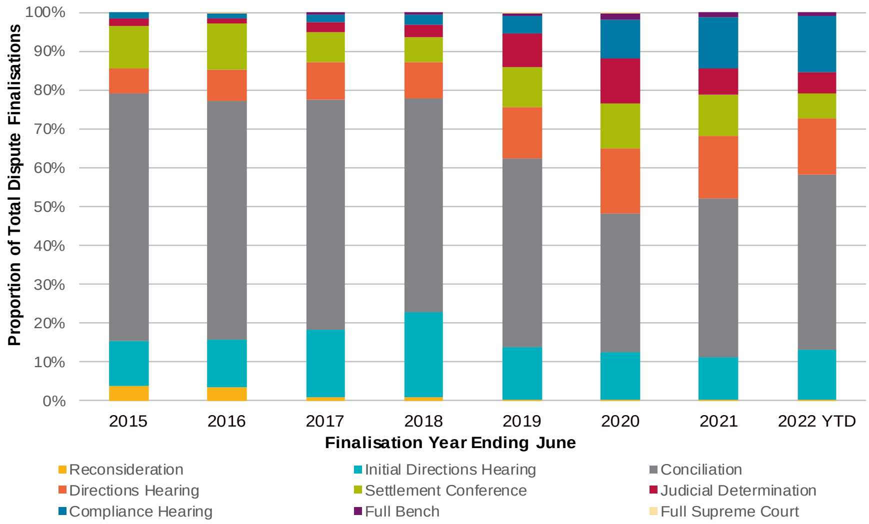


The key features to note are:

- Hearing loss related disputes are increasing year-on-year.
- For non-hearing loss claims:
  - > The number of disputes initially reduced under the RTW Act, with 2015 developing lower than 2014.
  - > Accident years 2016 to 2019 all started lower still than 2015 (each is lower than the 2015 line out to development half-year 6). This gave weight to the view that dispute numbers were likely to be lower under the RTW Act.
  - > However, each of the years 2016 to 2019 has now developed to be at a higher level than the 2015 year was at the same development stage. On current trajectories, dispute numbers for these years appear likely to end up closer to the 2014 level than to 2015.
  - > Importantly, we observe that many disputes are occurring after claims have ceased income support benefits (which typically occurs at around development half-year 5). This suggests significant disputation is related to WPI assessments.

Compounding this, there has been a clear shift in dispute finalisation patterns, with far fewer disputes resolving at or before conciliation, as shown in Figure 4.4 below. In this graph the stages of dispute are ordered, with the bottom of the bars showing the early and therefore 'cheaper' stages of resolution, and the upper ends showing the later and more costly stages.

Figure 4.4 – Stage of resolution for disputes



The key features to note are:

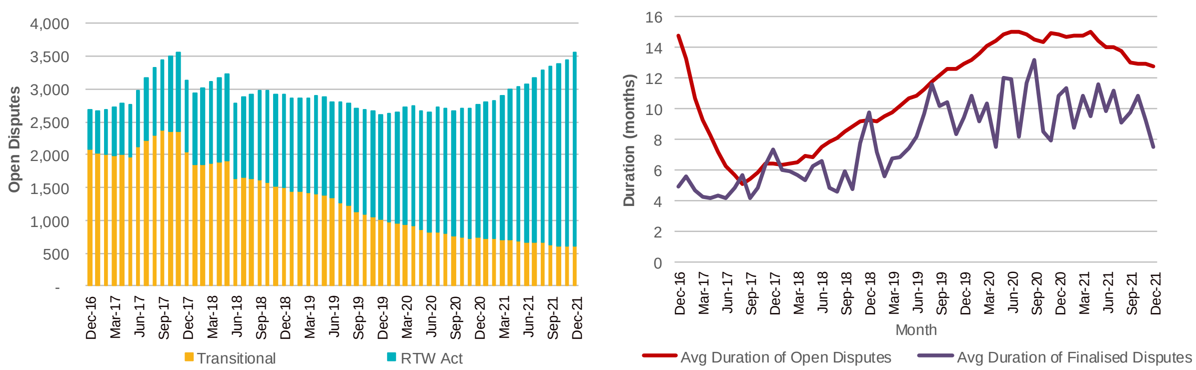
- Prior to 2019 around 75% of disputes resolved at or before conciliation, but since 2020 this has dropped to 50-60%.
- The six months of experience for 2022 shows an increase in settlements at conciliation, which likely reflects recent operational changes.

More claims extending into the later stages of dispute extends the duration of disputes and increases the legal expenditure, resulting in a higher average legal spend per dispute.

The significant growth in the number of disputes moving beyond conciliation has led to a considerable lengthening of dispute timeframes over the last few years. The result is that the number of open disputes remains high, at over 3,500 disputes (up from just over 3,000 disputes at June 2021). Figure 4.5 shows the number of open disputes over time, split between RTW Act claims and transitional claims (left hand chart), and the average duration of open and finalised disputes (right hand chart).

Figure 4.5 – Open disputes and duration

Open Disputes **Average Duration of Disputes**



Our observations are:

- The number of open RTW Act disputes continues to increase: from 2,016 at Dec-20 to 2,940 at Dec-21, a 46% increase in the last year. This indicates the new scheme is not yet at a 'steady state' for disputes.

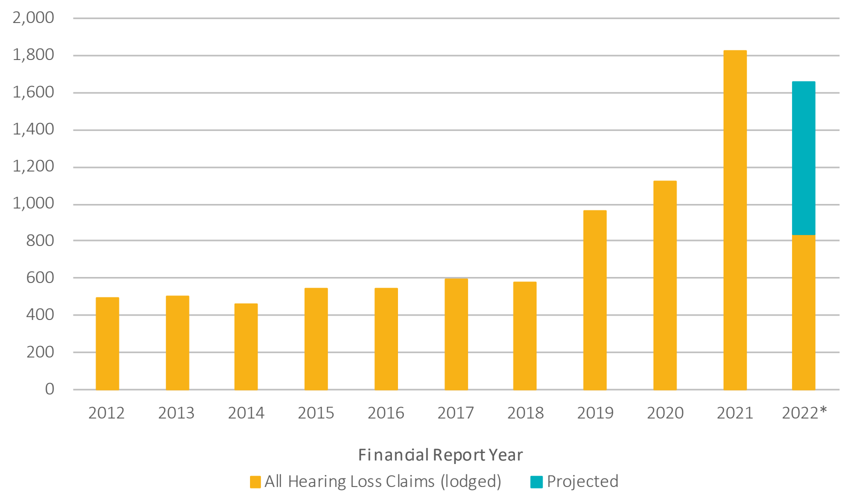
- Open transitional claim disputes are only slowly reducing. There are still over 540 disputes open for transitional claims.
- The duration for open disputes has more than doubled since 2017, from around six months to 12 months now. Even though the growth in duration has tempered in recent months, it is nevertheless the case that since income support benefits for most claims are capped under the RTW Act, even a 10-12 month dispute resolution timeframe is considered slow.

4.4.4 Increasing numbers of Hearing Loss claims

Noise induced hearing loss claims were historically only a small proportion of total claim numbers, but their numbers have been growing rapidly. Much of this increase has come from a small number of providers (including both legal providers and medical providers).

As shown below, new hearing loss lodgements more than tripled between report year 2018 and 2021. We note that FY2022 and parts of FY2021 were impacted by COVID lockdowns, which meant some medical assessments were delayed because interstate doctors could not get to Adelaide, resulting in lower claim volumes than would have otherwise been made. The blue column represents our projected reports for the remainder of FY2022.

Figure 4.6 – Hearing Loss claim reports



With the growth in new Hearing Loss claims, there is also now material growth in payments to these claimants and providers.

To help manage this area ReturnToWorkSA has increased the number of specialist staff in its claims agents, with a focus on ensuring there are sufficient resources with the technical skill sets required to assess these claims. In addition to the extra staffing resources, new claim forms have been developed to ensure that the proper employment history has been gathered and is available when assessing the claim.

At this valuation we have modelled Hearing Loss claims separately. The projections relating to Hearing Loss claims are discussed in Section 7.

5 Recent claims experience

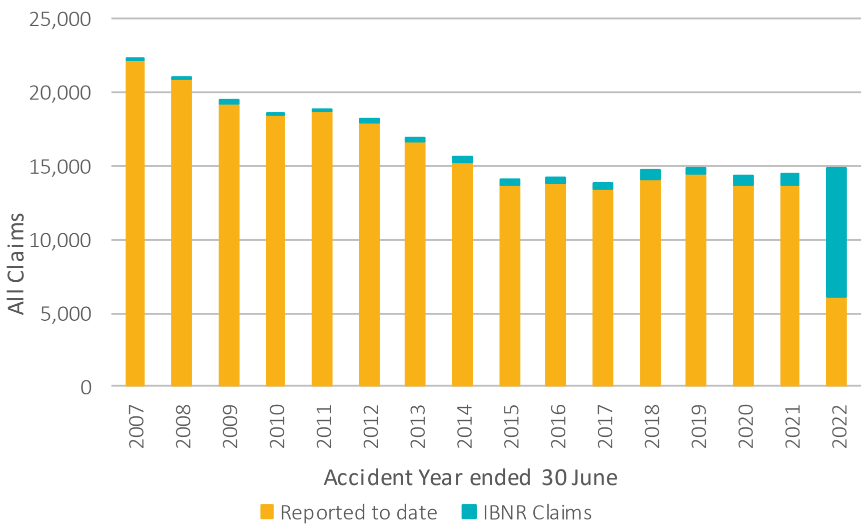
This section provides a high-level analysis of scheme experience, including the numbers of new claims and overall payment trends.

5.1 Claim incidence

5.1.1 All claims

Figure 5.1 shows the estimated numbers of claims incurred in recent accident years (excluding reports which are determined as 'incidents'). The graph separates the actual numbers reported to date and our projection of claims incurred but not yet reported (IBNR).

Figure 5.1 – Ultimate number of claims (all claims)



After a long period of trending downwards, claim numbers flattened out between 2015 and 2017. 2018 and later years have since had consistently higher claim numbers than the 2015 to 2017 level.

The primary factors driving the recent claim numbers are:

- Claim frequency deterioration: the construction and manufacturing industries in particular experienced an increased claim frequency trend in 2018 and 2019.
- Big growth in the numbers of hearing loss claims, and in early years mental injury claims as well.
- Higher exposure growth, after an extended period of lower wages growth.
- Partially offsetting these trends were lower claim numbers during periods of COVID-19 restrictions in 2020 and 2021.

Our estimate of ultimate claim numbers for 2021 has increased by 1.4% since the previous valuation; a part of this increase is explained by workforce growth, with ReturnToWorkSA increasing its estimate of covered wages by 4.9% from the estimates at June 2021. Ultimate claim numbers in 2022 are expected to further increase from 2021 in line with wages growth. There were offsetting movements in our underlying valuation response which reflect the following observations:

- Hearing Loss claims continued to emerge at a high rate over the last six months, which was in line with previous projections. Our basis is unchanged at this valuation after sizeable increases over the last three valuations. As explained in Section 3.1.4, we are now separately modelling the costs for Hearing Loss claims, given the growth in volume.

- Mental injuries for 2021 had a small increase (2%) from previous estimates, representing half of the increase to exposure. Projected claim numbers for 2022 have been increased by 4%, in line with the increase in exposure.
- For Physical Injury claims the emerging experience has been consistent with expectations, and the previous claim frequency has been maintained.
- The experience for Musculoskeletal claims has been favourable overall with lower than expected reports for September and December 2021 partly offset by higher reports in the June 2021 quarter. This experience flows through to result as a slight increase in the claim numbers for the 2021 and 2022 injury years but a reduction in the underlying frequency.
- 'Other' injuries have been sped up reflecting a faster reporting pattern emerging in the emerging experience. Updating the claim frequency selections, we have projected a 5% increase for 2021 and 7% increase for 2022 in the ultimate number of claims.

5.1.2 Income support claims

Income Support (IS) claims in the valuation work are those which receive more than 10 business days of lost time benefits. This means they are already a 'more serious claim' given they have been off work for at least two weeks.

Figure 5.2 shows our projected ultimate numbers of IS claims, split into those who have already received an IS payment and those who are expected to receive their first IS payment in future (IBNR).

Figure 5.2 - Ultimate IS claim numbers

Figure 5.2 shows:

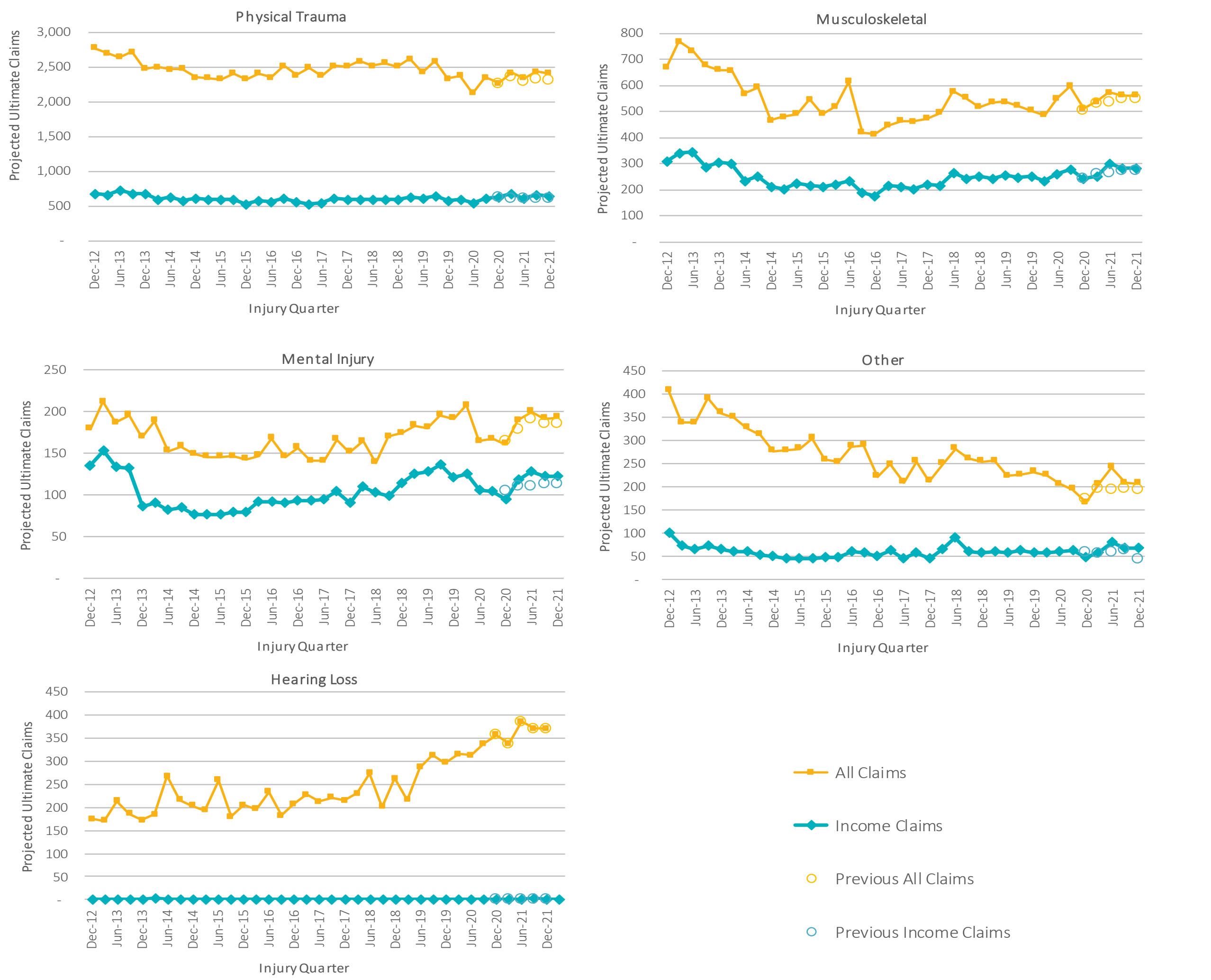
- IS claim numbers dropped by 17% between 2006 and 2010, and then rose again over the next two years to sit at about 5,000 claims p.a. in 2012 and 2013.
- IS claim numbers reduced again in 2014 and in 2015, and were then sitting around 3,700 p.a. for three years; this experience represents the lowest level since the scheme commenced.
- Between 2017 and 2019, IS claim numbers rose quite noticeably. The estimate of IS claim numbers for 2018 is 9% higher than 2017, and the 2019 estimate is 4% higher than 2018.
- For the 2020 injury year, and despite it being significantly impacted by COVID-19 and having lower claim numbers overall, we have still seen a similar number of Income Support claims as 2019 – this means the proportion of claims getting Income Support has increased, which may

also indicate that the reduction in claim numbers during COVID-19 disruptions was more to do with people choosing not to report more minor injuries.

- 2021 and 2022 now appear to be emerging even higher, with what looks to be a continuation of the upward trend in IS claim numbers since 2017. As seen in the graph, considerable development of claim numbers is still expected for the latest accident year (i.e. a lot of the projection still sits as IBNR claims), and so there is more uncertainty around the ultimate outcomes for this year.

In order to better understand the trends in IS claim numbers, we separately model claim numbers by type of injury. Figure 5.3 by injury type, the total numbers of claims as well as IS claim numbers.

Figure 5.3 – All claims and IS claims by type of injury



The key features we note from Figure 5.3 are:

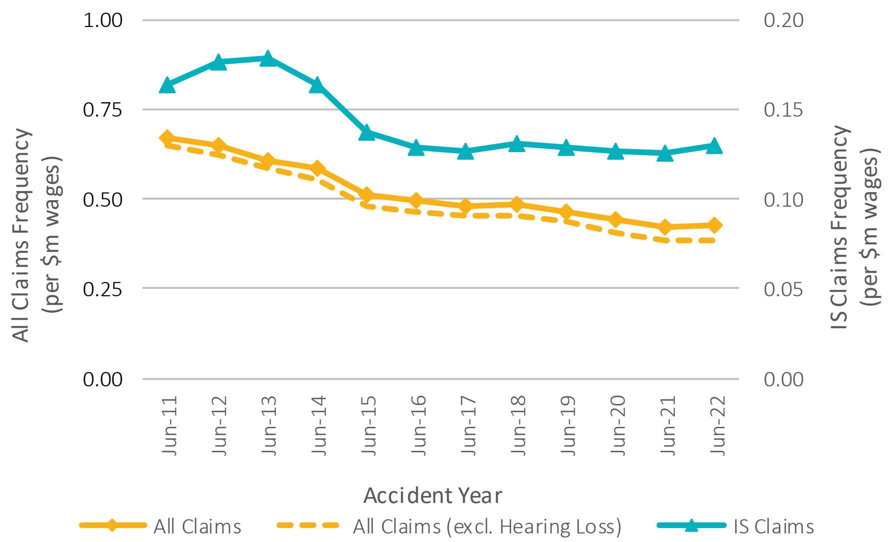
- COVID-19 restrictions led to reduced claim numbers in the June 2020 quarter for Physical Trauma injuries. IS claims however did not reduce to the same extent and are now higher than they were prior to COVID-19.
- Following a period of strong growth over the two years to December 2019, Mental Injury claims experienced a significant drop-off in the number of “All” and IS claims. “All” claims have started to trend up again and are now approaching similar levels to December 2019. IS claims have not increased as much, due to higher rejection rates recently, but have still exhibited a strong increase over the past 12 months.

- Hearing Loss claims have been steadily increasing since June 2018. The growth in claim numbers appear to have flattened off in the last six months, however there is still a significant number of IBNR claims to come for these injury periods. Hearing Loss claims now represent around 10% of all claims expected to be received from a new injury year, compared to more like 5-6% just three years ago.
- Musculoskeletal claims have seen an increase in claim numbers since the start of COVID-19 and this has translated into even higher IS numbers.
- The mix of claims by injury type has important implications for longer term IS claim costs, as there are noticeable differences in claim durations between the different groups.

5.1.3 Claim frequency – All claims and IS claims

Figure 5.4 compares the trends in (1) total claim frequency ('all claims' numbers from Section 5.1.1), (2) total claim frequency excluding hearing loss claims, and (3) IS claim frequency (IS numbers; Section 5.1.2). The frequencies are expressed relative to covered scheme wages (in current values). The two series are shown on different scales so the trends can be directly compared.

Figure 5.4 – Claim frequency (claims per $m wages)



The IS claim frequency was on a similar trend to the all claims frequency prior to 2010, before diverging between 2010 and 2013. After the steep improvement in the IS claim frequency between 2013 and 2015, trends in the IS claim and all claim frequencies were broadly in line until 2018, when the IS claim frequency began to deteriorate again. While the overall claim frequency has been reducing strongly in recent years, it is not the same for IS claims with the gap growing even further between the two lines in the latest year.

The current reducing trend in the all claim numbers frequency is a product of growth in hearing loss claims offset by reducing claim frequencies in other claim types, which is broken down further in Table 5.1.

Table 5.1 – Projected ultimate claim frequency: comparison to previous

	All claims (excl. hearing loss)				Hearing Loss Claims			
Accident Year	Claim Freq (per $m of wages)	Year on Year % Change	Prev. Freq	Change from Prev	Claim Freq (per $m of wages)	Year on Year % Change	Prev. Freq	Change from Prev
Jun-19	0.44	-4%	0.44	0.0%	0.03	-2%	0.03	0.1%
Jun-20	0.41	-7%	0.41	0.0%	0.04	27%	0.04	0.0%
Jun-21	0.38	-6%	0.38	1.6%	0.04	8%	0.04	0.0%
Jun-22	0.39	1%	0.37	3.9%	0.04	3%	0.04	0.0%

5.2 Serious Injury claims

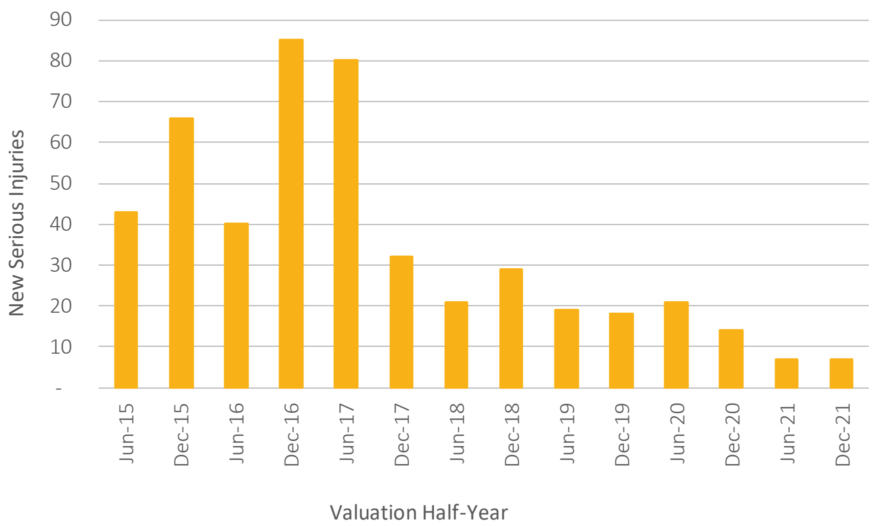
[All experience noted here is prior to the Summerfield decision.]

The Serious Injury threshold of 30% WPI is the most material scheme boundary from a financial perspective.

The formal process for recognising a claim as being a Serious Injury is a determination by ReturnToWorkSA once a claim is assessed as having a WPI of 30% or more. For our valuation work we also consider claims that are not yet formally determined as being a Serious Injury but who are expected to become so in future. We do this by using information on claims identified as 'potential' Serious Injury claims, based on profiling and review work by ReturnToWorkSA which uses the medical and claims file evidence (for example, information on the injury and any need for future surgeries) on a claim by claim basis. The list of likely Serious Injury claims is updated over time as claims are re-reviewed, such as when there is a change in the claim situation that suggests a claim will or won't meet the 30% WPI threshold; all claims are ultimately confirmed as either meeting or not meeting the requirements to be considered a Serious Injury.

We are now 6.5 years into the RTW Act, and the emergence of Serious Injury claims from the transitional cohort has continued for much longer than expected. Even though very few (non-Serious Injury) pre-RTW Act claims are still in receipt of Income Support payments, Serious Injury claims continue to emerge and the number of open Serious Injury application disputes and/or unresolved WPI disputes remains high, as was discussed in Section 4.4.3; we are also now seeing similar types of behaviour from RTW Act claims. This means there continues to be uncertainty around Serious Injury claim numbers well beyond when claims hit the two year Income Support boundary. Figure 5.5 shows the emergence of the current cohort of Serious Injury claims for transitional periods by six monthly period (excluding Severe Traumatic injuries as these tend to be identified quickly).

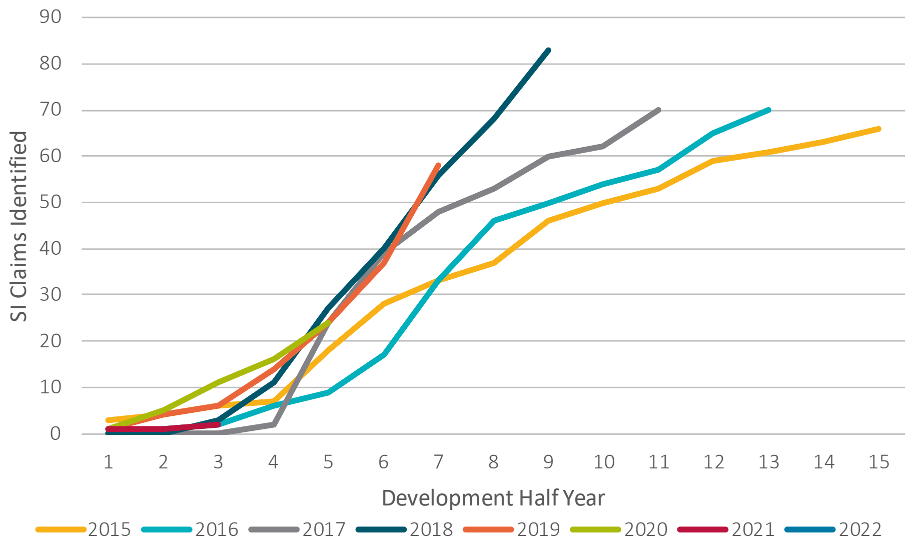
Figure 5.5 – Newly identified Serious Injury claims - Transitional claims only



Over the past 12 months there has been a more consistent reduction in the number of new Serious Injury claims identified, although the runoff is still much slower than we originally anticipated with an additional seven claims identified in the last six months. The number of new identifications needs to quickly reduce toward zero for ultimate claim number estimates to not further increase.

For RTW Act periods the emergence of Serious Injury claims continues to quicken, which is in part following changes ReturnToWorkSA has made to the claims management model to aid early identification, as discussed in Section 4.4.1. As explained above, because of the inclusion of 'potential' serious injury claims it is likely that a small number of currently identified claims, mainly for more recent accident years, will become 'outs' in future and this will somewhat help to 'flatten off' the emergence pattern. The emergence pattern for recent accident years is shown in Figure 5.6 below.

Figure 5.6 – Serious Injury emergence for recent accident years



There are two key features worth noting:

- There continues to be late identification of Serious Injury claims in the 2015 to 2017 accident years, highlighted by the absence of any real 'flattening off', even well beyond the two year Income Support cap.
- The number of claims identified for more recent accident years is clearly higher at earlier stages; while we know there were conscious efforts to identify likely Serious Injury claims sooner, it seems clear now that this is not just a speeding up in the identification process, and so at least part of the higher numbers since 2018 is due to deterioration. Our current assessment is that:
  - The gap between the 2016 and 2017 accident years was around 20 claims at development half year six. This has narrowed to closer to 15 claims at development half year 10, suggesting that claims are being identified more quickly.
  - However, 2018 already has more claims identified than the preceding three accident years suggesting that claim numbers will end up higher for this accident year; 2019 and 2020 are so far following a similar trajectory.

The combination of these features makes it difficult to rely on historical patterns to project ultimate claim numbers for more recent accident years.

Given this, our approach to setting ultimate Serious Injury numbers (other than Severe Traumatic Injury claims) uses a similar framework to previous valuations:

1 For 2018 and prior accident years the IBNR is an explicit allowance, based on:

a The number of claims with either a Serious Injury dispute, Serious Injury application, section 7 dispute, WPI dispute or WPI activity initiated,

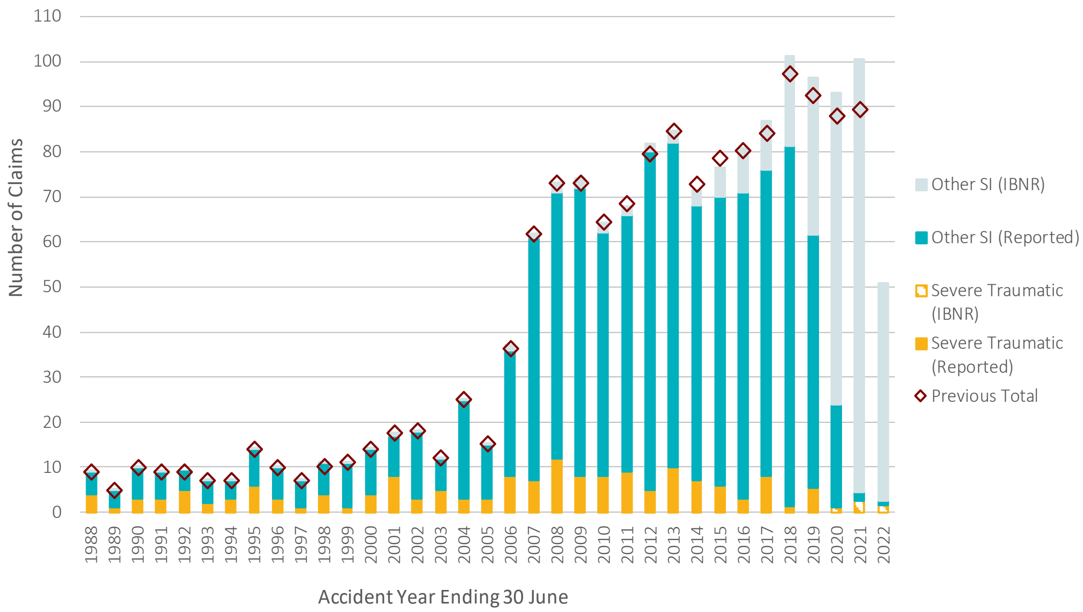
b Plus, a loading for claims to be identified from outside these sources (which we then add to the identified Serious Injury claims to give the ultimate).

The approach for these periods is largely unchanged from the previous valuation, with only minor changes to the source definitions and our conversion assumptions for the identified IBNR sources and IBNR loading.

2 For 2019 and later accident periods, our estimates have been set based on our projected ultimate claim numbers from the 2016 to 2018 accident years with an allowance for exposure growth. While the factors that influenced the higher claim numbers for 2018 are likely to also influence the 2019 accident year to a certain extent, an end-to-end review of Serious Injury claims by ReturnToWorkSA has identified some key areas where improved decision making should result in fewer Serious Injury claims going forward. This was discussed in detail in our June 2021 valuation report.

Figure 5.7 shows our resulting estimated numbers of Serious Injury claims by accident year.

Figure 5.7 – Serious Injury claim numbers by accident year



The key features we note from this are:

- The number of identified Serious Injury claims prior to 2007 is low, which is a result of past redemption activity removing such claims from the scheme.
- For Severe Traumatic Injuries, which tend to be identified quickly, the estimates for each accident year generally give credibility to experience to date. The 2018, 2020 and 2021 years look like being very low years for Severe Traumatic Injuries, whereas the 2017 and 2019 years look higher (although they are still lower than the average of the 2007 to 2013 years).
- For 2015 and prior accident years there has been little change to the ultimate number of claims.
- For the 2016 and more recent accident years the estimate of ultimate Serious Injury claims has increased. This reflects the continued emergence of Serious Injury claims well beyond the two year Income Support boundary, as well as the high levels of claims already identified for more recent accident years, most notably for 2018.

Overall, we have allowed for 322 IBNR claims in our projections, which equates to 3.1 injury years' worth of claims.

Underpinning our IBNR allowance is the assumption that the speed up in the identification of Serious Injury claims in recent years reduces the tail of claims identified well beyond the two year Income Support cap. If this does not hold, or the late identification of Serious Injury claims for older years does not start to run off soon, there will need to be material increases for both the outstanding claims liability and the breakeven premium rate for future years.

To put our allowances for future Serious Injury claim numbers into context, we compare the remaining IBNR allowance for each accident year with the number of claims sitting in each 'IBNR pool' and other remaining open claims in Table 5.2 below.

Table 5.2 – Serious Injury IBNR vs remaining open claims (2018 and prior accident years)

Accident Period	SI Application[1]	WPI Activity[2]	Other Open	Total Open Claims[3]	Serious Injury IBNR	IBNR
Prior	7	74	194	275	4	1.3%
2007	1	5	14	20	1	4.1%
2008	5	8	21	34	2	6.4%
2009	4	10	23	37	2	5.5%
2010	5	17	27	49	2	4.6%
2011	5	11	33	49	2	3.7%
2012	3	14	28	45	2	4.2%
2013	5	28	36	69	3	3.9%
2014	5	40	50	95	4	3.7%
2015	11	44	58	113	7	5.8%
2016	11	105	142	258	10	3.8%
2017	12	162	158	332	11	3.3%
2018	17	268	257	542	20	3.7%
Total	91	786	1,041	1,918	68	3.6%

[1]Either in SI application dispute, or recent application without decision
[2]WPI assessment not completed, or WPI/s7 dispute
[2]Excluding claims already counted as SI and NIHL

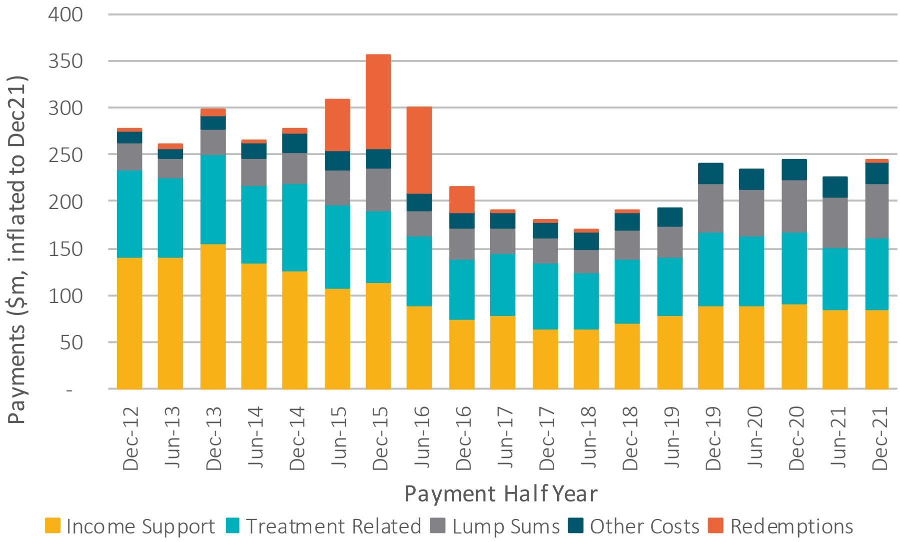
Table 5.2 demonstrates that we are currently only allowing for a small proportion of the remaining open claims to reach the Serious Injury threshold; it would take only small deviations from this to have large consequences for the outstanding claims liability – particularly for the 2018 accident year where over 500 claims remain open. There is therefore more risk that our IBNR is too low than too high.

Given the high value of Serious Injury benefits, higher than expected Serious Injury claim numbers would materially increase the liability.

5.3 Overall payment experience

Figure 5.8 shows gross claim payments (before recoveries) in half-yearly periods over the last ten years, inflated to current values.

Figure 5.8 – Gross Claim Payments ($Dec21)



Gross payments of $241m in the last six months were up 7% from the previous period, with increases across most payment types:

- Income Support payments increased by 1% over the past six months, following an 8% decrease in the previous period. There are two offsetting factors impacting this: improved RTW rates at mid to longer durations are reducing payment levels, while an increase in new IS claims is putting some upward pressure on payments
- Treatment related costs increased by 15%, following a 14% reduction in the previous period. This follows a temporary slowdown in payment processing in the prior six month period, following a number of unexpected staff absences, that have now been caught-up in payments
- Lump sum payments increased by 7%, following a very small reduction in the previous period. Prior to this there were steep increases in payment levels over the June 2018 to December 2019 period, as activity in the Transition project resulted in more payments.

After allowing for recoveries of $6.2m in the last six months, net claim payments of $234.9m were $9.7m (4%) higher than projected at the previous valuation. Table 5.3 shows the breakdown.

Table 5.3 – Payments: Actual vs Expected

Entitlement Group	Six Months to Dec-21 Actual	Expected	Act - Exp	% A - E	Split by Category Short Term	Serious Inj
	$m	$m	$m		$m	$m
Income support	85.1	86.6	-1.5	-2%	-1.4	-0.1
Redemptions	0.0	0.0	0.0	n/a	0.0	0.0
Lump sums	57.6	49.3	8.3	17%	7.8	0.5
Legal - Non-contract	10.8	8.5	2.3	27%	2.1	0.2
Contract Legal	10.6	11.6	-1.0	-8%	-0.5	-0.5
Medical incl. Physio	48.0	50.1	-2.0	-4%	-1.0	-1.1
Hospital	10.6	10.8	-0.2	-2%	-0.6	0.3
Travel	3.1	3.0	0.1	4%	0.2	-0.1
Rehabilitation	5.1	5.4	-0.2	-4%	-0.2	-0.1
Investigation	1.2	1.1	0.1	12%	0.2	0.0
Other incl. Care	8.7	7.8	0.9	12%	-0.4	1.4
Common law	0.0	0.1	-0.1	-100%	-0.1	0.0
LOEC	0.1	0.1	0.0	0%	0.0	0.0
Commutation	0.0	0.2	-0.2	-100%	-0.2	0.0
All Payments	241.1	234.5	6.6	3%	6.0	0.6
Recoveries	-6.2	-9.3	3.1	-34%	-0.2	3.4
Net Payments	234.9	225.2	9.7	4%	5.7	4.0

The key features of the last six months' payment experience are:

- Income support payments were below expected, driven by Short Term Claims
- Lump sum payments were higher than expected, which was mostly due to Short Term Claims where expected savings from the transfer of costs to Serious Injury claims post the *Summerfield* decision did not eventuate. Death benefits were also high in the last six months. This is explained further in Section 6.4
- Treatment costs were marginally below expected due to lower than expected Medical payments
- Worker legal costs were significantly higher than expected due to a high number of dispute settlements for both transitional and RTW Act claims. The increase in new dispute numbers will not yet be part of these high payment levels, as costs are normally only paid on finalisation of the dispute.

Our valuation basis for General Short Term Claims is discussed in Section 6 and Hearing Loss claims in Section 7. Section 8 discusses our valuation of Serious Injury claims.

6 'General' Short Term Claims

The following section summarises the Short Term Claims results for all claims other than Hearing Loss claims; we refer to these as "General Claims". Hearing Loss claims are separately identified in Section 7.

We note that the valuation assumptions and impact described here relate only to the 'baseline valuation' (see Section 3.1 for more information). The additional cost due to *Summerfield* is detailed in total in Section 9.

6.1 Summary of results

Table 6.1 summarises the liability estimates for General Claims. Due to the change in modelling approach at this valuation, a summary of the change in the liability can only be done across all Short Term claims (i.e. General and Hearing Loss claims combined), which is included in Section 6.7.

Table 6.1 – Valuation results: 'General' Short Term Claims

	Income Support	Lump sum	Worker Legal	Contract Legal	Medical	Allied Health	Hospital	Rehab	Travel	Other	Care	Rest[1]	Recoveries	Total General Claims
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
Estimated liability at Dec-21 (Jun-21 ecos)	161.2	273.7	60.5	39.8	63.4	25.9	17.2	12.8	6.0	5.1	2.1	6.3	(35.0)	638.9
Impact of change in eco assumptions	(0.3)	(2.1)	(0.1)	(0.1)	(0.1)	(0.0)	(0.0)	(0.0)	0.0	0.0	(0.0)	(0.0)	0.1	(2.7)
Estimated liability at Dec-21 (Dec-21 eco)	160.9	271.5	60.4	39.7	63.3	25.9	17.2	12.8	6.0	5.1	2.1	6.3	(35.0)	636.1

[1] Rest includes: Investigation, Commutation, Common Law and LOEC

The remainder of this section deals with the payment experience and valuation basis.

6.2 Valuation approach

6.2.1 Income support

Income support payments are modelled separately for Physical Trauma, Mental Injury, Musculoskeletal, Hearing Loss claims and Other. Hearing Loss claims are included in this section of the report as there are only a handful of claims entitled to Income Support.

IS payments in the first three years after injury are valued using a PPAC model. For payments beyond three years after injury, a PPCI model is used. The IS liability includes payments to dependants, back-pay and IS payments for late surgeries.

6.2.2 Lump sum costs

We value lump sums in four segments, namely First Paid, Economic Loss, Death and Hearing Loss. Hearing loss claims are modelled separately in Section 7.3.

Our valuation basis adopts a combination of the chain ladder approach for more mature accident periods and a frequency-based approach for more recent accident periods where there is less experience and there have been changes in the pattern of payments. More information on these methods is provided in Appendix A.

6.2.3 Legal and Treatment Related Costs

Under the RTW Act most treatment and related costs cease 12 months after Income Support ends. The exceptions to this are payments for medical aids and appliances and medico-legal costs (for example related to medical assessments for WPI). Our modelling approach captures these features using:

- Long term model (PPCI) – this is a quarterly model used for the valuation of all treatment and Worker Legal liabilities.
- In some cases, we have shown two sets of valuation assumptions, namely:

> "RTW Act claims" - claims occurring after the RTW Act provisions commenced on 1 July 2015.

> "Transitional claims" – those that occurred prior to 30 June 2015. The "Transitional claims" selections generally only apply for a small number of projection quarters before reverting to the "RTW Act claims" selections.

Detailed descriptions of the projection models and details of all projection assumptions are included in Appendices A and H.

6.3 Income support

This section describes our valuation of Income Support (IS) payments for Short Term Claims (STC) only.

6.3.1 Summary of results

Table 6.2 summarises the movements in our liability estimates for IS payments since the June 2021 valuation.

Table 6.2 – Valuation Results: Income Support

Valuation Results: STC Income Support			
Jun-21 Valuation	$m	$m	$m
Estimated Liab at Jun-21	167.4		
Projected Liab at Dec-21	170.0		
Dec-21 Valuation		AvE pmts	Actl Release
Impact of experience/OSC - valuation release	(8.8)	(1.4)	10.2
Estimated Liab at Dec-21 (Jun-21 eco assumptions)	**161.2**		
Impact of change in eco assumptions	(0.3)		
Estimated Liab at Dec-21 (Dec-21 eco assumptions)	**160.9**		

At December 2021 there is an actuarial release of $10.2m, reflecting the claims experience since June 2021 and our valuation response to this. The impact of economic assumptions is minor.

6.3.2 Experience vs expectations

Payments

Table 6.3 compares the IS payments in the six months to 31 December 2021 with the expected payments from our June 2021 valuation projection.

Table 6.3 – Actual vs Expected Payments: IS

Accident	Payments in Six Months to Dec 21			
Period	Actual	Expected	Act - Exp	Difference
	$m	$m	$m	
To 30 Jun 05	0.3	0.3	0.0	16%
2005/06 - 2014/15	0.8	0.7	0.0	5%
2015/16 - 2018/19	4.4	4.4	(0.0)	0%
2019/20 - 2020/21	53.2	55.1	(1.9)	-3%
2021/22[1]	8.8	8.4	0.4	4%
Total	67.5	68.9	(1.4)	-2%

[1] Accidents to Dec21

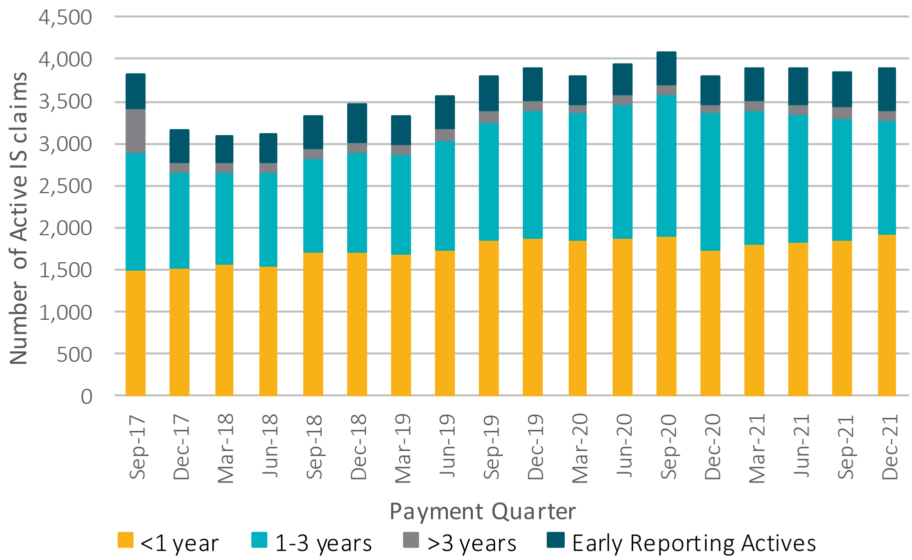
IS payments were 2% ($1.4m) lower than expected overall in the six months to December 2021. This was due to:

- $1.9m of lower payments for the 2019/20 and 2020/21 accident years following improved return to work rates and lower average payment sizes.
- $0.4m of higher payments for the 2021/22 year relating to higher income claim numbers than expected.

Active claims and exits

Figure 6.1 shows the numbers of (quarterly) active IS claims, split by duration.

Figure 6.1 – Numbers of Active IS Claims



The impact of the 104 week boundary on IS payments can be seen in December 2017 with the exit of longer term claims. Since June 2018, active claim numbers then steadily increased, from just over 3,000 claims per quarter to over 4,000 in September 2020. This increase was due to a combination of higher exposure, deteriorating claim frequency and longer claim durations. The fastest growth was in 1-3 year actives, which grew by more than 40% between September 2018 and September 2020.

The December 2020 quarter then saw a significant improvement in the number of active claims, dropping from above 4,000 in September to around 3,800 active claims in December due to fewer <1 year duration claims. Since December 2020, the overall number of active claims have remained steady at around 3,900 claims. Importantly though, this is due to the offsetting impacts of growing <1 year and Early Reporting actives, offset by reducing 1-3 year actives.

In Table 6.4 we compare the numbers of active IS claims at December 2021 with our June 2021 valuation projection. This has been done only for periods where we projected future active claims at the June 2021 valuation (accident quarters March 2019 and later).

Table 6.4 – AvE Active Claims

Accident Quarter	Proj from Jun-21 Val	Actual Actives	Act *less* Proj	Diff as % Proj
Mar-19	20	17	-3	-14%
Jun-19	36	32	-4	-10%
Sep-19	92	86	-6	-7%
Dec-19	230	193	-37	-16%
Mar-20	232	210	-22	-9%
Jun-20	238	218	-20	-8%
Sep-20	293	299	6	2%
Dec-20	309	293	-16	-5%
Mar-21	432	435	3	1%
Jun-21	565	587	22	4%
Sep-21	704	715	11	2%
Dec-21	201	182	-19	-9%
Total	3,351	3,267	-84	-3%

Overall, active claim numbers at December 2021 for these periods were below expectations, with higher than expected numbers for 2020/21, offset by better performance for the 2019/20 accident year.

6.3.3 Modelling of STC IS payments

Our modelling approach for IS payments involves:

- **For all IS payments in the first three years after injury (development years 1 to 3) – a PPAC model** which models all IS entitlements at these durations; this includes IS payments to dependants, late IS payments (back-pay), claims with 'late starting incapacity' and IS payments made following surgery where the claimant would not otherwise have been entitled to IS.
  - We model IS entitlements separately for five main injury groups: Physical Trauma, Musculoskeletal, Mental Injury, Hearing Loss and Other. The split allows us to better reflect the specific continuance and average size profiles of each claim segment, and allow for the changing mix of injuries over time.
- **For all IS payments more than three years after injury (development years 4 and later) – a PPCI model**, which splits out IS payments to dependants from other IS payments (mostly back-pay and IS payments following late surgeries). This PPCI model uses total claim numbers excluding Hearing Loss claims (not just IS claims) as the base.

The Hearing Loss claim assumptions are not provided in this section on materiality grounds, and can be found in Appendix F.

6.3.4 Valuation basis: IS payments in years 1-3: PPAC model

In this section we show the December 2021 continuance rate and PPAC selections for each individual injury group and compare them to the June 2021 selections. Later, we show the overall assumptions compared to the June 2021 valuation, to demonstrate the overall movement in the basis.

As explained above there are two main components to the modelling:

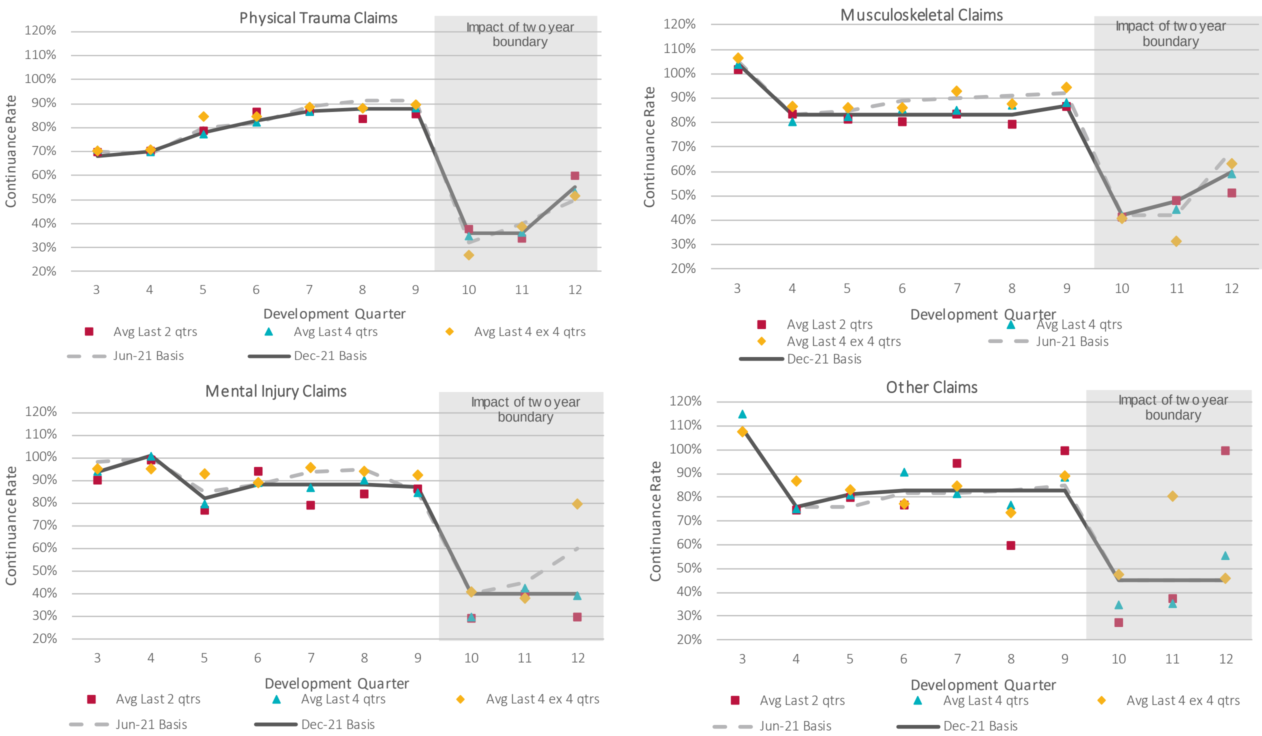
- Projected active claims: based on historical claims performance, as well as expectations of how this performance will emerge in future.
- Projected average payment size (PPAC): based on historical claims performance.

These two components of the income cost projection are described in more detail below.

Projection of active claims

Figure 6.2 below shows the recent continuance rate experience and our adopted bases at the current and previous valuation for each injury segment.

Figure 6.2 – Continuance rates – by injury group

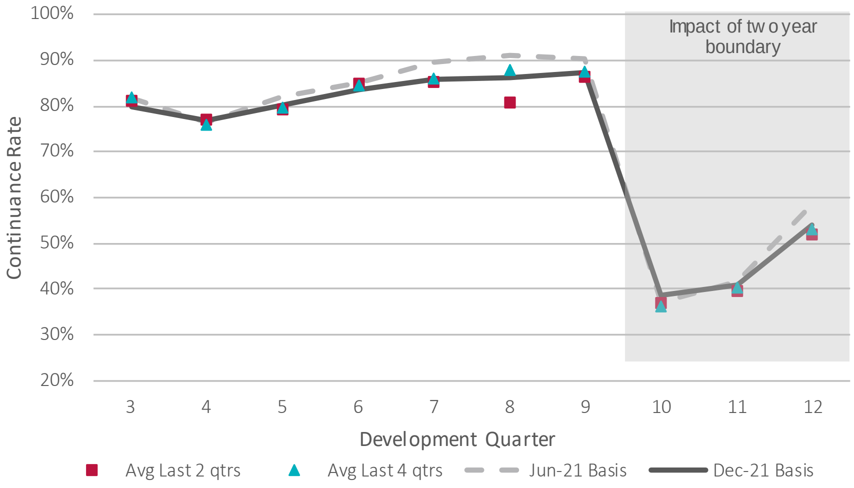


The valuation basis has been set close to the latest experience represented by the averages of the last 2 and 4 quarters. The 'average 4 excluding 4' metric shows the experience for the 12 months to December 2020. The key take-outs from Figure 6.2 include:

- There was an improvement (i.e. reduction) in the continuances rates across all injury types in the last year with the exception of Other claims. This reduction was particularly evident for development quarters 5 and later, as indicated by the blue triangles sitting below the yellow diamonds.
- The changing dispute rates for Mental Injury claims mean that the continuance rate in DQ4 has increased, with improving performance in DQ5 to DQ9. This pattern results from fewer claims initially getting paid (in DQ1 and DQ2), with the claims who get payment after dispute then causing the higher DQ3 and DQ4 continuance rates; in aggregate there are fewer claims remaining on benefit at these durations.
- Our selected basis has resulted in a reduction for all injury types with the exception of Other which has had an increase from DQ5 to DQ7. The experience beyond DQ9 is broadly unchanged from the June 2021 basis.
- Experience in DQ 10 – 12 has been reshaped in line with recent experience, although we note there is limited cost in this period.

Figure 6.3 shows the combined continuance rates compared to those selected at June 2021.

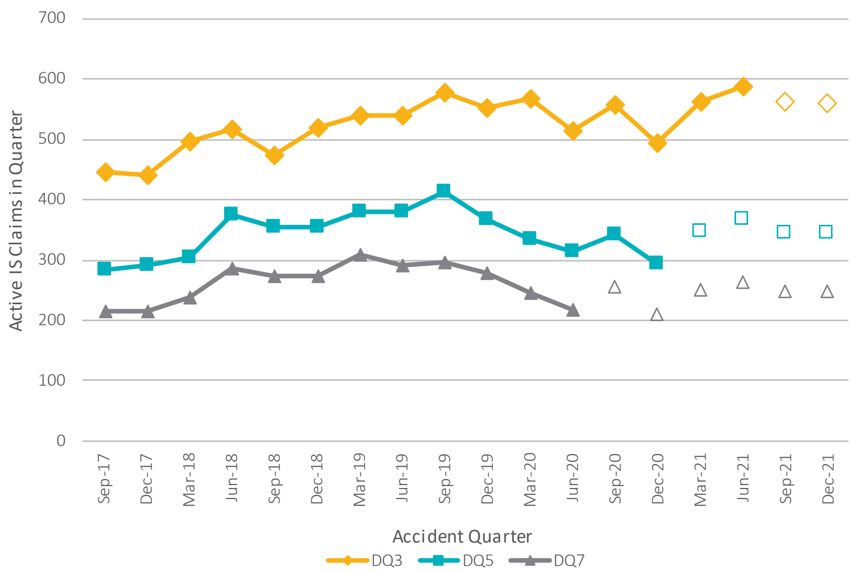
Figure 6.3 – Continuance rates – implied overall assumptions



The overall average continuance rates are lower at this valuation, reflecting the improvement in continuance rate experience over the last twelve months as indicated by the two and four quarter average in Figure 6.3. The main area of improvement has been at mid and longer durations, with continuance rates decreased out to development quarter nine.

Figure 6.4 below shows the outworking of our projection of active claims at development quarters 3, 5 and 7. The solid lines show the actual number of active claims and the dots show our projection.

Figure 6.4 – Income Support claims reaching specified durations



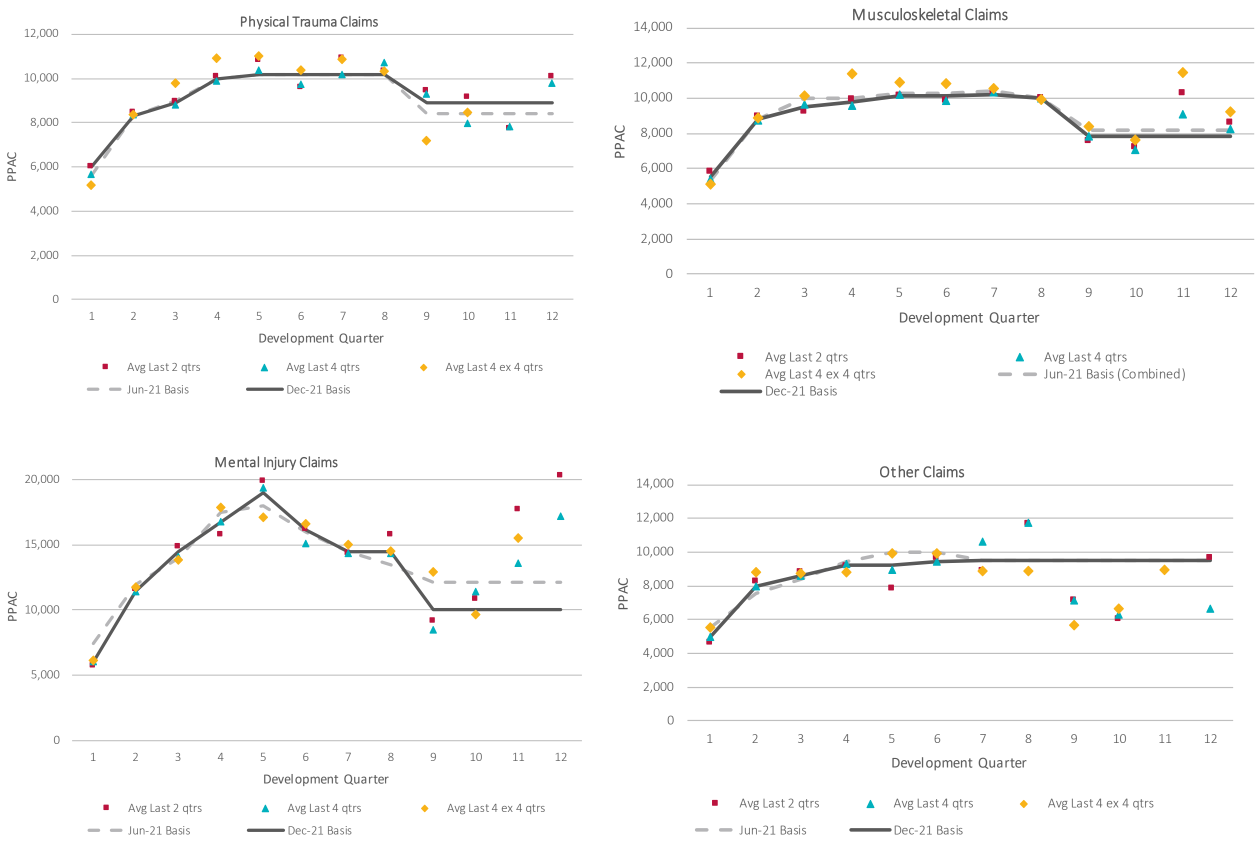
As Figure 6.4 shows, active IS claim numbers had been increasing steadily between the December 2017 and September 2019 quarters. Our projections suggest that active claim numbers at DQ5 and DQ7 have now peaked, with the projections moving lower than the recent peaks.

The March 2021 and later quarters are expected to increase on the back of recent trends in new claim reports. This is a result of increasing income claim frequency observed in the most recent accident quarters.

Payments per active claim

Figure 6.5 below shows the recent PPAC experience and our adopted bases at the June 2021 valuation and current valuation for each injury segment. There are clear differences in payment levels for the different injury type segments.

Figure 6.5 – Payments per active claim ($Dec-21): by injury group

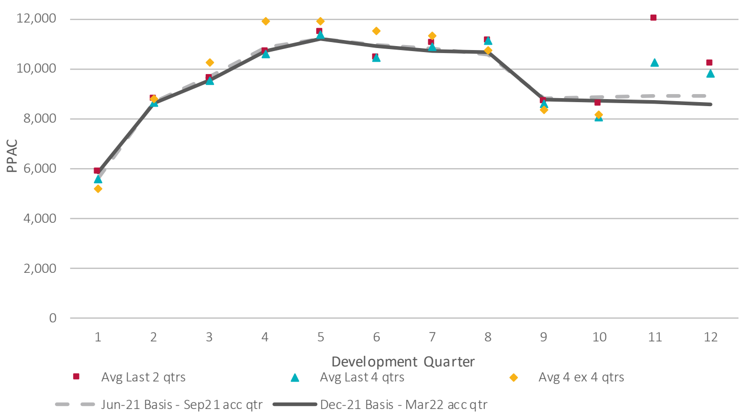


The key take-outs from Figure 6.5 include:

- The selected basis for Physical Trauma claims has been increased at DQ1, consistent with the emerging experience. DQ9 to DQ12 have been reduced in line with the average over the last four quarters, albeit on very few numbers of active claims.
- Musculoskeletal claims is lower than previous. The lower PPAC indicates that more workers are ceasing IS payments partway through the payment quarter as a result of the improved RTW rates.
- The PPAC for Mental Injury has a higher peak than for other segments, which is due to (often) longer times to decision and higher level of disputation that leads to backpay. The selected basis up to DQ8 has been reshaped to reflect this dynamic. The PPACs for DQ9 to DQ12 have been reduced to be in line with the average over the last four quarters.
- The basis for Other claims has been reshaped at this valuation resulting in an overall reduction. This is consistent with the experience emerging over the last 4 quarters.

Figure 6.6 shows the combined payment per active claim compared to that selected for June 2021.

Figure 6.6 – Payments per active claim ($Dec-21): implied overall assumption



The recent overall PPAC experience is emerging at a similar level to our June 2021 basis up to development quarter nine. We have responded with an overall reduction in our adopted PPACs as shown.

6.3.5 Valuation Basis: IS payments after year 3: PPCI model

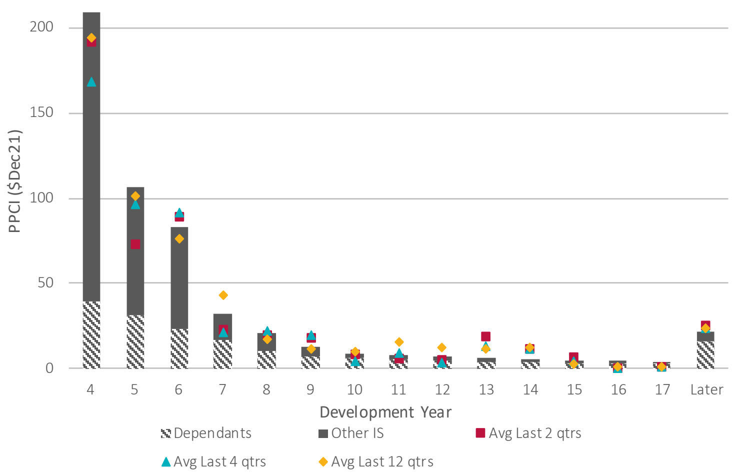
IS payments after 3 years are modelled using a PPCI model based on ultimate number of non-Hearing Loss claims; this is a change from our previous valuation which used all claims (i.e. including Hearing Loss). As a result, comparisons to the previous basis is not available.

The overall adopted average PPCI size of about $533 per reported claim is made up of two components:

- The allowance for ongoing dependant claim benefits of $176 per reported claim
- An allowance for post-surgery IS payments, claims with 'late starting incapacity' and claims with back-pay (usually after a dispute is resolved), of about $357 per reported claim

Figure 6.7 shows the adopted PPCI basis and its components. As this shows, the selected basis is consistent with the average over the last 3 years; given the number of claims with payments is relatively small we are generally less responsive to short term variability in this segment of the modelling.

Figure 6.7 – Adopted Income Support PPCI basis (average IS cost per reported claim)



6.3.6 Valuation results and actuarial release

Valuation results are shown in Section 6.7.

6.4 Lump sums

This section describes our valuation of lump sum payments for General Short Term claims. A lump sum is payable to a worker who suffers a compensable injury that results in at least 5% whole person impairment (WPI). Separate Lump Sums compensate claimants for non-economic loss and future economic loss, with compensation for future economic loss only available to claims with injuries from 1 July 2015.

We value these lump sums in three segments:

- "First Paid" lump sums[5] – where a claimant receives their first lump sum payment for the relevant claim (excluding Death and Hearing Loss claims); this is for non-economic loss only
- "Death" and funeral claims
- "Economic Loss" lump sums – Short Term claims may receive an additional payment for loss of future earning capacity (only available under the RTW Act to new injuries from 1 July 2015).

Appendix A specifies the complete definitions for the lump sum valuation.

6.4.1 Summary of results

Table 6.5 summarises the movements in our liability estimates for lump sum payments since the June 2021 valuation.

Table 6.5 – Valuation results: lump sums

Jun21 Valuation	$m	$m	$m
Estimated Liab at Jun-21	263.6		
Projected Liab at Dec-21	266.5		
Dec-21 Valuation		AvE pmts	Release
Impact of experience/OSC - Movement in liab	7.2	3.4	(10.6)
Estimated Liab at Dec-21 (Jun-21 eco assumptions)	**273.7**		
Impact of change in eco assumptions	(2.1)		
Estimated Liab at Dec-21 (Dec-21 eco assumptions)	**271.5**		

The December 2021 liability shows an actuarial strengthening of $10.6m since June 2021, reflecting an increase of $7.2m in the liability and $3.4m of higher claims payments. The remainder of this section deals with this impact, while economic assumptions are discussed in Section 11.3.2.

6.4.2 Payment experience

Table 6.6 compares the payments in the six months to 31 December 2021 with the expected payments from our June 2021 valuation projection.

[5] Payments for "Top Up" lump sums were previously separated out, but now that very few such claims remain (all of which are claimants with injury dates prior to 1 July 2015 who lodged an application prior to 30 June 2016) this has been combined into the First Paid model.

Table 6.6 – Actual vs expected payments: lump sums

Accident Period	Payments in Six Months to Dec 21			
	Actual	Expected	Act - Exp	% Difference
	$m	$m	$m	
To 30 Jun 05	0.3	0.5	(0.2)	-40%
2005/06 - 2014/15	2.0	2.3	(0.3)	-12%
2015/16 - 2018/19	26.4	21.7	4.7	21%
2019/20 - 2020/21	12.1	12.8	(0.7)	-6%
2021/22[1]	0.6	0.6	(0.0)	-3%
Total	41.4	37.9	3.4	9%

[1] Accidents to Dec21

Payments were 9% higher than expected in the six months to 31 December 2021, with higher payments in 2015/16 to 2018/19 injury periods partly offset by lower payments elsewhere. There were a significant number of payments made for both First Paid and Economic Loss lump sums for 2017/18 and 2018/19 injuries.

6.4.3 Valuation basis for First Paid lump sums[6]

Our valuation basis adopts a combination of the chain ladder approach for more mature accident periods and a frequency-based approach for more recent accident periods where there is less experience and there have been changes in the pattern of payments. Table 6.7 below compares the actual and expected number of First Paid lump sums paid in the six months to December 2021.

Table 6.7 – Actual vs expected numbers: First Paid lump sums

Accident Period	Number of Payments in Six Months to Dec 21			
	Actual	Expected	Act - Exp	% Difference
To 30 Jun 05	17	33	-16	-48%
2005/06 - 2014/15	64	82	-18	-22%
2015/16 - 2018/19	348	292	56	19%
2019/20 - 2020/21	178	204	-26	-13%
2021/22[1]	0	0	0	n/a
Total	607	611	-4	-1%

[1] Accidents to Dec21

The number of First Paid lump sums in the last six months was 1% lower than expected. Higher numbers of claims were paid for the 2015/16 to 2018/19 injury periods, offset by fewer payments for Transitional claims and claims from the last three injury years.

As was shown in Figure 4.1 the number of transitional claims starting the WPI assessment process has continued to be high and is yet to show any clear signs of running off. This is contrary to our expectations given the finite number of claims in the transitional cohort and relatively long (and increasing) time period since the injuries occurred. With a long delay from claims starting assessments up to payments being finalised, this suggests there is still a significant number of transitional claims yet to be paid a first lump sum.

- In forming our valuation allowances, our selected basis for transitional claims explicitly allows for 1,500 future WPI assessments to commence in future, along with the current in progress cohort and those in dispute. This allows for the current level of new assessments to continue for 12-18

[6] Note that at the December 2021 valuation, the valuation basis for Top Up lump sums have been incorporated into this First Paid lump sum segment. The actual and expected experience in this section incorporates both segments that were previously identified separately (see Section 7.4.1 and 7.4.2 in the June 2021 valuation report).

months at around 60 per month before tailing off. Based on current conversion rates, in total this translates to an additional 360 lump sum payments from these yet to commence assessments.

As a test of the reasonableness of our valuation basis for older accident years, Figure 6.8 below summarises a breakdown of open claims by their current status in the WPI assessment process (left-side bar) which is compared with the IBNR allowance for First Paid lump sums (right-side bar) for each accident year up to 2015.

Figure 6.8 – Comparison of Identified Potential Future Lump Sum Claims and Model IBNR Allowance (for accident periods up to June 2015)

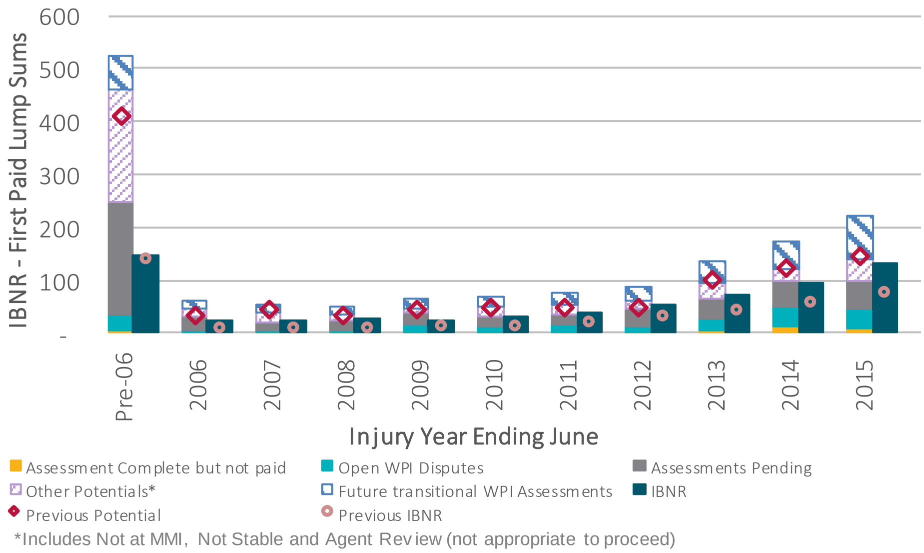


Figure 6.8 shows that:

- The number of identified potential future lump sum claims has not reduced much from six months ago, despite ongoing settlements in that time. This is due to lump sum settlements being largely offset by the inflow of new WPI applications as explained above.
- Pre-2006 accident periods have a high number of WPI assessments in progress. We understand this is linked to activity by ReturnToWorkSA to undertake WPI assessments for all 'prior claims' on workers currently having a WPI assessment. Many of these assessments are expected to end up with a WPI lower than 5% and therefore not be entitled to a lump sum payment. The selected basis allows for around 30% of open disputes and 13% of currently pending and expected future assessments to be successful, consistent with the recent outcomes on transitional claims.
- For accident years 2006 to 2015, there are a large number of claims with pending WPI assessments, open disputes or potential future assessments. We have increased our projections by around 20 claims per year on average to reflect the expected ongoing tail of future assessments. Our basis allows for around 30% of open disputes and 30% of pending and future assessments to receive a lump sum.
- For the 2016 and later accident years, our IBNR allowances are unchanged. This implicitly assumes the proportion of Income Support claims who receive a lump sum payment is trending down over the longer term, which is consistent with the earlier scheme history.
- Figure 6.9 shows the projected ultimate numbers of First Paid lump sums, split into paid and IBNR claims. The 2015 to 2017 years show the impact of the noticeable slowdown in lump sum payments, with the number paid up to the end of the fourth development year (the height of the aqua part of the bar) being much lower than occurred historically.

Figure 6.9 – Projected Ultimate Numbers of First Paid Lump Sums

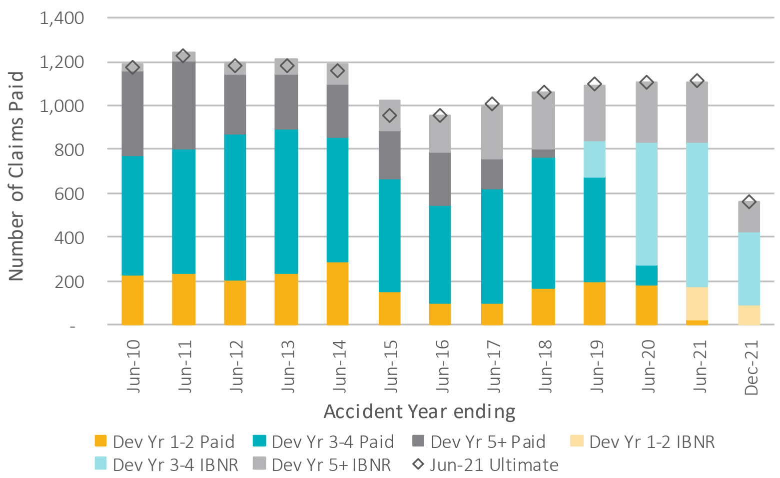
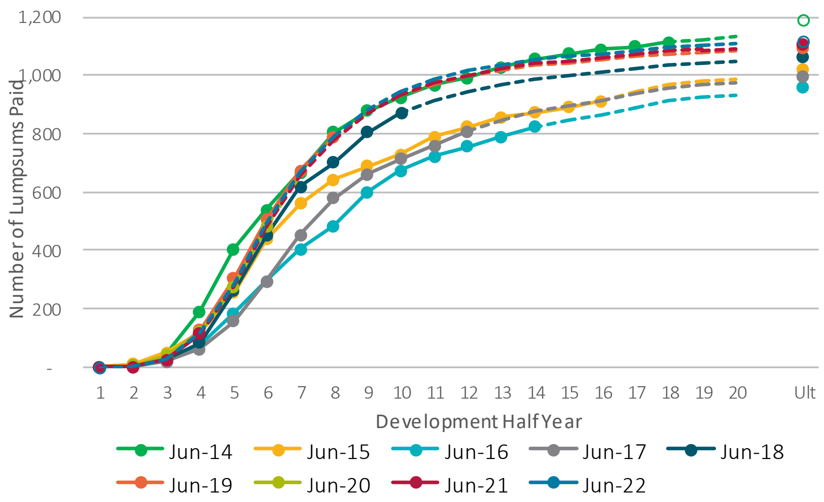


Figure 6.10 shows the cumulative number of First Paid lump sums by development year for accident years 2014 to 2022. The dotted line represents the projected development based on our selected payment pattern.

Figure 6.10 – First Paid Lump Sums Development

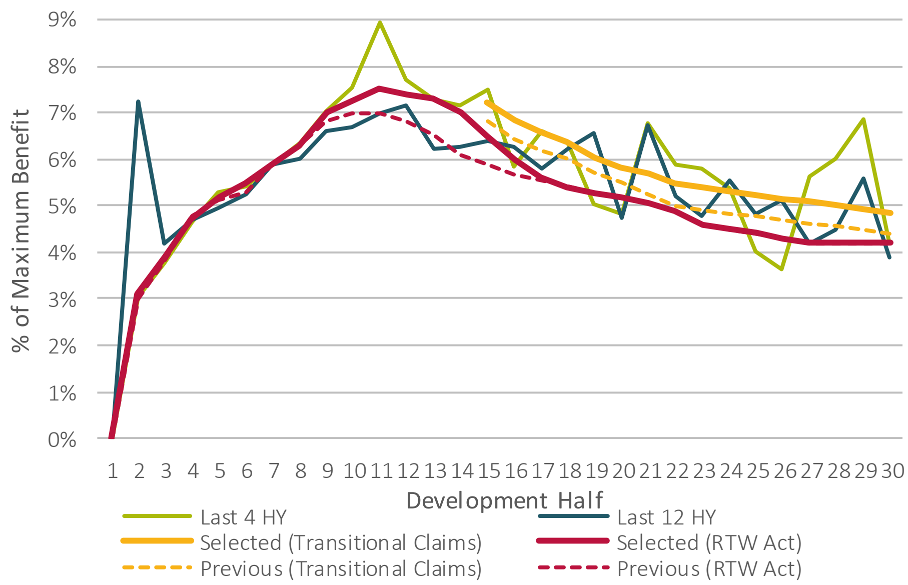


As Figure 6.10 shows, lump sum payments for RTW Act accident years are currently sitting below the pre-reform experience (as demonstrated by the Jun-14 line). For 2018 and later years, the emerging experience suggests a faster payment pattern (more like the pre-reform experience) is occurring compared to 2015 to 2017. Our selected payment pattern up to development half-year 10 reflects this faster payment experience.

Figure 6.11 shows the average size of First Paid claims as a percentage of the maximum benefit available, by duration from injury.

Figure 6.11 – First Paid Lump Sums by Development Half-Year

(as a percentage of the maximum benefit)



We have increased our adopted size selections for RTW Act Claims at this valuation in response to the emerging experience, which has been higher than the earlier history – the most noticeable feature being higher average sizes between durations 9 to 15 half-years recently.

For Transitional claims, we have increased our size loading to allow for additional payments from Top Up lump sums. This increase represents a modelling change and does not represent a deterioration in the underlying experience.

At an overall level, the average First Paid lump sum is expected to be 5.8% of the prescribed maximum benefit, or around $29,300.

For completeness we note that at June 2019 ReturnToWorkSA implemented new assessor guidelines with the goal of improving consistency across WPI assessments. These guidelines do not appear to have had any material reduction the size of WPI assessments since the introduction of these guidelines and therefore we have not built in any allowance for sizes to change in response to this in our basis.

6.4.4 Valuation basis for economic loss lump sums

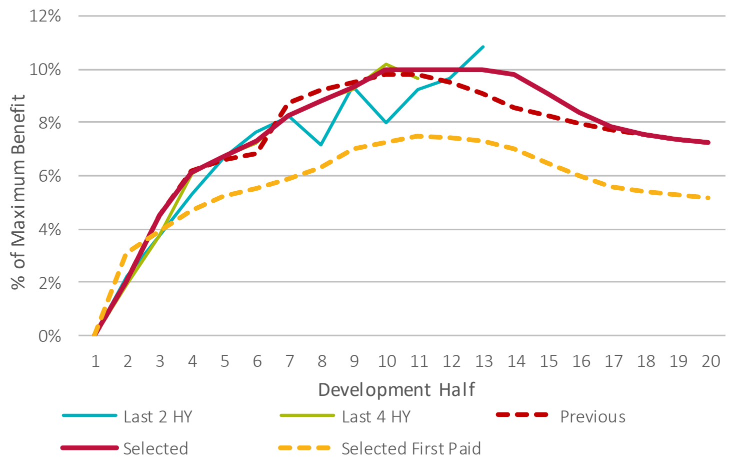
Economic Loss lump sums are paid to a worker for loss of future earning capacity. This benefit is only available under the RTW Act and is available to injuries from 1 July 2015.

The number of future Economic Loss lump sum payments are modelled as a percentage of First Paid lump sums. Only a small group of claims are not entitled to an Economic Loss lump sum, because the hours worked formula ends up being nil (this can occur for several reasons, including deductions for prior Economic Loss lump sums paid for the same worker or claims related to subsequent injuries). We assume that 5.5% of claims will not get the Economic Loss lump sum, an increase of 0.5% from our previous basis. This is consistent with the emerging gap between the number of non-economic loss lump sums and economic loss lump sums paid to date for more developed injury periods.

Figure 6.12 shows the average size of Economic Loss lump sum payments as a percentage of the maximum benefit available – as more RTW Act claims experience emerges we are increasingly able to set these assumptions based on actual claims experience rather than assumed experience. The selected basis has been reshaped between development half 4 and 10 and is consistent with the average of the last four half-years. Beyond development half 10, the basis is selected to be a proportion of First Paid lump sum sizes which is unchanged at this valuation. As First Paid lump sum sizes have increased at this valuation, the resulting Economic Loss lump sum size has also increased in proportion. The selected average sizes for Economic Loss lump sums are higher than for First Paids due to a significantly higher payment scale for Economic Loss lump sums with 9% WPI and above. The overall impact is a strengthening of the basis.

Figure 6.12 – Economic loss lump sum size by development half-year

(as a percentage of maximum benefit)



6.4.5 Valuation basis for death lump sums

Death (and funeral) lump sum payment numbers were higher than expectations due to payments from 2019 and prior injury years. Payments were 115% higher than expected due to a higher proportion of the paid claims being full death benefits rather than just a funeral benefit.

Figure 6.13 shows the projected numbers of Death lump sums by accident year.

Figure 6.13 – Projected ultimate numbers of death lump sums

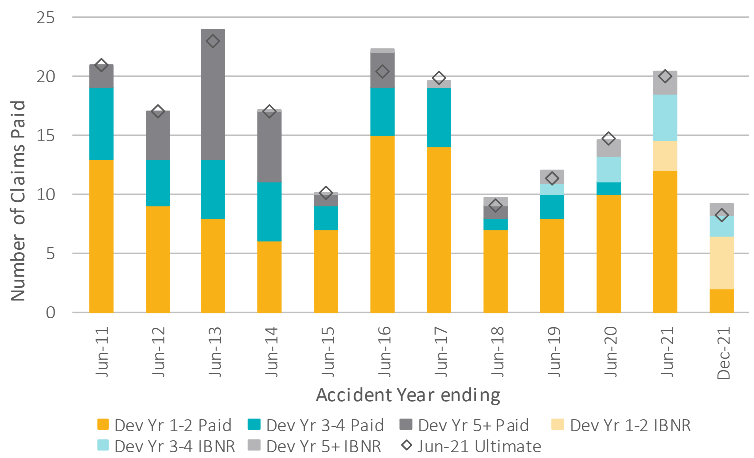
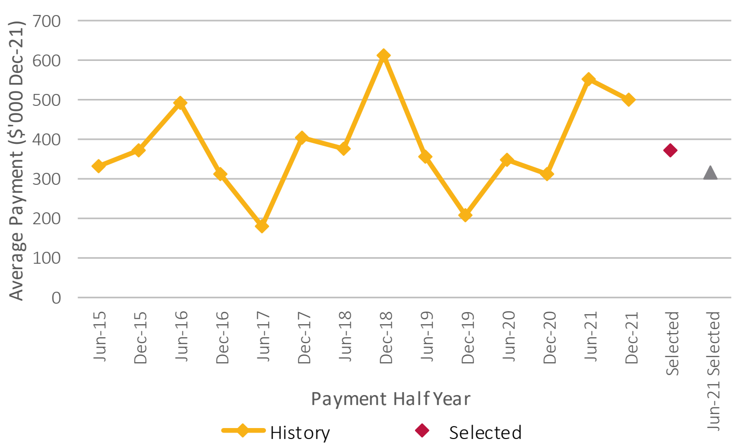


Figure 6.14 shows the average benefit paid to a Death lump sum claim, by payment half year.

Figure 6.14 – Average lump sum death payment ($Dec-21)



We have increased the adopted average size at this valuation in response to the higher proportion of full death benefits in the emerging experience.

6.4.6 Valuation results and actuarial release

Valuation results are shown in Section 6.7.

6.5 Treatment and related costs

Workers who suffer a compensable injury are entitled to compensation for a range of medical and other treatment related costs. For the valuation we split these entitlements into the following groups: Medical (including medico-legal assessment), Allied Health, Hospital, Rehabilitation (Vocational Rehabilitation), Travel, Care and 'Other'. Medical payments are the most significant of these entitlements.

This valuation we have adjusted parts of our modelling approach, specifically:

- Created the new 'Allied Health' category which incorporates some allied health payments previous included in Medical and Physical Therapy
- Included the remaining Physical Therapy payments in 'Medical'
- Adopted revised models for the assessment of average claim sizes (replacing Payments Per Active Claim models with Payments Per Claim Incurred models) for Medical payments
- Further detail on the model selection is provided in Section 3.1.

6.5.1 Summary of results

Table 6.8 summarises the liability estimates for treatment and related costs at December 2021. A comparison to the assumptions in the June 2021 valuation is only available at an aggregate level across General and Hearing Loss claims, this is shown in Section 6.7.

Table 6.8 – Valuation results: treatment costs

	Medical	Allied Health	Hospital	Rehab	Travel	Other	Care	Total Treatment
	$m	$m	$m	$m	$m	$m	$m	$m
Estimated liability at Dec-21 (Jun-21 ecos)	**63.4**	**25.9**	**17.2**	**12.8**	**6.0**	**5.1**	**2.1**	**132.4**
Impact of change in eco assumptions	(0.1)	(0.0)	(0.0)	(0.0)	0.0	0.0	(0.0)	(0.2)
Estimated liability at Dec-21 (Dec-21 ecos)	**63.3**	**25.9**	**17.2**	**12.8**	**6.0**	**5.1**	**2.1**	**132.2**

The remainder of this section deals with the payment experience and valuation basis, while economic assumptions are discussed in Section 11.3.2.

6.5.2 Valuation approach

Under the RTW Act most treatment and related costs cease 12 months after Income Support ends. The exceptions to this are payments for medical aids and appliances, payments related to approved surgeries, and medico-legal costs (for example related to medical assessments for WPI). Our modelling approach captures these features using:

- Average payment model (PPCI) – this is a quarterly model used for the valuation of all treatment related liabilities; claims incurred is defined as all reported claims, excluding hearing loss claims. Medical payments are split into:
  - Aids and Appliances
  - Medical-legal payments (Written Reports)
  - Other Medical payments.
- In some cases we adopt two sets of valuation assumptions, namely for:
  - "RTW Act claims" - for these claims, where the new rules applied from day one of the claim, it will typically take around four to five years before payments reduce to near zero, due to a combination of (1) claimants who do not commence their incapacity until sometime after their injury, and (2) payment delays
  - "Transitional claims" – for these claims, the selections generally only apply for a small number of projection quarters before reverting to the "RTW Act claims" selections; the exception is certain benefit types where there is still a high level of payments related to dispute activity, in which cases we have extended the period where transitional selections are applied.

Detailed descriptions of the projection models and details of all projection assumptions are included in Appendices A and H.

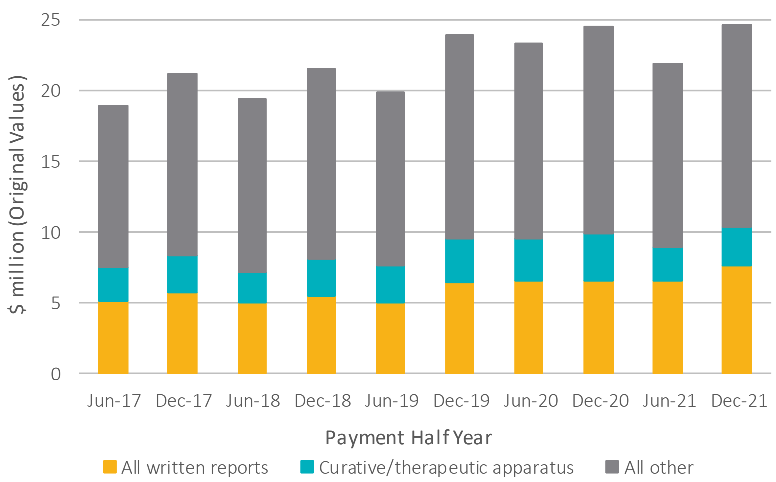
6.5.3 Medical

Medical payments include payments for treating doctors, written medical reports, therapeutic devices, pharmaceuticals, and dentist costs, including medico-legal costs.

Payments vs expectations

Figure 6.15 below shows medical payments by six-month period, split by the type of service.

Figure 6.15 – Medical half-yearly payments



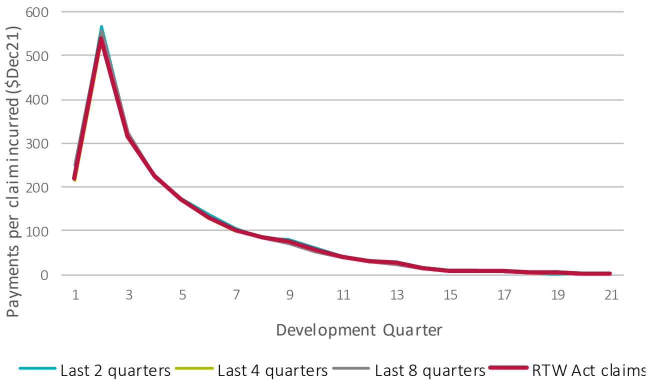
After a period of relative stability up to June 2019, Medical payments then increased and have remained high for the past two and a half years. The June 2021 half-year was impacted by payment delays which has resulted in a subsequent ‘catch-up’ in payments for the December 2021 half-year. While the higher payments of late are evident across all the main types of services, written reports stand out as a main contributor of this experience.

Valuation basis

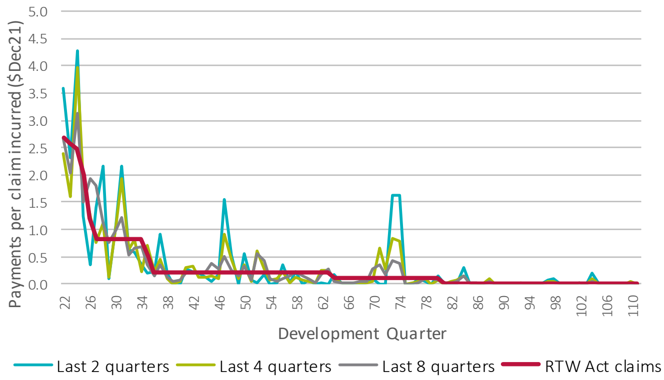
Figure 6.16 below shows the recent experience and selected basis for medical payments.

Figure 6.16 – Medical experience and selections

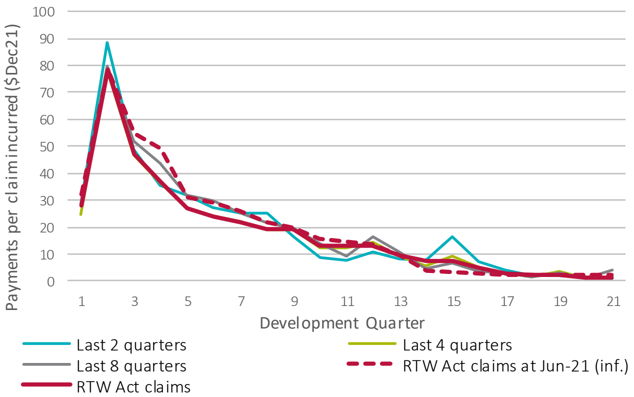
PPCI – Medical other



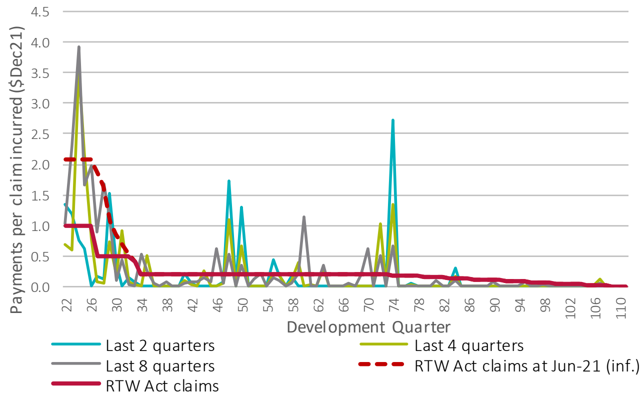
PPCI – Medical other (Tail)



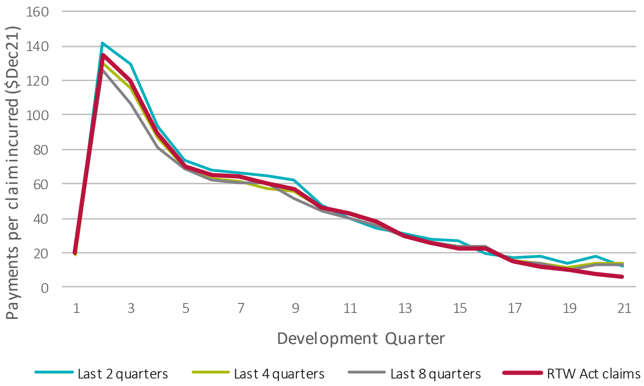
PPCI – Medical aids and appliances



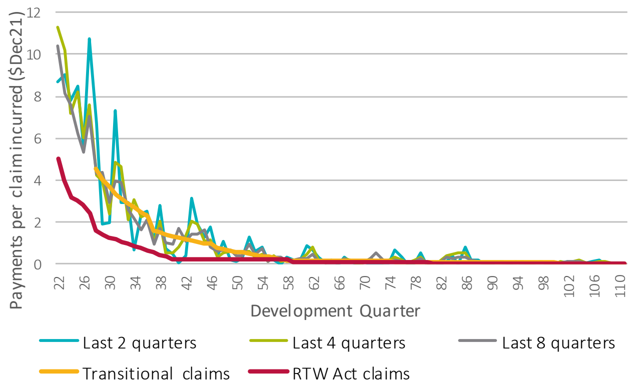
PPCI – Medical aids and appliances (Tail)



PPCI – Medical written reports



PPCI – Medical written reports (Tail)



Our comments on the experience and selected assumptions are:

- PPCI (Medical other):
  - The selected basis is in line with the average of payments over the last 4 quarters and smooths through the change in payment delays over the past 12 months.
  - We adopt the same PPCI pattern for transitional claims and RTW Act claims as the experience has been similar across both cohorts.
- PPCI (Medical aids and appliances)
  - The basis has been reduced between DQ3 and DQ11 and reshaped beyond DQ14 resulting in an overall reduction. The selected basis is consistent with the average over the last 4 quarters.
  - We adopt the same PPCI pattern for transitional claims and RTW Act claims
- PPCI (Medical written reports):
  - As noted earlier, costs associated with written medical reports have increased steadily over the last three years. A main driver of this experience is the high volumes of disputes and WPI assessments currently in the scheme leading to more medico-legal costs.
  - The selected basis is consistent with the average experience over the last 4 quarters up to DQ18.
  - Beyond DQ18, we are anticipating that the RTW Act basis should reduce, as the current high levels of WPI activity on Old Act claims ought not continue.
  - The selected basis remains high for Transitional claims due to the high volumes of WPI assessments commencing as noted in Section 4.4.2 and is consistent with the recent experience. The basis allows for medico-legal costs on 1,900 future IME reports as well as 750 WPI assessments for Transitional claims (this is only 50% of the assumed 1,500 future WPI assessments as claims with activity for RTW Act claims as well will generally have the assessment costs allocated to the worker's RTW Act claim instead).

Valuation results and actuarial release

Valuation results are shown in Section 6.7.

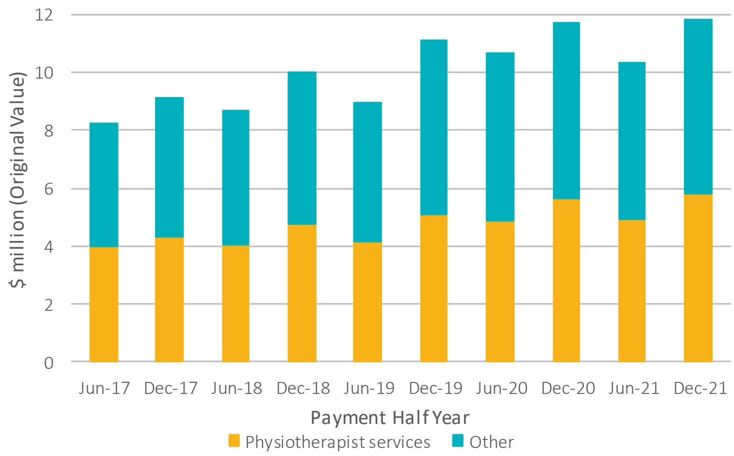
6.5.4 Allied Health

Allied Health are payments to Allied Health practitioners and includes physiotherapists, chiropractors, exercise physiologists, osteopathy, psychology, remedial massage and speech pathology. This is a new payment group at the December 2021 valuation and includes some services previously aggregated in the 'Medical' grouping and those previously identified separately as 'Physiotherapy'.

Payments vs expectations

Figure 6.17 below shows allied health payments by six-month period over the last five years.

Figure 6.17 – Allied Health half-yearly payments

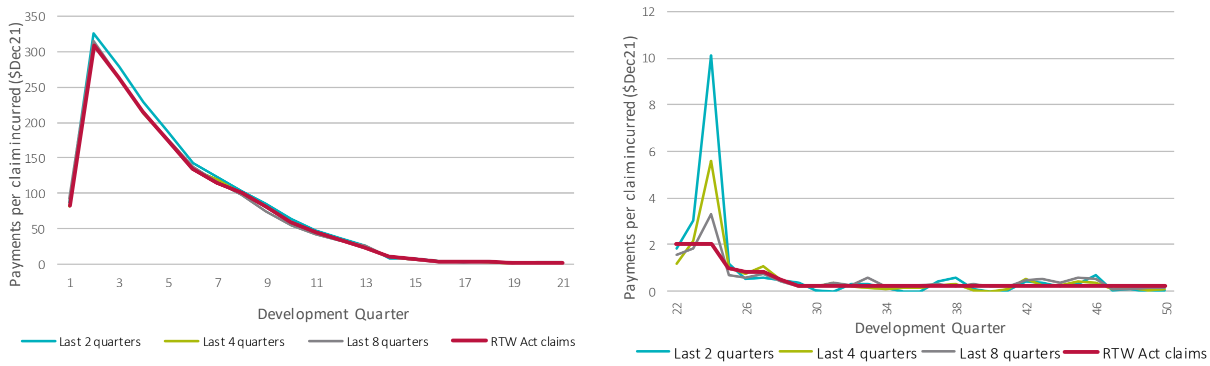


Payments have increased since June 2019 and are now averaging around $11m per half-year. The December 2021 half-year payments include an element of 'catch up' following payment delays in the June 2021 half-year. Physiotherapy makes up a little under half of the cost.

Valuation basis

Figure 6.18 below shows the recent experience and selected basis for Allied Health payments.

Figure 6.18 – Allied Health experience and selections



Our adopted basis at this valuation is consistent with the average of the last 4 quarters and smooths through the change in payment delays over this period. We have adopted the same basis for both RTW Act and Transitional claims in the tail, given the immaterially low volume of payments coming through at that stage of development.

Valuation results and actuarial release

Valuation results are shown in Section 6.7.

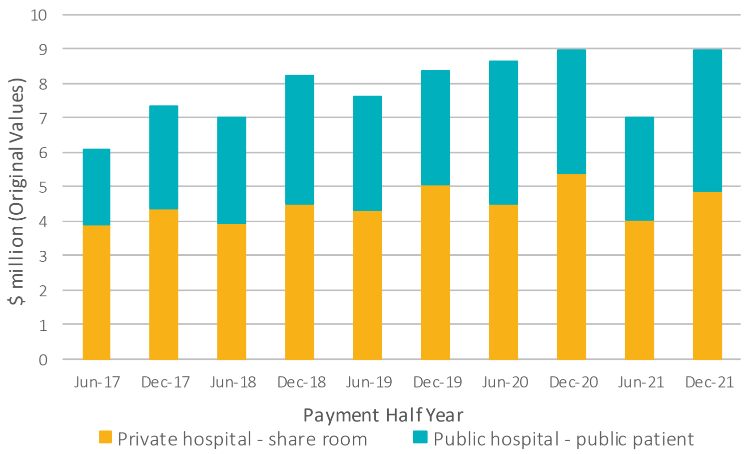
6.5.5 Hospital

Hospital payments include payments made to public and private hospitals.

Payments vs expectations

Figure 6.19 below shows hospital payments in each six-month period.

Figure 6.19 – Hospital half-yearly payments

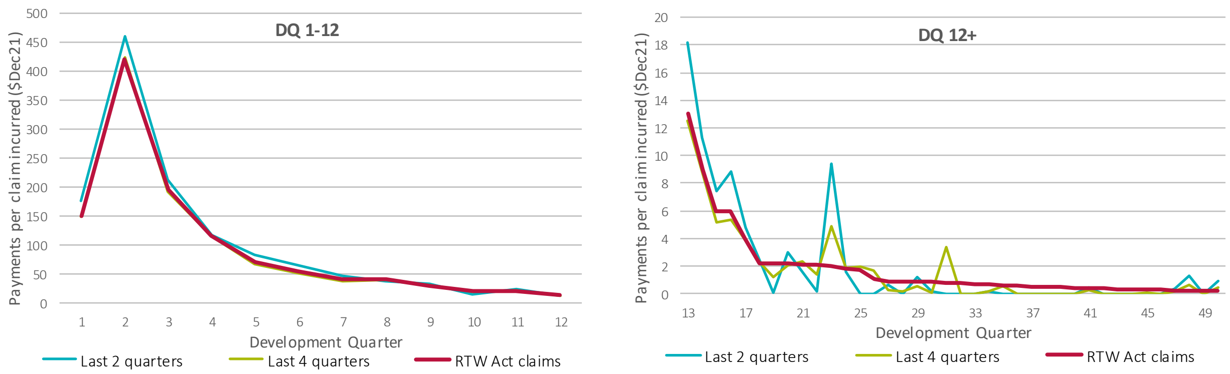


While there appears to be some seasonality, Hospital payments have overall trended upwards since the end of 2016, with payments reaching $9m per half-year by December 2020. However, payments over the last year have reduced, after taking into account the payment delay in the June 2021 half-year offset by a 'catch up' in the December half-year; our discussions with ReturnToWorkSA have not given any indications that this could be related to COVID impacts (i.e. reduced access to surgery).

Valuation basis

Figure 6.20 below shows the recent experience and selected basis for hospital payments.

Figure 6.20 – Hospital experience and selections



The adopted basis is in line with the experience over the last four quarters. We have interpreted the higher payments in the last two quarters as a 'catch up' and therefore have not responded to this experience. We have adopted the same basis for both RTW Act and Transitional claims in the tail, given the immaterially low volume of payments coming through at that stage of development.

Valuation results and actuarial release

Valuation results are shown in Section 6.7.

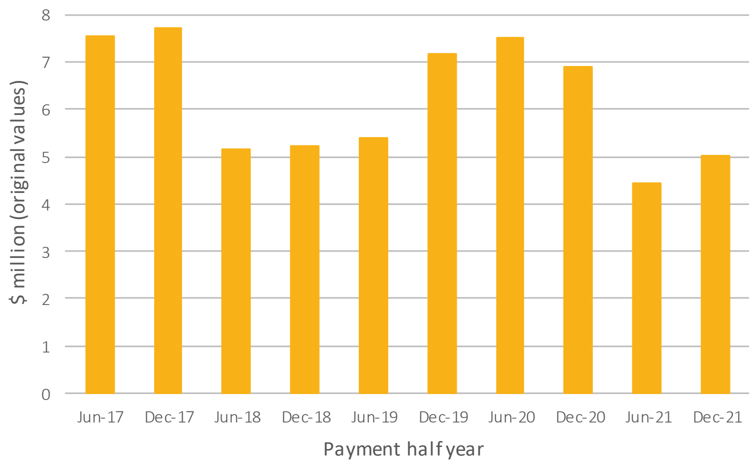
6.5.6 Rehabilitation

The rehabilitation payment type includes payments made to approved vocational rehabilitation providers and job search agencies.

Payments vs expectations

Figure 6.21 below shows rehabilitation payments by six-month period.

Figure 6.21 – Rehabilitation half-yearly payments



Rehabilitation payments saw a sharp increase during FY20, after a period of lower payments between June 2018 and June 2019. Increased management oversight led to a decrease in the number of new rehabilitation referrals from late 2020, which is now flowing through to lower claim payments.

Valuation basis

Figure 6.22 below shows the recent experience and selected basis for rehabilitation payments.

Figure 6.22 – Rehabilitation experience and selections

We have smoothed the experience of the last 4 quarters between development quarters 2 and 9 in the selected basis. Beyond development quarter 10, we anticipate a small saving to come due to the aforementioned increased management oversight of costs.

Valuation results and actuarial release

Valuation results are shown in Section 6.7.

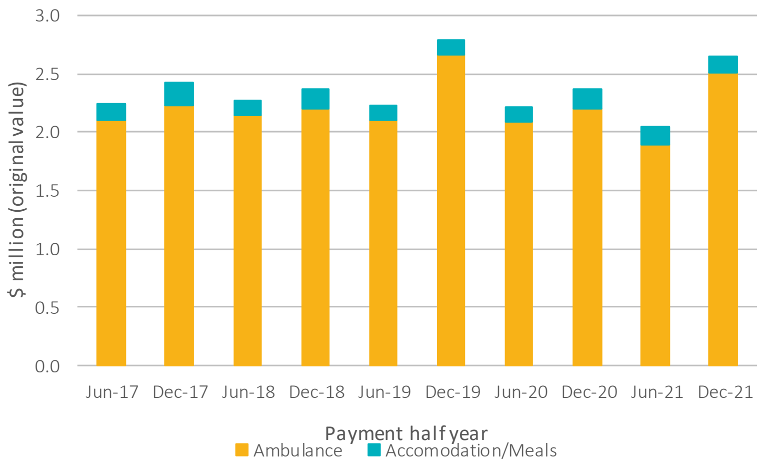
6.5.7 Travel

Travel payments include payments made for claimant related travel and accommodation.

Payments vs expectations

Figure 6.23 below shows travel payments by six-month period over the last five years.

Figure 6.23 – Travel half-yearly payments

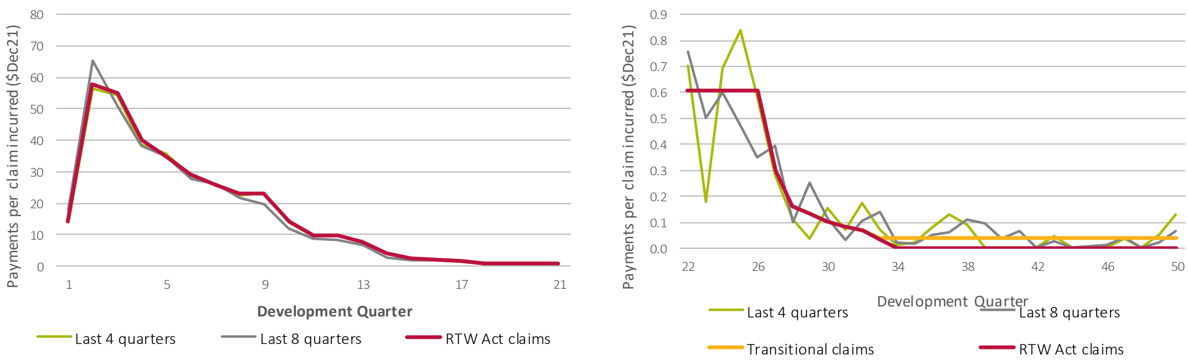


Following a spike in payments for the December 2019 half-year, payments appear to have reduced to prior levels. However, there may still be an element of COVID-19 impact in the payments over the past two years, with various travel restrictions in place through large parts of this period. The higher payments in the December half-year are due to a ‘catch up’ from payment delays in the June 2021 half-year.

Valuation basis

Figure 6.24 below shows the recent experience and selected basis for travel payments.

Figure 6.24 – Travel experience and selections



The selected PPCIs are consistent with the emerging experience over the last 4 quarters, which is appearing more and more likely to be reflective of underlying cost rather than any short-term COVID-19 impacts.

PPCI assumptions for RTW Act claims out past development quarter 30 allow for a reduction relative to the experience for Transitional claims. This is due to our assumption that WPI assessments will not continue for so long under the RTW Act, and therefore resulting in a bringing forward of cost. We are also allowing for temporary additional costs for transitional claims for the next 18 months in response to the high volumes of WPI activity for Transitional claims.

Valuation results and actuarial release

Valuation results are shown in Section 6.7.

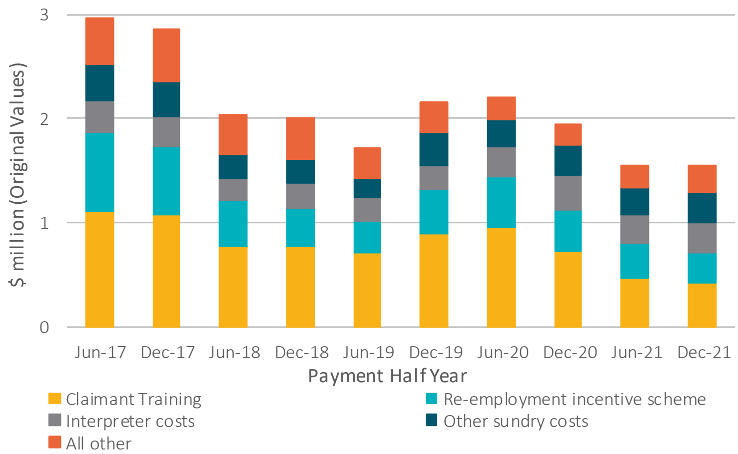
6.5.8 Other

The Other payment type includes payments on claimant training, Re-Employment Incentive Scheme (RISE), interpreter costs and other sundry costs.

Payments vs expectations

Figure 6.25 below shows 'other' payments by six-month period.

Figure 6.25 – Other half-yearly payments

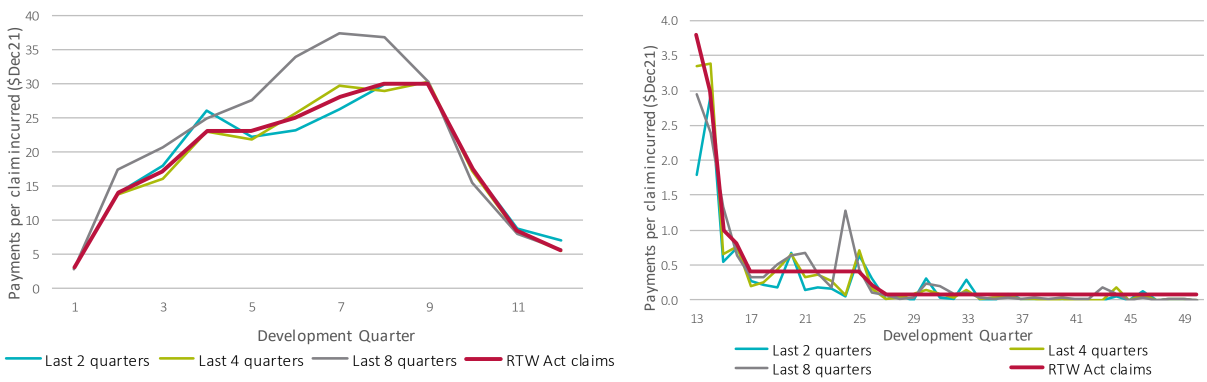


After a period of high payments peaking with the June 2015 half-year, Other payments have been lower in the last four years following reductions in Other Sundry Costs and re-employment incentives. Over the last six months, payments have remained low, due to an easing-off of 'Claimant Training' and RISE payments.

Valuation basis

Figure 6.26 below shows the recent experience and selected basis for Other payments.

Figure 6.26 – PPCI experience and selections: Other



Our PPCI selections are generally consistent with the average of the last 4 quarters. There is a clear reduction on payment levels compared to the average over the last 8 quarters (grey line). Our basis for Transitional Claims is the same as the basis for RTW Act claims on materiality grounds.

Valuation results and actuarial release

Valuation results are shown in Section 6.7.

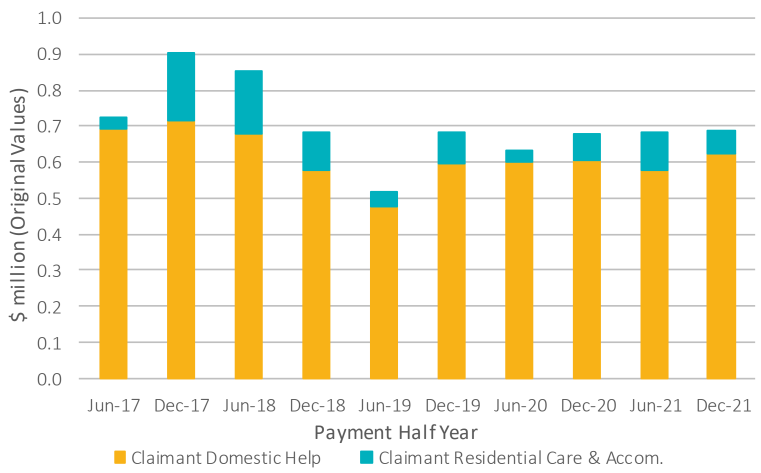
6.5.9 Care

The Care payment type includes payments on domestic help and residential care and accommodation costs. Previously, costs under Care were included in the 'Other' benefit type.

Payments vs expectations

Figure 6.27 below shows Care payments by six-month period, which are small for Short Term Claims (as they should be).

Figure 6.27 – Care half-yearly payments

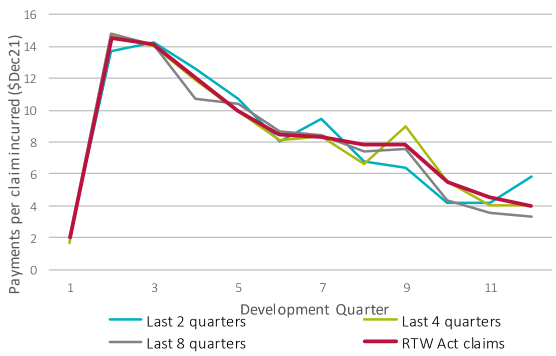


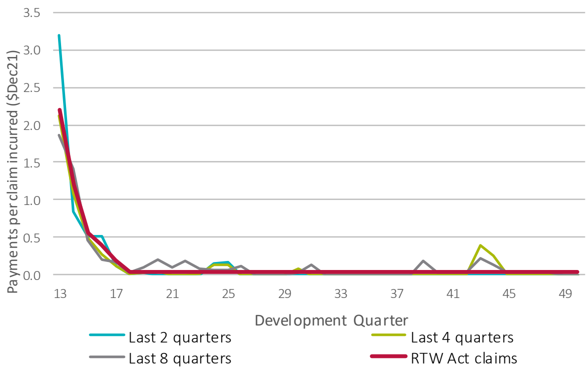
Care payments have remained relatively stable at around $0.7m per half year. The majority of payments relate to Claimant Domestic Help costs.

Valuation basis

Figure 6.28 below shows the recent experience and selected basis for Care payments.

Figure 6.28 – PPCI experience and selections: Care





The selected basis is consistent with the average experience over the last 4 quarters. There are very few costs beyond development quarter 17, and as such, we have adopted the same basis for Transitional claims as RTW Act claims.

Valuation results and actuarial release

Valuation results are shown in Section 6.7.

6.6 Legal costs, Other entitlements and Recoveries

This section presents results for the remaining entitlements. These include legal and investigation costs, recoveries, common law, LOEC, and commutations.

6.6.1 Summary of results

Table 6.9 summarises the movements in our liability estimates for the remaining entitlement groups since the June 2021 valuation.

Table 6.9 – Valuation results: Other payment types

	Worker Legal	Corporation Legal	Invest-igation	Common Law	LOEC	Commu-tation	Recoveries	Total
	$m	$m	$m	$m	$m	$m	$m	$m
Estimated Liab at Dec-21 (Jun-21 ecos)	60.5	39.8	2.2	1.4	0.5	2.2	(35.0)	71.6
Impact of change in eco assumptions	(0.1)	(0.1)	(0.0)	(0.0)	(0.0)	(0.0)	0.1	(0.2)
Estimated Liab at Dec-21 (Dec-21 ecos)	60.4	39.7	2.2	1.4	0.5	2.1	(35.0)	71.4

The remainder of this section deals with the payment experience and valuation basis, while economic assumptions are discussed in Section 11.3.2.

6.6.2 Worker Legal

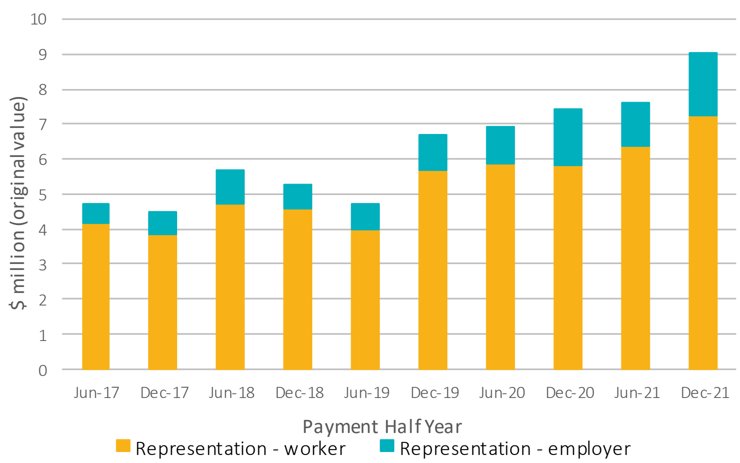
Our valuation of legal costs separately models legal fees paid to ReturnToWorkSA's contracted legal advisers (Minter Ellison and Sparke Helmore), which we call 'Corporation Legal', and legal fees paid to workers' representatives and employers, which we call 'Worker Legal'. This section describes the Worker Legal results, with Section 6.6.3 discussing ReturnToWorkSA's legal costs.

Disputes are the main driver of expenditure for both worker and Corporation Legal fees, and were discussed in Section 4.4.3. Worker Legal accounts are generally only submitted upon completion of the dispute and therefore any changes in dispute numbers will usually involve a delay before they are translated into changes in Worker Legal costs.

Experience

Figure 6.29 below shows Worker Legal payments in each six-month period over the last five years.

Figure 6.29 – Worker Legal Half Yearly Payments



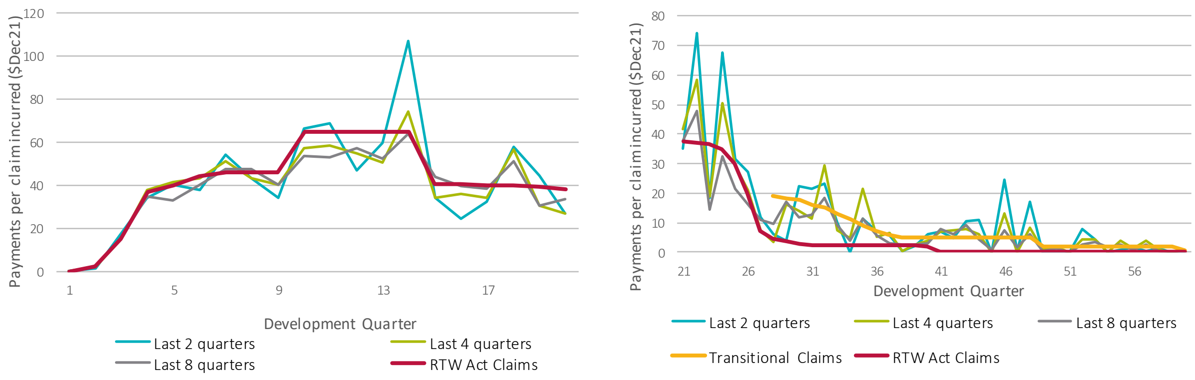
Following two years of consistent growth in Worker Legal payments, the December 2021 half-year has increased again to over $9m. As shown in Section 4.4.3, new dispute numbers have increased and there remains an increasingly large number of open disputes in the scheme, and so we expect that payments will continue to increase.

As also noted in Section 4.4.3, recently finalised disputes are also progressing to later stages of the dispute resolution process than they previously did, which translates to higher legal costs as the fees paid to lawyers increase significantly as you move through the dispute process.

Valuation basis

A PPCI model is used to value Worker Legal fees. Figure 6.30 below shows the recent experience and selected basis for Worker Legal payments.

Figure 6.30 – Worker Legal experience and selections



The selected RTW Act basis reflects the most recent emerging experience and is considerably higher than the longer term average. On recent patterns, then unless there is some form of wholesale change to the dispute resolution framework we expect legal payments will remain high.

For transitional claims, we have selected a basis which is consistent with the level of payments observed over the last 4 quarters. This translates into a valuation estimate of around $11.6m (discounted) for Transitional Worker Legal costs and allows for:

- Some further progression of the currently 500 open disputes,
- A further 600 new disputes to be lodged (at a lower cost) in relation to WPI assessments. As discussed in Section 6.4, there are currently 900 pending assessments and an assumed 1,500 future assessments. The 600 new dispute allowance implies a disputation rate of 25%, consistent with the recent experience for Transitional claims.

Valuation results and actuarial release

Results are shown in Section 6.7.

6.6.3 Corporation Legal

Corporation Legal refers to the legal fees paid to ReturnToWorkSA's contracted legal advisers. Since 1 January 2013 there have been two legal service providers, Minter Ellison and Sparke Helmore, who were originally paid fees based on the number of matters handled and the complexity of these matters.

Beginning in 2016, an annual contract was agreed upon whereby the contracted legal advisers would be paid a pre-determined fixed fee each month throughout the contract period. Fees for advice and representation pertaining to complex cases are paid at the same rate outlined in the previous contract in addition to the fixed fee each month. This contract has been extended each year since with revised fixed fees.

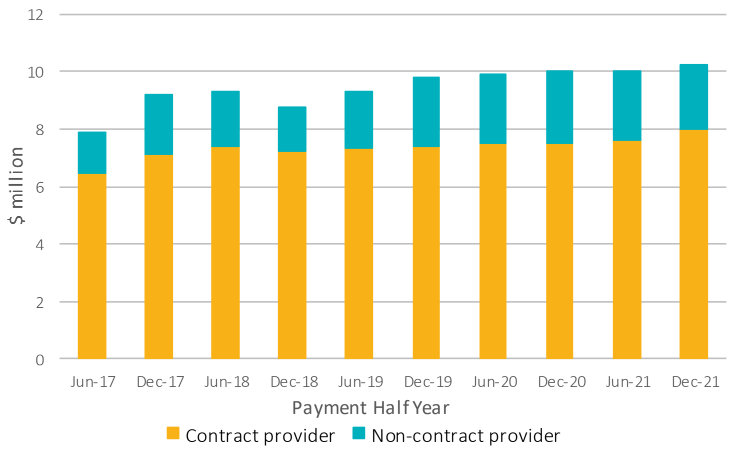
A performance fee is also payable at the end of each contract half-year based on the achievement of certain performance outcomes. This fee is unchanged for the FY22 contract.

In addition to the two main legal service providers, ReturnToWorkSA also pay other providers legal fees related to third party recoveries, staff claims and extraordinary matters. These providers are referred to as “non-contract” providers in the remainder of this section.

Experience

Figure 6.31 below shows Corporation Legal payments in each six-month period over the last five years.

Figure 6.31 – Corporation Legal half yearly payments



Corporation Legal expenditure in the six months to December 2021 was marginally higher than the previous six months and reflects indexation in the contract terms for FY22. There continues to be high amounts of “non-contract” fees related to recoveries activity and a higher number of matters in the Supreme Court as mentioned in Section 4.4.3.

Valuation basis

Under the current contract, a fixed amount is paid to each legal provider each month regardless of the number of non-complex matters referred. Table 6.10 below summarises the payments applicable under the current contract.

Table 6.10 – Corporation Legal contract components

Matter Type	Contract Terms Current
Advice only Dispute representation	Fixed Fee per month
Complex matters	Paid per matter
Performance Fee	Paid at the end of year

To project the future costs of Corporation Legal we have:

- Adopted the fixed monthly fees payable to each provider under the contract
  - The fixed fee per month is unchanged for the June 2022 half-year in accordance with the current contract. Beyond the current contract, we have not allowed for any escalation in fees, reflecting the relative stability in the contract costs to date despite increasing levels of disputes in the scheme; ReturnToWorkSA management are also strongly of the view that these costs are not expected to increase at future contract renewals.
- Estimated the number of complex matters that will be referred each year for the duration of the contract and multiplied this by the relevant fees as specified in the contract terms.

> We have made an allowance for payments of $120,000 per half-year consistent with the experience over the last year.

- Allowed for payment of additional performance fees as specified in the terms of the contract as well as outstanding performance fees payable under the previous contract.
- Allocated the cash flows in each payment year across accident periods.
- Estimated a separate allowance for matters handled by “non-contract” providers.
  > Our base allowance of $1.2m per half year is unchanged from our previous valuation and reflects the high volume of complex cases in recent years.
  > An additional loading of $1.5m per half-year starting in June 2022 and running down to $0.25m by December 2024 is also included, unchanged from our previous basis, to allow for the resolution of current and likely Supreme Court matters.

Beyond the current contract, payments for Corporation Legal are projected to increase in line with inflation.

The allocation of cash flows across accident periods is based on the observed experience in Worker Legal costs, with an adjustment to reflect the quicker payment pattern of Corporation Legal costs. We also assume that as transition claims eventually run-off, dispute lodgements will occur slightly earlier due to the shorter duration of claims under the RTW Act.

Valuation results and actuarial release

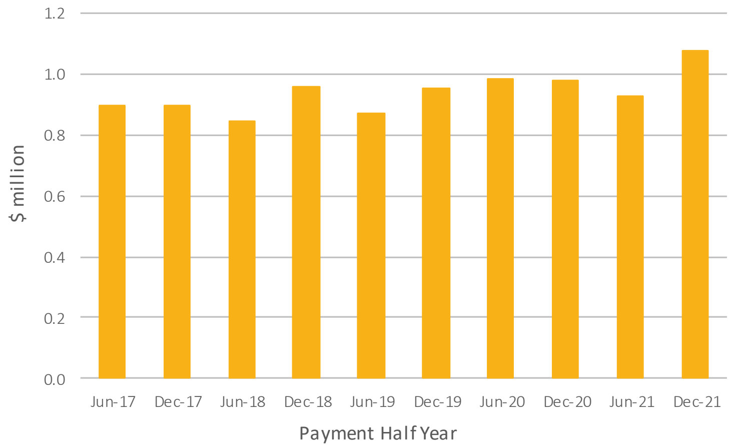
Results are shown in Section 6.7.

6.6.4 Investigation costs

Experience

Figure 6.32 below shows investigation payments in each six-month period over the last five years. While Investigation spending in the six months to December 2021 was up, the overall level is small.

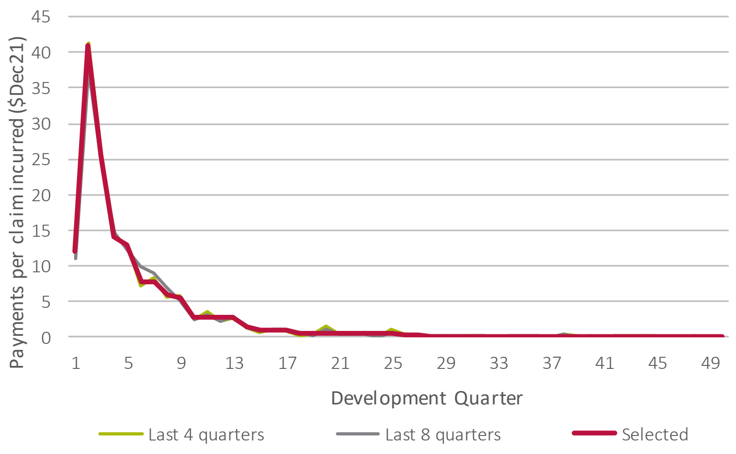
Figure 6.32 – Investigation half yearly payments



Valuation basis

A PPCI model is used to value investigation payments. Figure 6.33 below shows the recent experience and selected basis.

Figure 6.33 – PPCI experience and selections: Investigation



The selected basis is in line with the average over the last 4 quarters. The pattern shows that most of the investigation cost is paid within the first year of injury.

Valuation results and actuarial release

Valuation results are shown in Section 6.7.

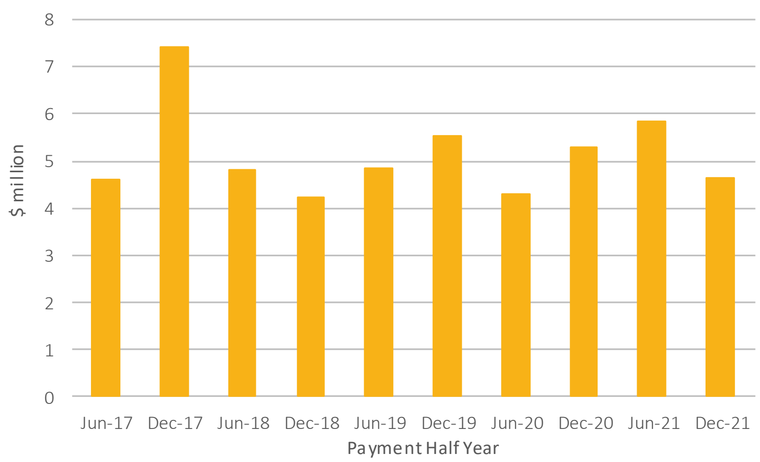
6.6.5 Recoveries

Recoveries can be made by ReturnToWorkSA from overpayments to workers, from the Motor Accident Commission (MAC) and private insurers for CTP claims, or from third parties for recoveries relating to negligence claims. Third parties for negligence claims will often be companies engaged in labour hire and owners or head contractors on construction sites, as ReturnToWorkSA cannot recover money from an employer for negligence.

Experience

Figure 6.34 below shows recovery receipts (i.e. payments received by ReturnToWorkSA) in each six-month period over the last five years. Recovery payments in the six months to December 2021 was at the lower end of normal.

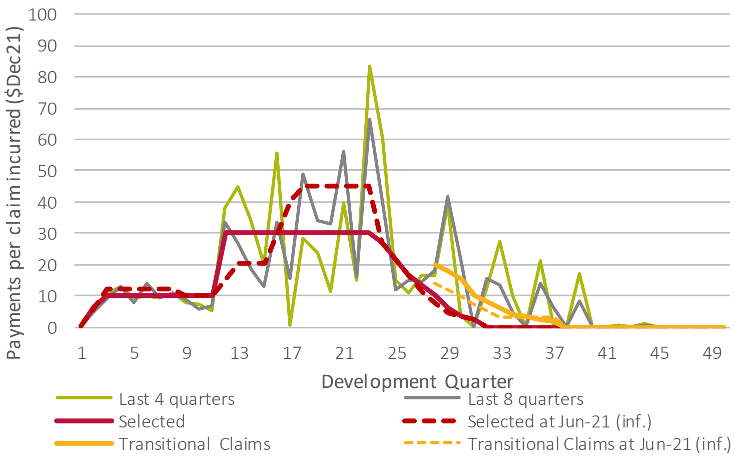
Figure 6.34 – Recovery half yearly payments received



Valuation basis

A PPCI model is used for recovery payments. Figure 6.35 below shows the recent experience and selected basis. We note that for the Recoveries PPCI model, all Claims incurred is defined as all reports including hearing loss claims. This approach is unchanged from the previous valuation and so a valid comparison can be made to the previous basis.

Figure 6.35 – PPCI experience and selections: Recoveries



The selected recovery PPCI assumptions have been reshaped at this valuation and give some weight to the emerging payment pattern. As recovery payments tend to be volatile, we have taken a longer-term view when selecting our basis. In addition, our expectation is for lower recoverability of costs under the RTW Act (where gross payments are lower), and following CTP reforms in 2014. Therefore, our selection does not fully reflect the recent experience at longer durations, where larger than expected recoveries have mostly come from older, transitional claim accident periods. We have increased the selected basis for transitional claims consistent with experience over the last 8 quarters.

Valuation results and actuarial release

Valuation results are shown in Section 6.7.

6.6.6 LOEC

Loss of Earning Capacity (LOEC) claims are a legacy feature of the portfolio, and are valued together with Short Term claims. At 31 December 2021, there are only three remaining claims. Our valuation basis is unchanged at this valuation.

6.6.7 Commutations

Commutation payments relate to claims receiving dependant benefits. Payments are volatile and in the last six months were lower than expectations. We have maintained our previous basis at this valuation.

6.6.8 Common Law

There were no common law payments in the last six months, with the last payment made in June 2009 to a claim from the 2005 accident year. The common law entitlement for short term claims relates to a small number of infrequent but relatively large claims related to other jurisdictions, and needs to be considered over long-time horizons. Our basis is unchanged at this valuation.

Potential common law entitlements for Serious Injury claims are considered in Section 8.

6.7 Short Term Claims – All Claims Results

This section summarises the results across all Short Term Claims – that is, it combines the results for General Claims and Hearing Loss Claims. This approach is necessary at the current valuation, as the changes to both payment groupings and model structure mean most segments cannot be directly compared to the previous basis.

Table 6.11 – Short Term Claims: all claims results

		Medical and Allied Health								Other including Care										
Valuation Results: Short Term Claims	Income Support	Medical	Physical Therapy	Allied Health	Medical and Allied Health Sub Total	Hospital	Rehabilitation	Travel	Investigation	Other	Care	Other and Care Subtotal	Legal - Non-Contract	Legal Contract	Lump sums	Common law	LOEC	Commutation	Recoveries	Net Liability
Jun21 Valuation	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
Estimated Liab at Jun-21	167.4	151.6	9.8		161.4	17.4	11.9	5.5	2.2	7.5		7.5	51.4	40.4	315.9	1.4	0.6	2.2	-36.0	748.9
Projected Liab at Dec-21	170.0	151.2	9.4		160.6	16.8	11.6	5.3	2.2	7.3		7.3	50.4	39.9	319.1	1.4	0.5	2.2	-35.8	751.5
Estimated Liab at Dec-21 (Jun-21 ecos)	161.2	128.7		44.9	173.7	17.2	12.8	6.4	3.1	5.3	2.1	7.4	69.2	39.8	326.1	1.4	0.5	2.2	-35.0	785.9
Difference from expected	-8.8				13.1	0.3	1.2	1.1	0.9			0.1	18.8	-0.1	7.0	0.0	0.0	0.0	0.7	34.3
Allocation of difference to Hearing Loss claims	0.0				5.9	0.0	0.0	0.2	0.6			0.2	5.7	0.0	-0.2	0.0	0.0	0.0	0.0	12.3
Allocation of difference to General claims	-8.8				7.2	0.3	1.2	0.9	0.4			-0.1	13.1	-0.1	7.2	0.0	0.0	0.0	0.7	22.0
General Claims - RTW Act periods	-8.9				2.9	0.0	0.0	0.1	0.1			-0.2	9.4	-0.1	0.8	0.0	0.0	0.0	1.6	5.7
General Claims - Transition periods	0.1				4.3	0.4	1.2	0.8	0.2			0.2	3.7	0.0	6.4	0.0	0.0	0.0	-0.9	16.3
Impact of change in eco assumptions	-0.3	-0.5		-0.1	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-2.7	0.0	0.0	0.0	0.1	-3.8
Estimated Liab at Dec-21 (Dec-21 ecos)	160.9	128.2		44.8	173.1	17.2	12.8	6.4	3.1	5.3	2.1	7.4	69.1	39.7	323.4	1.4	0.5	2.1	-35.0	782.1
AvE Payments - six months to Dec-21	-1.4				-1.0	-0.6	-0.2	0.2	0.2			-0.4	2.1	-0.5	1.8	-0.1	0.0	-0.2	-0.2	-0.3
Actuarial release at Dec-21	10.2				-12.1	0.2	-1.0	-1.3	-1.1			0.4	-21.0	0.6	-8.7	0.1	0.0	0.2	-0.5	-34.0

At a total level, there is an actuarial strengthening of $34.0m for the baseline Short Term Claims valuation (this increases to $39.2m after including expenses, as shown in Section 11.3). This is comprised of an increase of $34.3m in the liability estimate partly offset by $0.3m lower payments than expected over the past six months. The key movements in the liability estimate are discussed below:

- Income Support – an actuarial release of $10.2m due mainly to lower continuance rates for physical trauma, musculoskeletal and mental injury claims following improved RTW performance
- Medical and Allied Health – an actuarial strengthening of $12.1m which can be attributed to:
  - Hearing Loss claims – a liability increase of $5.9m due to a combination of higher allowance for hearing aid fitting fees and written reports (+$22.6m) partly offset by a reduction in the future superimposed inflation assumption of $16.7m
  - General claims – a liability increase of $7.2m due to a higher allowance for medico-legal costs in response to the high dispute and WPI activity for both Transitional and RTW Act claims (+$10.1m). This was partly offset by a reduction $2.9m in the superimposed inflation allowance.
- Worker Legal – an increase of $18.8m in the liability which can be attributed to:
  - Hearing Loss claims – a $5.7m increase to reflect the higher volumes of disputes
  - General claims – an increase of $13.1m in response to the high volumes of open disputes, anticipated higher ongoing disputes and the progression of more disputes into the higher stages of the dispute resolution process. $3.7m of the increase relate to Transitional claims.
- Lump sum – an increase of $7.0m in response to the high volumes of WPI assessments for Transitional claims. There are also offsetting movements for RTW Act claims with higher average sizes for First Paid and Death lump sums partly offset by lower numbers of Economic Loss lump sums
- The movements in the remaining benefit groups are small and add up to an actuarial strengthening of around $2.4m.

Table 6.12 below shows the actuarial release for Short Term Claims by accident period.

Table 6.12 – Short Term Claims: actuarial release by accident period

Accident Period	Income Support	Medical and Allied Health	Hospital	Rehabilitation	Travel	Investigation	Other and Care Subtotal	Worker Legal	Lump sums	Common law	LOEC	Commutation	Redemptions	Recoveries	Total excl. Contract Legal	Contract Legal	Total excl. Contract Legal
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
Pre Jun-15	-0.2	-9.3	0.1	0.0	-0.2	-0.4	-0.2	-6.7	-5.5	0.1	0.0	0.1	0.0	2.1	-20.1		
Jun-16	0.0	-0.5	0.0	0.0	0.0	-0.1	0.0	-1.4	-0.9	0.0	0.0	0.0	0.0	-0.4	-3.3		
Jun-17	0.1	-0.1	0.0	0.0	0.0	-0.1	0.0	-1.7	-0.1	0.0	0.0	0.0	0.0	-0.9	-2.7		
Jun-18	0.2	-1.2	-0.1	0.0	-0.1	0.0	0.0	-1.8	-0.2	0.0	0.0	0.0	0.0	-1.4	-4.5		
Jun-19	-0.2	-0.8	-0.1	-0.3	-0.2	-0.1	-0.1	-2.5	-0.8	0.0	0.0	0.0	0.0	0.1	-4.7		
Jun-20	3.1	-0.8	0.0	-0.5	-0.3	-0.1	0.2	-2.4	0.5	0.0	0.0	0.0	0.0	-0.2	-0.6		
Jun-21	3.6	-0.5	0.1	-0.2	-0.4	-0.2	0.4	-2.9	-2.1	0.0	0.0	0.0	0.0	0.0	-2.2		
Dec-21	3.6	0.9	0.2	0.0	-0.1	-0.1	0.1	-1.6	0.3	0.0	0.0	0.0	0.0	0.2	3.5		
Total	10.2	-12.1	0.2	-1.0	-1.3	-1.1	0.4	-21.0	-8.7	0.1	0.0	0.2	0.0	-0.5	-34.6	0.6	-34.0

Over half of the actuarial strengthening ($20.1m) is due to Transitional Claims, some of which is due to Hearing Loss claims. In particular, the continued WPI activity for this cohort of claims is resulting in increased frictional costs (medico-legal and legal costs) as well as converting into higher numbers of lump sums.

Movement for RTW Act periods are more mixed with favourable IS experience offset by higher legal and medical costs.

7 Noise Induced Hearing Loss Claims

Workers who suffer a compensable hearing loss injury are entitled to hearing aids and other treatment costs, and (depending on the assessed WPI) a lump sum payment.

At this valuation we have changed our modelling approach to directly model noise induced Hearing Loss claims separately from General Short Term claims, split into the following payment groups: Lump Sums, Medical Reports, Medical Appliances, Legal and 'Other'.

7.1 Summary of results

Table 7.1 summarises the liability estimates for Hearing Loss claims. Due to the change in modelling approach at this valuation, the change in liability can only be assessed across all Short Term claims (General and Hearing Loss claims combined), which is included in Section 6.7.

Table 7.1 – Valuation results: Hearing Loss claims

	Lump Sums	Medical	Allied Health	Worker Legals	*Other Benefits*	Total
Estimated liability at Dec-21 (Jun-21 eco assumptions)	52.4	65.3	19.0	8.7	1.6	147.0
Impact of change in eco assumptions	(0.6)	(0.4)	(0.1)	(0.0)	(0.0)	(1.1)
Estimated liability at Dec-21 (Dec-21 eco assumptions)	51.9	65.0	18.9	8.7	1.6	146.0

The remainder of this section deals with the payment experience and valuation basis.

7.2 Valuation approach

Our valuation of Hearing Loss claims builds up from our claim number projection for this specific claim type, which were described in Section 5.1. The key features are:

- Lump sums: our valuation basis adopts a combination of the chain ladder approach for more mature accident periods and a frequency-based approach for more recent accident periods where there is less experience and there have been changes in the pattern of payments. In each case the projected proportions of claims who are projected to receive a lump sum are used as a 'sense check' on the projections
- Medical Reports: there is a strong relationship between written report costs and the number of newly reported Hearing Loss claims (with a one quarter delay), and we use this to project future costs
- Worker Legals: legal payments are primarily related to rejected claims that are disputing eligibility; Worker Legals tend to be paid at the resolution of the dispute, so our model links Worker Legals to the reported claims, with a delay to allow time for the dispute to resolve (average payments per yearly average of incremental reports, with a two quarter delay)
- Medical Aids and Appliances: Hearing Loss claims may incur regular replacement and repair costs for hearing aids, running for decades after the injury is initially reported. We use an average payments per claim incurred approach for these costs
- Allied Health: these are mainly professional 'fitting fees' for the provision of hearing aids, and have a steady cost relationship with the device costs; we model these costs as a loading on the Medical Aids and appliances costs
- Payments for other benefit types are minimal. Costs are projected in aggregate and allocated to the broader payment groups by selecting a percentage allocation to separate projected cash flows

Detailed descriptions of the projection models and details of all projection assumptions are included in Appendices A and H.

7.3 Lump sums

A lump sum is payable to a worker who suffers a compensable disability that results in at least 5% whole person impairment (WPI). The approach to valuing Hearing Loss claims' lump sum entitlements is unchanged at this valuation.

The projected outstanding claims liability for Hearing Loss claims lump sums is $52m, as shown in Table 7.1.

7.3.1 Payment experience

Table 7.2 summarises the payments in the six months to 31 December 2021 with the expected payments from our June 2021 valuation projection. (There has been no change in valuation approach for hearing loss claim's lump sum benefits, so a direct actual v expected is possible).

Table 7.2 – Actual vs expected payments: Hearing Loss claims lump sums

Accident	Payments in Six Months to Dec 21			
Period	Actual	Expected	Act - Exp	% Difference
	$m	$m	$m	
To 30 Jun 05	0.4	0.4	(0.0)	-9%
2005/06 - 2014/15	1.2	1.1	0.0	2%
2015/16 - 2018/19	0.7	1.0	(0.3)	-34%
2019/20 - 2020/21	2.6	3.7	(1.2)	-31%
2021/22[1]	0.0	0.2	(0.2)	-81%
Total	4.8	6.5	(1.7)	-26%

[1] Accidents to Dec21

Payments were 26% lower than expected in the six months to 31 December 2021, with the difference arising across most injury periods. The timing of assessments has been impacted by the availability of assessors, some of whom have not been able to travel to South Australia due to COVID related restrictions, and we understand this has impacted on payment levels; as a result, we are interpreting this as a 'delay' rather than a 'reduction'.

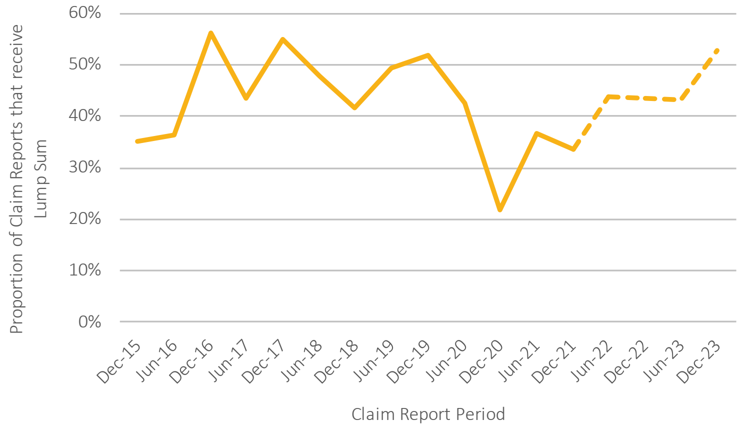
7.3.2 Valuation basis for Hearing Loss lump sums

When estimating the number of future Hearing Loss lump sums, we explicitly track the proportion of claims that are reaching the 5% WPI threshold, given the major changes to new claim levels in recent years.

Figure 7.1 below shows the number of Hearing Loss lump sum payments as a proportion of overall hearing loss claim reports, as a test of whether the rapid growth in new claims has led to any apparent change in the utilisation of lump sums. Note the lump sum payments have been lagged by half a year to account for the normal delay between claim report and payment.

Figure 7.1 – Proportion of Hearing Loss claims getting a lump sum

(with a six-month lag to allow for payment delays)



The key features we note are:

- The proportion of Hearing Loss claims receiving a lump sum was fairly stable at around 50% up to December 2019
- The December 2020 half-year was then impacted by disruptions in assessments due to COVID-19 restrictions
- The lump sum proportion stayed lower in Jun-21 and Dec-21. We have assessed that this relates to operational changes by ReturnToWorkSA to strengthen claim acceptance processes, which has increased the delay between lodgement and lump sum. Combined with the rapid increase in Hearing Loss commencing claims since 2019, the proportion of claims with a lump sum payment is lagging behind Hearing Loss claim reports, which has resulted in the proportion falling below 50%
- Our selected basis implies that the patterns will return to normal levels, with ultimate lump sums at around 53% of ultimate Hearing Loss claims for injury years 2018 and onwards. This is unchanged from the June 2021 valuation basis.

Figure 7.2 shows the projected numbers of Hearing Loss lump sums by accident year. The tail of Hearing Loss IBNR claims is long, with claims still emerging many years after the end of exposure. The valuation basis is broadly unchanged at December 2021.:

Figure 7.2 – Projected ultimate numbers of Hearing Loss lump sums

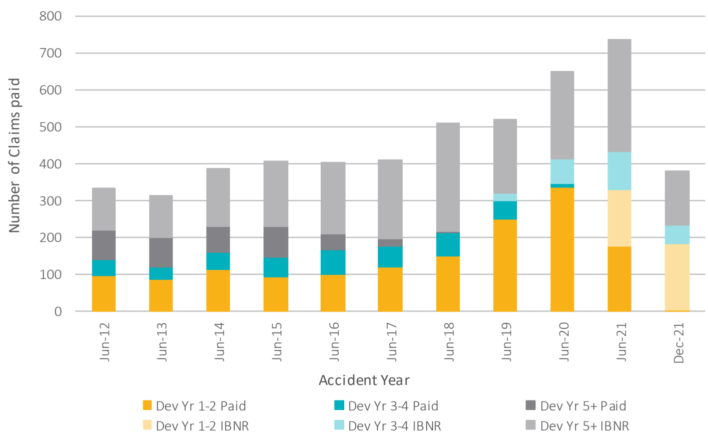
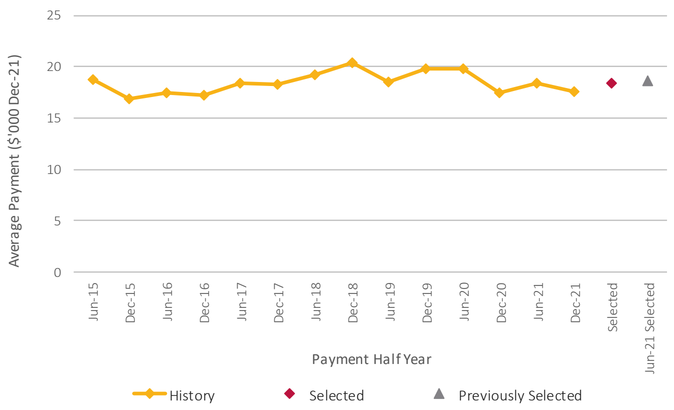


Figure 7.3 shows the overall average benefit paid for a Hearing Loss lump sum claim. The selected average Hearing Loss benefit at this valuation is around $18,400 per claim which represents a minor reduction ($250) from our previous valuation. The selected average size is consistent with the experience over the last two years and gives further weight to the lower average sizes observed over the last year.

Figure 7.3 – Average lump sum for Hearing Loss claims ($Dec-21)



7.3.3 Valuation results and actuarial release

The movement in the results is set out in Section 6.7.

7.4 Legal costs

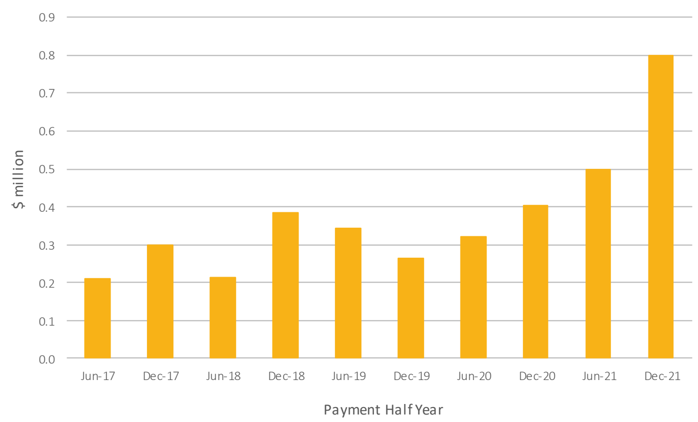
This section presents results relating to worker legal costs only. While some corporation legal costs will relate to the management of Hearing Loss claims, these expenses are not allocated between claim types and so are not separated for our work.

The projected outstanding claims liability for Hearing Loss claims' legal costs is $9m, as shown in Table 7.1.

7.4.1 Payment Experience

Disputes are the main driver of expenditure for both worker Legal fees, and as discussed in Section 4.4.4 these have been increasing. Legal accounts are generally only submitted upon completion of the dispute, and so we expect costs are still increasing. Figure 7.4 below shows Worker Legal payments in each six-month period over the last five years. As this shows, payments have increased significantly in the last two years.

Figure 7.4 – Worker Legal half yearly payments for Hearing Loss claims



The focus on claims acceptance practices has resulted in a higher rejection rate – nearly 50% of Hearing Loss claims are initially rejected now, which is similar to pre-2019 averages but higher than the 30-40% rejection rates that were seen between 2019 and 2021 as new claim numbers grew quickly. These rejections are resulting in higher numbers of disputes: the dispute rate has averaged around 65% over an extended period, and tends to be slightly higher when the rejection rate is higher, as shown in Figure 7.5.

Figure 7.5 – Hearing Loss claims – proportion of rejected claims that lodge a dispute

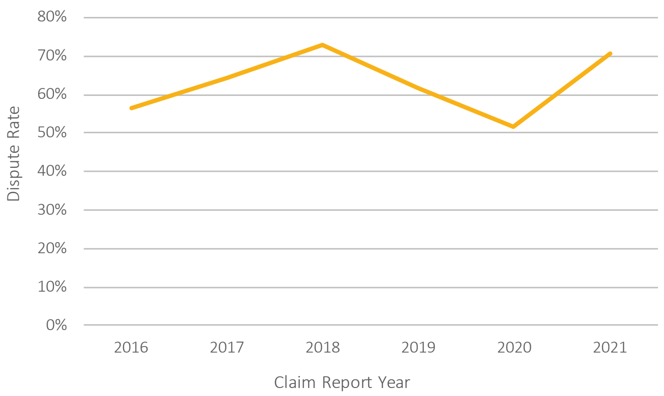
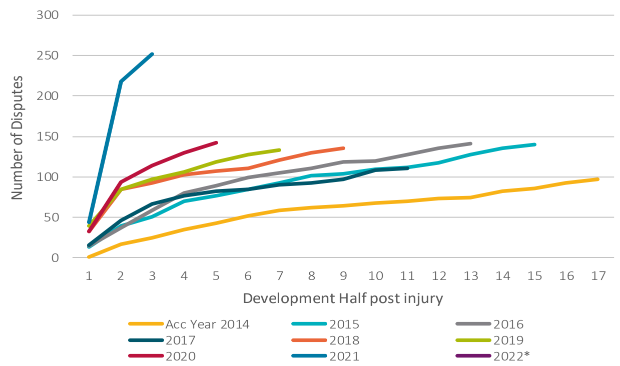


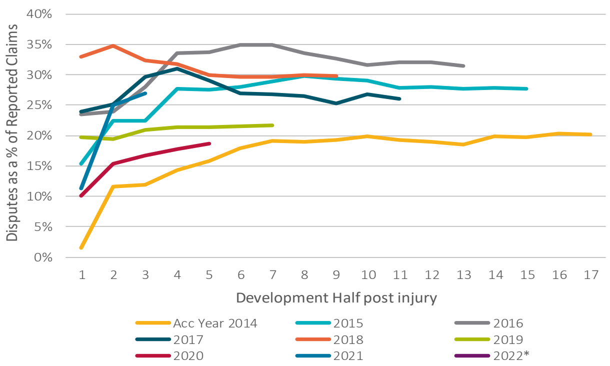
Figure 7.6 shows the disputes lodged over time for claims in each accident year (left graph) and the dispute rate by dividing disputes by the number of reported claims (right graph).

Figure 7.6 – Number of Hearing Loss disputes lodged per accident year and duration from injury

Hearing Loss disputes



Dispute Rate



This shows that dispute volumes are higher and faster across successive years (with each line higher than the previous accident year). However once this is normalised for the growth in new Hearing Loss claims (right graph), it demonstrates that the very high dispute numbers are mostly due to growth in claim numbers, combined with the rejection rate returning to pre-2019 levels.

Not surprisingly, the volume of open disputes has grown significantly, and there are currently close to 400 open Hearing Loss disputes. This disputation activity won't yet be impacting the claim payment experience, as legal fee payments are generally only made upon finalisation of the dispute.

7.4.2 Valuation basis

A PPCR model is used to value Worker Legal fees. Figure 7.7 below shows the recent experience and selected basis for Worker Legal payments. This is a new approach at the December 2021 valuation and therefore there is no previous basis to compare to.

Figure 7.7 – Worker Legal experience and selections: Hearing Loss claims

Payments for worker legal services have increased over the last year (average 2 is higher than average 8). Legal payments are expected across all durations from injury including significant disputation for older claims.

In addition to the average size selection, an average size relativity has been incorporated for legal costs for the most recent accident periods. This allows the expected costs to incorporate the surge in disputation activity that is not currently reflected in the payment experience. The table below shows the relativity applied to the average payment per claim reported (above).

Table 7.3 – Hearing Loss Worker legal payments - Average Size Relativity

Accident Period	Average Size Relativity
to 30 June 05	100%
2005/06 - 2019/20	100%
2020/21	150%
2021/22[1]	150%

These average cost relativities represent the increase in rejection rate and subsequent disputation activity over the last 18 months.

Valuation results and actuarial release

Movement in results is shown in Section 6.7.

7.5 Treatment and remaining costs

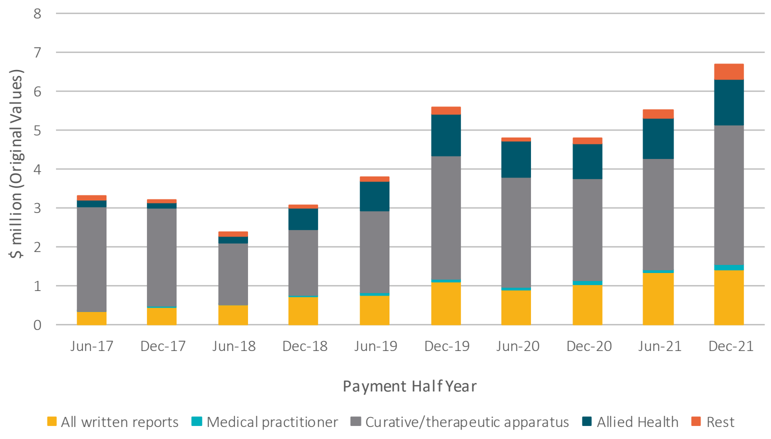
For the valuation we split these entitlements into the following groups: Medical (split by medico-legal assessment costs and aids and appliances) and Other costs.

The projected outstanding claims liability for Hearing Loss claims treatment and remaining costs is $85m, as shown in Table 7.1.

7.5.1 Payments vs expectations

Figure 7.8 below shows medical payments by six-month period, split by the type of service. A payment code change at the end of 2017/18 means that payments allocated between payment codes curative apparatus (aids) and allied health is different in recent years.

Figure 7.8 – Treatment and remaining entitlements - half-yearly payments: Hearing Loss claims



Our key observations are:

- Costs have grown significantly since 2018 across all payment types. There is also likely to be some COVID related impacts that mean recent payment levels are below what they otherwise would have been.
- The growth in 'Allied Health' payments has been most evident since 2019, when there was a change in the fee schedules that allowed for a 'device fitting fee' to now be paid in addition to the cost of the device itself.

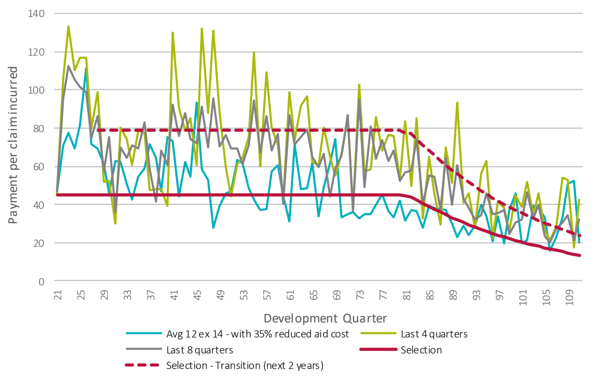
7.5.2 Valuation basis

Figure 7.9 below shows the recent experience and selected basis for medical payments across the various components that are separately modelled.

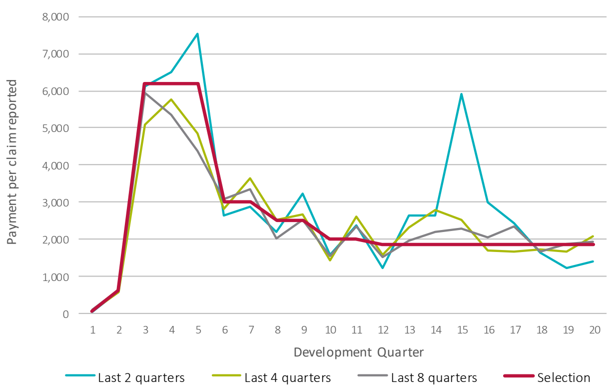
Figure 7.9 – Medical experience and selections

PPCI – Medical Aids and Appliances

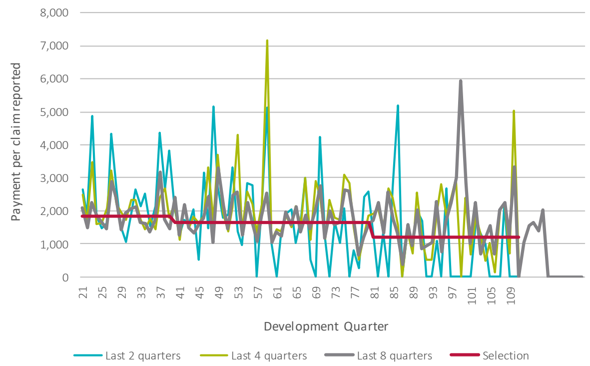
Tail PPCI – Medical Aids and Appliances



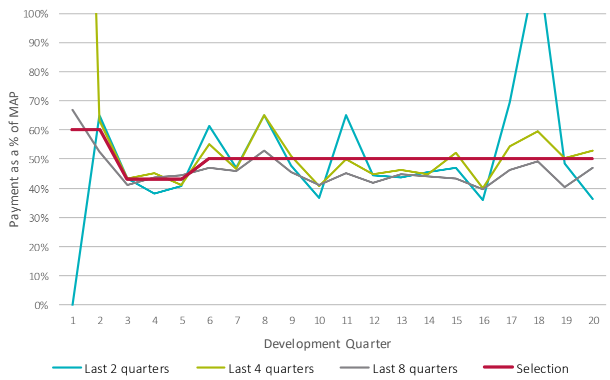
PPCR – Medical Reports



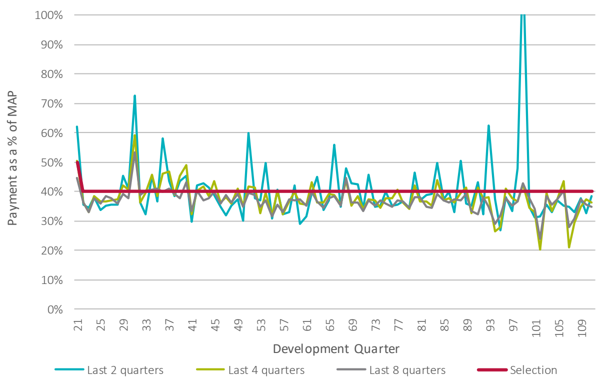
Tail PPCR – Medical Reports



Payment as a % of MAP – Treatment Rest



Tail Payment as a % of MAP – Treatment Rest



Our comments on the experience and selected assumptions are:

- Across all the figures shown, there is an element of catch-up in the 'last 2' average; we have used the 'last 4' averages as the most relevant metric for the recent experience. smoothing through any delay and catch-up of payments.
- PPCI (Medical aids and appliances)
  > Hearing loss claims have a very long tail of payments, relating to the repair and replacement of hearing aids which can occur at regular intervals for the remainder of the claimant's life. Our selected front end PPCI sits in line with the recent experience.

  > Our selected PPCI tail for transition periods incorporates an allowance for higher reports and subsequent purchasing of aids over the next 2 years (dashed red line). The expectation

then reverts to longer term average trend, after incorporating the lower expected average claim size for aids under current fee schedules.

> Average size relativity (not shown above) - The pattern of rejections, disputation and subsequent acceptance of hearing loss claims means that the ultimate proportion of claims that are accepted is expected to be broadly unchanged for all accident periods to June 2019. For accident periods 2019-2020 we are expecting 1% less future claims cost as a result of reducing acceptance rates. For the 2022 accident year we are expecting a 5% reduction in accepted claims that will reduce the average claim size (relative to all reported claims) similarly for this year.

- PPCR (Medical, reports):
  > Our selected PPCR is in line with the last 4 average experience across all periods after the first year post injury; for the first year we anticipate higher claims costs (average 2), as recent operational changes have increased report costs.
- PPCI (Allied health and remaining entitlements)
  > There is a stable relationship between the payment for aids and allied health services. As such the PPCI and associated selection is expressed in that format. Our selected PPCI is broadly in line with the average experience over the last four quarters.

  > The remaining entitlements are spread over the other benefits by selecting a proportion related to the average payments over the last 3 years. The figure shows 85% of payments relate to Allied Health, with the remaining costs allocated to Medical (primarily professional fees), Investigation and Other.

7.5.3 Valuation results and actuarial release

Movement in results is shown in Section 6.7.

7.6 Short Term Claims – Hearing Loss claim results

As the December 2021 valuation is the first time Hearing Loss claims have been valued as a completely separate segment, it is not possible to provide an analysis of change relating to the Hearing Loss claims only. An aggregate analysis of change has been provided in Section 6.7.

8 Serious Injury claims

We note that the valuation assumptions and impact described here in in this section relate to the pre-*Summerfield* Serious Injury cost only (see Section 3.1 for more information). The additional cost due to *Summerfield* is discussed in total in Section 9.

8.1 Overall results

Table 8.1 shows the central estimate of Serious Injury claims costs at 31 December 2021 and movement in our liability estimates since the June 2021 valuation.

Table 8.1 – Serious injury claims valuation results (excluding CHE)

	Income Support	Medical (Including Physio)	Other (Care)	Hospital	Travel	Rehabilitation	Investigation	Legal - Non-Contract	Legal Contract	Lump sums	Recoveries	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
Jun-21 Valuation												
Estimated Liab at Jun-21	596	739	426	146	57	19	1	16	16	126	-36	2,106
Projected Liab at Dec-21	610	770	434	153	60	20	1	16	16	128	-34	2,175
Dec21 Valuation												
Impact of experience/basis change	16	-45	18	-11	-5	-4	0	1	1	12	-2	-19
Estimated Liab at Dec21 (Jun21 ecos)	**627**	**724**	**452**	**142**	**55**	**16**	**1**	**17**	**17**	**140**	**-36**	**2,156**
Impact of change in ecos	-1	-2	-1	0	0	0	0	0	0	-1	0	-7
Estimated Liab at Dec21 (Dec21 ecos)	**626**	**722**	**451**	**142**	**55**	**16**	**1**	**17**	**17**	**139**	**-36**	**2,149**
AvE Payments - six months to Dec-21	0	-1	1	0	0	0	0	0	0	1	3	4
Actuarial Release at Dec-21	-16	47	-19	10	5	4	0	-1	0	-12	-1	15

The outstanding claims cost for Serious Injury claims (excluding CHE) is $2,149m at 31 December 2021. The main movements from our June 2021 projection of the December 2021 liability are:

- Claims experience and basis changes decreased the liability by $19m, as a result of:
  - Net changes to claim numbers (including IBNR claims assumptions) increased the liability by $42m, which was a combination of a $49m increase for Other Serious Injury claims and a $7m decrease for Severe Traumatic Injury claims.
  - A change in the mortality assumptions, predominantly reducing the mortality improvement factor from 1.5% to 0.5% p.a. decreased the liability by $55m, which was a combination of a $22m decrease for identified Other Serious Injury claims and a $33m decrease for identified Severe Traumatic Injury claims.
  - Other changes decreased the liability by $5m in aggregate, although this was the net result of a number of larger offsetting changes.
- Updating economic assumptions at the current valuation resulted in a decrease of $7m.
- The remainder of this section deals with the claims experience and basis changes.

8.2 Background

"Serious Injury" claims are those with WPI of 30% or more, who are eligible to receive Income Support to retirement and other benefits for life under the RTW Act.

As Serious Injury claims were not identified before the RTW Act commenced, there is uncertainty as to the precise number and characteristics of the now Serious Injury cohort. Section 5.2 describes our projection of Serious Injury claim numbers, including how we incorporate both formally determined 'known' Serious Injury claims and 'potential' Serious Injury claims who have not yet been formally assessed as Serious Injury but who are considered likely to do so at some point in future.

Our valuation work separately considers claims managed internally by ReturnToWorkSA in the EnABLE group, which are generally more like Severe Traumatic Injuries (they require significant levels of care and support, or have other special needs), and "Other Serious Injuries" that are not internally managed by ReturnToWorkSA.

8.3 Valuation approach

8.3.1 Approach and key assumption summary

As Serious Injury claims are essentially entitled to lifetime benefits, it is important to consider the characteristics of individual claims when projecting future costs. Our valuation approach therefore projects future claim costs individually for each claim by payment type.

Due to significant differences in the level of incapacity and associated treatment and care costs, we have separately modelled 'Severe Traumatic Injury' claims and 'other Serious Injury' claims. Our assumptions have been set as described in Appendix A and summarised in the following table.

Table 8.2 – Approach to setting valuation assumptions for Serious Injury claims[1]

	Severe Traumatic Injuries	Other Serious Injury
Life expectancy	Mortality improvement of 0.5% p.a. (a decrease from 1.5% p.a. at the previous valuation). Mortality loadings for claims with high care needs (reducing life expectancy by 19 years) and for moderate care needs (reducing life expectancy by 7 years).	Mortality improvement of 0.5% p.a. (a decrease from 1.5% p.a. at the previous valuation).
Income Support	To retirement age on all IS ongoing claims. Based on historical experience and estimates provided by ReturnToWorkSA.	To retirement age on all IS ongoing claims. Based on historical experience.
Treatment Related Costs and Other[2]	Paid for life. Based on historical experience and estimates provided by ReturnToWorkSA, with the exception of Hospital costs, which are based on selected payment per active claim curves for this cohort. Allowance for IBNER on Other and Medical costs above identified costs.	Paid for life. Early duration claims (in the treatment and recovery phase) based on payment per active claim curves selected from this cohort. Mid-to-long duration claims (in the maintenance phase) based on historical experience.
Lump sums[3]	Paid to claimants who have not already had a lump sum, based on assessed WPI, or an assumed average WPI if no assessment has been undertaken as yet.	
Legal and Investigation	Legal costs are modelled as a percentage of IS costs, net of payments to date. An average ultimate investigation cost per claim is adopted, net of payments to date.	Modelled as payment per claim incurred.
Recoveries	Projected on claims identified by ReturnToWorkSA as having recovery potential.	Applied a recovery as a proportion of gross payments for future periods.
Common Law	Not available to pre-1 July 2015 claims, and included in the cost of statutory entitlements for post-1 July 2015 claims.	

	Severe Traumatic Injuries	Other Serious Injury
Future cost escalation	WCI: Income Support AWE: Recoveries, Treatment and Other, Legal and Investigation Superimposed: 2% p.a. on Treatment, 1.5% on Other Needs Utilisation: 75% loading applied at age 65 on Treatment and Other, capped at 30 hours of care per day.	WCI: Income Support AWE: Recoveries, Treatment and Other, Legal and Investigation Superimposed: 2% p.a. on Treatment, 1.5% on Other.
IBNR Assumptions	IBNR claims in the latest five accident years only Claim size based on historical experience of current claims.	IBNR claims on all accident years, reflecting outstanding Serious Injury applications and WPI disputes (for older accident periods) and the delay from injury to WPI assessment (for newer accidents). Claim size based on historical experience of current known and potential claims.

[1] Projected costs are those paid after the claim has been identified as Serious Injury.

[2] Treatment related costs relate to Medical (including Aids and Appliances), Hospital, Rehab, Allied Health, and Travel. Other costs have been split into "Care" and "Other" for the purposes of the valuation. Care relates to services such as attendant, respite and/or nursing care. The remaining payments in 'Other' mainly relate to home and vehicle modifications and domestic services.

[3] Impairment lump sum only. Serious Injury claims are not entitled to the Future Economic Loss lump sum.

The Severe Traumatic Injury valuation is reliant on estimates provided by ReturnToWorkSA. As ReturnToWorkSA has become more familiar with this process we are seeing fewer large movements from valuation to valuation, with estimates reflecting changes in claimant circumstances rather than short-term volatility in benefit utilisation.

The approach to modelling Other Serious Injuries smooths out volatility seen early in the life of many Serious Injury claims, to reflect the general reduction in medical and related costs as claims move from the initial 'recovery' phase in the first few years to a longer term 'maintenance' level. The key features are:

- Aggregate models were built for all payment types, with the exception of Lump Sums.
- The models selected for each payment type are as follows:
  - Income Support, Treatment and Other – Payments per Active Claim. The only decrement for Treatment and Other payments is mortality, while Income Support payments have an additional decrement for retirement.
  - Legal and Investigation – Payments per Claim Incurred.
  - Recoveries – Proportion of Gross Payments.
- These models were adopted for the following:
  - All IBNR claims and future accident years.
  - All Legal, Investigation and Recovery payments.
  - All Treatment and Other payments for claims less than five years old. The utilisation of these benefits tends to be heightened at early durations, making it difficult to select future payment levels based on a claimant's actual historical experience. When aggregated across all claims the shape to this utilisation can be captured and applied up to a point (that has been selected as five years) where the Treatment and Other needs have stabilised.

One of the key determinants of very long term costs will be how much, if any, of the costs associated with ageing are compensated out of the compensation scheme. Based on the experience to date, albeit on a relatively small number of claims who have been through this process, the costs for age related care and support are being handled consistently with the current understanding of the approach to aged care related costs being funded. If this changes then the cost implications would likely be significant.

8.3.2 Changes to mortality improvement assumption

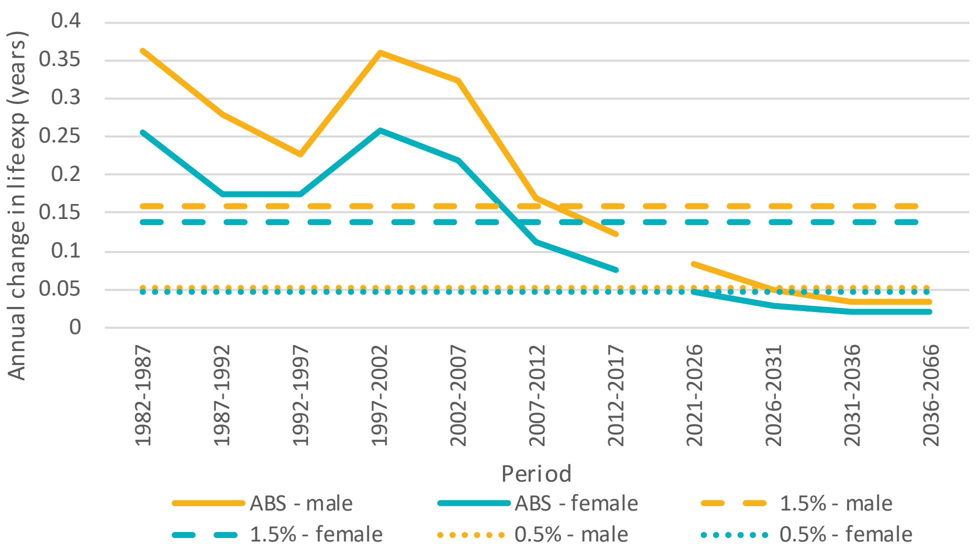
At the current valuation we have updated our mortality improvement assumption; given the very long term nature of this assumption, and its resulting significance for the liability estimates, our approach is to make this sort of change only when it is clearly warranted.

We have calibrated our assumption to align with the average mortality improvement published in the Australian Bureau of Statistics' "population projections" medium scenario over the future lifetime of Serious Injury claimants. As a result of this, our mortality improvement assumption has reduced from 1.5% p.a. to 0.5% p.a. In making this change we have also considered the approach and assumptions of a number of other lifetime care schemes, some of which have much larger, and longer running, portfolios upon which to set this assumption.

The outworking of this assumption change can be summarised by looking at the implied annual increase in life expectancy. Figure 8.1 shows:

- Historical periods from 1982 to 2017.
- The assumed annual increase from 2021 to 2066 as published in the ABS' medium "population projections" scenario.
- The implied annual increase using our current and previous assumptions.

Figure 8.1 – Annual changes to life expectancy (ABS data)



The main features are:

- The annual improvement in life expectancy decreased markedly between 2002 and 2017.
- The ABS assumes life expectancy improvements will continue to decrease, but at a slower rate in their medium "population projections" scenario.
- Our previous assumption implied an annual improvement in life expectancy that is above recent levels.

- As we select a single mortality improvement factor, it is possible that in the short-term mortality improvements will be better than we project, which is compensated by our assumption being higher than long-term mortality improvements.

As the ABS information is based on general population mortality improvements, our mortality improvement assumptions have also been informed by research comparing mortality improvements for severely injured people to the standard population. Research on traumatic brain injury mortality[7] found that there was no mortality improvement over the period from 1988 to 2010 (when the study ceased), while research on spinal cord injury mortality[8] found that while there was significant improvement from the 1950s to the 1980s, improvements plateaued from the 1990s to 2010, before some improvement being observed post 2010 – at a much lower level than the general population.

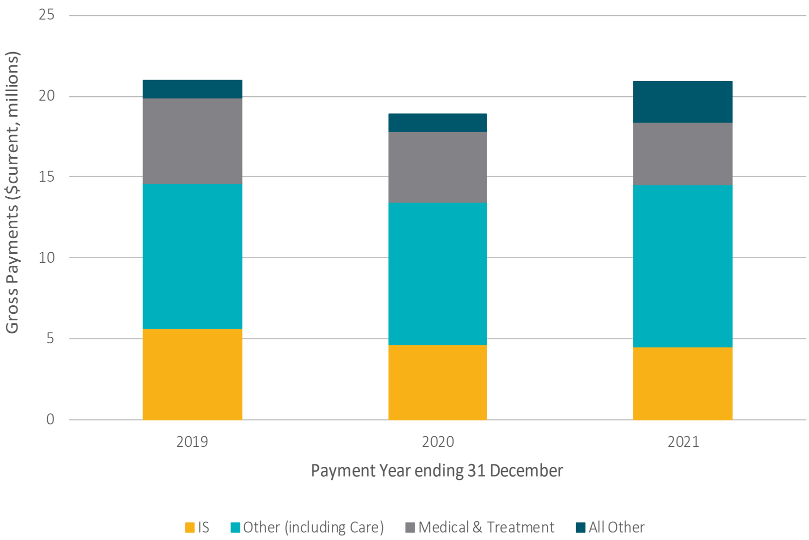
Having considered all of the above factors, we are comfortable with adopting a mortality improvement assumption in line with the ABS medium "population projection" scenario. Even if life expectancy improvements do not reduce as much as the ABS projections, there is sufficient research to indicate that Serious Injury claimants are likely to have lower improvements than the general population, which provides a counter balance to the reduced life expectancy improvement assumption.

8.4 Valuation of Severe Traumatic Injury claims

8.4.1 Payments by type

Figure 8.2 shows claim payments over the past three years for Severe Traumatic Injury claims.

Figure 8.2 – Severe Traumatic Injury claim payments ($Dec21)



$61m has been paid to Severe Traumatic Injury claims in the last three years. After allowing for recoveries of $2.3m over this same period, this equates to an average of around $19m p.a. in net claim payments (inflated to 31 December 2021 values), comprising around:

- $9.3m p.a. in care and other costs.
- $4.6m p.a. in medical, treatment and related benefits.
- $4.9m p.a. in income support.

[7] Jordan C. Brooks, PhD, MPH, Robert M. Shavelle, PhD, David J. Strauss, PhD, Flora M. Hammond, MD, Cynthia L. Harrison-Felix, PhD (2015) *"Long-Term Survival After Traumatic Brain Injury Part II: Life Expectancy"*

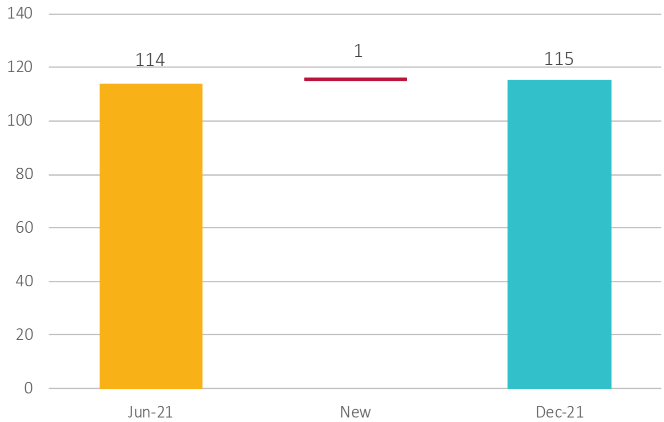
[8] G Savic, MJ DeVivo, HL Frankel, MA Jamous, BM Soni and S Charlifue (2017): *"Long-term survival after traumatic spinal cord injury: a 70-year British study"*

- $1.2m p.a. in lump sums.
- Small amounts of legal and investigation payments ($0.4m p.a.).
- $0.8m p.a. in recoveries.

8.4.2 Claimant profile

Figure 8.3 shows the number of active Severe Traumatic Injury claims (i.e. those being valued) at the current and previous valuations, along with the reasons for movement in the number of claims being valued.

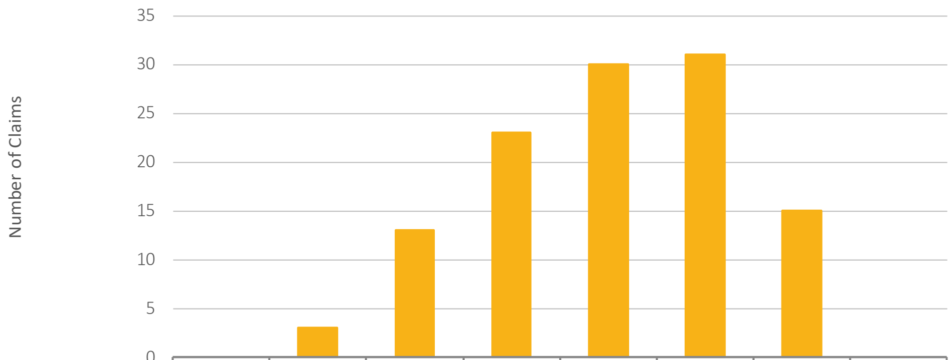
Figure 8.3 – Movement in Severe Traumatic Injury claim numbers



There are 115 active Severe Traumatic Injury claims (with expected ongoing benefits) at December 2021, compared to 114 active claims at the previous valuation. The movement in active Severe Traumatic Injury claims over the last six months is a result of one new claim that was recently re-assessed as seriously injured.

Figure 8.4 shows the age and life expectancy of the current Severe Traumatic Injuries.

Figure 8.4 – Age distribution and life expectancy (in years) of severe traumatic injuries



	<20	20s	30s	40s	50s	60s	70s	Older
Number of Claims	0	3	13	23	30	31	15	0
Loaded Life Expectancy	0	57	36	32	25	16	12	0

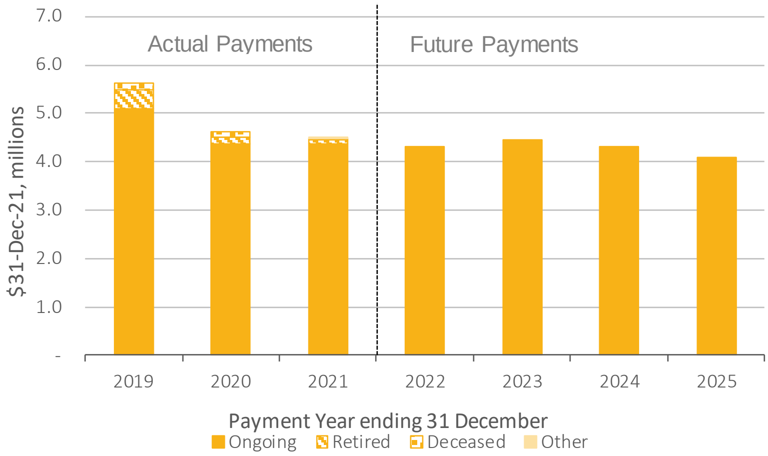
Severe Traumatic Injury claimants are currently aged around 56 on average, with an expected future life expectancy of around 28 years (after allowing for mortality, mortality improvements and mortality loadings). The average age at injury was about 40 years.

Nearly 60% of the current Severe Traumatic Injuries have a WPI assessment, with an average WPI of around 56%; the relatively low completion rate is partly explained by older claims being paid their lump sum prior to the introduction of WPI assessments in 2009. At this valuation, there are 12 claims with recorded WPI assessments below 30%; ignoring these claims, the average assessed WPI is approximately 61%.

8.4.3 Income support

Figure 8.5 shows historic and projected Income Support payments for Severe Traumatic Injury claims (including IBNR claims, but only on existing accident years).

Figure 8.5 – IS Payments: Severe Traumatic Injury Claims ($Dec21)

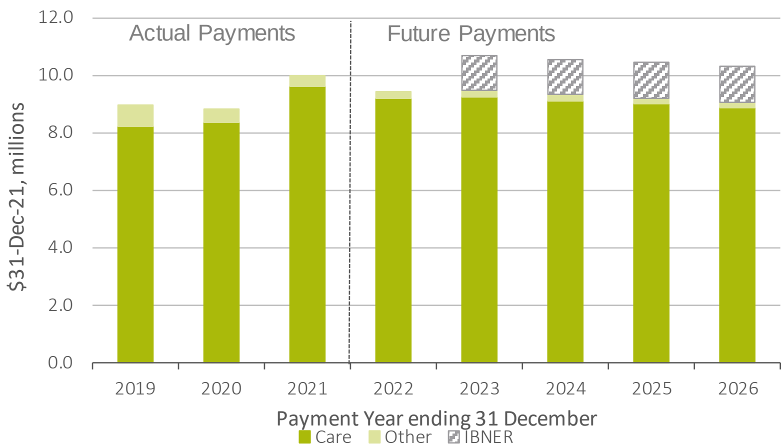


We estimate around $4.3m will be paid in Income Support to Severe Traumatic Injury claims in 2022; this is similar to the 2021 actual payments. Projected future payments reduce over time in line with changes in replacement ratios, expected mortality and retirement. The projected payments for known claims are equivalent to 14 years of the expected 2022 payments.

8.4.4 Care and other costs

Figure 8.6 shows historic and projected care and other payments for Severe Traumatic Injury claims (including IBNR claims). There have been a number of meaningful increases in care allowances at this valuation, following changes in claimant circumstances.

Figure 8.6 – Care (incl. Other) payments: Severe Traumatic Injury claims ($Dec21)

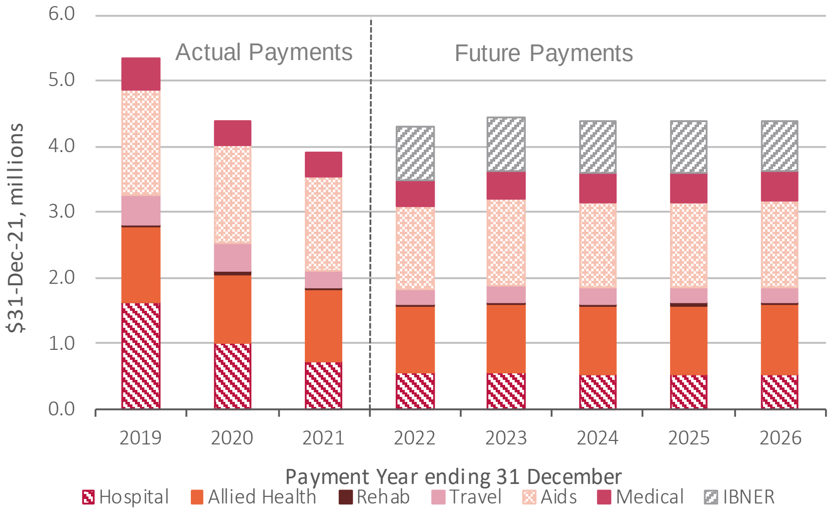


We expect $9.4m of care and other payments in 2022, which is slightly below actual payments in 2021. Projected payments then increase in 2023, due to our IBNER allowance which is intended to capture an annualised contribution for other benefits (primarily modifications and transfers from initial hospital care into home care, or from unpaid family care to paid care). These increases are slowly offset by reductions due to mortality, with the outstanding claims projection equivalent to 25 years of the expected 2022 payments, including the IBNER allowances.

8.4.5 Treatment and related costs

Figure 8.7 shows historic and projected treatment and related costs for Severe Traumatic Injury claims (including IBNR claims).

Figure 8.7 – Treatment and related payments: Severe Traumatic Injury claims ($Dec21)



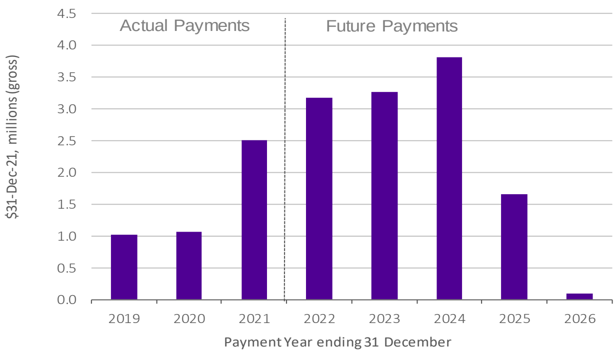
We expect future treatment and related payments of $4.3m in 2022, slightly below the average over the last three years. The outstanding claims projection is equivalent to 31 years of the expected 2022 payments, including the IBNER allowances.

8.4.6 All other payments

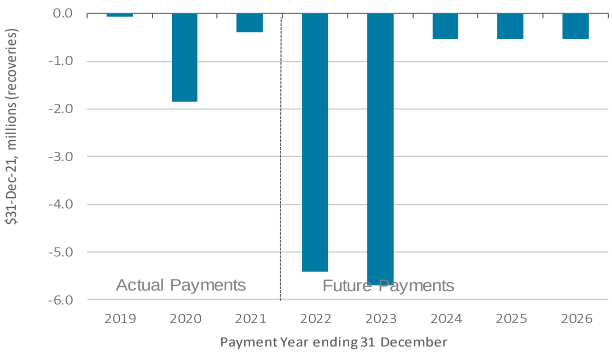
The following graph shows historic and projected other benefits for Severe Traumatic Injury claims – this includes one-off payments such as permanent impairment lump sums and recoveries, and smaller payments such as legal and investigation costs.

Figure 8.8 – All other payments: Severe Traumatic Injury claims ($Dec21)

Gross Costs



Recoveries



In the three years to 31 December 2021, a net $2.3m of other benefits was paid for Severe Traumatic Injury claims. Our future projections for claims occurring prior to 31 December 2021 include (in current dollars):

- Lump sum benefits of $10.9m paid to claims who have not yet had a lump sum.
- Legal and investigation costs of $1.0m.

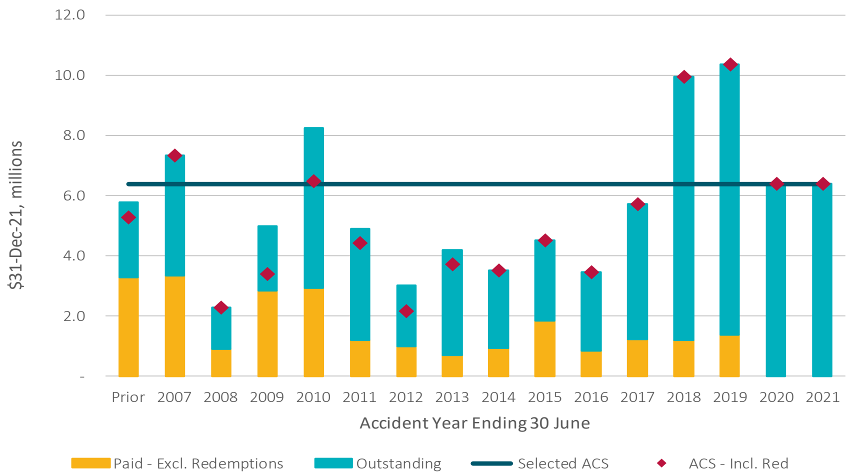
- Recoveries of $12.9m, for those claims where ReturnToWorkSA has identified recovery potential. The recovery allowance has been discussed with the relevant ReturnToWorkSA staff, and we are comfortable with the way they have been estimated and their expected achievability.

Due to the one-off nature of most of these payments, the outstanding liability is a much lower multiple of expected 2022 expenditure.

8.4.7 Overall results and implications

Figure 8.9 shows the net ultimate average claim size across current Severe Traumatic Injury claims. A large proportion of the estimated cost is projected future payments, so there is greater uncertainty about ultimate costs than in other areas of the valuation.

Figure 8.9 – Average claim size: Reported Severe Traumatic Injury claims ($Dec21)



The average claim size across current Severe Traumatic Injury claims is around $5.0m in current dollar values; however, this includes claims that (in the past) were redeemed at less than the full lifetime value. Excluding redeemed claims the average claim size is $5.5m. As shown, we project that the average size for the 2018 and 2019 accident years will end up higher than this, reflecting two (very) high needs claims.

For recent years, where injuries are yet to stabilise, we project an average size of $6.4m, which is higher than the average over all Severe Traumatic Injury claims. This is because recent accident years have had lower claim numbers than the longer-term history, and this seems to be leading to a more complex profile of claims being managed by EnABLE. The table below demonstrates this impact, by comparing the average size of claims depending on whether there were more or less than five claims in the year.

Table 8.3 – Average size by no. of claims in accident year

Claims in Accident Year	Claims	ACS
		$m
5 or Fewer	61	6.3
More than 5	73	4.9
Total	134	5.5

*Excludes redeemed claims

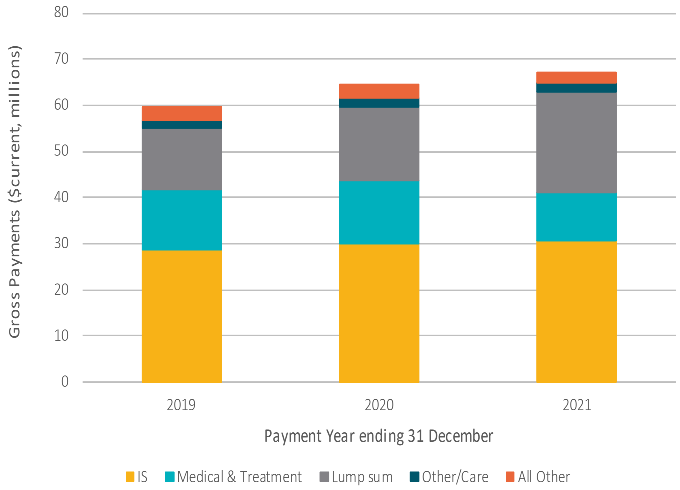
Our selected average size of $6.4m was set with reference to the average size of claims from accident years with five or fewer claims (noting that we currently assume four claims for a new accident year).

8.5 Valuation of other Serious Injury claims

8.5.1 Payments by type

Figure 8.10 shows claim payments over the past three years for the Other Serious Injury claims (i.e. excluding the Severe Traumatic Injuries).

Figure 8.10 – Other Serious Injury Claim Payments ($Dec21)



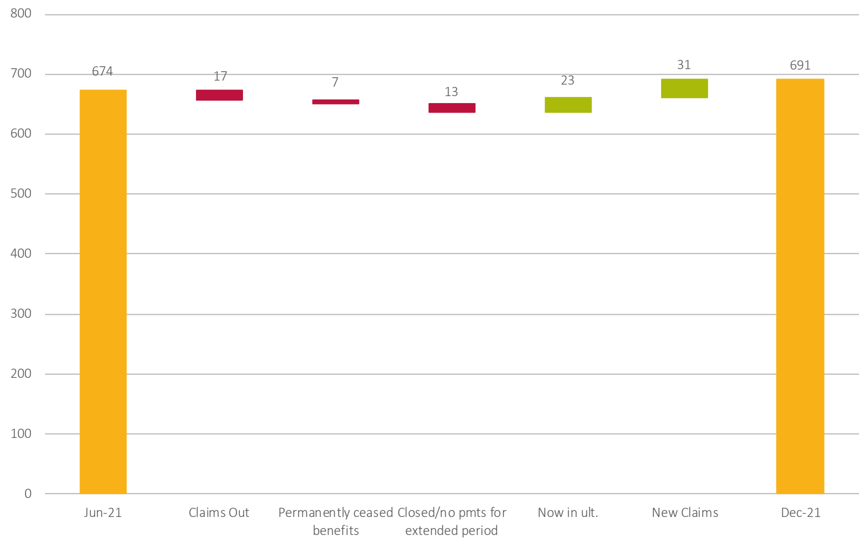
Around $192m has been paid to Other Serious Injury claims in the last three years, with year on year growth as claim numbers increase. After allowing for recoveries of around $8m over this same period, this equates to an average of around $61m p.a. in net claim payments (inflated to 31 December 2021 values), comprising:

- $30m p.a. in Income Support.
- $12m p.a. in medical, treatment and related benefits.
- $17m p.a. in lump sums.
- Small amounts of other benefits ($5m).
- $3m p.a. in recoveries.

8.5.2 Claimant profile

Figure 8.11 shows the number of active Other Serious Injury claims (those being valued) at the current and previous valuation.

Figure 8.11 – Movement in other Serious Injury claim numbers



There are 691 active Other Serious Injury claims at December 2021 (with expected ongoing benefits), compared to 674 at the previous valuation. The components of this change are:

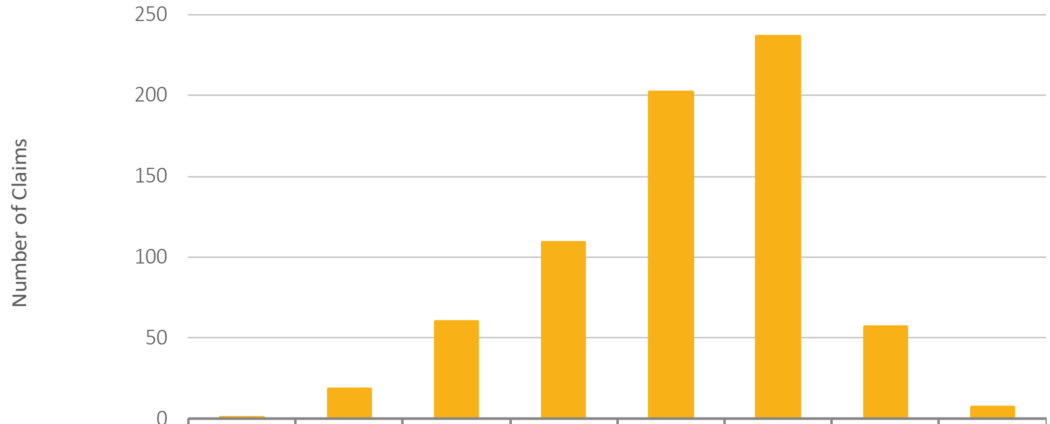
- Claims out – reduction of 17 claims. This largely refers to claims from the 'potential' cohort which were either confirmed not to meet the eligibility criteria for a Serious Injury claim, or where additional information has meant that their likelihood of becoming a Serious Injury claim has been revised.
- Permanently ceased benefits – reduction of 7 due to four deceased claimants, two claims moving to be self-insured employer claims, and one deed of release.
- Operationally not ongoing – reduction of 13 claims that no longer meet our definition of 'ongoing' due an extended period inactive or without payments.
- Revised ultimate status – increase of 23 claims. This increase is due to claims that had previously been identified as a potential Serious Injury, but who were not considered likely to meet the threshold at their most recent review. Most of these claims are now included due to formal determinations.
- New Claims – increase of 31 claims beyond the other claims noted above, due to new Serious Injury claims being identified.

We note that the numbers in Figure 8.11 refer to claims that are Medical ongoing, which is the broadest group of ongoing claims.

With the portfolio still maturing we would generally expect the number of Other Serious Injury claims to increase each six months.

Figure 8.12 shows the current age and life expectancy of the known and potential other Serious Injury claims.

Figure 8.12 – Age distribution and life expectancy (in years) for other Serious Injury claims



	<20	20s	30s	40s	50s	60s	70s	Older
Number of Claims	1	18	60	109	202	237	57	7
Life Expectancy	66	58	50	40	31	22	15	9

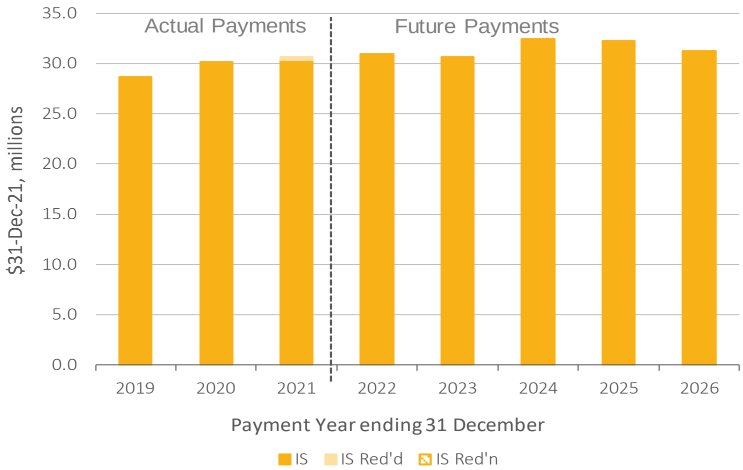
The Other Serious Injury claims are currently aged around 57 on average, with an expected future life expectancy of 30 years (after allowing for mortality, including mortality improvements). The average age at injury was 47 years.

Around 73% of the current Other Serious Injuries have had a WPI assessment, averaging around 37% WPI. At this valuation, there were 81 claims with recorded WPIs below 30%. The average impairment level excluding these low assessments is around 39%.

8.5.3 Income support

Figure 8.13 shows historic and projected Income Support payments for Other Serious Injury claims (including IBNR claims).

Figure 8.13 – IS payments: Other Serious Injury claims ($Dec21)

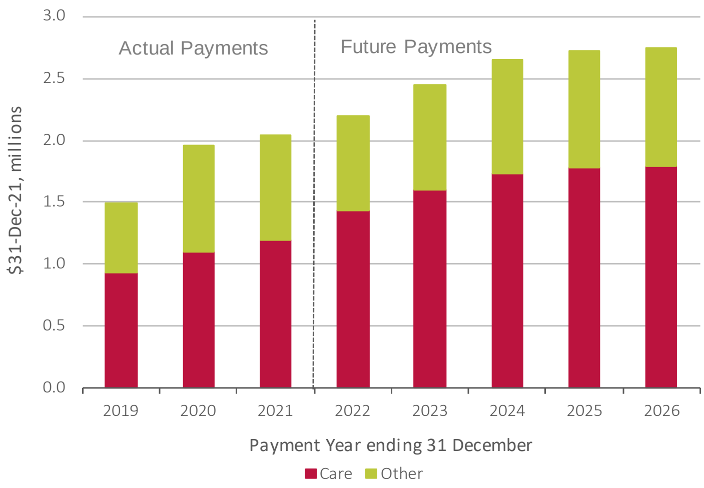


We estimate around $31m will be paid in Income Support to Other Serious Injury claims in 2022. Future payments will generally reduce over time in line with expected mortality and retirement, although the emergence of IBNR claims means payments remain fairly stable for the next five years.

8.5.4 Care and other costs

Figure 8.14 shows historic and projected care payments for Other Serious Injury claims (including IBNR claims).

Figure 8.14 – Care and other payments: Other Serious Injury claims ($Dec21)

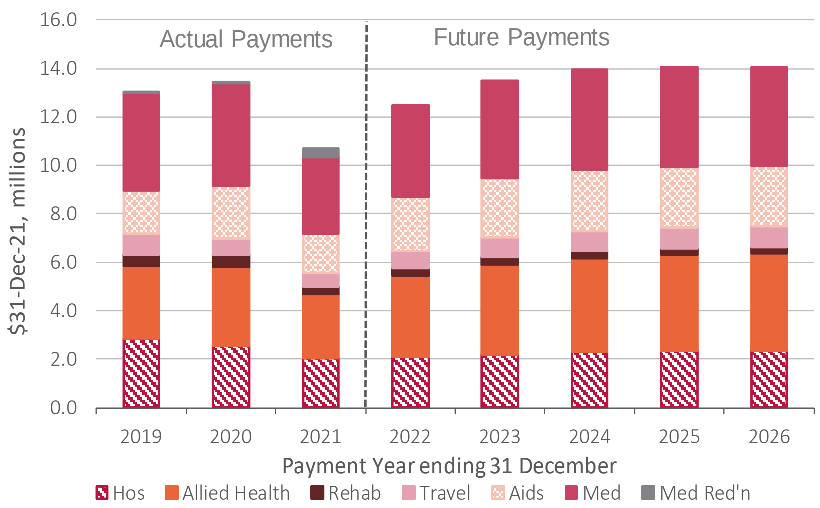


Other Serious Injury claims receive relatively little in care and costs, although payments have been growing. We expect around $2.2m in other payments in 2022. This is expected to increase due to IBNR claims, although will eventually be offset by mortality.

8.5.5 Treatment and related costs

Figure 8.15 shows historic and projected treatment and related costs for Other Serious Injury claims (including IBNR claims). The grey bars indicate Medical and Treatment payments for claims who have since been redeemed.

Figure 8.15 – Treatment and related payments: Other Serious Injury claims ($Dec21)



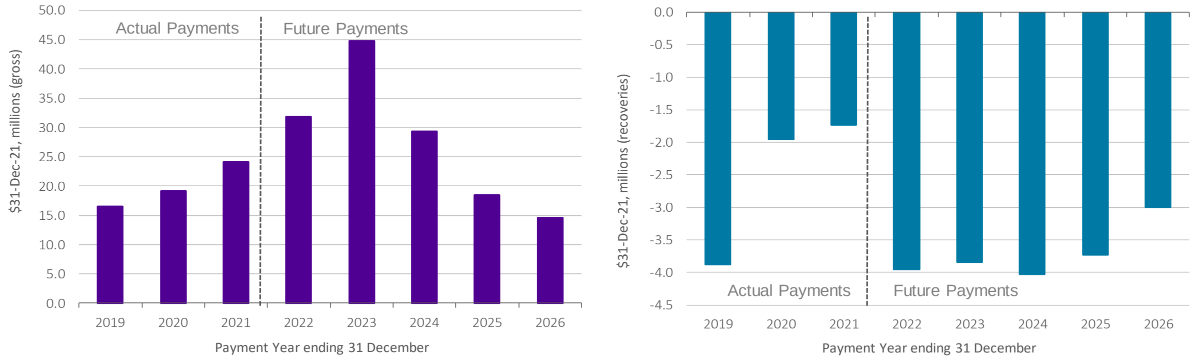
We expect treatment and related payments of $13m in 2022 for ongoing claims. Payments increase in future years due to IBNR claims, offset by reductions over the longer term in line with mortality.

8.5.6 All other payments

Figure 8.16 shows historic and projected other benefits for Other Serious Injury claims (including IBNR claims).

Figure 8.16 – All other payments: Other Serious Injury claims ($Dec21)

Gross Costs **Recoveries**



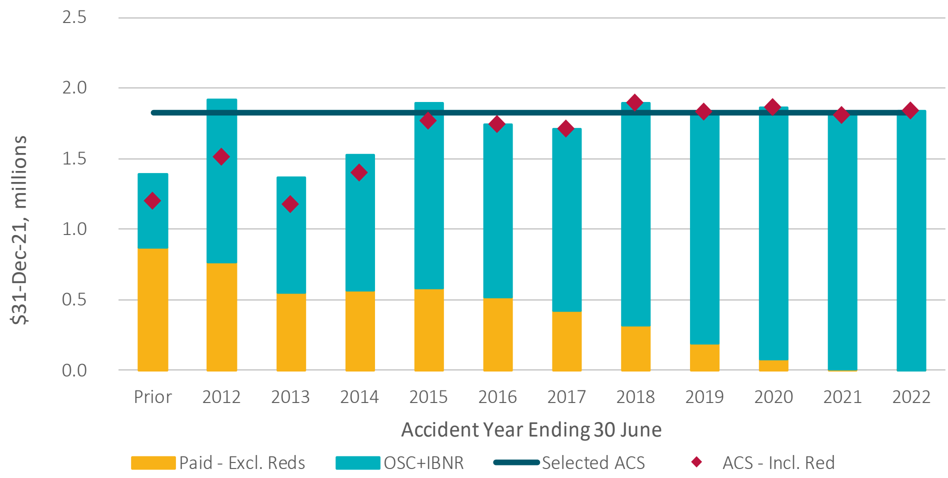
Our future projections include (in current dollars):

- Lump sum benefits of $130m paid to Other Serious Injury claims who have not yet had a lump sum paid; these are assumed to happen relatively quickly.
- Legal and investigation costs of $32m.
- Recoveries of $22m.

8.5.7 Overall results and implications – Other Serious Injuries

Figure 8.17 shows the net ultimate average claim size (inflated to 31 December 2021 values) across all Other Serious Injury claims.

Figure 8.17 – Average size by payment type: Other Serious Injury claims



The total selected average size is around $1.8m. Pre-2015 accident years have a lower size due to redemptions for less than lifetime cost, and a higher number of claims no longer being valued for ongoing benefits; the latter is likely because some claims from these periods are only being flagged as 'potential' Serious Injury claims due to past WPI information despite no longer being engaged with the Scheme.

More detail on the selections underlying this average size can be found in Appendix A.9.4.

8.6 Valuation results and actuarial release

Table 8.4 shows the actuarial release by accident period for Serious Injury claims.

Table 8.4 – Actuarial release: Serious Injuries

Accident Period	Projected Liab at Dec-21 from Jun-21 Valuation	Dec-21 Estimate on Jun-21 Eco Assumptions	Difference from Projected Liability	Act v Exp Pmts in 6 months to Dec-21	Actuarial Release[2]	Release as %
	$m	$m	$m	$m	$m	
To 30 Jun 05	219.3	212.4	-6.9	1.0	5.9	3%
2005/06 - 2012/13	510.3	499.8	-10.4	-3.7	14.2	3%
2013/14 - 2014/15	236.9	213.5	-23.4	-0.7	24.1	10%
2015/16 - 2021/22[1]	1,208.2	1,230.2	21.9	7.4	-29.4	-2%
Total	2,174.7	2,155.9	-18.8	4.0	14.8	1%

[1]Accidents to Dec 21

[2] Includes change in OSC and Act vs Exp payments. Positive values represent accounting profit (valuation release), negative values represent accounting loss

The main reasons for the movements by accident period are as follows:

- Transition accident periods (pre-Jun15) experienced large releases due primarily to reductions in the assumed mortality improvements.
- Return To Work Act periods experienced a strengthening of $29m, due primarily to increases in estimated Other Serious Injury claim numbers.

Table 8.5 shows the drivers of the actuarial strengthening for Serious Injury claims (excluding CHE).

Table 8.5 – Components of actuarial release: Serious Injury claims

Release (strengthening) due to:	Other Serious Injury	Severe Traumatic Injury	Total
	$m	$m	$m
AvE payments in six months			(4.0)
Changes to Valuation Basis			
Claim numbers	(48.8)	7.2	(41.6)
Mortality Changes	21.6	33.4	55.0
Other basis changes	23.5	(18.2)	5.4
Subtotal	(3.7)	22.4	18.8
Total			14.8

The main drivers of the movement were:

- Net changes to claim numbers (including IBNR claims assumptions) increasing the liability by $42m. This was a combination of a $49m increase for Other Serious Injury claims, slightly offset by a $7m decrease for Severe Traumatic Injury claims.
- A $55m reduction due to changes in assumed mortality improvement; this is split into a $22m decrease for Other Serious Injury claims and a $33m decrease for Severe Traumatic Injury claims.
- Other changes, largely the various average size components, decreased the liability by $5m in aggregate. There were however offsetting impacts behind this change:
  - Other Serious Injury claims had a release of $24m as recent medical and treatment spend continues to be lower than long-term levels, as well as reflecting the impact of mortality changes in the average size assumption applied to IBNR claims.
  - Severe Traumatic Injury claims had an increase of $18m, largely due to significant Care estimate increases for a small number of claims.

9 Additional cost due to *Summerfield*

Section 4.2.1 summarises the *Summerfield* decision and its implications for the actuarial valuation. In the interests of brevity, we have not reproduced that content here.

As explained in Section 3.1.2, following *Summerfield* we have had to make an allowance for the costs of this decision. Since the costs cannot be estimated by looking at historical experience, we have had to use techniques that are different from our normal methods to assess the central estimate and the provision required.

This section explains how we have approached the reserving for *Summerfield*, before detailing the resulting cost estimates.

9.1 Which claims are impacted by *Summerfield*?

Our first step to estimating the financial impact of *Summerfield* was to identify segments of claims where the costs are, and are not, at risk due to this decision. In order to identify these segments, we have had extensive conversations with ReturnToWorkSA's internal legal and operational teams. This has allowed us to develop some basic operational rules to determine the pool of claimants for which the *Summerfield* decision may have an impact.

Figure 9.1 shows a flow chart of these operational rules and the high level likelihood of the claim being impacted by the *Summerfield* decision, depending on where it sits in the question set.

Figure 9.1 – Claims impacted by *Summerfield*

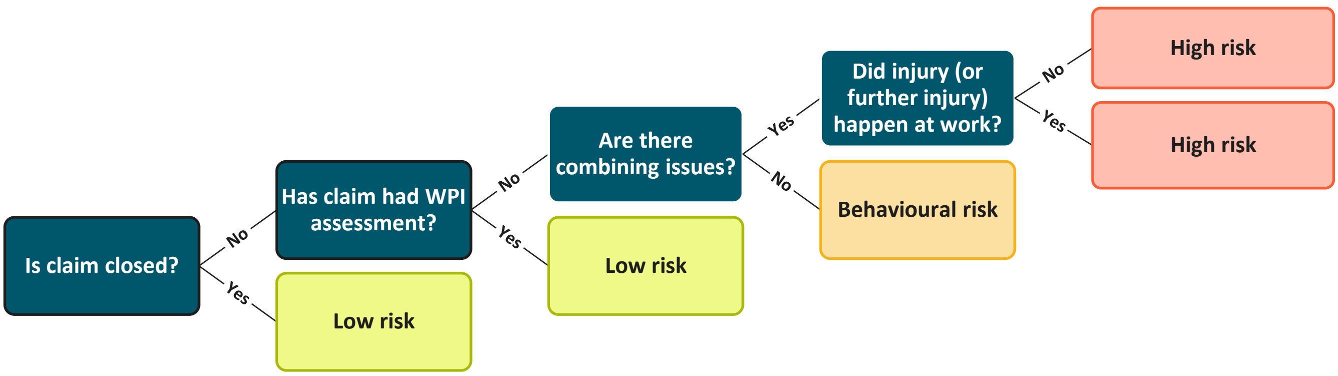


Table 9.1 below provides more detailed discussion relating to the claim categories outline above and our understanding of the legal and operational reasons that make the risk allocations appropriate.

Table 9.1 – Discussion of claim categories and risk allocations

Claim characteristic	Risk rating	Reasoning
Closed claims	Low risk	Redeemed claims cannot be reopened. Transitional claims (old Act injury dates) that ceased IS benefits prior to RTW Act with no lump sum paid could theoretically gain SI status, but would be limited to medicals only. Claims with Sealed Orders (past disputes) would be dependent on terms, but generally hard to reopen. Closed claims with WPI paid are still subject to single WPI assessment so cannot reopen and be assessed for extra WPI. Other closed claims are assessed as low risk based on an operational assessment that any *Summerfield* type claims would have likely already started to build additional injuries on their claim and continued with scheme activity such as litigation rather than close the claim, cease activity then come back at a later date. The risk is not nil, but it is minimal. The low risk assigned to this segment is important, given the large number of past claims in the scheme.
Those who have already had a WPI assessment	Low risk	There is some reference to the concept of one assessment within *Summerfield* but it is not touched on in great detail. ReturnToWorkSA has not changed its approach to what is considered one assessment and at present this is not being challenged through assessment requests or litigation. Despite this, ReturnToWorkSA has identified a potential risk from workers getting an initial WPI assessment below 30%, before later adding on impairments as a result of the "same cause" provision to increase their WPI above 30% and gain Serious Injury status. In this scenario we have been advised that ReturnToWorkSA would consider this a new injury with a new injury date, making this a consideration for future liability rather than the current outstanding claims liability. In addition, this would require the emergence of behavioural change from workers or their legal advisors. We therefore do not make an explicit allowance for this in our outstanding claims liability estimates or future accident year cost.
Claims without combining issues (no WPI assessment)	Behavioural risk only	Claims who have not yet had a WPI assessment and do not have combining issues don't have any current impact from *Summerfield*. However, ReturnToWorkSA is exposed to risks of behavioural changes from this group. Specifically, it is plausible that some claims will attempt to bring other incapacity into their claim to boost the WPI score (noting also that there is already a high rate of legal involvement in the scheme).
Claims with combining issues (no WPI assessment) Injury not at work	High risk	This is the circumstance from *Summerfield*, and in this case, there is a high likelihood that the *Summerfield* decision could be used to allow subsequent injuries to be combined, increasing the chance of claimants meeting the Serious Injury threshold or getting a higher lump sum.
Claims with combining issues (no WPI assessment) Injury at work	High risk	For those where the further injury happened at work, this should result in a new claim, so this is more a consideration for future accident year costs than an outstanding claims liability. Any WPI already assessed on an original injury is a deduction from the new WPI. Can't combine both original injury WPI and aggravation WPI towards Serious Injury threshold. Good claims management practices will be required to identify and respond to this situation.

9.2 Changes since the previous valuation

As discussed in Section 4.2.1, the High Court refused ReturnToWorkSA's application to appeal *Summerfield* during a hearing on 5 November 2021. For the purpose of estimating *Summerfield* liabilities this removes any chance of a nil liability impact.

There have also been other updates to ReturnToWorkSA's legal interpretation of *Summerfield*, as well as operational updates. These are summarised in Table 9.2.

Table 9.2 – Changes since the previous valuation

Element	Description	Financial impact
Scenario 'likelihoods'	Refusal of High Court leave application to appeal eliminates the nil impact scenario. Lower/mid/more adverse scenarios now weighted at 20%/60%/20% respectively.	Increased liability
Medication related claims	The previous legal view that additional injuries from medication taken purely due to an injury can be separated from *Summerfield* is no longer held.	Increased liability
Claim review findings	Some of the claims reviewed at the previous valuation were re-reviewed to check whether conclusions remain valid. Progression of claim circumstances meant the conclusions changed for some claims, ultimately reducing our assumed proportion of additional Serious Injury claims in high risk segments.	Decreased liability
Settlements	Some older claims have sought to reach commercial settlements rather than becoming a Serious Injury as a result of *Summerfield*. While the numbers of these are small, they result in valuation savings of around $1m per claim that elects to settle.	Decreased liability

While there have been some significant changes as summarised above, there have been very few claims determined in line with *Summerfield* up to 31 December 2021. Therefore, although we reflect changes as described in Table 9.2, our approach is largely unchanged from the previous valuation and there continues to be no reliable history on which to base assumptions. For assumptions where there is no or negligible new information on which to set assumptions, such as for the average size of impacted claims, we adopt the same assumptions as the previous valuation; the reader is referred to the June 2021 valuation report for additional detail on how these assumptions were set.

In addition to the above, following the refusal of leave to appeal, ReturnToWorkSA began collecting the following information:

- Claims that had a Serious Injury determination or interim determination were reviewed by ReturnToWorkSA staff as to whether they reached the Serious Injury threshold due to *Summerfield.*
- Claims reviewed as part of ReturnToWorkSA's monthly Serious Injury claim reviews considered *Summerfield,* and separately flagged claims that are believed will now reach the Serious Injury threshold due to *Summerfield.*
- The external panel law firms were requested to review their list of open disputes as at 5 November 2021 to identify *Summerfield* impacted claims.
- Claims agents were requested to identify *Summerfield* impacted claims as they become aware of them.

The claims identified through the above processes were consolidated into a single data extract as at 31 December, which we received for the valuation, containing the following key information:

- Claim number.
- How the claim was identified (e.g. ReturnToWorkSA staff).
- Whether the claim was lump sum impacted or an additional Serious Injury claim.
- What category the claim fell into (i.e. how directly does *Summerfield* apply).

Given the small number of determinations and normal reviews undertaken between 5 November 2021 and 31 December 2021, almost all claims on this list were identified by either ReturnToWorkSA's external panel law firm or claims agents. We refer to this dataset as the *Summerfield* valuation extract.

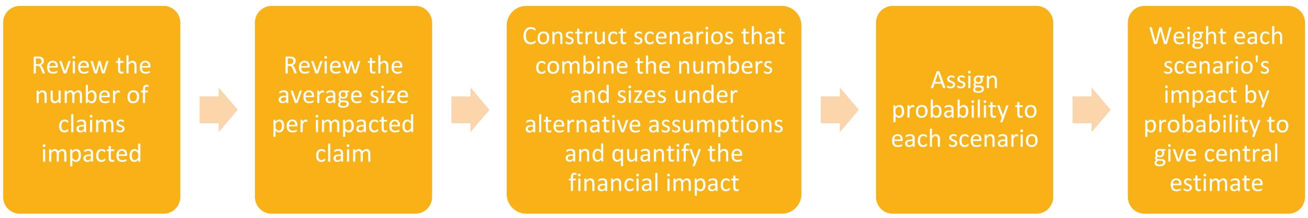
9.3 Methodology

In accordance with relevant actuarial and accounting standards, the central estimate is required to be the mean of the distribution of possible outcomes. To determine the central estimate related to *Summerfield*, it is necessary to identify the range of possible outcomes, and attach likelihoods to each of them; the costs under the different possible outcomes are then combined with their likelihoods to determine the central estimate.

Our first step in estimating the financial impact of *Summerfield* was to identify segments where the costs are, and are not, at risk due this decision. Our approach is to:

- Consider the appropriateness of the risk segments used at the June 2021 valuation and adjust as necessary (further detail on the previous review is in the June 2021 report).
- Review the appropriateness of assumptions used within each risk segment by considering new information.
- Our approach is summarised in Figure 9.2.

Figure 9.2 – Summerfield impact framework



The scenarios we have developed to assess the potential *Summerfield* impacts are:

1. **Lower impact scenario –** impacted claims are only slightly higher than claims identified in the *Summerfield* valuation extract for 2018 and prior accident years. 2019 and more recent accident years are set close to 2018 accident year estimates.

2. **Mid-range impact scenario** – findings from file review work performed at the June 2021 valuation continued to be applied to identified high risk segments, with some allowance for the impact of the progression of claimant circumstances, before an additional 'actuarial best guess' IBNR is included. An allowance for observable behaviour changes in relation to additional injuries is built into the estimates.

3. **More adverse impact scenario** – further behavioural responses from claimants and their advisors lead to additional claims being impacted over time.

   (We note that scenario 3 is not intended to represent a maximum possible impact scenario)

The scenarios and their likelihoods are combined to estimate the additional central estimate cost due to *Summerfield*. This is then combined with the Baseline valuation to determine the central estimate post-*Summerfield*.

Following the High Court's refusal of ReturnToWorkSA's application to appeal the Summerfield decision, there is now no possibility of a 'no impact' outcome; at the previous valuation, a nil liability impact was considered a possible outcome.

Finally, in accordance with ReturnToWorkSA's reserving policy we are required to recommend a risk margin that is intended to provide a 75% probability of sufficiency (across the overall post-*Summerfield* reserve). To do this we have used the scenarios and their likelihoods from above, along with consideration of the risk allowances in the baseline valuation as well as the potential for there to be 'diversification benefit offsets' between the updated Serious Injury risks and those, which are largely independent, in the Short Term Claims part of the portfolio.

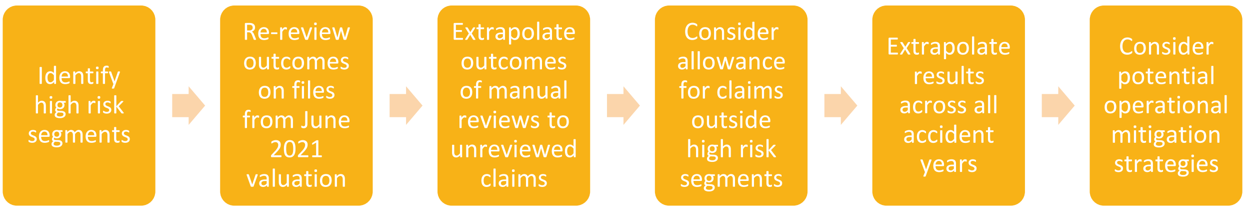
9.4 Estimating the number of claims impacted

9.4.1 Serious Injury claims

Approach

The framework for identifying the potential pool of additional Serious Injury claims is as follows:

Figure 9.3 – Serious Injury framework



This approach is largely unchanged from the previous valuation. The volume of claim reviews has not been as high as the previous valuation, where a large number of reviews were performed. Recent reviews have focussed on assessing whether the conclusions from previous reviews remain valid, and assessing the reliability of information provided in the *Summerfield* valuation extract.

The following sections describe each of these steps.

High risk segments

Six broad high risk segments were identified as being impacted by *Summerfield*:

1. Claims identified by ReturnToWorkSA in the *Summerfield* valuation extract. There are 10 claims in this cohort, six from accident years 2014-2018.
2. Claims declared as Serious Injury by SAET. These claims currently have access to the Serious Injury benefits package, but are reliant on combining injuries to reach the threshold. There are only 15 of these claims at this point, of which 11 are from accident years 2014-2017, and the remainder from older accident years.
3. Claims that have been identified by ReturnToWorkSA as likely to be Serious Injury due to *Summerfield* case law, but have indicated they are considering settlement under 30% WPI. There are 10 of these claims to date.
4. Information on WPI determinations on claims with multiple injuries since 5 November 2021. There are five additional Serious Injury claims identified from this source.

5 Claims that have been identified by ReturnToWorkSA's external panel law firms as having open disputes that relate to the combination of injuries as per the *Summerfield* valuation extract.

6 Claims in the source groups we use for the ground-up calculation of Serious Injury IBNR (as discussed in Section 5.2), as many of the claims that remain open in these segments have legal involvement may potentially seek to combine injuries. The exception is claims that have commenced WPI activity but have only one accepted injury have been excluded, given *Summerfield* is not relevant to these claims given their current status.

The identification high risk segments operated as a hierarchy, so a worker cannot have multiple claims being flagged as Serious Injury through this process.

At the previous valuation we performed a reconciliation of all open claims from the 2014-2018 accident years to ensure there were no obvious groups of high risk claims remaining.

Manual reviews

Once high-risk segments were identified, the number of claims that were likely to become Serious Injury due to *Summerfield* was estimated. The approach is unchanged from the previous valuation and can be summarised as follows:

- 2018 and prior accident years: we explicitly relied on high risk segments and the findings of review outcomes to calculate a ground up estimate of the number of additional Serious Injury claims.
- 2019 and more recent accident years: these years are too immature to apply a ground-up approach. The number of additional claims from these periods was set with reference to the ground-up 2018 estimates.

As mentioned earlier, given the large volume of manual reviews performed at the previous valuation, there were fewer manual reviews performed at this valuation, and they focused on these questions:

- Do the conclusions from the previous review remain valid? For this, we selected a sample of claims that included claims that were originally reviewed as both additional Serious Injury claims due to *Summerfield,* and claims whose Serious Injury status was not impacted by *Summerfield*, for re-review.
- How reliable are the lists of claims identified as being *Summerfield* impacted by ReturnToWorkSA's external panel law firms and claims agents?

The claims for review were largely selected to validate manual reviews performed at the previous valuation, and to the extent that these claims also appeared on the *Summerfield* valuation extract this allowed us to check the external panel law firms' and claims agents' conclusions. The outcomes are summarised in the Table 9.3.

Table 9.3 – Current review outcomes

Segment	Review outcomes
Manual reviews performed at previous valuation	There have been some changes to conclusions for claims that were originally reviewed as additional Serious Injury claims due to *Summerfield* and those whose Serious Injury status was unaffected by *Summerfield*; the changes occurred mostly due to progression of the claim's circumstances. This is not unexpected, as the ultimate outcome for these claims is uncertain at the time of review. Considering the re-review outcomes and the size of the two pools of original reviews, there is a slight net reduction in the number of additional Serious Injury claims. This has been considered in setting our scenario assumptions.
External panel law firms / claim agent identified (*Summerfield* valuation extract)	There was a high level of agreement that these claims were impacted due to *Summerfield* (whether it be lump sum impacted or an additional Serious Injury claim). At an individual claim level, the was a reasonable level of disagreement as to whether claims were just lump sum impacted or whether they were likely to become an additional Serious Injury claim (this was much more so for claims agent identified claims). However, at an aggregate level the proportion of claims identified as additional Serious Injury claims was not significantly different.

Given the high level of consistency between ReturnToWorkSA's reviews and the claims identified by their external panel law firms and claims agents (for total claims impacted), we considered that the number of claims identified on the *Summerfield* valuation extract as a minimum number of claims that will be impacted by *Summerfield*. This has been used as a reference point when setting scenarios.

Additional allowance outside the high risk segments

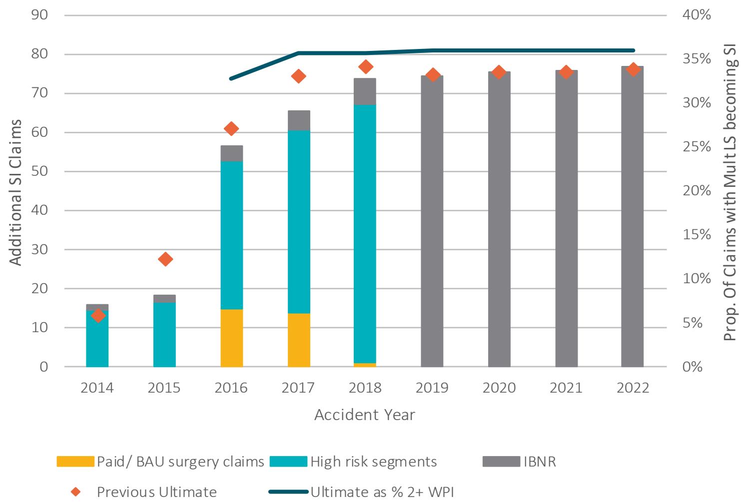
In addition to the Serious Injury claims estimated through high risk segments, we have also made an initial additional loading for claims to emerge outside these segments. This recognises that not all additional Serious Injury claims will come from the currently identified high risk segments.

Initial pool of potential additional Serious Injury claims

Combining the components described above, our initial pool of potential additional Serious Injury claims is shown below in Figure 9.4. As discussed, 2019 and later accident years are too immature to estimate the number of additional Serious Injury claims through the ground-up high risk segment approach; we set the potentially impacted additional Serious Injury numbers for these years close to the 2018 results.

We note that these figures assume the same proportion of claims from the ground-up pre-*Summerfield* IBNR sources will become additional Serious Injury claims as the previous valuation. The findings of subsequent reviews (as described in Table 9.3) are factored into our scenario assumptions.

Figure 9.4 – Potential additional Serious Injury claims



Our estimated number of potential additional Serious Injury claims has reduced for 2018 and prior periods, most notably for the 2015 to 2017 accident years. This is largely a result of claims closing, reducing the pool of potential additional Serious Injury claims.

We also show the total count as a proportion of our estimate of the total number of lump sum claims with multiple WPI scores (i.e. the number of lump sum claims that are potentially impacted by *Summerfield*); for 2019 and more recent accident years this proportion is 36%. Out of all claims that seek to add additional injuries we assume roughly 10% we become additional Serious Injury claims due to *Summerfield.*

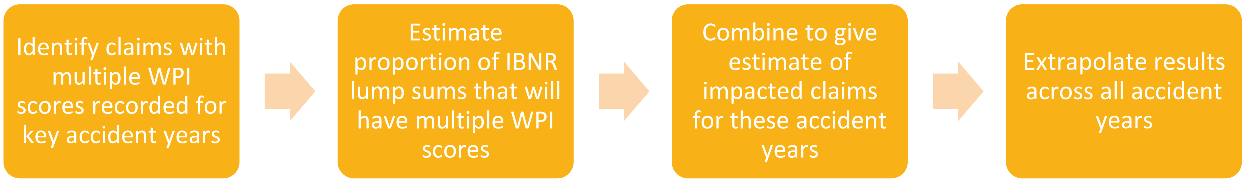
We note that this projection does not attempt to factor in behavioural changes; it is purely an extrapolation of identified claims and file review outcomes. Behavioural changes are considered as part of our scenarios.

9.4.2 Lump sum claim numbers

Approach

The framework for identifying the number of claims who will receive extra lump sum amounts is as follows:

Figure 9.5 – Lump sum framework



Our estimated impacted claims has used the following approach:

- The number of claims impacted for 2012 and prior periods are set equal to the previous valuation. Although some claims have closed since the previous valuation, we think it is likely that any claims from these periods who are impacted by *Summerfield* will be aware of the decision and therefore unlikely to have closed since the previous valuation
- 2013 to 2015 accident years have had the estimated proportion applied as per the previous valuation (i.e. the approach is unchanged)

- We have revised our estimated claims from 2016 to 2018 to explicitly take into account the amount of open claims from these accident years.

We note that these claims do not represent an increase in the estimated ultimate number of claims receiving a lump sum; rather, these are claims that previously had their injuries separated which will now be combined, impacting the calculation of their lump sum entitlements.

Estimated lump sum impacted claims

Given the above approach, our estimates of the impacted lump sum claims are largely unchanged for RTW Act periods, as shown in Figure 9.6. The only change has been a slight reshaping to the 2016 to 2018 accident years to better reflect the number of open claims from those years.

Figure 9.6 – Estimated number of lump sum claims impacted by *Summerfield*

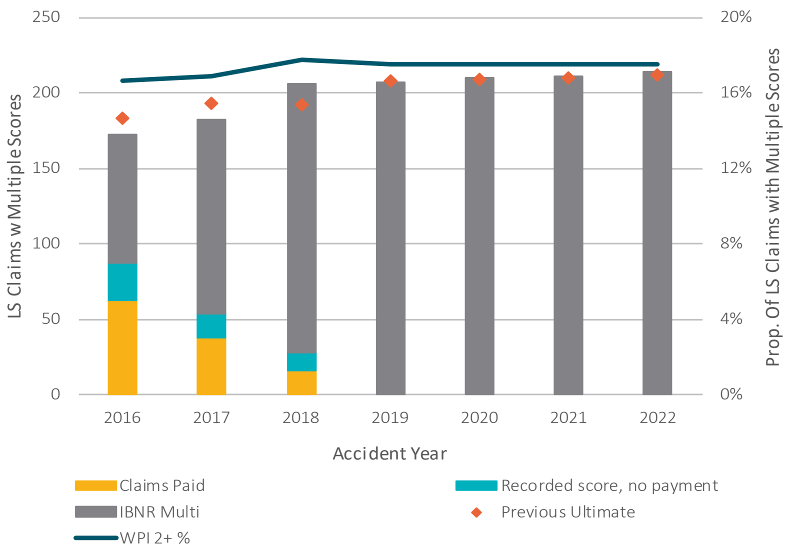


Figure 9.6 shows that around 17.5% of lump sum claims are expected to be impacted by *Summerfield*, which equates to around 200 claims per accident year. Out of all claims that seek to add additional injuries we assume roughly 30% will be impacted by *Summerfield.*

9.5 Estimating the average size per impacted claim

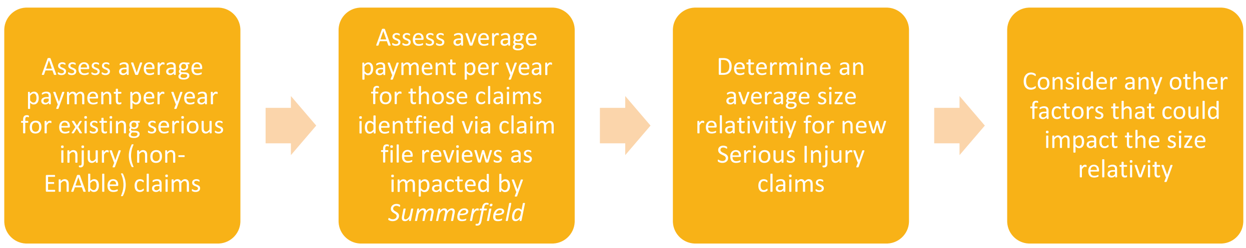
In estimating the impact on the average size of claims, we have first considered Income Support and Treatment costs (relevant for those claims becoming serious injury) and Lump Sum impacts (relevant for all claim with combined assessments post-*Summerfield*).

9.5.1 Income Support and Treatment costs

Approach

Our assumed Income Support and Treatment cost average size applies the same approach and assumptions as the previous valuation and is summarised in Figure 9.7.

Figure 9.7 – Serious Injury average size framework



This approach utilises the work already performed for pre-*Summerfield* Serious Injury claims, adjusting for observable differences in the *Summerfield* Serious Injury claim cohort. The key assumptions are summarised in Table 9.4.

Table 9.4 – Income Support and Treatment average size assumptions

Payment type	Assumption	Reason
Income Support	90% of pre-*Summerfield* Serious Injury size	Analysis of identified claims at the previous valuation suggested Income Support benefits (up to the two year cap) were roughly 90% of pre-*Summerfield* Serious Injury claims.
Treatment	70% of pre-*Summerfield* Serious Injury size	Analysis of identified claims at the previous valuation suggested Treatment payments (up to the three year cap) were roughly 80% of the pre-Summerfield Serious Injury claims. We have allowed a further 10% reduction for some claims to discontinue Treatment benefits upon reaching retirement age.

Average size

Table 9.5 shows the selected average size for the additional Serious Injury claims.

Table 9.5 – Average claim size by benefit type for additional Serious Injury claims

Benefit Type	Newly Seriously Injured $m
Income	0.5
Income Backpay	0.1
Medical/ Treatment	0.7
Total	1.3

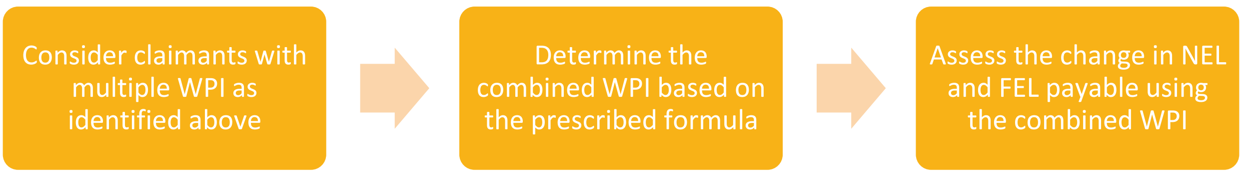
The adopted average size increase for additional Serious Injury claims is $1.3m, excluding lump sums. This is unchanged from the previous valuation.

9.5.2 Lump sum costs

Approach

Figure 9.8 shows the approach taken at the previous valuation to estimate the difference in average lump sum size as a result of *Summerfield*.

Figure 9.8 – Lump sum average size framework



Adopted size

Our adopted changes to lump sum payments are summarised in Table 9.6 and are unchanged from the previous valuation.

Table 9.6 – Lump sum impacts

Claim segment	Impact	NEL	FEL
Transition	Still SI	45,000	N/A
	New SI	35,000	N/A
	Still STC	3,000	N/A
RTW Act	Still SI	90,000	N/A
	New SI	105,000	-105,000
	Still STC	8,000	60,000

9.6 Scenarios

As discussed earlier, in order to calculate the central estimate we have constructed three scenarios, each with an assigned probability. The probability weighted financial impact for all three scenarios forms our central estimate.

A high-level summary is in Table 9.7. The detail on how these scenarios translate to different numbers and average size impacts is discussed following the table.

Table 9.7 – Scenario description

Scenario	Description
Low-range impact scenario	This assumes in addition to the claims identified in the *Summerfield* valuation extract, only a small proportion of claims are impacted.
Mid-range impact scenario	Findings from the previous valuation file review work are extrapolated across the broader cohorts and allowances are made for the estimated impact of different types of combination issues, before an additional 'actuarial best guess' IBNR is included. The outcomes of re-reviews have been considered. To the extent that behavioural changes around additional injuries have been observed to date we have allowed for this, but have not allowed for further behavioural changes.
High-range impact scenario	Behavioural responses from claimants and their advisors increase beyond that which has been observed to date. We note that there is only a moderate level of increase assumed in this scenario, and that it does **not** represent a maximum possible impact scenario.

9.6.1 Behavioural impacts

As noted in Table 9.7, in setting our scenarios we have allowed for observed behaviour changes relating to claimants adding additional injuries. To investigate this, we received additional extracts from ReturnToWorkSA containing:

- The number of additional injuries being added per month.
- The number of claims adding an injury for the first time.

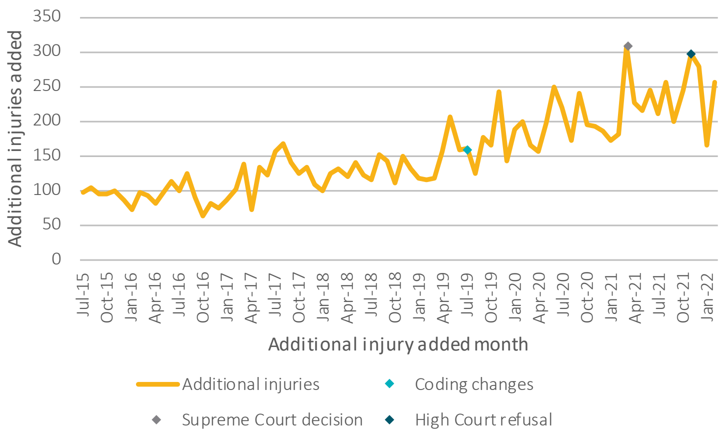
In interpreting this information we note:

- There was a change in the additional injury coding practices in early 2020 (financial year), which led to more consistent recording of additional injuries. This means periods before and after this point are not completely comparable
- A number of key legal cases prior to *Summerfield* began to raise awareness of 'combining' as an issue. As such, we are not looking for changes only since the *Summerfield* decision, but rather whether there have been changes over the last 2-3 years.

- *Summerfield* does not apply to every type of additional injury. Despite this, we believe that it is still meaningful to draw conclusions around behaviours towards additional injuries, and to expect that any such changes will influence the number of claims impacted by *Summerfield.*

Figure 9.9 shows the number of additional injuries being added per month.

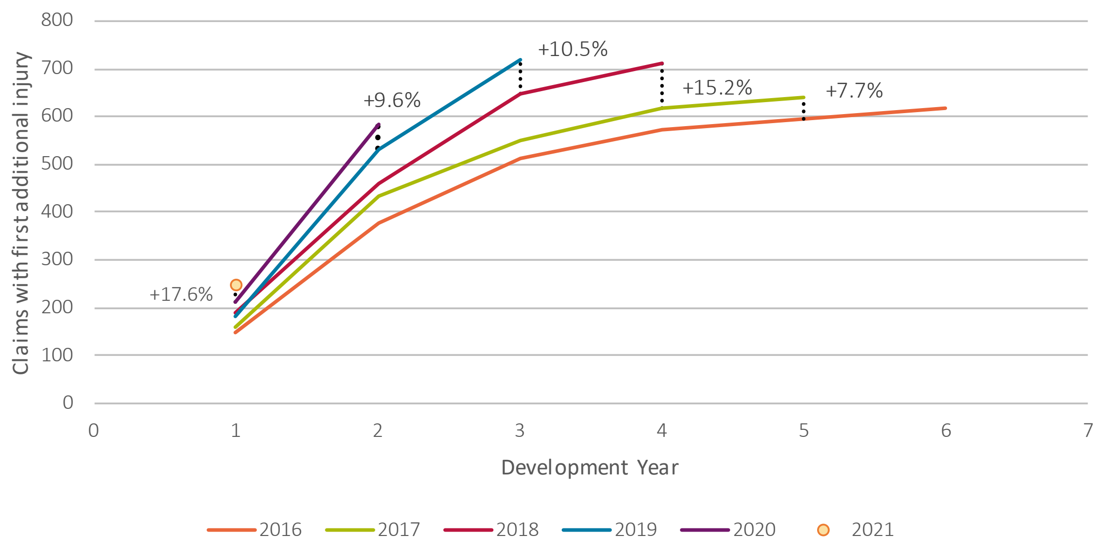
Figure 9.9 – Additional injuries added per month



The number of additional injuries added has been generally increasing since mid-2019, and moving to a higher level since the Supreme Court *Summerfield* decision, with particularly high points around the time of the Supreme Court decision and the High Court refusal. There is some seasonality to the number of additional injuries reported, with January often being a low month due to Christmas shutdowns for the legal profession.

Figure 9.10 shows the numbers of claims adding an additional injury for the first time by accident and development period.

Figure 9.10 – Number of claims with additional injury



While changes to how additional injuries are recorded (discussed earlier) mean the level of growth is likely overstated to some extent, even if limiting comparisons to periods pre or post the coding changes there is growth in the number of claims who have added an additional injury.

Our conclusion therefore is that there is already evidence that both the number of claims who add an additional injury is increasing, and that the number of additional injuries per claim is increasing. We respond to this in our mid-range valuation scenario by gradually increasing the additional Serious Injury IBNR between 2016 and 2018 accident years, and including 5% p.a. growth from 2019 onwards. Once exposure growth is accounted for, this translates to a small increase in *Summerfield* impacted claims due to observed behavioural changes.

9.6.2 Assumptions for claim number scenarios

When considering the potential impacts across different scenarios we considered uncertainty around claim numbers across six broad categories:

1. The ability of ReturnToWorkSA to differentiate certain types of injuries from the circumstances of *Summerfield*. As medication injuries are now considered a direct interpretation of *Summerfield*, the opportunity for this to significantly reduce impacted claims is much lower than the previous valuation. This is described as "*Summerfield* applies" in Table 9.8 below.
2. Reviews from the current valuation have highlighted the uncertainties around claim outcomes, particularly in relation to changing claim circumstances. We have used the current reviews to validate the assumptions set at the previous valuation and where warranted we have adjusted the extrapolation of review outcomes to high risk segments. This is described as "Review outcome adjustment" in Table 9.8 below.
3. Claimants electing to settle for below the Serious Injury threshold despite being able to reach 30% WPI under *Summerfield* case law. This is described as "Commercial settlements" in Table 9.8 below.
4. The adequacy of the additional IBNR allowance (from Section 9.6.1). This is described as "IBNR outside 'high risk' segments" in Table 9.8.
5. The impact of changing behaviours towards additional injuries and the potential for *Summerfield* to exacerbate this, as there are financial incentives to having a higher WPI score through combining injuries. This is described as "Behavioural impacts" in Table 9.8.
6. The potential for the data and processes used to understate the number of claims impacted. This is described as "Other impacts" in Table 9.8.

Table 9.8 shows the assumptions used under each of those six categories for each scenario. We also show the assumptions underlying the 'initial pool of impacted claims' derived in Section 9.6.1 above.

Table 9.8 – Claim number assumptions by scenario

Scenario	Potentially Impacted claim cohort	Low	Mid	More adverse
Summerfield applies claims	Category A: 100% Category B/C: 100%	Category A: 100% Category B/C: 50%	Category A: 100% Category B/C: 100%	Category A: 100% Category B/C: 100%
Review outcome adjustment[1]	Nil	Not explicit, but equates to additional Serious Injury claims of around 60% of the initial pool of potential additional Serious Injury claims.	10% reduction for lawyer identified additional Serious Injury claims; 20% reduction for other high risk segments.	Nil

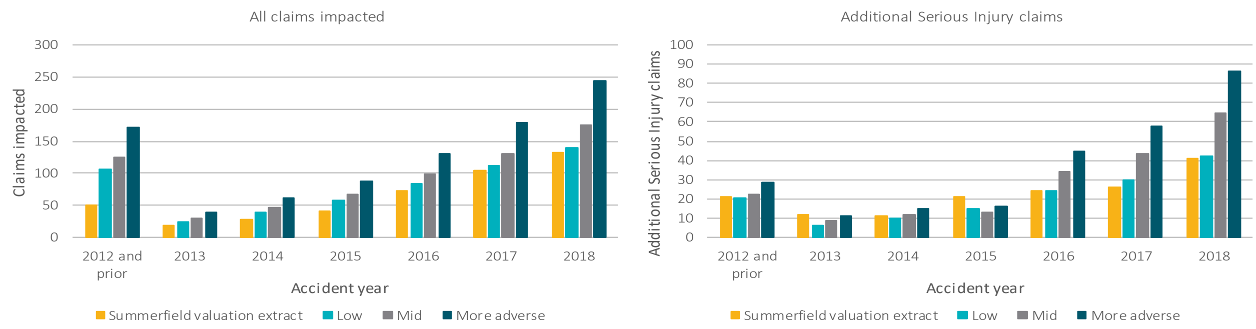
Scenario	Potentially Impacted claim cohort	Low	Mid	More adverse
Commercial settlements	Nil	15% of additional Serious Injury claims take settlement for transition periods; 3 claims per year for RTW Act periods.	As for low	As for low
IBNR outside 'high risk' segments	10%	N/A – overall level set with reference to already identified claims.	10% for transition periods; 12.5% for 2016, 15% for 2017; 20% for 2018	20% for transition periods; 25% for 2016; 30% for 2017; 35% for 2018
Behavioural impacts	Nil	Nil	Number impacted grows by 5% p.a. from 2018 level (some of this relates to exposure growth)	Numbers impacted grows by 5% p.a. from 2018 level (some of this relates to exposure growth)
Other impacts	Nil	Nil	Nil	Additional allowance for WPIs below 5% (which are not recorded) being combined, increasing claims impacted

[1]Category A injuries are a direct application of *Summerfield*; category B & C injuries are those that ReturnToWorkSA believe they can separate from the *Summerfield* decision.

Figure 9.11 compares both the total claims impacted and additional Serious Injury claims from each scenario with those identified in the *Summerfield* valuation extract for 2018 and prior accidents. In relation to this information we note the following:

- As mentioned earlier, while re-reviews from ReturnToWorkSA staff did not result in a significantly different proportion of additional Serious Injury claims in aggregate, the differences were more material at a detailed level (and particularly so for claim agent identified claims). We have therefore concentrated on our total additional Serious Injury claims compared to those already identified in the graph below, rather than specific accident year comparisons; this is particularly so for pre-2015 periods.
- The approach for constructing the additional Serious Injury claims for the lower scenario differed from the mid-range and more adverse scenario. We have therefore focussed on ensuring there is a sensible progression of additional Serious Injury claims between scenarios across all transition periods rather than calibrating each individual accident year.

Figure 9.11 – Comparison to identified claims

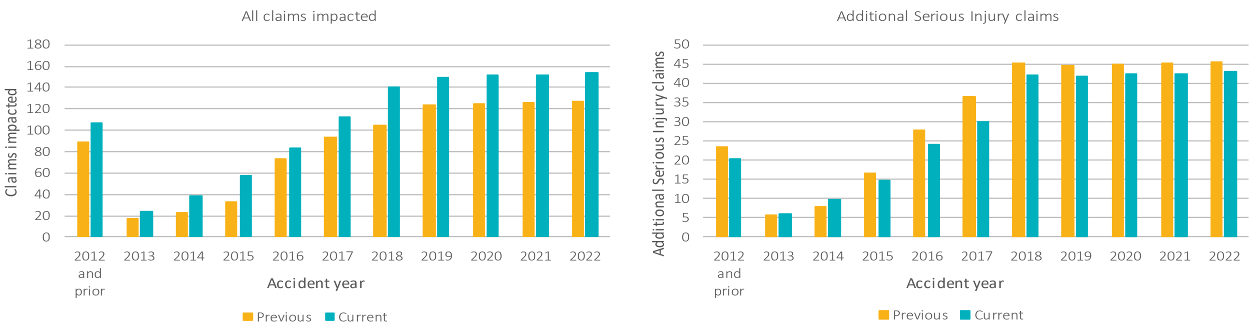


Our observations are as follows:

- Given the consistent finding in reviews by ReturnToWorkSA staff on claims identified by their external panel law firms and claims agents that: (1) the claims identified are impacted by *Summerfield,* and (2) in aggregate the proportion of claims becoming Serious Injury was not materially different, we consider the yellow columns in each graph represent a minimum number of claims impacted.
- Our low scenario (light blue columns) adopts only a small margin above the numbers of claims already identified in the *Summerfield* valuation extract. Considering the continued WPI and Serious Injury activity that already exists in the Scheme we consider it unlikely that this margin is sufficient, particularly for more recent accident years.
- Our mid-range scenario (grey columns) represents a small increase in the total claims impacted but a larger increase in the number of additional Serious Injury claims, particularly for RTW Act periods. Considering the importance of the Serious Injury boundary to the level of benefits under the RTW Act and the continued late identification of Serious Injury claims in recent years, we believe this is consistent with current behaviour in the system.
- Our more adverse scenario (dark blue columns) represents a further increase, representing a more pessimistic view of the number of claims impacted and the resulting additional Serious Injury claims. It is **not** intended to represent a worst case outcome.

Figure 9.12 compares our estimates with those set at the previous valuation of future *Summerfield* impacted claims for the low scenario.

Figure 9.12 – Low scenario: comparison to previous valuation



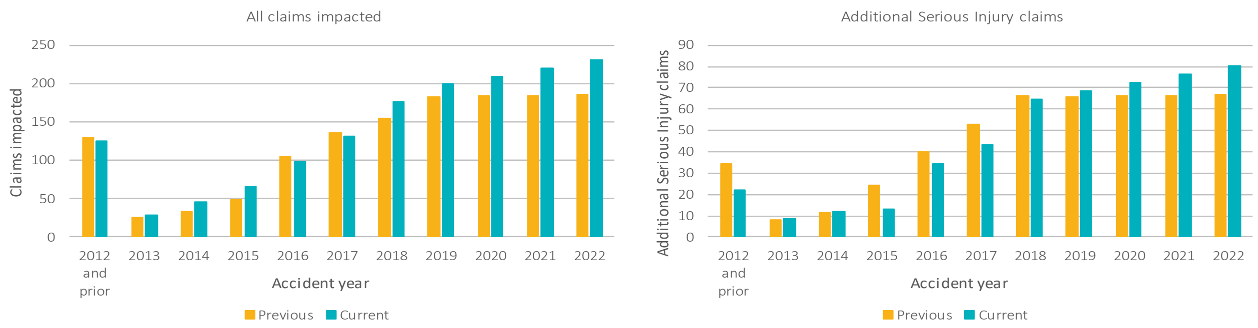
Compared to the previous valuation:

- The total number of claims impacted has increased. This is largely due to medication claims no longer being considered a possibility of being separated from the *Summerfield* decision.
- Our number of additional Serious Injury claims is lower due to consideration of re-reviews performed on the original cohort of reviewed claims from the previous valuation and a partial

reframing of this scenario to more explicitly refer to the number of claims identified in the *Summerfield* valuation extract

- Figure 9.13 shows the same information for our mid-range scenario.

Figure 9.13 – Mid-range scenario: comparison to previous valuation

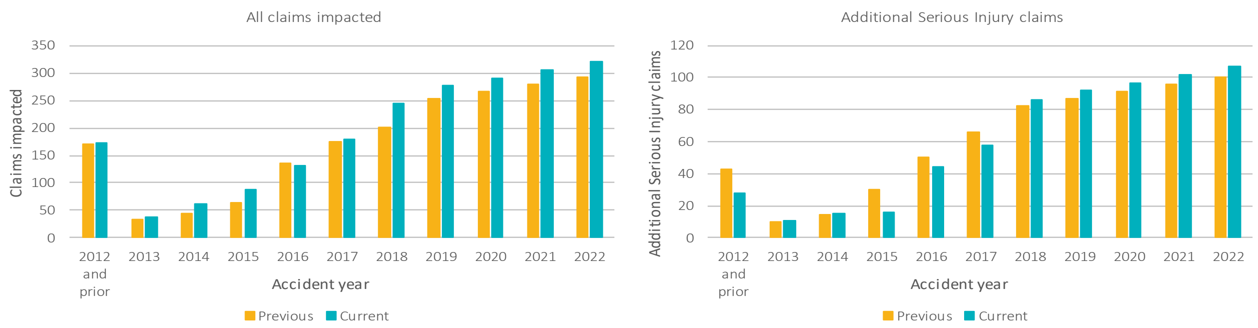


Compared to the previous valuation:

- The total number of claims impacted is broadly unchanged for 2017 and prior periods. Our allowance for observed behaviour changes and exposure growth lead to increases in our estimates for 2018 and more recent accidents.
- Consistent with the low scenario, the adopted number of additional claims has reduced for 2017 and prior years due to re-reviews. Our 2018 estimate is similar to the previous valuation. Our estimate for more recent years is higher than the previous valuation, in response to the observed behaviour changes, as noted above.

Figure 9.14 shows the same information for our more adverse scenario

Figure 9.14 – More adverse scenario: comparison to previous valuation



The changes from the previous valuation for the more adverse scenario have a similar pattern to the changes for the mid-range scenario (though at a higher level).

9.6.3 Average size assumptions

Given the majority of the *Summerfield* cost comes from Serious Injury claims, our average size assumptions consider only how the Income Support and Medical/Treatment needs for the additional Serious Injury claims will compare to pre-*Summerfield* Serious Injury claims.

Table 9.9 shows our assumed Income Support and Medical/Treatment Serious Injury sizes relative to pre-*Summerfield* Serious Injury claims under each scenario. These are unchanged from the previous valuation.

Table 9.9 – Claim size assumptions by scenario

Scenario	Low	Mid	More adverse
Income Support	75%	90%	90%
Medical / Treatment	60%	70%	70%

For the high scenario, we did not consider it necessary to assume a higher average size, given the evidence to date on size differentials was quite conclusive. For the low scenario we have adopted 10-15% lower relativities on account of the potential for better RTW opportunities on this cohort and likelihood that some claims would cease claiming medical costs from the scheme once they passed retirement age (as we have previously seen in South Australia for less severe claims).

9.6.4 Scenario weights

In determining the likelihoods to apply to the different scenarios, our key considerations were:

- The number of impacted claims been identified to date in the *Summerfield* valuation extract, and the margin above this adopted in each scenario.
- What we have learned from the emergence of pre-*Summerfield* Serious Injury numbers and the incentives to reach the Serious Injury threshold.
- The prospect for behaviour changes which would mean the number of claims impacted departs from what can be reliably estimated based on information to date.

In light of the above, our adopted likelihoods for the four scenarios are discussed in Table 9.10 below.

Table 9.10 – Adopted probabilities

Scenario	Probability weighting	Reasoning
Low scenario	20% (1 in 5 chance)	Given the low margin this scenario has above already identified claims, it represents an optimistic view of the potential number of claims impacted. As noted in our pre-*Summerfield* Serious Injury estimates, the tail of newly identified Serious Injury claims continues to be much longer than originally anticipated and claims continue to be identified outside high risk segments. We have no reason to believe this feature would not translate to *Summerfield* impacted claims, which has informed the low probability attached to this scenario.
Mid-range impact scenario	60% (3 in 5 chance)	By construction, this is our actuarial 'best estimate' of the outcome. Given it (1) has been developed based on actual claim outcomes, and (2) is deliberately not biased toward optimistic or conservative assumptions, we believe it should have a higher weight than the 'lower' and 'more adverse' scenarios where a difference from past outcomes is also anticipated. As a result, we consider this the centre of the distribution of outcomes. We note that the margin for additional Serious Injury claims above those already identified appears reasonable based on existing experience of the Scheme (e.g. Serious Injury claims continuing to emerge well beyond short-term benefit caps) and emergence of pre-*Summerfield* Serious Injury claims.

Scenario	Probability weighting	Reasoning
More adverse impact scenario	20% each (1 in 5 chance)	This scenario anticipates further behavioural changes in respect of claims adding additional injuries, leading to the number of impacted claims being higher than the mid-range scenario. While this is a possible outcome, the range of behavioural change or under-estimation through some other means is material so we adopt only a 1 in 5 likelihood.

9.6.5 Central estimate

Table 9.11 below summarises the results of our *Summerfield* work. Here the results incorporate the number of claims multiplied by the average size assumptions. For completeness, the now irrelevant 'nil impact' scenario is included.

Table 9.11 – Results by scenario and overall central estimate (inflated and discounted)

	No impact scenario	Lower impact scenario	Mid-range impact scenario	More adverse impact scenario	Total	Jun-21 OSC
Assumed Probability	0%	20%	60%	20%		
Additional Ser. Injury claims		296	455	603		
Lump sum claims impacted		1,092	1,416	1,948		
Ser. Injury estimate		$383m	$683m	$905m	$668m	$438m
Lump sum estimate		-$23m	-$50m	-$63m	-$46m	-$34m
Total claims impact		$360m	$634m	$842m	$622m	$404m
CHE loading		$25m	$44m	$58m	$43m	$28m
Total impact		$385m	$677m	$901m	$665m	$431m

As this shows, the probability weighted central estimate is $665m. The difference between the low and high scenario is over $500m, highlighting the uncertainty around the impact of *Summerfield*. The increase in the estimate from the previous valuation is almost entirely due to the reassessment of the probabilities attached to each scenario – removing the nil impact scenario means the overall estimate is now much higher.

9.7 Additional cost due to *Summerfield*: Valuation results

The tables below show the *Summerfield* results by accident year and benefit type.

Table 9.12 – *Summerfield* results by accident year

	Injury Year	Summerfield Actuarial Release[1]	Summerfield Outstanding Claims Liability
		$m	$m
Transition Claims	To Jun-08	0	-1
	2008/09 to 2012/13	-5	40
	Jun-14	-6	16
	Jun-15	3	20
RTW Act	Jun-16	-11	51
	Jun-17	-14	66
	Jun-18	-30	94
	Jun-19	-34	100
	Jun-20	-37	105
	Jun-21	-42	113
	Dec-21	-24	60
	Net Central Estimate	-197	665

[1] Includes change in OSC and Act vs Exp payments, excludes economic impacts

Almost every accident year has had a strengthening, driven by the probability reweighting for the scenarios. As our liability estimates have increased, so has the actuarial strengthening.

10 Economic and other assumptions

10.1 Discount rate

The discounted mean term (DMT) of the liabilities is 14.2 years, slightly lower than the previous valuation. The high DMT is driven by the large proportion of the OSC made up of Serious Injury liabilities. As a result, even relatively small changes to economic assumptions can have a material impact on the liability.

10.1.1 Approach

Accounting standard AASB 1023 states that the discount rates used in measuring the present value of expected future claim payments shall be: "risk free discount rates that are based on current observable, objective rates that relate to the nature, structure and term of the future obligations". It also says that:

> *"the discount rates are not intended to reflect risks inherent in the liability cash flows"*, and
>
> *"typically, government bond rates may be appropriate discount rates for the purpose of this Standard, or they may be an appropriate starting point in determining such discount rates"*.

We derive forward interest rates applying to each future duration by:

- Taking the quoted market yields on Australian Government coupon bonds for the durations they are available, as at the date of the valuation – this information is sourced from the Reserve Bank website. These market yields are used to determine the zero-coupon yields.
- Using these zero coupon yields to determine forward rates.
- At longer durations we extrapolate the forward yield curve between current market rates and our expected long-term forward rate. The assumed long-term forward rate and extrapolation take account of:
  - The duration that government bonds are available to, and the volumes of longer-term bonds traded
  - Long-term risk-free rates of return
  - General economic factors
  - Current monetary policy (e.g. CPI target range of 2% to 3%), combined with expectations of long-term real yields.
- Beyond the end of our extrapolation, the yield is maintained at the long-term forward rate.

The resulting forward rates are applied to the projected cash flows for each future period. When discounting using forward rates, the relevant rates must be 'chained' together, for example a payment at the end of year three is discounted using the product of the first, second and third year forward rates.

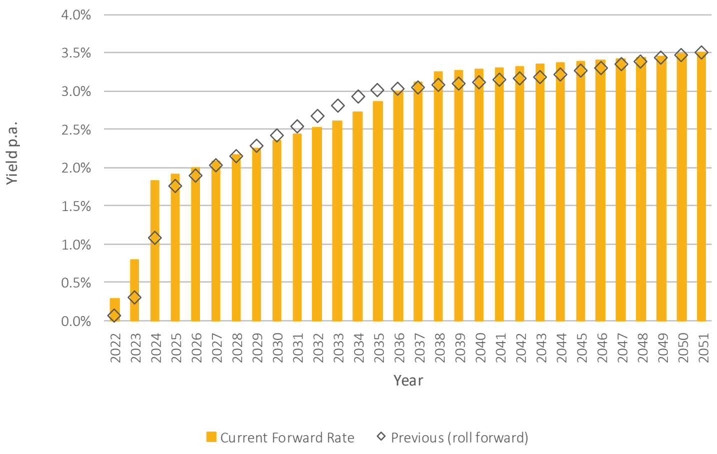
10.1.2 Current assumptions

Discount rates at December 2021 are generally similar to their positions at June 2021. However, the discount rates have increased materially for maturities less than 4 years. Meanwhile, yields at a medium term have gone down by around 15 to 20 basis points (0.15% to 0.20% p.a.) while yields at longer terms have gone up by a similar amount. We have assumed a long-term discount rate of 3.50%, unchanged from our previous valuation.

A comparison of the currently adopted yield curve to previous is shown in Figure 10.1.

The equivalent single discount rate has increased from 2.4% p.a. at 30 June 2021 to 2.5% p.a. at 31 December 2021.

Figure 10.1 – Risk free forward rate vs previous valuation



Details of the discount rates by year are included in Appendix C.

10.2 Inflation

In setting our inflation assumptions we consider:

- Forecasts of CPI and wage inflation.
- RBA monetary policy.
- Market-based information on inflation, with the aim of obtaining inflation expectations which are consistent with the discount rate expectations (as the discount rates are market based), for example using Treasury Indexed Bonds (TIBs). TIBs are essentially Government bonds where the original capital invested, and subsequent coupon payments, are indexed for CPI inflation. The difference between yields on TIBs and on nominal government bonds gives an implied breakeven rate of CPI inflation.

Given there is a prescribed inflation index for income support payments that is specific to South Australian conditions, our inflation assumptions consider inflation at a SA specific level for this portfolio.

It is also important to note that the selected inflation assumptions are intended to reflect increases in claims cost over time, rather than being a pure forecast of the various inflation indices. This is important because there has been some short-term disruption to the levels of inflation in the economy as a result of the COVID-19 pandemic, an example of which is the 1.9% fall in CPI inflation for the June 2020 quarter and subsequent rebound due almost entirely to temporary childcare subsidies. We have only reflected these short-term disruptions to inflation indices in our selections where we believe this impact will actually flow on to inflation in the cost of claims, noting that the available inflation indices are a proxy.

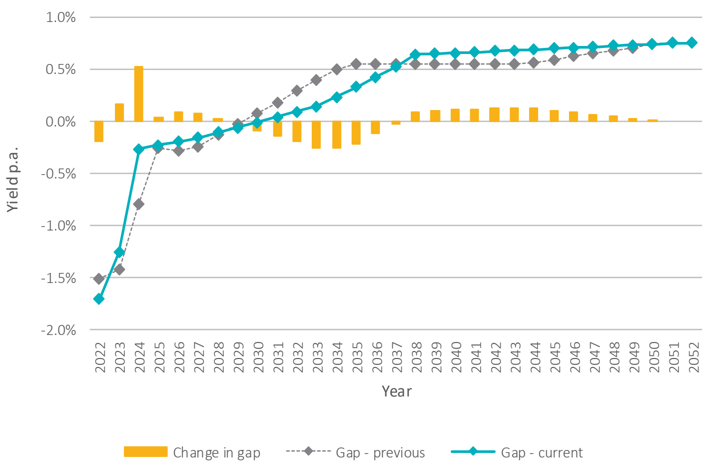
In summary, our assumptions at the current valuation are:

- Wage Price Index (WPI) inflation has been assumed to be 2.00% p.a. for the next year, increasing to 2.25% p.a. in five years' time. This is an increase from our previous assumption of 1.5% in the short term.
- WPI inflation assumptions then increase slowly over the following 25-year period, after which they remain steady at 2.75% p.a. This long-term assumption represents a 0.75% p.a. gap between WPI inflation and forward discount rates, unchanged from our June 2021 valuation.

- Average Weekly Earnings (AWE) inflation is set as equal to WPI inflation for the coming five-year period.
- The gap between AWE and WPI inflation is then assumed to widen over the following ten years, after which it reaches a steady-state gap of 0.10% p.a. above WPI (i.e. long-term AWE inflation of 2.85% p.a.). This is in line with our gap assumption at the previous valuation, and reflects the low AWE growth in SA in recent years.
- CPI inflation has been set flat at 2.25% p.a. for all future years. At the previous valuation we adopted a lower CPI of 2.00%. The long-term selection sits at the lower end of the Reserve Bank's targeted range of 2-3% p.a. and reflects the low CPI growth across both SA and Australia over recent periods.

The movements, compared to previous assumptions, in adopted inflation and discount rates have an impact on the 'gap' between inflation and discount rates, particularly at short durations. This is shown in Figure 10.2 below. As this shows, the current economic assumptions imply a negative gap out to nearly 9 years, similar to the previous valuation.

Figure 10.2 – Gap between adopted AWE and discount rates



The net impact of these changes is a small reduction in the scheme liability, which is quantified in Section 11 below.

The rates of inflation are applied to entitlement types as follows:

- IS entitlements and related expenditure for Short Term claims have no inflation applied for the current cohort of claims, consistent with the RTW Act. AWE is initially applied for future injuries.
- IS entitlements and related expenditure for Serious Injury claims are inflated using the projected Wage Price Inflation rate until retirement.
- The maximum Lump Sum entitlement is indexed annually by the adopted CPI rate (the maximum entitlement applies to all accidents occurring in a year).
- All other entitlements are inflated at the adopted AWE rate, with allowance for superimposed inflation where warranted.

We have made assumptions about superimposed inflation for some payment types, and on the timing of the application of inflation. These assumptions are detailed in Appendix C.

10.3 Expenses

In setting provisions for outstanding claims, it is necessary under accounting and actuarial standards to include an allowance for the future costs of claim administration that are not allocated to individual claims.

We have reviewed recent and budgeted expenses for ReturnToWorkSA to estimate the costs related to claims handling. Interpretation of this analysis must be conscious of the changing nature of the scheme, its claim management strategy and the expected permanency, or not, of these features; that is, the claims handling expense allowance is set as a forward-looking measure that is intended to reflect the expense structure. Table 10.1 shows the scheme's recent and projected expenses and the proportion allocated to claims handling expenses (CHE).

Table 10.1 – Overall Scheme expenses and Proportion of cost allocated to CHE

	2019-20	2020-21 (draft actual)	2021-22 (forecast)
	$m	$m	$m
Administration	57.4	54.8	60.6
Claims Management	54.8	66.1	70.4
Tribunal	8.8	8.7	8.3
Total Expenses	121.0	129.6	139.3

% Expenses allocated to CHE	2019-20	2020-21	2021-22
Administration	27%	31%	32%
Claims Management	69%	68%	67%
Tribunal	55%	55%	55%
Total	48%	51%	51%

Table 10.1 shows the proportion of costs allocated to claims management in three main categories:

- Administration expenses – this includes the direct claims management costs of ReturnToWorkSA from its insurance team, plus a proportion of other cost centres.
- Claims Management – this includes the costs paid to external claim managers, with an allocation between new claims and ongoing claims management (including relevant performance fees).
- Tribunal – this is the estimated proportion related to ongoing claims, net of the contribution from self-insurers to these running costs.
- The expenses are largely unchanged from those used at the June 2021 valuation.

In addition, costs are also split between serious injury and short term claims to enable a two way claims handling expense assumption. Table 10.2 shows the attributed claims handling expenses as a proportion of gross claim payments, which is how the claims handling expense loading is applied in the liability valuation.

Table 10.2 – Claims handling expenses by claim type as a percentage of gross claim payments

	CHE Expenses / Claim Payments - by financial year			CHE Assumption	
	2019-20	2020-21	2021-22	Selected	Previous
Serious Injury	8.4%	8.3%	6.5%	7.5%	7.5%
Short Term Claims	13.6%	15.6%	16.6%	15.5%	15.5%
Liability Weighted Average %				9.3%	9.6%

As shown in Table 10.2, the CHE cost associated with serious injury claims has been reducing over time, which corresponds to the period where ReturnToWorkSA has had a larger portfolio of serious injury claims to manage. This 'scale benefit' has led to a lower allowance for the serious injury CHE assumption.

Short term claims however have seen higher expense rates recently, and our previous selection has been maintained.

The overall expense rate equates to 9.3% of gross outstanding claims, which is essentially unchanged from the previous valuation.

10.4 GST recoveries

Entitlements are modelled net of GST (ITC) recoveries.

10.5 Risk margins

Since June 2017 ReturnToWorkSA has established its outstanding claims provision with a 75% probability of sufficiency. Our recommended claims provision is consistent with this reserving policy.

10.5.1 Pre-*Summerfield* risk margin allowance

We have undertaken a high-level review of the risk margin scorecards for internal and external systemic risks at this valuation; a more comprehensive review was done two and a half years ago. Our approach is based on the key elements of the framework proposed by the Institute of Actuaries of Australia's Risk Margin Taskforce in their paper "Framework for Assessing Risk Margins" ('the task force paper'). Specifically, we have examined Coefficients of Variation (CVs) – a measure of the variability in the statistical distribution – arising from internal systemic error and external systemic error. A summary of the framework is included in Appendix C.2.

We have split the various entitlements into six groups for the purposes of risk margins analysis. For each risk margins group, we derive assumptions about the independent error, internal systemic error and external systemic error, which are then combined to estimate the total CV for that risk margin group. We assume that there is some correlation between risk margins group within internal and external systemic error, while we assume that independent error is (by definition) uncorrelated. This leads to a 'diversification benefit' in the overall Scheme risk margin.

Our current estimated CVs for each entitlement group, along with the total diversified and undiversified CV, are set out in Table 10.3 below.

Table 10.3 – Coefficient of Variation (pre-*Summerfield*)

	Total CV	
Risk Margin Group	Dec-21	Jun-21
Serious Injury	26.9%	26.9%
Short Term Claims		
Income Support	14.5%	14.5%
Lump sum	23.8%	23.0%
Legal + Investigation	30.3%	28.0%
Medical and Other Treatment	15.8%	15.8%
Recoveries	20.0%	20.0%
Total (Undiversified)	25.4%	25.2%
Total (Diversified)	**21.6%**	**21.7%**
Diversification	14.9%	14.0%

Our selected CV has reduced slightly overall compared to the previous valuation with the variations being:

- An increase in the Lump sum CV due to greater parameter selection error as there is still considerable uncertainty as to when the WPI activity for Transitional claims will stop. In addition, the mix of claims being paid at different durations is changing the experience, which increases parameter selection error.
- Offsetting movements in the Medical and Other Treatment CV due to:
  - Higher uncertainty in parameter selection and specification error from modelling changes for Hearing Loss claims at this valuation resulting in the number of models and parameters increasing.
  - Lower specification error as the models now link to the key cost drivers for reach treatment type.
- A higher CV for legal and investigation due to higher dispute volumes increasing parameter selection error and increased specification error as a result of future Contract legal costs being difficult to estimate in light of the increasing dispute numbers.
- A higher diversification benefit, as the contribution of Serious Injury claim segment to the risk margin is lower due to it being a lower proportion of the overall liability.

Based on a diversified coefficient of variation of 21.6% and our modelled distribution (which is a blend between a normal and lognormal distribution), we recommend a risk margin of 13.9% at a 75% probability of sufficiency. This is unchanged from the previous valuation.

10.5.2 Risk margins – *Summerfield* valuation

To determine the risk margin related to the *Summerfield* allowance we have used the scenarios described in Section 9.6 to inform how much additional reserves are required to meet the required 75% probability of sufficiency.

The result is that we believe the post-*Summerfield* risk margin needs to cover the full cost of the mid-range scenario, and go much of the way toward the more adverse scenario (noting also that the more adverse impact scenario has an assumed probability that puts it above the 75th percentile).

In determining the required risk margin we have also considered the amount of 'Serious Injury claim number risk' that was already included in the baseline risk margin – that is, given the majority of the claims that would become additional Serious Injuries under *Summerfield* are the same group who contribute to the baseline level of Serious Injury claim number uncertainty, we believe it would be double counting if we were to add the full additional cost on top of the existing baseline risk margin.

This results in a much higher percentage loading than the normal risk margin, 25% of the central estimate (previously 35.4%) compared to 13.9% for the pre-*Summerfield* risk margin, which we believe is appropriate given the unique circumstances presented by this case at the current time.

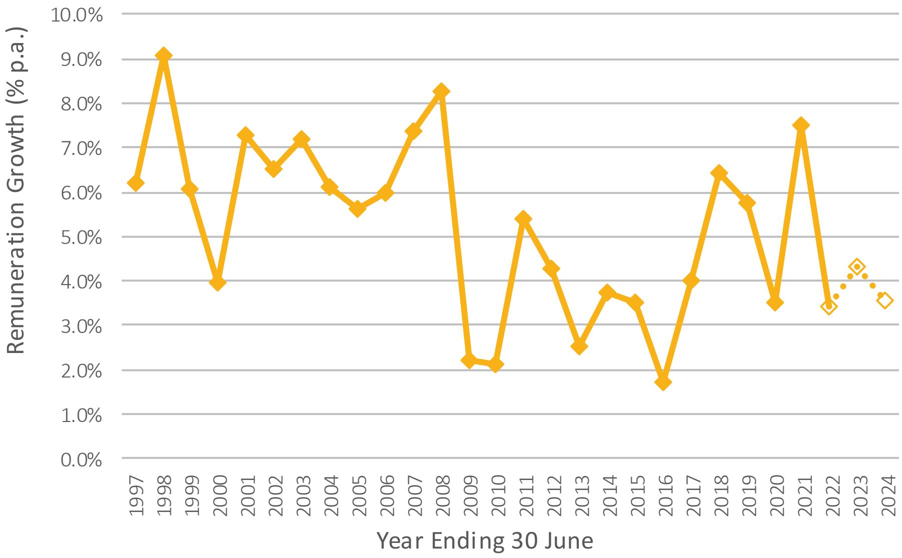
10.6 Non-exempt remuneration

When making our assessment of the cost of future claims, we consider the underlying estimated employee remuneration pool as a measure of the exposure from which claims will arise.

The movement in the remuneration pool over time is the net result of a number of influences: (1) growth in average weekly earnings, (2) 'natural' growth in the number of employees, and (3) movements of firms out of/into the scheme due to becoming self-insured or exiting self-insurance.

The remuneration projection for current and future years is undertaken by ReturnToWorkSA. The implied annual growth in the total non-exempt remuneration by year is shown below in Table 10.3.

Figure 10.3 – Non-exempt leviable remuneration: annual growth



We have adopted ReturnToWorkSA's remuneration projection of $34.8 billion for 2021/22, noting that it is still subject to some estimation. The key features we note in the remuneration experience are:

- The remuneration growth for 2009 and 2010 was the lowest seen since the early 1990's (the time of the last significant recession in Australia). There were two key contributors to this experience:
  - The global financial crisis (GFC) – during 2009 unemployment rates were higher than for the previous few years, and the level of under-employment (people working fewer hours than they would like) also rose. The level of wage inflation also reduced in the year.
  - A change in the definition of leviable remuneration from 1 July 2008, to exclude wages for trainees and apprentices (noting that while their wages are excluded, their claims costs are not). This change to the remuneration base reduced remuneration estimates for 2008/09 by about 2% relative to the previous definition.
- Despite remuneration growth briefly heading up to more 'normal' historical levels in 2011 and 2012, wage growth then reduced again towards levels seen during the GFC, and then stayed low until 2017.
- In the four years since 2017, remuneration growth increased significantly at 6.4% in 2018, 5.7% in 2019, 3.5% in 2020 (wages growth for 2020 was impacted from COVID-19) and 7.5% in 2021.
- The current projections forecast lower wage growth in 2022, with 3.4% growth, rising to 4.3% in 2023 and 3.5% after that.

11 Valuation results

This section of the report summarises the valuation results, namely:

- The central estimate of outstanding claims as at 31 December 2021.
- Our recommended balance sheet provision under AASB1023.
- Movement in the central estimate compared to what was projected at the previous valuation.
- Estimated historical scheme costs.
- Projected future cash flows for the current outstanding claims.
- Projected outstanding claims as at 30 June 2022 and 31 December 2022.
- Reconciliation of results with June 2021 projections.

11.1 Outstanding claims – central estimate

Our central estimate of the outstanding claims by entitlement type as at 31 December2021 is set out in Table 11.1. This liability relates to all claims that occurred on or before 31 December2021 and includes the impact of updated economic assumptions.

Table 11.1 – Outstanding claims by entitlement type

Entitlement Group	Short Term Claims	Serious Injuries	Additional cost due to Summerfield	Total	% of Net Cent Est
	$m	$m	$m	$m	
Income	161	626	275	1,061	27%
Medical	128	472	114	714	18%
Other	5	55	16	76	2%
Care	2	396	29	427	11%
Lump sums	323	139	50	512	13%
Hospital	17	142	39	197	5%
Travel & Accomodation	6	55	18	79	2%
Worker legal	69	17	-	86	2%
Corporation legal	40	17	-	57	1%
Allied Health	45	250	78	372	10%
Rehabilitation	13	16	5	34	1%
Investigation	3	1	-	4	0.11%
Common law	1	-	-	1	0.04%
Commutation	2	-	-	2	0.06%
LOEC	1	-	-	1	0.01%
Gross Liability	817	2,185	622	3,624	93%
Recoveries	-35	-36	-	-71	-2%
Expenses	127	164	43	334	9%
Net Central Estimate	909	2,313	665	3,886	100%

The outstanding claims liability before recoveries and expenses is estimated to be $3,624m. The net central estimate, allowing for recoveries and including an allowance for claims handling expenses, is $3,886m.

Table 11.2 details the outstanding claims result by accident year.

Table 11.2 – Outstanding claims by accident year

Accident Year	Short Term Claims	Serious Injuries	Additional cost due to Summerfield	Total	% of Net Cent Est
	$m	$m	$m	$m	
Pre Jun-15 Years	104	934	70	1,108	29%
Jun-16	24	123	48	195	5%
Jun-17	35	166	62	262	7%
Jun-18	46	202	88	336	9%
Jun-19	71	234	94	399	10%
Jun-20	130	191	99	420	11%
Jun-21	233	218	106	556	14%
Dec-21	175	116	57	347	9%
Gross Liability	817	2,185	622	3,624	93%
Recoveries	-35	-36	0	-71	-2%
Expenses	127	164	43	334	9%
Net Central Estimate	909	2,313	665	3,886	100%

We note that for reasons of pragmatism the Summerfield allowances have been applied in a simplified way for the very old accident years, which produces the large allowance in the Jun-11 accident year and small negatives in the earlier history.

Table 11.3 shows the overall liability split between Serious Injuries and Short-Term claims, both before and after discounting. As this shows, there is a significant level of discounting in relation to the Serious Injury claims liability due to its long payment pattern.

Table 11.3 – Impact of discounting

	Short Term Claims	Serious Injuries	Additional cost due to Summerfield	Total
	$m	$m		$m
Inflated	954	4,063	1,156	6,173
Inflated and Discounted	909	2,313	665	3,886
Ratio	95%	57%	58%	63%

11.2 Provision for outstanding claims

Table 11.4 sets out the components of our recommended provision at 75% probability of sufficiency, $4,501m. As explained in Section 10.5, the recommended risk margin after allowing for the impact of *Summerfield* has been reduced from 16.5% to 15.8% of the central estimate liability.

Table 11.4 – Recommended balance sheet provision

	Baseline Valuation	Additional cost due to Summerfield	Total
	$m	*$m*	*$m*
	(a)	*(b)*	*(a+b)*
Gross Claims Cost - Serious Injuries	2,185	668	2,853
Gross Claims Cost - Short Term Claims	817	-46	771
Claims Handling Expenses	291	43	334
Gross Outstanding Claims Liability	3,293	665	3,957
Recoveries	-71	0	-71
Net **Central Estimate** of Outstanding Claims Liability	3,222	665	3,886
Risk Margin	448	166	614
Recommended Provision	3,669	831	4,501

11.3 Movement in liability

Our net central estimate including CHE is $197m higher than projected at the previous valuation, as shown in Table 11.5.

Table 11.5 – Movement from previous valuation

	Gross	Recoveries	CHE	Net
	$m	$m	$m	$m
Liability as at Jun-21	3,331	-72	310	3,569
Plus liability for claims incurred in the period	344	-7	42	379
Less Expected Payments to Dec-21	234	-9	33	258
Plus Interest (unwinding of discount)	0	0	0	0
Liability Projected from Previous Valuation	3,440	-70	319	3,689
Current Valuation	3,624	-71	334	3,886
Difference	184	-1	15	197

We have attributed the change in central estimate into the following components:

- Movement in liability due to claims experience – this covers the components that are due to claim outcomes (such as changes in the number and mix of claims), as well as the impact of revisions to our valuation assumptions.
- Impact of changes in economic assumptions – the component which is mandated by accounting standards (and therefore outside ReturnToWorkSA's control).

This split also allows calculation of the actuarial release, where we add the difference between actual and expected payments to the movement in the liability due to claims experience, to give a measure of the 'profit' impact of claims performance relative to the previous valuation.

Table 11.6 – Movement in central estimate and determination of actuarial release

	Central Estimate			Actuarial Release		
	Liability Estimate[1] *Excl. Summerfield*	Liability Estimate[1] *Summerfield*	Liability Estimate[1] *Total*		AvE Payments in 6 mths to Dec-21	Actuarial Release/ (Strengthening)[2]
	$m	$m	$m		$m	$m
Liability at Jun-21 Valuation	3,137	431	3,569			
Projected Liability at Dec-21 (from Jun-21 valuation)	3,214	475	3,689			
Claims Movement - Short Term Claims	40	-18	22	Short Term Claims	0	-39
Claims Movement - Serious Injury	-20	209	189	Serious Injury	4	16
Impact of Change in economic assumptions	-12	-2	-14	Summerfield	6	-197
Recommended Liability at Dec-21	3,222	665	3,886			
Total Actuarial Strengthening						-221

[1] Net central estimate of outstanding claims liability, including CHE

[2] Includes change in OSC and Act vs Exp payments.

Each of these components is discussed in the following sections.

11.3.1 Actuarial release at December 2021

The actuarial strengthening (negative release) over the period is $221m. Table 11.7 shows the actuarial strengthening by entitlement type.

Table 11.7 – Actuarial release/(Strengthening) by Entitlement Type

Entitlement Group	Short Term Claims[1]	Serious Injury Claims[1]	Additional cost due to Summerfield	Total Actuarial Release [1]	Release %
	$m	$m	$m	$m	
Income Support	10.2	-16.4	-82.7	-88.8	-9.1%
Lump Sums	-8.7	-12.2	-21.7	-42.6	-8.8%
Worker legal	-21.0	-1.0	0.0	-21.9	-33.0%
Corporation legal	0.6	-0.3	0.0	0.2	0.4%
Investigation	-1.1	0.0	0.0	-1.1	-33.6%
Medical (incl. Physio)	-12.1	46.5	-50.6	-16.2	-1.5%
Other (incl. Care)	0.4	-19.2	-14.1	-32.9	-7.0%
Hospital	0.2	10.2	-10.3	0.1	0.1%
Travel	-1.3	4.6	-4.7	-1.4	-1.8%
Rehabilitation	-1.0	3.7	-1.3	1.4	4.0%
Common Law	0.1	0.0	0.0	0.1	7.1%
LOEC	0.0	0.0	0.0	0.0	-0.7%
Commutation	0.2	0.0	0.0	0.2	11.0%
Gross Liability	-33.5	15.9	-185.3	-202.9	-5.9%
Recoveries	-0.5	-1.1	0.0	-1.6	2.3%
Expenses	-5.2	1.2	-12.2	-16.2	-5.1%
Net Central Estimate	-39.2	16.0	-197.5	-220.7	-6.0%

[1] Includes change in OSC and Act vs Exp payments, excludes economic impacts

The major factors contributing to the $221m actuarial strengthening at the current valuation are:

- The **change in *Summerfield* allowance** resulted in an increase of $197m, as discussed in Section 9.
  > This is almost entirely due to a reassessment of the probability assigned to each scenario, following the High Court refusing ReturnToWorkSA's application to appeal the *Summerfield* decision, which removes any chance of a nil liability impact.
- For **Short Term claims** there is an actuarial strengthening of $39m, which is the result of:
  > An increase of $21m for Worker legal costs, following a step-change increase in the number of new disputes in the last year; many of these disputes continue to progress into later stages of the disputation process where costs are high.

  > An increase of $12m for Medical payments. This is due to a combination of higher medico-legal assessment costs and an increased allowance for hearing aid fitting fees. These increases are partly offset by a reduction in the future superimposed inflation assumption, following modelling changes that now more directly capture the cost drivers for growing Hearing Loss claims.

  > Income Support costs decreased by $10m, with favourable RTW experience more than offsetting the impacts of more claims commencing on income replacement benefits.

  > Transitional claims continuing to cost more than expected, due to the slow run-off and continuation of new WPI assessments. This, along with higher WPI scores, adds $9m to the Lump Sum liability.
- For **Serious Injury claims** there was a net actuarial release of $16m due to:
  > Higher claim numbers (including IBNR assumptions) resulted in a strengthening of $42m. This strengthening is in response to the continued late emergence of Other Serious Injury claims for 2017 and prior accident periods, and already very high claims for the 2018 year. The increase was slightly offset by a $7m decrease for Severe Traumatic Injury claims.

We caution that, even after including this strengthening, there is still only a very small allowance for remaining ongoing claims to ultimately reach the Serious Injury boundary. Compounding this risk, there continues to be a much larger than expected number of long duration claims still commencing WPI assessments, lodging new disputes and remaining active in the system. Further, we continue to interpret the higher numbers of Serious Injury claims being identified at early durations for recent accident years as being in part due to a speed-up in the identification pattern, meaning we have not allowed for the late identifications that have been occurring on older accident years to continue for more recent accident cohorts. If these assumptions do not hold, there will be material implications for both the outstanding claims liability and the average premium rate.

- Revisions to our mortality assumptions, most notably the reduction in future mortality improvement on identified claims, resulted in a release of $55m, impacting both Other Serious Injury claims and Severe Traumatic Injury claims.
- Other changes, largely the various average size components, decreased the liability by $5m in aggregate. There were, however, offsetting impacts behind this change:
  - Other Serious Injury claims had a release of $24m as recent medical and treatment spend continues to be lower than long-term levels, and reflecting the impact of mortality changes in the average size assumption for IBNR claims also reduced the liability.
  - Severe Traumatic Injury claims had an increase of $18m, largely due to significant care estimate increases for a small number of claims.

  We note that above impacts are prior to CHE which explains the balance of the difference.

Other changes had more minor impacts on the scheme liability.

11.3.2 Impact of economic assumption changes

Changes to inflation and discount rate assumptions decreased the net central estimate by $14m.

Overall, the gap between discount and inflation rates has increased compared to what was adopted at the June 2021 valuation. The main contributor is an increase in the yield curve at short durations.

The current assumptions imply a negative real yield (i.e. projected wage inflation above the discount rate) out to around nine years into the future.

11.4 Historical scheme costs

As part of our valuation we have estimated the 'historical cost' for each past accident year. This represents our estimate of total projected costs for the accident year, including expenses, and is discounted to the start of the accident year. Historical claims handling, operating expense and self-insurer levy figures are taken from ReturnToWorkSA's published annual accounts and the latest information from ReturnToWorkSA for 2022.

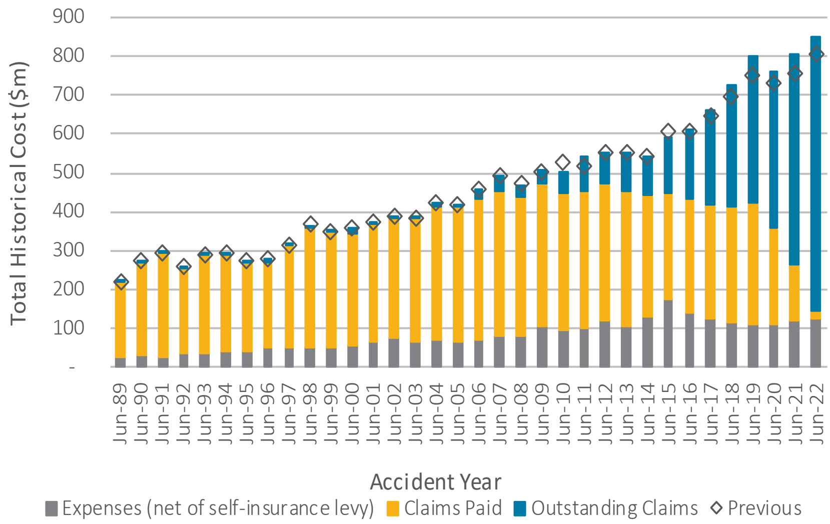
Figure 11.1 summarises the currently estimated historical costs for each year since the scheme began. As this shows, commencement of the RTW Act had initially acted to contain the cost for accident years up to 2016 at around $600m, breaking the strong upward trend seen in the lead up to that time. Scheme expenses were particularly high in 2015 as a result of additional transition related costs. The hindsight cost estimate has now increased significantly for the RTW Act periods reflecting the additional cost of *Summerfield* on Serious Injury claims.

For recent accident years the costs are projected to be higher than the pre-2016 level as a result of:

- Higher claim numbers, particularly for Hearing Loss claims and Income Support claims.

- There was a period of deterioration in RTW outcomes up to 2019, but the trend reversed in 2020 and later years.
- Growth in the number of Serious Injury claims that are expected to ultimately emerge. This is compounded by the cohort of claims which are expected be impacted by *Summerfield*.
- For 2019 there were also a number of very high cost claims in the Severe Traumatic Injury cohort. This dynamic makes the increase from 2018 to 2019 more pronounced than it would otherwise be, and is not an indication of deterioration in experience; rather it is a reflection of the volatile nature of severe traumatic claim numbers, given the low volume. 2020 currently has no Severe Traumatic Injury claims, which is part of the reason its costs are lower than 2019.

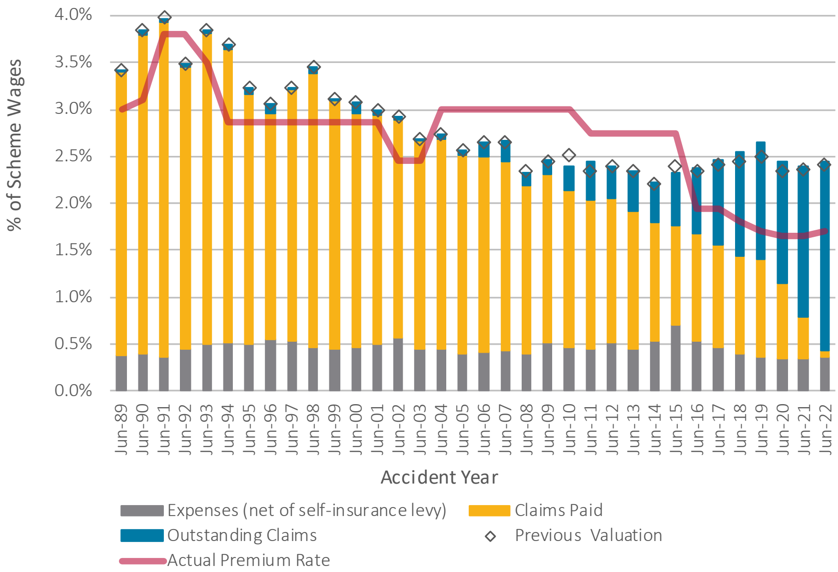
Figure 11.1 – Historical cost discounted to accident year



Using these costs we have estimated the 'historical premium rate', or the Break Even Premium (BEP) rate, for each past accident year; this is the amount that would have been sufficient to fully cover claim costs, including expenses and recoveries, assuming the scheme achieved risk free returns each year and the current actuarial valuation is an accurate forecast of future payments. The BEP is calculated by dividing the total projected costs for the accident year (from Figure 11.1) by the total scheme leviable remuneration in that year (discussed in Section 10.6). We present the costs on this basis, i.e. using risk free discount rates, so that a like with like comparison can be made over the history of the scheme, which allows current scheme performance to be assessed in a long term context.

Figure 11.2 summarises the estimated annual BEP since the scheme began, including a comparison with the estimates at our previous valuation and the scheme's actual average premium rate charged for each year.

Figure 11.2 – Break even premium rate and actual premium rate charged



* The Break Even Premium Rate in this Figure is calculated using the risk free rate, so that a like with like comparison can be made over the history of the scheme. For clarity, this is not the same as the scheme's pricing basis as the scheme targets a higher than risk free rate of return when premiums are set.

The main points to note are:

- The introduction of the RTW Act reduced the BEP for accident years between 2008 and 2010 to under 2.5% of wages.
- For accident years between 2011 and 2014 the costs were progressively lower again, as claims had less opportunity to remain on long term benefits.
- The impact of *Summerfield* pushes the 2016 and later BEP estimates to be in line with or in some instances above the pre-RTW Act periods, eroding much of the savings introduced with the reforms. Now that the *Summerfield* High Court appeal has been rejected there is now no chance of a 'nil cost' outcome, which results in a further increase in the BEP since the previous valuation.
- The 2019 year is developing as a high cost year, due to a combination of high Income Support claim numbers, poor early RTW outcomes and a higher than normal Serious Injury cost (due to a number of very expensive Severe Traumatic Injury claims). The BEP estimates for 2020 and 2021 are lower than the 2019 BEP, due to fewer Severe Traumatic Injury claims.
- The current estimate of the BEP (using risk free rates) for the 2022 accident year is 2.45% of wages, up from 2.41% at the June 2021 valuation. The increase is primarily due to the increase in *Summerfield* allowance.

We note that these calculations assume past and future investment earnings at the risk-free rate, and adopt the annual cost of expenses in the year. All else being equal, any earnings above the risk-free rate or additional sources of income would act to reduce the required premium rate.

We emphasise that (as seen in the graph) the BEP estimates for recent accident years include a significant outstanding claims estimate and are therefore likely to change as experience emerges. Compounding the uncertainty is the impact of *Summerfield* which is subject to a high degree of estimation and uncertainty. We also note that the adopted wages figure for 2022 involves a degree of estimation.

11.5 Future cash flows

Table 11.8 presents projected cash flows for the coming four half-years, by entitlement type. These cash flows include allowance for future claims incurred as described in Section 11.6, but make no allowance for expenses. We assume that due to other disputes, claims with *Summerfield* issues cannot immediately resolve, meaning cashflows for the Jun-22 half-year do not fully reflect the additional *Summerfield* cost. We assume that any backlog is caught up by the Dec-22 half-year, and our cashflows from this point reflect the full *Summerfield* impact.

Table 11.8 – Projected cash flows

Entitlement Group	Projected Cashflows for Period			
	Dec-21 to Jun-22	Jun-22 to Dec-22	Dec-22 to Jun-23	Jun-23 to Dec-23
	$m	$m	$m	$m
Income Support	95.3	116.2	91.9	94.7
Medical	31.9	34.3	34.7	35.3
Lump sums	63.7	89.0	80.1	80.4
Rehabilitation	4.9	5.1	5.2	5.3
Allied Health	14.8	15.8	16.0	16.5
Hospital	9.7	10.5	10.6	11.1
Legal - Non-Contract	10.3	10.1	10.1	10.1
Other	2.1	2.3	2.3	2.4
Care	6.1	6.4	7.3	7.5
Legal Contract	11.6	11.5	11.3	11.3
Travel	2.9	3.1	3.2	3.3
Investigation	1.2	1.2	1.2	1.2
Commutation	0.2	0.2	0.2	0.2
LOEC	0.1	0.1	0.1	0.1
Common law	0.1	0.1	0.1	0.1
Recoveries	-8.5	-9.8	-12.1	-6.3
Net Claims Cost - Total	246.6	296.2	262.1	273.1
Serious Injuries (net)	63.0	109.0	72.8	81.2
Short Term Claims (net)	183.6	187.2	189.2	191.9

Cash flows for Short Term claims over the next two years are expected to remain fairly stable, while the shape to the Serious Injury cashflows is a result of assumptions around the timing of one-off lump sums and recoveries. The timing of *Summerfield* cashflows is as discussed above.

11.6 Projected outstanding claims

Table 11.9 shows the outstanding claims projected to 30 June 2022, 31 December 2022 and 30 June 2023. We note the payments shown here are based on those in Table 11.8, but also include an allowance for claims handling expenses for consistency with our liability estimate.

Importantly, we note that these projections are based on the current central estimate allowances, and it is very likely that the actual outcome will be different to this as more information about the impacts of *Summerfield* emerges over time.

Table 11.9 – Projected outstanding claims provision

(30 June 2022, 31 December 2022 and 30 June 2023)

	Half year ending		
	Jun-22	Dec-22	Jun-23
	$m	$m	$m
Provision at Period Start	4,501	4,654	4,756
Less Risk Margin	614	635	649
Central Estimate at Period Start	3,886	4,019	4,107
Plus Additional Liability Incurred in Period	407	417	418
Less Expected Payments in Period	-281	-334	-298
Plus Interest (unwind of discount)	6	6	17
Projected Central Estimate at Period End	4,019	4,107	4,245
Plus Risk Margin	635	649	671
Projected Provision at Period End	4,654	4,756	4,915

We project the central estimate for the net outstanding claims liability at 30 June 2022 to be $4,019m; this estimate includes allowance for claim payments and expenses, discount rate movements in line with forward rates and new claims incurred in the period 1 January 2022 to 30 June 2022. The corresponding provision at a 75% probability of sufficiency is $4,654m.

The projected increase to the 30 June 2022 liabilities relates to the fact that the additional liability incurred on new Serious Injury claims is more than the expected payments on existing Serious Injury claims; for Short Term claims the half-yearly ins and outs are now broadly offsetting.

11.7 Reconciliation of incurred cost with previous projection

At the 30 June 2021 valuation we projected an additional claim cost liability of $337m would be incurred from claims arising in the half-year to 31 December 2021. Our current projection for the ultimate value of this liability is $360m, an increase of 6.7% or $23m consisting of:

- An increase of $30.1m in Serious Injury Claims, largely due to the increase in cost for *Summerfield.*
- A decrease of $6.0m from Short Term Claims, primarily due to better than expected experience on Income Support claims.
- A small reduction of $1.5m due to changes to economic assumptions.

Table 11.10 – Comparison of June 2021 projections to current valuation

For period 1 Jul 2021 to 31 Dec 2021		
Incurred Claims Liability ($m, excl. expenses):		Difference
Projected in Jun-21 Valuation	337	
Incurred (current valuation)	360	6.7%

12 Uncertainty and sensitivity analysis

12.1 Risk and uncertainty

In this section we discuss the major areas of uncertainty involved in estimating the balance sheet outstanding claims provision (OSC, including allowance for expenses and risk margins, with provision at 75% probability of sufficiency). At the present time there are heightened uncertainties and risks, particularly on the unfavourable side, with the operation of the RTW Act still to stabilise.

To assist in understanding the uncertainty, we have designed a range of scenarios which illustrate potential scheme outcomes. For each scenario we have made an approximate estimate of its impact on the OSC provision.

We have considered the uncertainty in four broad categories:

- Economic – employment, inflation, investment markets.
- Legal & behavioural – disputes, tribunal decisions, appeal court decisions and the way participants behave in response to those decisions.
- Short Term claims – outcomes relating to claims whose entitlements are subject to the hard boundaries.
- Serious Injury claims – outcomes for claims who are entitled to long term payments from the scheme.

There is overlap and interaction between these categories. ReturnToWorkSA has essentially no control over economic influences, full control over scheme management and some influence (but not control) over legal and behavioural risks.

We note that sensitivity analysis is indicative only of a range of possible liability outcomes. The sensitivities shown below do not represent upper or lower bounds to the scheme's outstanding claims liabilities.

12.2 Economic scenarios

In brief, the scenarios we have considered are a stronger economy and a weaker economy; as summarised below.

Table 12.1 – Economic Scenarios

	Stronger	Weaker
Wage inflation[1]	3.0% pa	2.0% pa
Investment earnings	4.0% pa	0.0% to 1.0% pa
Real Long-term 'Gap'[2]	1.0%	-1.0%

[1] Wage Price Index (WPI) inflation, [2] Difference between WPI inflation and discount rate

The impact of these alternative economic assumptions is shown below.

Table 12.2 – Economic sensitivities

	OSC Impact	
	$m	%
31 Dec 21 OSC estimate (Including risk margin at 75% POS)	4,501	
Stronger Economic Scenario (1% gap between inflation and discount rate)	-548	-12%
Weaker Economic Conditions (-1% gap)	+900	+20%
Updated Yield Curve (28 Feb 2022 Yield Curve)	-136	-3%

Economic conditions are still currently unfavourable for scheme performance relative to long term historical norms. If conditions do improve the implications for both funding and premiums are favourable; for example, in the strong scenario the discounted liabilities reduce by over $500m. Of course, conditions can also move the other way, as they have a number of times over the last few years. As an example of this, if we updated the valuation to the February yield curve, this could decrease the liabilities by $136m (noting that we have not considered whether the inflation assumptions would also need to change in constructing this sensitivity).

The very high discounted mean term of the liabilities means economic impacts have a very leveraged impact on the liabilities.

12.3 Legal risk and behavioural response scenarios

As discussed in Section 4, there are currently high numbers of disputes in the scheme and the duration of open disputes is high. Further, a number of key provisions of the RTW Act are still subject to new areas of legal challenge.

The table below indicates the sensitivity of the results to scenarios regarding disputes around WPI assessments. It is likely that if the legal environment is either better or worse than we have implicitly assumed, then several experience changes could happen together.

Table 12.3 - Legal sensitivities

	OSC Impact	
	$m	%
31 Dec 21 OSC estimate (Including risk margin at 75% POS)	4,501	
WPI assessments increase by 2% as a result of the higher incentives under the RTW Act, resulting in extra Serious Injury claims and higher lump sum payments.	+457	+10%
Summerfield - upper scenario	+275	+6%
Additional Summerfield Serious Injury claim numbers growth in line with additional injuries added at the same point of development, plus 2% p.a. additional behaviour growth	+456	+10%

As indicated in the sensitivities above, if the WPI assessment provisions in the RTW Act do not work as intended it is possible, indeed likely, that the impacts could be measured in hundreds of millions.

As an example of the potential for behavioural changes to impact scheme costs, if the *Summerfield* impact progresses to be more like the upper scenario, then the provision would increase by another $275m. In a scenario where post-Summerfield Serious Injury claims grow in line with the number of claims adding 'additional injuries' (see Figure 9.10) then liability increases of $450m would eventuate.

12.4 Expenses scenario

The adopted claims handling expenses deteriorate further then the loading could be tens of millions higher as shown below.

Table 12.4 – Expenses sensitivities

	OSC Impact	
	$m	%
31 Dec 21 OSC estimate (Including risk margin at 75% POS)	4,501	
Scheme expenses are higher than allowed (16.5% for STC and 8.5% for Serious Injuries)	+42	+1%

12.5 Short term claim scenarios

The implementation of the RTW Act brought significant change to the scheme and areas of change in the scheme's culture. In the last one to two years there have been areas of claim outcomes where these improvements might not be being maintained – for example dispute numbers have grown over time and look more like was seen under the previous long tail scheme – and it is possible that the early changes in the scheme's experience might not be sustained if patterns of behaviour revert towards those of past years. On the other hand, it is possible that the scheme experience could outperform current projections if more favourable changes in claims management and behaviour of scheme participants can be achieved.

Table 12.5 summarises a number of sensitivities that help demonstrate the potential for variability in the Short Term Claim cohort.

Table 12.5 – Short Term Claim sensitivities

	OSC Impact	
	$m	%
31 Dec 21 OSC estimate (Including risk margin at 75% POS)	4,501	
Claim numbers		
Hearing Loss numbers increase by 20%, noting that numbers have more than tripled over the last 3 years.	+39	+1%
Income Support		
Deterioration in continuance rates by 5% points at each development quarter and associated percentage change in PPACs with flow on increases to Medicals	+50	+1%
Front end IS continuance rates return to the best of recent experience in last 5 years	-22	-0%
Treatment costs		
Late surgery costs emerge more than expected, approximately double the current allowance	+24	+1%
Superimposed inflation continues at 2% for Medical	+26	+1%
Legal fees		
Contract Legal costs increase in line with dispute numbers	+18	+0%
Higher average cost of legal fees for all claims due to disputes progressing further in the disputation process	+48	+1%
Lump Sums		
First Paid and Economic Loss lump sum numbers increase in line with IS numbers	+11	+0%
First Paid and Economic Loss lump sum numbers reduce to 2015 levels for RTW Act claims	-67	-1%
Economic Loss lump sum sizes emerge 10% higher than expected	+19	+0%
Transitional lump sum disputes and assessments continue to run at a high volume for the next three years	+15	+0%
A higher than assumed proportion of claims do not get an EL payment	-40	-1%

These scenarios illustrate some of the key areas of uncertainty for Short Term claim costs including:

- If Hearing Loss Claim numbers continue to deteriorate beyond current levels (by around 20% extra claims), this could add around $39m to the provision. This scenario focuses on recent reporting periods, where much higher numbers of Hearing Loss claims have begun to emerge; if the whole (very long) tail of the projection began to emerge at much higher levels then the financial impacts could be much larger.
- A reversal of recent improvements in RTW outcomes would increase Income Support and flow-on costs by around $50m.
- An improvement in RTW rates to be in line with the best of the last 5 years exit rate experience, just on the first development year, would reduce the liability by around $22m. This scenario assumes the number of claims reaching 10 days of lost time does not change, but in reality this can also be influenced by claim management actions; improvements in the number of claimants

who commence income support benefits have the potential to lead to much more significant financial savings.

- Treatment costs:
  - Higher numbers of late surgeries – for example, if there was a behaviour change whereby claimants seek to have more surgeries covered by the workers compensation system, this could add $24m to the provision.
  - A superimposed inflation allowance of 2% for Medical payments (like it was at the previous valuation) would add $26m back into the provision.
- Should dispute volumes continuing to increase and disputes progress further in the disputation process, close to $50m could be added to legal costs. In addition, if Contract Legal costs increase over time as a consequence of the growth in dispute numbers, then liability increases of around $18m are possible.
- Lump sums:
  - For a number of RTW Act periods the lump sum numbers are currently tracking lower than pre-reform levels, which we continue to interpret as mainly being a 'slowdown' rather than a 'reduction' in lump sums. If this is not the case, and there is in fact improvement in lump sum experience to the lowest recent level seen, this could result in a release of up to $67m in the provision.
  - On the other side, there are currently pressures on economic loss lump sum sizes and a 10% increase would add $19m to the provision.
  - If the transitional project continues to run at a similar level of newly commenced WPI assessments for the next three years, it would add around $15m to the provision for lump sums; there would also be additional legal, medico-legal and claims handling costs beyond this amount.
  - If a higher proportion of lump sum claims are not eligible for economic loss payments, this could lead to a release of $40m in the provision.

12.6 Serious Injury scenarios

With significantly higher benefits available to Serious Injury claims, the numbers of claimants becoming eligible for these benefits will have significant financial consequences for the scheme. In addition, with an increasing proportion of future claims liabilities relating to Serious Injury claims, changes in life expectancy and escalation of costs for Serious Injury claims costs will also have significant financial impacts.

Table 12.6 – Serious Injury sensitivities

	OSC Impact	
	$m	%
31 Dec 21 OSC estimate (Including risk margin at 75% POS)	4,501	
Ultimate SI numbers grow at 5% and wage exposure per year from 2018 on	+211	+5%
Late emergence pattern for 2017 and 2018 is in line with older years, and continues for all RTW Act periods	+194	+4%
Return to work rates improve with RTWSA initiatives	-80	-2%
Unpaid care on EnABLE cohort ceases immediately and is replaced with paid care	+159	+4%
Uncertainty around mortality - impact of all EnABLE claims with mortality in line with standard population life expectancy	+422	+9%
Superimposed inflation is 1% p.a. higher than assumed for medical and care, whether due to higher utilisation of services such as care and treatment, or from increasingly expensive treatments, above average award wage increases for carers, increased pressure as current unpaid family carers age, etc.	+534	+12%
Superimposed inflation is 1% p.a. lower than assumed for medical and care.	-394	-9%
No increase in utilisation of Care benefits after age 65	-74	-2%
Twice the additional allowance for utilisation of Care benefits after age 65	+67	+1%
Upon hitting retirement, a number of Non-EnABLE claimants cease engagement with the scheme and claim fewer medical benefits	-152	-3%
Uncertainty around mortality - impact of removing the allowance for mortality improvement for identified claims and immediately reflecting any change in the average size applied to pre and post Summerfield IBNR numbers	-90	-2%

Because of the very long tail of Serious Injury claims and the consequent leverage in the scheme's financial results, the scenarios illustrate some very large potential changes in the outstanding claims liability.

We emphasise that there is significant uncertainty around ultimate claim numbers, as indicated by the following scenarios:

- Our current ultimate claim numbers for 2019 and more recent accident years are based on the average frequency from the 2016 to 2018 accident years, despite our current estimate of ultimate numbers increasing from 2016 to 2018. If this represents a trend due to behaviour changes, and numbers consequently continue to grow from 2018 on at growth of 5% p.a. then there will be a roughly $210m increase. This is a material impact compared to some of the other sensitivities, with these accident years also having greater implications for the average premium rate.
- If the increase in Serious Injury claim numbers being identified at early durations for more recent accident years does not result in fewer late identifications (i.e. there continues to be a tail of newly recognised claims) then the increase to the provision would be around $190m. The current interpretation that the increase in numbers at earlier durations is at least partly a speed up in the identification pattern is very important in the context of both outstanding claims liability and average premium rate.
- For Other Serious Injury claims, we currently assume no change in the utilisation of Medical and Treatment benefits beyond development half year three; however, it is common for some reduction in Medical costs post retirement for long-term claimants. If this is also the case for this cohort then a reduction of up to $150m is plausible.

Changes in the level of benefits payable for care, support and medical needs also have very significant implications for the OSC liability. Conversely, if recently commenced programs manage to help more participants return to work than in the past then this will help to reduce the OSC liability.

12.7 Key uncertainties

There is considerable uncertainty in the projected future claim costs, in particular around how and when claims are determined to be Serious Injuries.

The main areas of uncertainty in our current estimates of the liabilities are:

- **The impacts of *Summerfield*** - as discussed in Section 9 there is no reliable history on which to estimate the cost of *Summerfield*, and we are already observing signs of claimants changing their behaviour by seeking to add more injuries to their claim. Although we believe we have constructed plausible scenarios given information available, the uncertainty is very high (as demonstrated by the range between our low and more adverse scenarios). In particular, the ability of claimants and their advisors to achieve higher WPI scores than in the past, and how they respond to these incentives, will be the key determinant of the ultimate financial outcomes. Given the high level of legal involvement in the scheme, the risk of adverse behavioural change is high.
- **Legal precedent risk** – risks here relate to the possibility of decisions which are unfavourable to the scheme or the culture and behaviour of its participants. Given the very high volume of open disputes, despite a number of apparently 'key cases' having resolved over recent years, this risk is also assessed as high. Until a clear and decisive legal position is established as to how the scheme should operate in practice, this risk will remain.
- **WPI assessments** – under the RTW Act, there are significant differences between the compensation available to claims above the 30% WPI threshold and those below. Even below 30% WPI, small changes in the WPI score can equate to many tens of thousands of dollars in some cases in the lump sum for future economic loss payable to Short Term claims. The scheme will face significant financial consequences if this leads to any form of 'WPI creep'. The robustness of the 'once and for all' WPI assessment rules under the RTW Act is an important area of risk.
- **Serious Injury claim costs** – these claims are entitled to benefits for life, and the risks for this group relate to factors that are common across most claims, and deviations from our assumptions could therefore compound across multiple years. For the current valuation the key uncertainties are:
  - **Ultimate numbers of claims** – there are several areas of uncertainty in relation to Serious Injury claim numbers. These include the impact of late emerging claimants (whether due to delayed WPI assessments, late surgeries, etc) as well as the number of outstanding Serious Injury application disputes and other WPI related disputes that could see claims ultimately meet the 30% WPI threshold.
  - **Life expectancy** – the future life expectancy of Serious Injury claimants has a significant impact on future cost projections.
  - **Cost escalation** – the potential for future cost escalation in a number of medical, care and treatment related items poses a risk. One example is the extent to which care costs that are currently not compensated by the scheme may become compensable in future, as family-based carers age and claimants increasingly require paid attendant care and/or move into residential care facilities; on the flip side of this, we have in the past seen that less severely injured claims will often cease their connection to the scheme once they reach retirement age, and if this occurred it could lead to lower costs. Another example is the potential increase in costs for care related specialists due to competition with the NDIS.
- **Claim durations for Short Term Claims** – over the last 12 months we have seen improvement in claim durations, after a period of deterioration between 2018 and early 2020. It is not yet clear at what level RTW rates will be sustained over time, nor on the number of claimants who will commence getting paid income support benefits.

- **Outcomes for claims with current disputes** – risks here include the possibility of decisions which are unfavourable to the scheme, as well as the behavioural consequences of so many disputes remaining. Open dispute numbers remain high and more claims are moving into the later stages of the dispute resolution process at which much higher legal costs eventuate.
- **Hearing loss claim numbers** – there has been unprecedented growth in hearing loss claim numbers in the last few years, and the valuation basis has been lagging this growth. If the upward pressure continues then further increases are likely.
- **Economic environment** – there is considerable uncertainty in financial markets, and this has impacted the discount rates used to determine the valuation results, which are low by historical standards. While employment related impacts have been less significant than originally feared they might be, there is still a higher than normal risk that the economic environment could change in adverse ways.
- **COVID-19 impacts** – while the impacts on claim outcomes to date have been modest, there is still uncertainty about how COVID-19 will impact over time. If the health and/or economic situation changes for any reason, for example if there is an unexpected spike in infections linked to the workplace, this could potentially lead to material disruption to claim outcomes.

Even though the RTW Act provisions commenced 6.5 years ago, there are still key areas of the Act being tested in the courts, and it is still not clear how many Serious Injury claims will ultimately emerge. The current valuation basis reflects our best estimate of how this experience will eventuate. Over time, our basis will further reflect the developing post-reform experience, and it is possible that the experience will differ materially from our current expectations.

13 Reliances and limitations

Our results and advice are subject to a number of limitations, reliances and assumptions. The main ones are outlined below.

13.1 Reliance on data and other information

We have relied on the accuracy and completeness of the data and other information (qualitative, quantitative, written and verbal) provided to us by ReturnToWorkSA for the purpose of this report. We have not independently verified or audited the data, but we have reviewed the information for general reasonableness and consistency. The reader of this report is relying on ReturnToWorkSA and not Finity for the accuracy and reliability of the data. If any of the data or other information provided is inaccurate or incomplete, our advice may need to be revised and the report amended accordingly.

An important additional data reliance at this valuation is the input from ReturnToWorkSA's internal and external legal advisors, including from the review of claim files to identify claims who will be impacted by the *Summerfield* decision.

13.2 Uncertainty

13.2.1 Emergence of key legal precedent

Realising the expected long-term financial savings from the RTW Act depends on the effectiveness of maintaining the boundaries in practice. Any legal precedent that causes 'slippage' in the application of the boundaries will have an unfavourable impact on scheme costs.

The denial of the *Summerfield* appeal to the High Court is a specific example of this – depending on how successful ReturnToWorkSA is in operational mitigation strategies to this precedent the claim liabilities have the potential to be many hundreds of millions higher or lower than estimated.

There continues to be an unusually high number of cases on appeal to the Supreme Court and until these cases are resolved (and resolved with clarity around the operational implementation of the relevant provisions) there will be uncertainty as to the financial costs which eventuate under the RTW Act benefit package.

13.2.2 Other uncertainty

There is considerable uncertainty in the projected outcomes of future claims costs, particularly for long tail claims; it is not possible to value or project long tail claims with certainty. Our payment projections for Serious Injury claims, in particular, include payments which are expected to occur many decades into the future.

We have prepared our estimates on the basis that they represent our current assessment of the likely future experience of the scheme. Sources of uncertainty include difficulties caused by limitations of historical information, as well as the fact that outcomes remain dependent on future events, including legislative, social and economic forces, and behaviour by scheme stakeholders such as Corporation management, claimants and claims agents.

In our judgement, we have employed techniques and assumptions that are appropriate and the conclusions presented herein are reasonable given the information currently available, subject to our comments above. However, it should be recognised that future claim outcomes and costs will likely deviate, perhaps materially, from the estimates shown in this report.

The uncertainty at the current valuation is heightened by the need to allow for the impacts of the RTW Act. While its key features came into effect back in July 2015, legal testing of its implementation is still occurring and is likely to take a number of years to complete, as noted above.

Our valuation assumes a continuation of the current environment with allowance for known changes where we have been able to quantify or estimate the effects. It is possible that one or more changes to the environment could produce a financial outcome materially different from our estimates.

13.2.3 COVID-19 impacts

The uncertainty at this valuation is heightened by the known and potential future impacts of COVID-19 and its associated lockdowns. Considerable uncertainty remains around the potential impacts over the next few years, and potentially even longer. The actual impacts of COVID-19 on claim outcomes may be materially different from what we have assumed.

13.3 Latent claims

We have made no allowance for catastrophic aggregation of claims from latent sources (such as claims relating to asbestos) other than as reflected in the data and information we have received. Latent claim sources are those where the date of origin of a claim is many years before the claim is reported.

There has been a lot of focus on potential new sources of silicosis claims recently, but at this time it does not appear that ReturnToWorkSA is impacted anywhere near as much as some of the Eastern states. While there are negligible claims to date, information from the recent external screening program has identified a group of just over 20 workers with evidence of silicosis or other lung diseases. As such, it now seems more likely that silicosis claims could emergence over time, and we will continue to monitor developments regarding this area of risk.

13.4 Reinsurance

We understand that there is no reinsurance program in place in relation to any of the liabilities we have valued.

13.5 Limitations on use

This report has been prepared for the sole use of ReturnToWorkSA's board and management for the purpose stated in Section 2. At ReturnToWorkSA's request, we consent to the release of this report to the public, subject to the reliances and limitations noted in the report.

Third parties, whether authorised or not to receive this report, should recognise that the furnishing of this report is not a substitute for their own due diligence and should place no reliance on this report or the data contained herein which would result in the creation of any duty or liability by Finity to the third party.

While due care has been taken in preparation of the report Finity accepts no responsibility for any action which may be taken based on its contents.

Finity has performed the work assigned and has prepared this report in conformity with its intended utilisation by a person technically competent in the areas addressed and for the stated purpose only. Judgements about the conclusions drawn in this report should be made only after considering the report in its entirety, as the conclusions reached by a review of a section or sections on an isolated basis may be incorrect.

This report, including all appendices, should be considered as a whole. Finity staff are available to answer any questions, and the reader should seek that advice before drawing conclusions on any issue in doubt.

Any reference to Finity in reference to this analysis in any report, accounts or any other published document or any other verbal report is not authorised without our prior written consent.

14 Scheme history

This section summarises the key events and changes in the scheme since major reforms in 2007.

2007-08

Changes to the Workers Rehabilitation and Compensation Act passed by the South Australian Parliament. The key aim was to place greater focus on earlier rehabilitation and return to work outcomes.

2008-09

Key components of the 2008 legislative changes commenced: earlier step-downs for IS claims; Work Capacity Assessment; changes to non-economic loss payments; changes to the dispute resolution framework (including Medical Panels introduced); provisional liability.

2009-10

- 'Window' for continuation of redemptions under previous legislation closed 1 July 2010.
- Replacement of IT system IDEAS with Curam.
- Change to process for reimbursement of weekly payments to employers.
- Initial projects commenced under the $15m Return to Work Fund.

2010-11

- Bonus/Penalty scheme for employer levies discontinued.

2011-12

Claims estimates introduced for all claims.

2012-13

- New employer payments scheme commenced 1 July 2012, with compulsory experience rating for medium and large employers, and optional 'retro paid loss' arrangement for large employers.
- Second claims agent, Gallagher Bassett, commenced 1 January 2013 (Employers Mutual Limited had been the sole agent since 1 July 2006).
- Second legal service provider, Sparke Helmore, commenced 1 January 2013.

2014-15

The **Return To Work Act 2014** was passed in late 2014, with major changes to the scheme and claimant entitlements. Key provisions took effect 1 July 2015.

The main features of the reforms, for claims occurring from 1 July 2015, were:

- A tighter link between employment and injury before compensation is available.
- For Seriously Injured workers: ongoing benefits, reduced emphasis on RTW, access to common law benefits for economic loss.
- Introduction of boundaries on claim duration for 'non-serious injuries': 104 weeks for weekly benefits and 52 weeks thereafter for medical costs.
- New lump sum payment for loss of future earning capacity for non-serious injuries with WPI of 5% or more.

A number of **Regulations** in June 2015 impacted on the operation of the RTW Act. The changes related to pre-1 July 2015 injuries and allow:

- ‘Top-up’ payments for non-economic loss in limited circumstances; approval to seek further compensation was required before 1 July 2016.
- Coverage of future surgeries and up to 13 weeks of IS benefits for existing non-Serious Injuries, even if surgery falls outside the standard time boundaries.

2015-16

The premium system was changed so that nearly all employers were subject to experience rating, but under a new and much simpler system.