



Australian Government
Australian Government Actuary

Eighteenth report on the costs of the Australian Government's Run-Off Cover Scheme for medical indemnity insurers

2021-22 financial year



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1 INTRODUCTION

1.1.1 This report has been prepared to comply with certain requirements of the *Medical Indemnity Act 2002* (Medical Indemnity Act). Section 34ZW of the Medical Indemnity Act provides for a report on aspects of the Run-Off Cover Scheme (the Scheme) to be published each year on the Department of Health and Aged Care's website. The report is required to contain a statement of the:

- number of persons eligible for membership of the Scheme
- total Run-Off Cover indemnity payments (ROC indemnity payments) paid by the Commonwealth during the financial year, including claims handling and administration expenses
- total Run-Off Cover support payments (ROC support payments) paid to the Commonwealth during the financial year
- a projection of the Commonwealth's liabilities in relation to amounts of Run-Off Commonwealth contributions in future financial years.

1.1.2 This is the eighteenth report that has been prepared under section 34ZW of the Medical Indemnity Act. It relates to financial year 2021-22. The seventeenth report was published on 28 July 2022¹. The requirement for the report to be tabled in Parliament was removed after the fifteenth report.

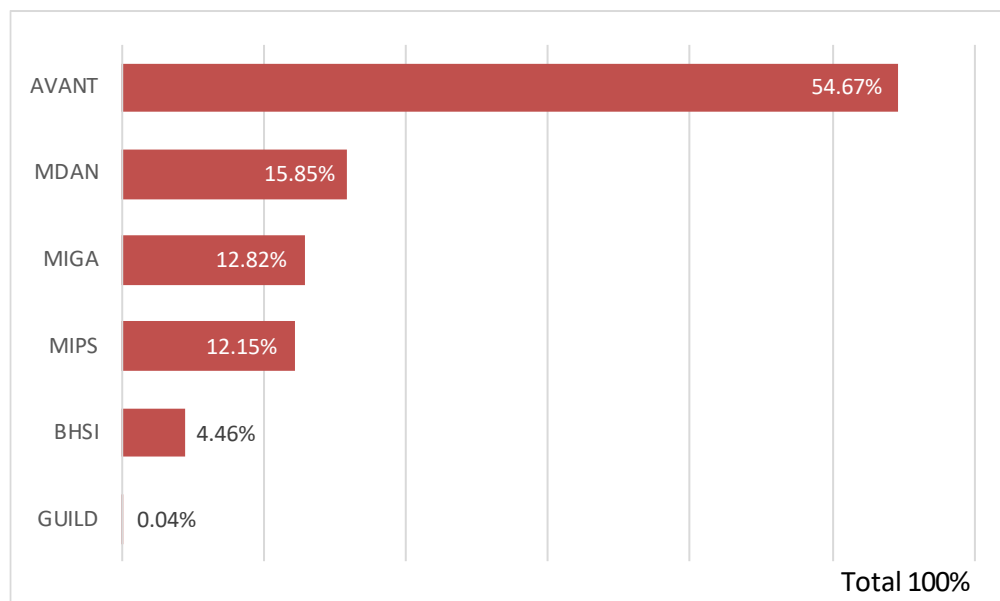
¹ www.ag.gov.au/publications/insurance

2 BACKGROUND

2.1 MEDICAL INDEMNITY INSURANCE

- 2.1.1 Medical indemnity insurance is a form of professional indemnity insurance. It covers practitioners for their professional negligence.²
- 2.1.2 Medical practitioners who undertake private medical practice in Australia generally purchase medical indemnity insurance from private sector underwriters.³ This report considers the six private sector underwriters operating in Australia during 2021-22. They were Avant Mutual Group Limited (Avant), Medical Indemnity Protection Society (MIPS), MDA National (MDAN), Medical Insurance Group Australia (MIGA), Guild Insurance (Guild) and Berkshire Hathaway Specialty Insurance Company (BHSI) distributed by Tego Insurance. Figure 1 below illustrates the market shares of these private underwriters calculated on the basis of premium data provided by them.

Figure 1: Market share of medical indemnity insurers



2 Medical indemnity insurance can also cover other costs such as those associated with appearing at coronial inquiries.

3 On the other hand, many employed practitioners such as medical practitioners practising solely in a hospital will be indemnified by their employer against negligence.

- 2.1.3 Medical negligence claims are initiated by, or on behalf of, patients against medical practitioners. Roughly 2,000 claims of negligence might be expected each year in relation to private medical practice in Australia. However, there can be substantial variation from one year to the next. It is difficult to project the number of medical indemnity claims with any precision. A significant number of claims will be successfully defended.
- 2.1.4 The cost of medical negligence claims is highly variable since the claims relate to bodily injury. The cost of a medical negligence claim to the insurer comprises of damages which are payable to the plaintiff, any of the plaintiff's legal costs which the insurer is obliged to pay, and the insurer's own costs of defending and managing the claim. According to the updated data obtained from the National Claims and Policies Database (NCPD) for the period between 2003 and June 2022, while most claims are finalised for less than \$100,000, a small number of claims are large (around 2.5 per cent of claims cost more than \$500,000, down from 6 per cent based on the 2017 NCPD data). These large claims have a significant impact on the overall cost of medical indemnity insurance. The NCPD data shows that around 50 per cent of the cost of all finalised medical indemnity claims relates to claims which are larger than \$500,000. This is down from 65 per cent based on the 2017 NCPD data.
- 2.1.5 The medical indemnity claim process can be long. Years can elapse between the date of a negligent medical incident and the date that legal action against the practitioner is initiated. It is not unusual for claims to then take several years to finalise after they have been initiated. It is common for the whole process to take more than five years for a single claim. The cost of a claim depends significantly on economic and judicial conditions prevailing at the time the claim is finalised (paid), rather than at the time of the medical incident or the time that the claim is made.
- 2.1.6 All of these factors make medical indemnity insurance difficult for an insurer to underwrite. It is hard to forecast claim numbers and claim sizes reliably. Moreover, much of the cost is likely to relate to a small minority of the claims, which adds further uncertainty. As a result, it is difficult to know how much premium to charge and how much money to hold in reserve to pay claims. For these reasons, a robust private market in medical indemnity insurance requires professional and disciplined underwriting and management.

2.2 BRIEF HISTORY OF PRIVATE MEDICAL INDEMNITY INSURANCE IN AUSTRALIA – THE LEAD-UP TO THE RUN-OFF COVER SCHEME

- 2.2.1 Historically, medical indemnity cover was provided to Australian medical practitioners in private practice by medical defence organisations (MDOs). MDOs were not licensed insurers and were therefore not subject to prudential regulation.
- 2.2.2 Medical indemnity cover was originally provided to practitioners on a so-called 'claims-occurring' basis. Practitioners were protected against claims that might be made in relation to the medicine that they had practised while members of the MDO. Thus, practitioners who had claims made against them after retirement could seek assistance from their MDO provided that they had been members at the time of the medical incident. Medical indemnity is difficult to underwrite on a 'claims-occurring' basis, partly due to the often lengthy delays between the date of medical incident and the time at which a claim is initiated.
- 2.2.3 During the 1990s, most MDOs came under financial pressure as a result of increasing levels of claim payments and were forced to make calls on their members for additional funds.
- 2.2.4 At the same time, most MDOs progressively changed the basis of their cover from 'claims-occurring' to 'claims-made'. In simple terms, claims-made cover provided protection for the practitioner against claims that were made during the period of membership. Thus, to continue to be covered against claims that might emerge in relation to past medical practice, a medical practitioner had to continue their MDO membership. Professional indemnity insurance is generally provided on a 'claims-made' basis.
- 2.2.5 In 2002, Australia's largest MDO, United Medical Protection (UMP), was placed in provisional liquidation. Following this, steps were taken to stabilise the medical indemnity industry.
- 2.2.6 Since 1 July 2003, medical indemnity insurance has been required to be provided to Australian practitioners by insurers licensed under the *Insurance Act 1973* and prudentially supervised by Australian Prudential Regulation Authority (APRA). This has ensured a more disciplined approach to risk management and has reduced the risk of failure of a medical indemnity provider.
- 2.2.7 Consistent with more disciplined risk management, all medical indemnity insurance is now provided on a 'claims-made' basis. Consequently, medical practitioners have to maintain insurance in order to remain covered against

claims that might emerge, even when they are no longer practising. This form of insurance cover is known as run-off cover. Put simply, run-off cover provides insurance for medical practitioners who have ceased medical practice. The potential lengthy delay between a medical incident and the corresponding claim highlights the need for medical practitioners to maintain run-off cover after ceasing practice.

- 2.2.8 For some medical practitioners, the annual cost of medical indemnity insurance runs into the tens of thousands of dollars. To address problems associated with the cost of run-off cover, including the potential threat to the provision of medical services, a scheme was established by the Australian Government which requires medical indemnity insurers to provide run-off cover⁴ to certain groups of medical practitioners who have ceased private practice. The Scheme was intended to be largely cost neutral to taxpayers whilst not threatening the viability of the insurance companies. This scheme is known as the Run-Off Cover Scheme.

2.3 WHAT IS THE RUN-OFF COVER ARRANGEMENT?

- 2.3.1 The Scheme facilitates the provision of medical indemnity insurance cover to particular groups of medical practitioners who have ceased private medical practice.
- 2.3.2 The rules for the Scheme appear in the *Medical Indemnity (Prudential Supervision and Product Standards) Act 2003* (PSPS Act), the *Medical Indemnity (Run-off Cover Support Payment) Act 2004* (MI ROCSPA) and the *Medical Indemnity Act 2002*. The principal elements of the Scheme are:
- The PSPS Act imposes an obligation on insurers to provide run-off cover to particular groups of medical practitioners who have ceased private practice.
 - The Medical Indemnity Act provides for the Commonwealth to make payments to the insurers to reimburse the costs of eligible run-off claims. These payments are known as ROC indemnity payments.
 - The Medical Indemnity Act provides for the Commonwealth to make other payments to insurers to offset the relevant costs of administering the Scheme that are incurred by insurers.

4 The premium for the run-off cover is zero for medical practitioners who have ceased private practice. However, they pay a levy on their premiums during the period of private practice.

- The Medical Indemnity Act also provides for the insurers to make payments to the Commonwealth to ensure that the Scheme is largely cost-neutral to taxpayers. These payments are a levy on insurers' premium income funded by a loading on practitioners' medical indemnity insurance premiums. These payments are known as ROC support payments. The MI ROCSPA sets out the rules for calculating ROC support payments.
- 2.3.3 The Scheme provides for ROC support payments to be made by medical indemnity insurers to the Commonwealth and for ROC indemnity payments to be made by the Commonwealth to medical indemnity insurers (MIIs) and MDOs. Ancillary arrangements provide for payments to cover other costs such as administrative costs.
- 2.3.4 The Scheme provides for ROC support payments to be made by eligible insurers to the Commonwealth and for ROC Commonwealth contributions to be made by the Commonwealth to eligible insurers.
- 2.3.5 An important financial dynamic of the ROC Scheme is the timing mismatch between the payment of ROC support payments by an eligible insurer and the emergence, payment and reimbursement of professional indemnity claims of eligible practitioners who are no longer in private practice. The first ROC support payments were received on 30 June 2011. The ROC Scheme applies to eligible professional indemnity claims that are first notified to eligible insurers on or after 1 July 2004. As a result of inherent delays in the claims process, it is to be expected that the level of ROC support payments will be greater than the level of ROC Commonwealth contributions for many years. This has been demonstrated in the experience of the Run-Off Cover Scheme for medical practitioners. That is, in a cash flow sense, the ROC Scheme is still immature. It will be considered mature when income from ROC support payments and expenditure on ROC Commonwealth contributions are consistently of a similar order of size. Although ROC support payments have risen significantly in recent years, more time is required to examine their persistence.

3 DATA

3.1 DATA COLLECTION

- 3.1.1 For the purpose of preparing this report, certain data was collected from the MIs by Services Australia during late 2022 including:
- details of practitioners who were identified as having become eligible for membership of the Scheme before 30 June 2022
 - details of claims (including incidents) notified to MIs and MDOs by 30 June 2022 which might eventually become eligible for reimbursement under the Scheme
 - details of ROC support payments⁵
 - actuarial estimates of that part of the future claims cost of medical incidents projected to be notified during the 2022-23 to 2026-27 financial years which is expected to be reimbursed under the Scheme
 - actuarial estimates of that part of the future claims cost of medical incidents occurring during 2022-23 which is expected to be reimbursed under the Scheme.
- 3.1.2 This report also utilises other data and information including that which was previously provided to Services Australia for the purpose of section 34ZW of the Medical Indemnity Act.
- 3.1.3 This year, we have also collected claims data from the National Claims and Policies Database (NCPD) administered by the Australian Prudential Regulation Authority (APRA) to review our assumptions. The last time we performed this exercise was around five years ago.

3.2 DATA VERIFICATION

- 3.2.1 The results in this report rely heavily on information provided by MIs and their actuaries. This information is regarded as the most suitable information available for the current purpose.

5 A database of ROC support payments is maintained by Services Australia.

- 3.2.2 Steps were taken to ensure, as far as practicable, that the information provided was prepared on a basis suitable for the purpose. Despite this, it is not possible to guarantee that the information provided is free from material error. The information was not independently audited. As was the case in previous years, there were some notable disparities in the data provided. Reasonable adjustments were made to the data. This means that figures and estimates provided in this report need to be treated with some caution.
- 3.2.3 Historically, MII/MDOs have not maintained data in a form which is directly amenable to ROC analysis. For example, it has not been possible to establish a comprehensive list of medical practitioners who were eligible for the Scheme on 1 July 2004. This is not a criticism of the MII. It simply reflects that their business and information systems were not developed with a scheme like the Run-Off Cover Scheme in mind. However, in order to monitor the operation of the Scheme effectively, accurate and timely data is obviously important.
- 3.2.4 A range of assumptions were used by industry actuaries. Guidance was provided as to the nature of the data, calculations and information required. Although some significant assumptions differ by only a few percentage points between actuaries, substantially different estimates of Scheme costs are produced. This is indicative of the highly uncertain nature of estimates of the costs of the Scheme.
- 3.2.5 All insurers were asked to specify whether their data has allowed for the latest changes in legislation as well as the impact of COVID-19. Their responses helped us to determine whether adjustments were appropriate.
- 3.2.6 In general, the results in this report are based on both the estimates provided by industry actuaries and the data provided by Services Australia. We have also had regard to the model developed within this office to determine the amount of the new accrual.

3.3 NUMBER OF ELIGIBLE PRACTITIONERS

- 3.3.1 Appendix 1 sets out the test of eligibility for the Scheme and the process of issuing and notifying compulsory run-off cover to eligible practitioners. Eligible practitioners are entitled to receive notification of the terms and conditions of compulsory run-off cover from their MII. MII are also required to notify Services Australia of the details of the compulsory run-off cover provided.

- 3.3.2 Practitioners performing private practice become eligible for the Scheme by means of permanent retirement⁶, death, permanent disability or maternity leave. In addition, medical practitioners from overseas who have worked in Australia under an appropriate visa become eligible for the Scheme when they have permanently ceased medical practice in Australia and ceased to reside in Australia.
- 3.3.3 There are inherent lags involved in notification of the details of eligible practitioners to Services Australia. As a result, it is only possible to estimate the number of practitioners who have become eligible for the Scheme at any given time. For example, there will often be a delay between the time that a practitioner becomes eligible for the Scheme and the time when the insurer becomes aware of this. It is also likely that an insurer is unsure of the eligibility status of a practitioner from year to year. For example, a practitioner that has not renewed their insurance may, or may not, be eligible for cover. For these reasons, the numbers of eligible practitioners reported by insurers needs to be treated with caution. This report summarises the number of practitioners that have become eligible for the scheme as reported by the insurers. We have also attempted to estimate the total number of practitioners currently eligible at 30 June 2022 by removing the practitioners whose eligibility subsequently ceased⁷ and removing multiple entries. Multiple entries are usually associated with maternity leave taken at different time periods.
- 3.3.4 The number of practitioners who have become eligible for the Scheme in this report is based on:
- data provided to Services Australia by the medical indemnity industry relating to practitioners identified as having become eligible between 1 July 2004 and 30 June 2022

6 There used to be a three-year waiting period for practitioners who retired under age 65. This has been waived from 1 July 2020 as legislated in the *Medical and Midwife Indemnity Legislation Amendment Act 2019* (Amendment Act).

7 Since last year, we have not removed practitioners whose eligibility ceased on or after 1 April 2020. This is because the *Medical Indemnity Rules 2020* stipulates a temporary exemption, which allows ROCS eligible practitioners to return to private practice in order to provide treatment during the COVID-19 pandemic without the practitioner losing their eligibility under the ROCS. This exemption has been extended several times and is currently scheduled to end on 21 September 2023.

- industry estimates of practitioners eligible for the Scheme as at 1 July 2004, provided for the purpose of the 2004-05 report.

3.3.5 We have relied almost entirely on the eligibility data provided by the industry. As has been the case in all previous reviews, data changes from year to year and inconsistencies within data undermine the reliability of the information. Table 1 summarises the data provided by the industry.

Table 1: Run-Off Cover Scheme eligible practitioners

Eligible from	2022	2021
Start up (that is 1 July 2004)	2,112	2,112
2004-05	328	329
2005-06	484	485
2006-07	533	536
2007-08	600	601
2008-09	532	532
2009-10	611	614
2010-11	826	827
2011-12	913	914
2012-13	1,070	1,073
2013-14	1,342	1,349
2014-15	1,402	1,404
2015-16	1,381	1,381
2016-17	1,571	1,569
2017-18	1,761	1,769
2018-19	1,864	1,870
2019-20	2,177	2,149
2020-21	2,105	1,404
2021-22	1,994	N/A
Total number of practitioners at 30 June 2022	23,606	20,918

3.3.6 We estimate that at least 23,606 practitioners were eligible for ROCS at 30 June 2022. If a practitioner had multiple entries, we have used the most recent eligibility start date in Table 1. Ordinarily, we exclude all practitioners whose eligibility has subsequently ceased as shown in the data.

3.3.7 Historically, we also excluded practitioners who appeared to have returned to private practice as evidenced by their material ROCS contributions during the most recent year. This approach is more closely aligned with the requirement of the Medical Indemnity Act. However, the ROCS eligible practitioners who returned to private practice since 1 April 2020 for the purposes of COVID-19 should have retained their ROCS eligibility, hence, should not be removed in Table 1. Since it may be difficult in practice to distinguish between practitioners who returned for COVID-19 and those who returned for other purposes, and that insurers can amend the data later, it is conservative to assume all practitioners who returned after 1 April 2020 would later be rendered eligible. Thus, Table 1 made no attempt to exclude them. Furthermore, no steps were taken to exclude ROCS eligible

practitioners who made material ROCS contributions during 2021-22. This approach is consistent with last year.

- 3.3.8 The estimated number of currently eligible practitioners is subject to considerable uncertainty. The usual delay between the time that a practitioner becomes eligible for the Scheme and the time when the insurer becomes aware of this means that the data is likely to be incomplete. However, the material increase in the number of new entrants in 2020-21 since last report is largely due to an oversight last year that inadvertently excluded practitioners under the age of 65 who became eligible immediately after resignation. They were captured separately by Services Australia following the legislative change⁸.
- 3.3.9 Back testing shows that this would not have made any immaterial impact on our valuation, especially since we did not change any of the new accrual model assumptions as a result of the perceived lower number of newer entrants last year.
- 3.3.10 Table 1 shows that that the number of eligible practitioners reported at 30 June 2021, in respect of certain years, decreased slightly by 30 June 2022. Apart from administrative data changes from year to year, this is normally driven by a proportion of the eligible practitioners returning to private practice. For example, a significant number of practitioners who became eligible through maternity leave would have normally ceased eligibility once they returned to work. This is consistent with our assumption that maternity leave is temporary. However, as discussed above, ROCS eligibility is temporarily retained for returned practitioners. The downward revision would have appeared much higher were it not for the adjustments we applied to the insurers' data that retained ROCS eligibility for those with a cessation date on or after 1 April 2020. The remaining small differences are probably attributable to administrative data changes.
- 3.3.11 Table 2 illustrates the breakup of new entrants by reason of eligibility, based on the data provided by the MIs. The numbers are not directly comparable with Table 1 as they include all practitioners whose eligibility has subsequently ceased, and they include multiple entries in different time periods.

⁸ *Medical and Midwife Indemnity Legislation Amendment Act 2019 (Amendment Act)*.

Table 2: Run-Off Cover Scheme new entrants by reason of eligibility

	Industry data									
	2005-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Retired	3,828	721	843	728	895	912	929	1,045	753	843
Maternity	2,389	358	366	389	434	532	508	558	436	415
Permanent disability	264	34	28	39	31	37	28	19	4	3
Died	976	108	123	107	128	100	107	115	94	58
Resigned	1,347	243	176	226	188	265	246	258	684	369
Sub-total	8,804	1,464	1,536	1,489	1,676	1,846	1,818	1,995	1,971	1,688
Other ^(a)	1,303	447	355	366	432	508	547	562	234	329
Total	10,107	1,911	1,891	1,855	2,108	2,354	2,365	2,557	2,205	2,017

(a) Overseas trained doctors who had permanently ceased practice under a 422 or 457 visa.

- 3.3.12 The corrected 2020-21 experience includes immediate access to the Scheme for those resigned under the age of 65. The one-off jump in new entrants in this category in 2020-21 is higher than our anticipated impact of the removal of the three-year waiting period. In the 2020 ROCS report, we projected 515 new entrants from resignation for 2020-21. In hindsight, the past resignations data we relied on at the time was subdued due to reporting delays. Nonetheless, we projected the impact would be a threefold one-off jump in 2020-21. This can be compared to the increase from 258 to 684 i.e. 265%.
- 3.3.13 However, the number of resignations in 2021-22 may be over-stated, especially when compared to the relatively consistent experience prior to the legislative change. Our analysis shows that 117 of these resignations were still recorded under the old category (i.e. with the three-year waiting period). Thus, it is possible that these new entrants should have been counted in 2020-21. We understand that the data was submitted by insurers without any adjustment by Services Australia. On the other hand, the remaining new entrants recorded under the new category in 2021-22 (i.e. 252 resigned under the age of 65 without the three-year waiting period) are still higher than our previous projection of 177. A review of several previous ROCS reports revealed that resignations have consistently been higher than expected. To some extent, this has been a function of the consistent delay in reporting as shown in Table 1.
- 3.3.14 Other than resignation, the numbers of practitioners who became eligible have generally decreased in recent years. Naturally, the number of retired practitioners is expected to grow. As discussed previously, COVID-19 may have temporarily distorted new entrant patterns, particularly around resignation and retirement. The reduction in new entrants through permanent disability and death is also noteworthy, although they are relatively insignificant. To some extent, COVID-19 may have also contributed to lower new entrants through maternity, although this category

is temporary thus less material on the valuation of the Scheme's liability. As is usual, the delays in reporting have likely obscured the real 2021-22 experience. As was the case in previous years, the "Other" category can be ignored as they are not expected to contribute materially to the cost of the scheme.

- 3.3.15 Notwithstanding the above discussion on the impact of COVID-19, the effect is likely to diminish over time. Therefore, we have largely retained the previous long term eligibility assumptions for our new accrual model, except for resignation where actual experience has consistently exceeded our model's projection. This is discussed in more detail in section 4.2. The eligibility assumptions are subject to review each year, and we will continue to monitor and review the experience.

3.4 NUMBER OF CLAIMS ELIGIBLE FOR RUN-OFF COVER INDEMNITY PAYMENTS

- 3.4.1 Appendix 2 describes claims which meet the criteria for reimbursement from the Australian Government through Run-Off Cover indemnity payments. Broadly, MII's and MDO's are entitled to reimbursement from the Australian Government for the costs of claims which:

- are first notified to the MII or MDO on or after 1 July 2004
- relate to a practitioner who is eligible under the Scheme at the date of notification⁹
- meet the other requirements for 'payable claims'.¹⁰

- 3.4.2 As at 30 June 2022, MII's and MDO's had reported 1,406 medical incidents relating to eligible medical practitioners since the commencement of the Scheme. Of these incidents, 498 were shown as 'closed' or 'finalised' with null case estimate¹¹ attached to them, and 46 were shown as 'open' with null case estimate. This leaves 862 incidents where an amount has been or is expected to be paid. They are shown in Table 3.

9 Refer Appendix 1.

10 Refer Appendix 2.

11 Estimate of likely cost to the insurer.

Table 3: Reported incidents by year of eligibility

Eligible from	This year's data	Last year's data
Start up (that is 1 July 2004)	19	17
2004-05	13	12
2005-06	16	13
2006-07	18	14
2007-08	11	11
2008-09	18	18
2009-10	39	41
2010-11	34	29
2011-12	16	17
2012-13	56	50
2013-14	26	21
2014-15	26	28
2015-16	33	37
2016-17	65	62
2017-18	93	86
2018-19	177	87
2019-20	44	37
2020-21	65	19
2021-22	20	N/A
missing	73	16
Total number of reported incidents with a case estimate at 30 June 2022	862	615

3.4.1 Table 3 also shows that the practitioners who became eligible in 2018-19 had the greatest annual increase in the number of reported incidents since last year. This is unusual as the greatest increase is normally associated with the most recent years.

3.4.2 In theory, this data could be used to analyse the development pattern between eligibility commencement and claims being reported. Furthermore, it could be used to derive claim rates. However, this data appears to have numerous issues including internal consistency issues, inconsistencies between insurers and irregular and significant variations from year to year. Therefore, as was the case previously, we have not been able to utilise this data for analytical purposes.

3.5 AMOUNT OF RUN-OFF COVER INDEMNITY PAYMENTS

3.5.1 ROC indemnity payments are the payments made by the Australian Government to MDOs and MIIs as reimbursement of the costs of eligible claims.

3.5.2 Table 4 illustrates the progress of ROC indemnity payments (including indirect claims handling expenses) since the beginning of the scheme. We have relied on the data provided by Services Australia.

Table 4: Run-Off Cover indemnity payments by year of eligibility

Eligible from	This year's data (\$'000)	Last year's data (\$'000)
Start up (that is 1 July 2004)	8,837	8,837
2004-05	1,168	1,168
2005-06	938	938
2006-07	1,816	1,816
2007-08	2,352	2,264
2008-09	7,838	7,838
2009-10	1,348	1,348
2010-11	4,926	4,926
2011-12	1,718	1,718
2012-13	3,801	3,710
2013-14	2,961	2,961
2014-15	3,470	3,470
2015-16	2,972	2,190
2016-17	9,010	8,278
2017-18	3,087	1,628
2018-19	10,412	478
2019-20	1,714	711
2020-21	94	0
2021-22	5	N/A
missing	9,053	6,897
Total Amount of ROC Indemnity Payments at 30 June 2022	77,520	61,177

3.5.3 ROC indemnity payments totalling \$77.5 million (including indirect claims handling expenses) have been made up to 30 June 2022, all of them since 1 July 2007. Specifically, during 2021-22, \$16.4 million in ROC indemnity payments were made.

3.5.4 The Scheme also provides for payments in respect of compliance costs under the ROC Claims and Administration Protocol (section 34ZN of the Medical Indemnity Act). Around \$25.7 million in compliance cost payments have been made to MIs up to 30 June 2022. Based on applications received by Services Australia, we have estimated that a further \$2.4 million relating to periods prior to 30 June 2022 is payable. Table 5 shows the historical compliance costs paid by the Scheme as provided by Services Australia. The payments in 2020-21 include one-off payments to Berkshire Hathaway Specialty Insurance (BHSI) and Guild Insurance Limited (Guild)

for costs incurred before 1 July 2020, following legislation that came in force on 1 July 2020¹².

Table 5: Historical compliance cost payments

Payment year	Compliance cost payments (\$'000)
2005-06	2,842
2007-08	686
2008-09	586
2009-10	639
2010-11	1,284
2011-12	1,392
2012-13	1,233
2013-14	1,224
2014-15	1,597
2015-16	1,563
2016-17	1,502
2017-18	2,258
2018-19	1,689
2019-20	2,509
2020-21	2,416
2021-22	2,285
Total paid at 30 June 2022	25,704

3.5.5 The Commonwealth's own administration costs are funded through the Commonwealth budget and are therefore not considered in this report.

3.6 RUN-OFF COVER SUPPORT PAYMENTS

3.6.1 ROC support payments are paid to Services Australia in the form of an annual lump sum imposed as a tax on each MII from 1 July 2004 under the MI ROCSPA.

3.6.2 The amount of the ROC support payments is calculated using a method set out in the MI ROCSPA. Appendix 3 describes the calculation in detail. Very briefly, it is based on:

Applicable rate × (premium income less taxes and charges) ÷ (1 + applicable rate).

3.6.3 In 2021-22, the applicable rate was 5 per cent for all insurers.

12 Section 19 of the Medical Indemnity Regulations 2020.

3.6.4 Table 6 summarises the ROC support payments received. The amounts include minor amendments that were made during the relevant year. The total amount received in 2021-22 increased slightly from last year. This was driven by an increase in the number of contributing practitioners. The average premiums appeared largely unchanged or dropped during 2021-22. Some parent holding companies of the MIIIs continue to collect membership fees in addition to medical indemnity premiums. The amounts vary widely across the industry and not all insurers have reported the amounts to Services Australia. ROC support payments are not payable on membership fees.

Table 6: Run-Off Cover support payments

	ROC support payments (\$'m)										
	2005-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
AVANT	79.014	7.258	8.271	8.338	8.852	9.823	10.743	11.080	11.377	11.630	11.635
MDAN	27.763	2.432	2.624	2.607	2.648	2.546	2.798	2.711	2.935	3.030	3.417
MIGA	21.141	2.422	2.115	2.183	2.413	2.451	2.370	2.504	2.438	2.564	2.776
MIPS	20.325	1.596	1.617	1.613	1.604	1.630	1.676	1.924	2.136	2.209	2.592
BHSI	n/a	n/a	n/a	n/a	n/a	0.080	0.261	0.428	0.594	0.778	0.953
Guild	n/a	n/a	n/a	0.006	0.006	0.007	0.006	0.006	0.006	0.007	0.009
Total	148.243	13.708	14.627	14.746	15.523	16.536	17.853	18.654	19.486	20.217	21.382

Note: MIGA includes historical payments from Invivo (QBE) and Avant includes historical payments from AMIL and PIICA.

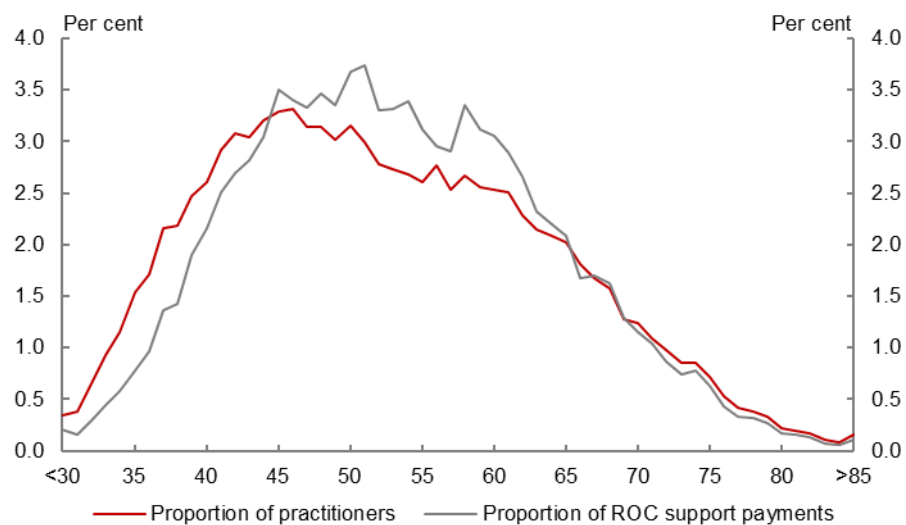
3.6.5 To provide full transparency for practitioners, MIIIs are required to attribute ROC support payments to individual policyholders. Each premium notice specifies the amount that has been included in the policyholder's invoice to meet the MII's ROC support payment obligations. All amounts are reported to Services Australia, which maintains a record of each practitioner's total run-off cover credit. Interest is applied to this balance annually in accordance with section 34ZS of the Medical Indemnity Act.

3.6.6 Part 2, Division 2B, Subdivision E of the Medical Indemnity Act provides for certain payments, should the Scheme ever be wound up without alternative arrangements being put in place. Medical practitioners who are still practising at the time of the wind up of the Scheme would be entitled to have an amount not exceeding their total run-off cover credit paid to their nominated medical indemnity provider. Practitioners who are eligible for the Scheme at the time of its wind up would not be entitled to any refund but would continue to be covered for any future claims that might emerge.

3.6.7 Figure 2 summarises the contribution to ROC support payments by age of practitioner. Note that age and gender were not available for a minority of medical practitioners. The chart is based only on practitioners who paid at least \$1,700 in respect of both medical indemnity premium (net of discounts and loadings) and membership fees during 2021-22. We refer to these

practitioners as 'at-risk' medical practitioners. The proportion of ROC support payments is greater than the proportion of practitioners for medical practitioners aged between 40 and 60. This is consistent with this age group being at the peak of their career. For younger practitioners, the chart shows a lower proportion of ROC support payments, reflecting relatively lower risk taking at the start of the career. The chart also reflects a slightly lower level of premiums for older medical practitioners who may tend to wind down their practice hours and possibly perform fewer risky medical procedures (for example, surgery) as they reach more advanced ages.

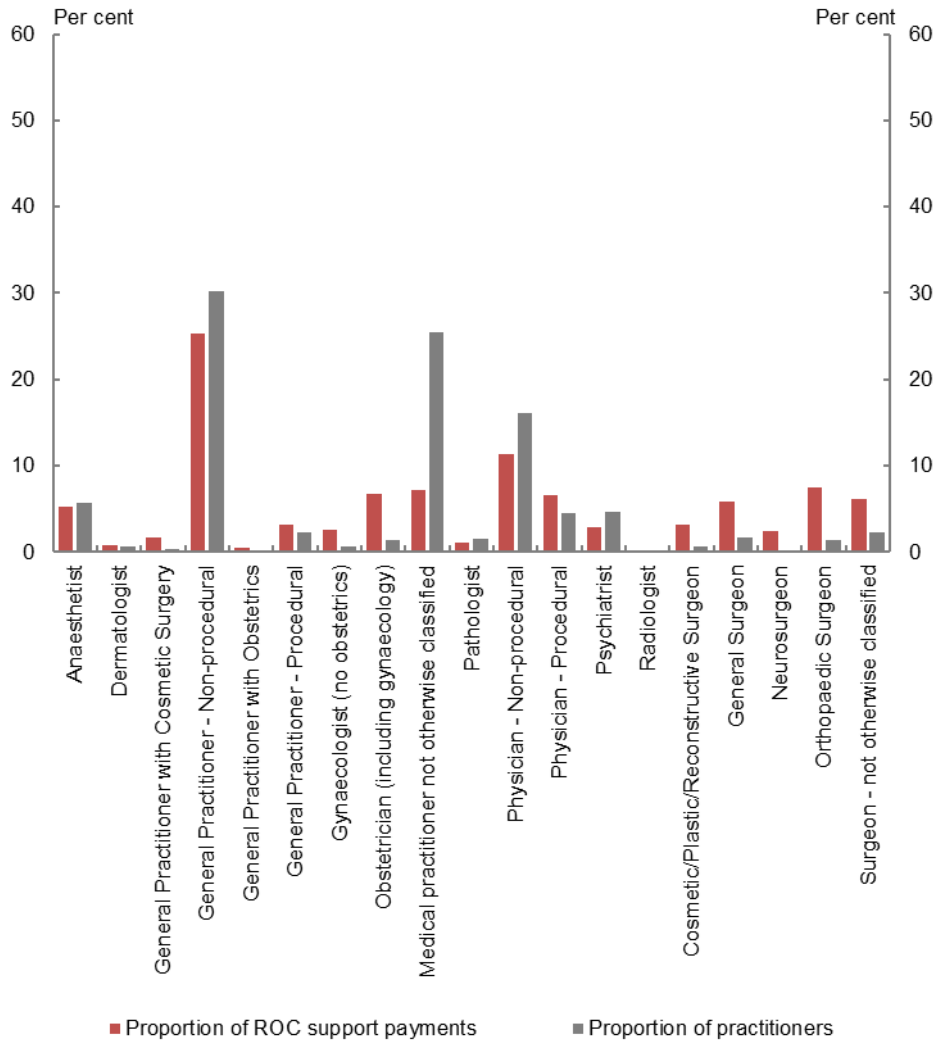
Figure 2: Contribution to Run-Off Cover support payments by age



3.6.8 Figure 3 summarises the contribution to ROC support payments by area of specialty. Specialty codes were not available in relation to a small minority of medical practitioners. As for Figure 2, this chart only includes 'at-risk' medical practitioners.

3.6.9 Medical indemnity insurance premiums tend to be risk-based. Thus, practitioners operating in higher risk areas of specialty are likely to incur the highest premiums and, accordingly, the highest ROC support payment liabilities. The largest ROC support payments are for obstetricians, gynaecologists, neurosurgeons, cosmetic/plastic/reconstructive surgeons, orthopaedic surgeons, and general surgeons. General practitioners – non-procedural have the smallest average ROC support payments. Note that most medical practitioners not otherwise classified (including interns and trainees) are not shown in this chart as they are not included in the 'at-risk' group.

Figure 3: Contribution to Run-Off Cover support payments by specialisation



4 FINANCIAL MANAGEMENT OF THE RUN-OFF COVER SCHEME

4.1 2021-22 CASH FLOW

4.1.1 Table 7 sets out the cash flow statement of the Notional Account for 2021-22.

Table 7: Cash flow statement of the Notional Account FY2021-22

	\$'000
Income	
ROC support payments (received 30 June 2022)	21,382
ROC support payments (in respect of doctors eligible at 1/7/2004 start up)	0
Notional interest	7,894
Expenses	
ROC indemnity payments (in respect of doctors eligible at 1/7/2004 start up)	0
ROC indemnity payments (in respect of doctors eligible post 1/7/2004)	16,441
Administration cost payments to MIs	2,285
Net cashflow	10,549

4.2 EXPERIENCE AND MODEL

Comment on experience during 2021-22

- 4.2.1 ROCS indemnity payments have been relatively low in the past, although payments have exceeded \$10m for the past three consecutive years. The spike in 2020 is attributable to one large claim, which has now been fully reimbursed. The significant increase since then may be partially attributable to certain clusters of claims as advised by some insurers. However, it is also reasonable to expect the cashflows to follow a similar upward trend as the Scheme matures.
- 4.2.2 The actual payments made by SA in the first six months of 2022-23 is almost \$16m, dominated by one insurer. As was the case in recent years, it was spread over many claims rather than one or two very large claims. This suggests that the Scheme may be maturing, and the increase in payments may not be temporary.
- 4.2.3 In relation to Scheme-eligible claims which had been notified at the time of the previous review (30 June 2021) but not yet paid, actuarial estimates of the corresponding ROC indemnity payments had an undiscounted value then of \$42.4 million (excluding claims handling costs). In 2021-22, claim payments of about \$16.5 million were made by MIs/MDOs relating to these claims (based on industry data). All else being equal, this would suggest a

residual figure at 30 June 2022 of about \$25.9 million. Updated industry estimates put this number at around \$41.9 million (excluding 2021-22 notifications), which is significantly higher than expected. This implies that the industry estimates for claims notified at the time of the previous review have increased materially from last year.

- 4.2.4 Based on input from industry actuaries, the previous report estimated the incurred-but-not-reported (IBNR) Run-Off Cover Scheme liability at 30 June 2021 as \$69.4 million (excluding claims handling costs and discounted at 5 per cent per annum). Table 8 sets out the expected new notifications that were implied within that estimate, alongside the most recent estimates after certain adjustments were made to the insurer's data, which are discussed in Appendix 4. Note that the estimates below have been calculated from projected cash flows discounted at 5 per cent per annum to the middle of each notification year. It shows that the estimates have generally increased materially from last year, especially for 2021-22, where the estimate has been updated based on the actual claims notified during the year. The increase was mainly driven by one insurer. However, these estimates derived from industry actuaries' cash flow projections do not always reconcile with the case estimates provided by the insurers. This highlights the uncertainties with the estimates.

Table 8: Expected new notifications (excluding CHE)

Notification year	This year's data (\$'000)	Last year's data (\$'000)
2021-22	17,604	9,067
2022-23	11,853	9,406
2023-24	12,465	9,814
2024-25	13,124	10,218
2025-26	13,827	10,605

- 4.2.5 The significant increase in the industry's estimated cost of the claims not yet notified at the previous review (after our adjustments), including new claims that were notified in 2021-22, contributed to higher projected ROC indemnity payments. The projected ROC indemnity payments are shown in Table 9.

Changes to new accrual model and assumptions

- 4.2.6 Five years ago, we revised a range of assumptions after considering the NCPD data that we received in 2017. This year, we reviewed these assumptions in light of the most recent NCPD data received in early 2023. As a result, the claim rate assumption has been increased from 4% to 5%. This is discussed in Appendix 5.
- 4.2.7 It is worth noting that the updates to the ROCS eligibility probabilities in the 2020 report to allow a one-off spike in new entrants in 2020-21 is now validated by the data shown in Table 2. This reflects the change legislated

in the *Medical and Midwife Indemnity Legislation Amendment Act 2019* (Amendment Act) which waives the three-year ROCS eligibility waiting period from 1 July 2020 for those who resigned from private practice under the age of 65. In theory, this should have caused a one-off spike in new entrants in 2020-21 because not only are the practitioners who resigned in 2020-21 eligible for ROCS immediately, those who resigned in the previous three years (that is, pre-COVID) would also have become eligible in 2020-21 regardless of whether they re-entered private practice¹³.

- 4.2.8 In addition, although the new entrant patterns appear to have been influenced by COVID-19 as seen in Table 2, temporary movements in new entrants have an immaterial impact on next year's new accrual estimate. For the new accrual estimate, it is the ROCS eligibility status of the practitioner at the time of the claim's notification that is critical. Given the frequent long delays in the notification of medical indemnity claims, the cumulative long term ROCS eligibility probabilities have a far greater relevance than the short-term eligibility probabilities. Furthermore, it is not unreasonable to expect their exit patterns to gradually return to the long-term trend.
- 4.2.9 However, as discussed in section 3.3, a review of several previous ROCS reports revealed that resignations have consistently been higher than expected, after accounting for temporary impact of COVID-19. Thus, we increased our resignation assumption this year to be consistent with past experience. It estimates around 350 new resignations for 2022-23. This considers possible temporary elevation of resignation due to data issues with 2021-22 data as discussed in section 3.3 and exits of medical practitioners who re-entered during 2020-21 and 2021-22. On the other hand, it also considers possible burnouts post major COVID waves. Given the volatility around resignations and the legislative change in recent years, this estimate will be closely monitored. Note that it is comparable to actual experience shown in Table 2 as both figures include resignations of re-entrants.

¹³ *Medical Indemnity Rules 2020* stipulates a temporary exemption, which allows ROCS eligible practitioners to return to private practice in order to provide treatment during the COVID-19 pandemic without the practitioner losing their eligibility under the ROCS. The *Medical Indemnity Rules 2020* have extended the temporary exemption from 17 May 2022 to 21 October 2022. It has been further extended to 21 September 2023.

- 4.2.10 Considering all the factors above, no adjustments have been made to the long-term ROCS eligibility probabilities except for resignation, where actual experience has consistently exceeded our model's projection.
- 4.2.11 This year, the issue of new entrants is again complicated by the retainment of eligibility for returned practitioners during the exemption period. Note that the potential claims associated with the returned practitioners have been included in our new accrual estimate by making an adjustment to the model's standard methodology. Instead of overlaying potential eligibility probabilities on future claims, the group that is already eligible has been modelled separately without this overlay. That is, any projected claims associated with this group are assumed to be immediately eligible for the Scheme. This approach is unchanged from last year.
- 4.2.12 This temporary eligibility exemption for returned practitioners has been extended several times and is currently scheduled to end on 21 September 2023. Future cash flows and the liabilities of the Scheme will continue to be affected by this measure until its cessation. We have assumed it affects the entire 2022-23 and quarter of 2023-24 financial years. In practice, this exemption may be extended further, which will increase future new accruals.
- 4.2.13 Appendix 4 sets out the main assumptions and describes the methodology that was used to estimate the liabilities at 30 June 2021. Appendix 5 describes the assumptions and methodology used to project future liabilities. Appendix 6 considers the effect of the High Cost Claims Scheme (HCCS).

4.3 RESULTS: PROJECTED RUN-OFF COVER COMMONWEALTH CONTRIBUTIONS

- 4.3.1 This section sets out a projection of ROC indemnity payments for the next ten financial years. For the reasons described above, the projections should be regarded as indicative only. The data issues referred to earlier in this report also contribute to the uncertainty. The data provided by the industry in late 2022 was adjusted to be broadly consistent with the trend implied in the past payments data provided by Services Australia. The underlying assumptions and methodology are described in Appendices 4 and 5, with the calculations summarised in Table 21. Table 9 below sets out the projections, which are illustrated in Figure 4. The Scheme is not expected to become mature in a cash flow sense for several years. The payments projected below are in nominal dollars and have not been discounted to current dollar values.
- 4.3.2 While we have received the actual payments to the end of December 2022 from Services Australia, it is inherently difficult to adjust the industry

projection for the full year based on half years of actual payments given the lumpy nature of the ROC indemnity payments. The projected payment figure for 2022-23 does not appear inconsistent with the actual payments to the end of December 2022. The projected indemnity payments include indirect costs associated with handling claims, referred to as indirect claims handling expenses (CHE). Note we have not allowed for the impact of potential court closures due to COVID-19, which may delay settlements, and hence payments. All else being equal, this makes our liability estimates slightly conservative.

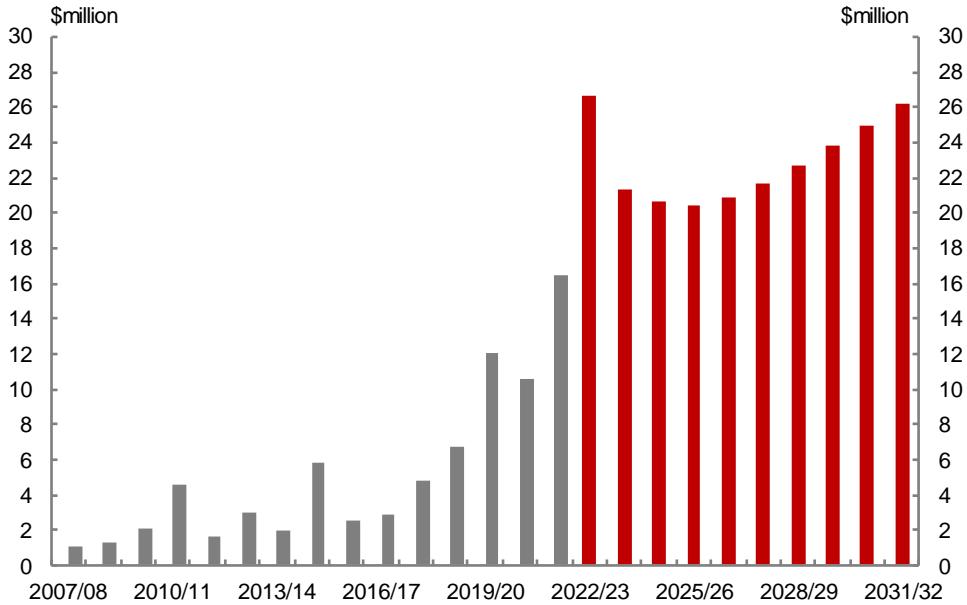
- 4.3.3 On the other hand, while our projections are already above the industry projections, it is still possible that, due to the volatile nature of medical indemnity claims, the actual payments will be higher than expected, either due to claims being settled earlier than expected, more claims being notified, or higher than expected number of large new claims.
- 4.3.4 In the last two reports, we have commented on insurers' apparent optimism in relation to future years given the spike in payments in 2019-20 and 2020-21. This year, we learnt that the data provided to us contained certain downward adjustments to future notifications as insurers did not expect certain clusters of claims to recur. After discussions with certain insurers and internal analysis, we reduced the downward adjustment by half to be broadly consistent with the trend implied in the past payments data provided by Services Australia. The resulting cash flow projections appear more realistic, as shown in Table 9. The cashflow projection for 2022-23 is a mix of actual and expected payments. Note that the industry data for past payments do not always align with the SA payments data due to timing differences. This also means that insurers' anticipated decline in payments for when the aforementioned clusters end, if it happens, will appear in Services Australia's payments data but with a delay. This increases the uncertainty associated with short term cashflows.
- 4.3.5 Inevitably, considerable judgement was involved in the interpretation of insurers' projections. While the adjustments applied to their projections appear reasonable based on currently available information, we will actively monitor emerging experience and update assumptions if necessary.

Table 9: Projected Run-Off Cover indemnity payments (including CHE)

Year ending 30 June	Projected ROC indemnity payments plus CHE (\$'000) ^(a)
2023	26,682
2024	21,272
2025	20,624
2026	20,452
2027	20,854
2028	21,616
2029	22,639
2030	23,794
2031	24,979
2032	26,169

(a) These projected payments do not include ongoing administration amounts payable to insurers under the ROC Claims and Administration Protocol which are different to CHE.

Figure 4: Historical and projected Run-Off Cover indemnity payments (including CHE)



4.4 RESULTS: LIABILITY AT 30 JUNE 2022 & NOTIONAL ACCOUNT

- 4.4.1 The estimation of the Commonwealth's liabilities under the Scheme is inherently imprecise. The operation of the Scheme is likely to be characterised by a small number of claims of highly variable size. It is not possible to predict the costs of the Scheme with a high level of confidence. For example, the presence of a single very large claim in any given year could have a substantial effect on the total amount of ROC indemnity payments for that year.
- 4.4.2 The liabilities of the Scheme could be measured in several ways. It is normal for insurance-type liabilities to be measured on either a 'notified' or an 'occurrence' basis. On a notified basis, new liabilities would accrue to the Scheme as new claims were notified. On an occurrence basis, new liabilities would accrue to the Scheme at the time of the occurrence of the medical incidents which were expected to give rise to medical indemnity claims which would attract a ROC indemnity payment.
- 4.4.3 Under the occurrence model, liabilities are recognised more quickly than under the notified model. The occurrence model is more consistent with the notion that the Scheme is ongoing. Accordingly, the occurrence model has been adopted for this report. The liabilities of the Scheme are therefore taken as the present value of future ROC indemnity payments (including associated insurer claims handling expenses) which relate to medical incidents which occurred before the effective date of valuation.
- 4.4.4 The Commonwealth's liabilities under the scheme at 30 June 2022 are considered under the following categories:
- Outstanding compliance costs as at 30 June this year
 - Scheme eligible claims which had been notified at the time of the review and paid by the MIIs, but not yet recovered from Services Australia
 - Scheme eligible claims which had been notified to the MIIs at the time of the review but not yet paid
 - Incurred claims that have not yet been reported to the MIIs
 - Claims handling expenses.
- 4.4.5 The Scheme must be managed over a long timeframe. As discussed previously, ROC indemnity payments are likely to be 'lumpy' in nature and immature in size for some years. ROC support payments will be received

well in advance of ROC indemnity payments. As a result of the payment timing mismatch and the expected volatility in the ROC indemnity payment pattern, it is appropriate to have a system which enables proper tracking of the financial flows over time. Accordingly, a ROC notional account (the Notional Account) is maintained.

4.4.6 It is important to appreciate that the Notional Account is not an official Government account. Rather, it is a device established for the sole purpose of facilitating equity between practitioners and other taxpayers.

4.4.7 The Notional Account is credited with:

- ROC support payments
- amounts to offset ROC indemnity payments which relate to medical practitioners who were eligible at the commencement of the scheme
- notional interest.

4.4.8 Notional interest is credited to the Notional Account to ensure reasonable treatment of the time value of money since ROC support payments are received by Services Australia well in advance of any ROC indemnity payments being made by Services Australia. Last year, the Amending Rules legislated in July 2021 replaced the existing reference to the General Interest Charge rate with a rate based on the annual change in the Consumer Price Index rate in sections 10 of the *Medical Indemnity Rules 2020*. As a result, all past notional interest charges were recalculated retrospectively in line with this new interest rate. The notional interest becomes a cost to government, should the scheme be wound up. In this circumstance, contributions are returned to practitioners that are not yet eligible with interest at the prescribed rate. This is discussed further at the end of this section 4.4.

4.4.9 On establishment of the Scheme, the Government announced that it would fund the opening liability that was attributable to practitioners who were already eligible for cover under the Scheme at the time of its commencement. Since the commencement of ROC indemnity payments, effect has been given to this commitment by ensuring that the Notional Account is credited annually with amounts to offset any ROC indemnity payments which relate to medical practitioners who were eligible at the commencement of the Scheme.

4.4.10 The Notional Account is charged with:

- ROC indemnity payments

- Payments made under the Medical Indemnity Regulations.
- 4.4.11 The Scheme will also pay an amount to a MII or MDO to cover the indirect costs associated with handling claims, referred to as indirect CHE. The Scheme pays 5 per cent of the cost of each claim to cover CHE.
- 4.4.12 Appendix 2 provides more detail on claim amounts eligible under the Scheme.
- 4.4.13 Note that the Scheme ‘operates after’ the HCCS. The effect of the HCCS is described in detail in Appendix 6.
- 4.4.14 Table 10 describes how an eligible \$1 million claim notified after 1 July 2018 would be funded¹⁴. The total amount paid of \$1,050,000 comprises claim costs of \$1 million and CHE of \$50,000.

Table 10: Funding sources for a \$1 million claim which is eligible for the Run-Off Cover Scheme

Funding source	Amount
ROC indemnity payment (direct claim costs)	\$750,000
Run-Off Cover Scheme CHE	\$50,000
Run-Off Cover Scheme (Total)	\$800,000
HCCS	\$250,000

- 4.4.15 As noted earlier, the *Medical Indemnity Act* provides for payment of a practitioner’s total run-off cover credit, should the Scheme ever be wound up without alternative arrangements being put in place. Thus, in this event, a large part of the accumulated ROC support payment balance would become a liability of the Scheme. At the same time, since the Scheme liabilities are being measured on an occurrence basis, some of the liabilities of the Scheme would be released, partially offsetting this impact. However, for the purpose of this report, the Scheme has been assumed to be ongoing and the whole amount of the accumulated ROC support payments has been taken to be available to meet relevant ROC indemnity payments.
- 4.4.16 The liability estimates given in this report are central estimates. In broad terms, this means that they are intended to be equally likely to be too high or too low. In particular, it is not intended that the liability estimates contain any margin for risk. Funding considerations for the Scheme are not the same as for private sector insurance arrangements. The objective here is to manage the funding over the long term. Since substantial volatility in the liability estimates is likely from time to time, periods of surplus and periods

14 The High Cost Claim Scheme Threshold has changed over time. Details are provided in Appendix 6.

of deficit in the Notional Account might be expected. However, given the long-time horizon for funding the Scheme, it is appropriate. A short-term deficit in the Notional Account is not a cause for concern. As a result of this, there is no strong reason to maintain a risk margin in the liability estimates.

- 4.4.17 Table 11 below sets out the balance sheet of the Notional Account as at 30 June 2022.

Table 11: Balance sheet of the Notional Account as at 30 June 2022

	\$'000
Assets	
Cash as at 1 July 2021	286,405
Net cashflow	10,549
Total	296,954
Liabilities	
Outstanding compliance costs	2,443 ^(a)
Paid by MIs but not yet recovered from Services Australia	10,605 ^(b)
Notified to MIs but not yet paid by them	55,628 ^(c)
Incurred but not yet notified to MIs	79,401 ^(d)
Claims handling expenses	8,038 ^(e)
Total	156,115

- (a) Based on actual and expected payments made by Services Australia in 2022/23 in relation to prior claim years.
- (b) Based mainly on estimates provided in relation to claims/incidents notified to MIs and MDOs by 30 June 2022.
- (c) Based on estimates provided by industry actuaries.
- (d) Based on estimates provided by industry actuaries and models developed within this office. Certain adjustments made to the industry data are described in Appendix 4.
- (e) Based on 5 per cent of 'grossed up' ROC indemnity payments (to allow for the impact of the HCCS).

- 4.4.18 The Notional Account at 30 June 2022 has disclosed an estimated notional surplus of about \$141 million. On one hand, the notional interest increases the notional account balance each year. On the other hand, some of the notional interest becomes a cost to government, should the Scheme be wound up.

- 4.4.19 Note again that no account has been taken for possible payments to practitioners under Subdivision E of the *Medical Indemnity Act*, should the Scheme be wound up without alternative arrangements being put in place. Based on the latest data provided by Services Australia, this amount could be up to \$400 million as at 30 June 2022.

- 4.4.20 Generally, the estimated surplus position should be regarded as highly uncertain. A more accurate estimate of the surplus can be made possible if the ROCS levy balances of the ROCS eligible practitioners could be monitored and supplied by Services Australia.

4.5 RESULTS: PROJECTED LIABILITIES OF THE SCHEME

4.5.1 Finally, it is appropriate to provide a projection of the liabilities of the Scheme. Future liabilities under the scheme are projected having regard to the annual rate at which future liabilities will accrue, the payment of claims and the interest that is required to accrue to the (discounted) reserves each year.

4.5.2 Table 12 sets out estimates of the liabilities of the Notional Account at the end of each of the next five financial years. The purpose is to illustrate the short-term development of the Scheme. There is substantial uncertainty in these estimates. The new accrual after 2023-24 will revert to the long-term trend as the temporary ROCS eligibility exemption will cease on 21 September 2023. The numbers shown below have been discounted to the end of the relevant financial year but have not been discounted to give values in today's terms. The projected liabilities start off being higher than the corresponding amounts presented in last year's report, but will grow at a slower rate due to higher projected payments. Detailed actual versus expected analysis is contained in Appendix 4.

Table 12: Projected balance sheet liabilities of the Notional Account

Year ending 30 June	Liability at start-year (\$'000)	New accrual (\$'000)	Payments (\$'000)^(a)	Interest cost (\$'000)	Liability at end-year (\$'000)
2022					156,115
2023	156,115	25,061	26,682	8,392	162,887
2024	162,887	22,840	21,272	8,755	173,209
2025	173,209	22,957	20,624	9,293	184,835
2026	184,835	24,450	20,452	9,953	198,786
2027	198,786	26,039	20,854	10,720	214,691

(a) ROC indemnity payments plus CHE only. Does not include liability in respect of outstanding compliance costs. Refer Appendix 4 for further information.

4.6 ACTUARIAL MANAGEMENT

- 4.6.1 Regular review of the costs and notional assets of the Scheme will allow the ROC support payment rate to be adjusted from time to time, if necessary. Consideration of that rate is beyond the scope of this report. This report has described a framework for the valuation of Scheme liabilities and established the Notional Account. It is intended that the valuation and accounting framework be applied at each future annual review of the Scheme.



Guy Thorburn FIAA
Australian Government Actuary
1 June 2023

APPENDIX 1: ELIGIBLE PRACTITIONERS AND RUN-OFF COVER SCHEME CONTRACTS

Eligible persons

A.1.1 Eligible persons are those who fit one or more of the following eligibility categories at the time the claim (or medical incident) is first notified to the MII or MDO (section 34ZB(2) of the Medical Indemnity Act and Medical Indemnity Regulations 2003 regulation 12):

- A medical practitioner who has permanently retired from paid medical practice¹⁵.
- A legal representative of a deceased medical practitioner (provided that a claim can be made against the deceased's estate).
- A medical practitioner who has ceased paid medical practice due to permanent disability.
- A medical practitioner who has ceased paid medical practice because of maternity.
- An overseas trained medical practitioner, who worked in Australia under an appropriate visa, has permanently ceased medical practice in Australia and does not reside in Australia.

A.1.2 *Medical Indemnity Rules 2020* stipulates a temporary exemption, which allows eligible persons to return to private practice in order to provide treatment during the COVID-19 pandemic without the practitioner losing their eligibility under the Scheme. This exemption will remain in place until 21 September 2023.

¹⁵ There used to be a three-year waiting period for practitioners who retired under age 65. This has been waived from 1 July 2020 as legislated in the *Medical and Midwife Indemnity Legislation Amendment Act 2019* (Amendment Act).

Provision and notification of compulsory run-off cover

- A.1.3 The practitioner's last medical indemnity insurer is required to provide run-off cover to an eligible practitioner under section 26A of the PSPS Act.
- A.1.4 The compulsory run-off cover must encompass the same nature and range of incidents as the last medical indemnity cover held by the eligible practitioner (subsection 26A(4)(b)).
- A.1.5 Section 26D compels MIIs to notify eligible practitioners of:
- the nature and range of incidents encompassed by the compulsory run-off cover
 - the terms and conditions on which it is provided.
- A.1.6 The compulsory run-off cover is taken to be a contract of insurance between the MII and the eligible practitioner for the purposes of the PSPS Act (section 26E).

APPENDIX 2: RUN-OFF COVER SCHEME CLAIMS

- A.2.1 The legislation defines claims broadly. Claims need not involve legal proceedings. Claims may include civil claims for negligence, administrative proceedings, disciplinary proceedings (including those performed by a professional body) and inquiries or investigations into conduct (subsection 4(1) of the Medical Indemnity Act).
- A.2.2 A ROC claim is payable to an MII or MDO under section 34ZC in relation to a claim eligible under subsection 34ZB(1) if:
- it was first notified to the MII or MDO on or after 1 July 2004
 - it relates to a person eligible under subsection 34ZB(2) (see Appendix 1)
 - it relates to incident(s) occurring in connection with the person's practice as a medical practitioner (see paragraph 34ZB(1)(b))
 - either the person is indemnified for the claim by an MII in accordance with section 26A of the PSPS Act, or the person is indemnified under incident-occurring based cover provided by an MDO (paragraph 34ZB(1)(e))
 - the claim would be paid in the ordinary course of the MII's or MDO's business.
- A.2.3 Where these criteria are met, the Commonwealth is liable to pay run-off cover indemnities regardless of whether the MII or MDO has sought private reinsurance (section 34ZF).
- A.2.4 Applications for ROC indemnity payments must be made to Services Australia (section 36 of the Medical Indemnity Act). They are paid by the Chief Executive Medicare before the end of the month that immediately follows the month in which the MII applies for the indemnity (section 37).
- A.2.5 The Scheme operates after the HCCS. Thus, part of the cost of eligible large claims is first met by the HCCS with the rest being picked up by the Scheme (subsection 34ZH(2)). Where the total incurred cost of an eligible ROC claim exceeds the HCCS threshold (currently \$500,000), the HCCS meets 50 per cent of the amount by which it exceeds the threshold.

APPENDIX 3: RUN-OFF COVER SUPPORT PAYMENTS

- A.3.1 ROC support payments are paid to Services Australia in the form of an annual lump sum imposed as a tax on each MII from 1 July 2004. The lump sum is intended to cover the cost of claims and the MIIs' administration and implementation costs.
- A.3.2 The amount of support payments is calculated as a percentage of premium income received from contributing practitioners. The calculation rules are set out in the MI ROCSPA and regulations. The tax imposed on each MII is the applicable percentage of the insurer's premium income (section 6) for the applicable contribution year ending on 30 June or an alternative date specified in the regulations (section 5).
- A.3.3 All MIIs except for Australasian Medical Insurance Limited (AMIL) were required to remit their first ROC support payments on 30 June 2005. Since AMIL's policy year was a calendar year, it was not required to remit ROC support payments until 31 December 2005.
- A.3.4 Under section 7, a MII's premium income for the purpose is the sum of all of the premiums paid to the insurer for medical indemnity cover provided for medical practitioners, reduced according to the formula:

Premium income equals

$$\frac{\text{Net premium}}{\text{Net premium}} - \frac{\text{Net premium}}{\text{Net premium}} \times \frac{\text{Applicable percentage}}{\text{Applicable percentage}} \div (1 + \text{Applicable percentage})$$

- A.3.5 Net premium is calculated according to section 7 as follows:
- sum of all premiums paid to the insurer during the operation of the Scheme for medical indemnity cover provided for medical practitioners (including subsidy payments made to the insurer on behalf of medical practitioners to assist with the cost of purchasing medical indemnity cover under the Medical Indemnity Premium Support Scheme, section 43(1) Medical Indemnity Act) (subsection (1))
 - minus the amount of GST payable (subsection (2)(a)) and the amount of stamp duty payable (subsection (2)(b)) in relation to the premiums
 - plus/minus other payments specified in the regulations.

A.3.6 For premium payments relating to 2021-22, the applicable percentage is specified in the regulations as 5 per cent for all insurers, and thus the ROC support payment will be calculated as net premium x 5 per cent ÷ 1.05.

APPENDIX 4: LIABILITIES AT 30 JUNE 2022

- A.4.1 The purpose of this appendix is to describe the approach taken (and assumptions used) to calculate the scheme liabilities.
- A.4.2 Claims liabilities have been assessed on an occurrence basis. New liabilities accrue to the Scheme at the time of the occurrence of the medical incidents which were expected to give rise to medical indemnity claims which would attract a ROC indemnity payment. The liabilities of the Scheme in respect of claims liabilities are therefore taken as the present value of future ROC indemnity payments (plus associated insurer claims handling expenses) which relate to medical incidents which occurred before the effective date of valuation.

Summary of Liabilities as at 30 June 2022

- A.4.3 Table 13 summarises the estimated accrued Scheme liabilities as at 30 June 2022. The Scheme liabilities are divided into outstanding compliance costs, those attributable to claims notified as at 30 June 2022, those attributable to IBNR claims as at 30 June 2022 and overall claims handling expenses.

Table 13: Run-Off Cover Scheme liabilities related to medical incidents prior to 30 June 2022 (\$'m)

Outstanding Compliance Costs	2,443
Liabilities in relation to claims notified as at 30 June 2022	
Paid by MIs but not yet recovered from Services Australia	10,605
Notified to MIs but not yet paid by them	55,628
Sub Total	66,233
Liabilities in relation to IBNR claims as at 30 June 2022	79,401
Claims Handling Expenses	8,037
Total Run-Off Cover Scheme liabilities	156,115

- A.4.4 This section describes the approach taken and the key assumptions used in the calculation of the key liabilities shown above.

Outstanding Compliance Costs

A.4.5 MIs apply to Services Australia for a refund of the costs of complying with the scheme each year. At the end of any one year the government has a liability for any outstanding compliance costs in respect of the previous years' operation of the scheme, that have not yet been refunded. This liability is generally based on the applications received by Services Australia and estimates by Services Australia in relation to applications that have not been received at the time of writing for compliance costs that have not yet been settled. For this report, the estimate is based on the actual amount that Services Australia has paid to insurers after 30 June 2022 and the expected amount that Services Australia will pay to insurers after 30 June 2022 in respect of previous years' operation.

Liabilities in relation to notified claims

A.4.6 There are two categories of notified claims, those which have been settled by the insurer, but not yet recovered from Services Australia and those that are still being managed by the insurer.

A.4.7 In the case of settled claims, we have relied on the insurer's data provided in late 2022. It is of a similar magnitude to the difference between the insurers' past payments (including CHE) and the Services Australia's reimbursements as at 30 June 2022.

A.4.8 Where the claim is still being managed by the insurer, all notified claims have a case estimate placed against them by the relevant insurer. The industry has provided a projection of the expected claims payments based on the relevant year of notification. As with any estimate, it is to be expected that the actual payments that will occur to settle the claim will vary from the claims managers' current estimate.

A.4.9 The projected cash flows in relation to notified but not yet settled claims is discounted using the expected long-term earning rate to determine a net present value as at the valuation date.

Liabilities in relation to IBNR claims

A.4.11 Due to the nature of this type of liability, claims may be formally notified many years after the event that actually gives rise to the claim has occurred. Industry provides a projection of claims that will be notified in each year for the next five years. Given the previous comment, most of the claims that will be notified next year will have already occurred at the valuation date. Therefore, they are already a liability of the scheme.

A.4.12 Industry provides a cash flow projection of the total cost of expected notified claims for the next five years. These are adjusted as necessary and then

extrapolated. A proportion of these claims will have already occurred and therefore form part of the IBNR liability. Further, given that claims can be reported many years into the future, some claims that will be notified beyond this five-year period will also already be part of the IBNR liability.

A.4.13 Taking this into account, the following approach is adopted to derive the IBNR liability from the industry estimate:

- The industry's five-year projection is adjusted as necessary and extrapolated for the next 50 years.
- We apply our observed pattern of the period of delay from an incident occurring to it being reported and being eligible for ROCS to determine the portion of the projected future total claims payments that have already occurred and are therefore already liabilities of the scheme.
- We then apply the observed cash flow patterns to allow for the time it takes to settle claims once notified, and inflation and discount rates are applied to determine the present value of the liability.

A.4.14 This year, we applied certain adjustments to insurers' projections, to be more consistent with the heightened ROC support payments in three consecutive years. This increased the IBNR estimate.

Claims Handling Expenses

A.4.15 The Scheme pays 5 per cent of the direct cost of each eligible claim to cover claims handling expenses. Where an eligible claim is partly covered by the HCCS, the allowance for claims handling expenses paid under the Scheme is 5 per cent of the total claim cost, including the portion covered by the HCCS. Claims costs are therefore grossed up by an allowance that represents the proportion of Scheme claims that are paid by the HCCS. This proportion is assumed to be 16% and is reduced from 17% last year. This reduction is consistent with the expected delayed impact of the HCCS threshold change on 1 July 2018.

Comparison of Actual and Expected Liabilities at 30 June 2022

- A.4.16 In any valuation, it is informative to compare the 'actual' estimated liabilities¹⁶ at the valuation date with that which was expected in the prior review. This can highlight areas where a change in approach, or experience has impacted the results.
- A.4.20 Table 14 compares the 'actual' estimated Scheme liabilities in relation to prior medical incidents as at 30 June 2022 to the 'expected' amounts, which are based on the prior review and expected cash flows during 2021-22. Both the 'actual' and the 'expected' estimated liabilities have been discounted at 5 per cent per annum. For simplicity, the liability for the amount paid by MIs but not yet recovered and claims handling expense allowance are not included.

Table 14: Actual versus expected liability estimates as at 30 June 2022 (\$'m)

	Actual	Expected	Actual minus expected
Notified but not yet paid	55.6	36.4	19.2
IBNR	79.4	65.5	13.9
Total	135.0	101.9	33.1

- A.4.20 The 'actual' estimated liability is about \$33.1 million higher than the 'expected' liability based on the prior review. It is mainly driven by higher estimates provided by industry actuaries in late 2022 pertaining to the claims notified but not yet paid. It is attributable to new notifications during 2021-22 as shown in Table 8, as well as earlier notifications. The aforementioned adjustment on insurers' projected future notifications also increased the difference in IBNR liability estimates.

Uncertainty in the Liability as at 30 June 2022

- A.4.21 The greatest uncertainty arises from the nature of the scheme. Run-off cover claims are inherently long-tailed, which means that it can take decades for the scheme to mature in a cash flow sense. In addition, claims cost related to bodily injury is highly variable and tend to be dominated by a small number of large claims. Therefore, it is impossible to estimate the scheme liability with certainty.
- A.4.22 Our approach for estimating scheme liability, by necessity, focuses on reasonableness of assumptions, of the methodology and monitoring the progress between projected and actual payments over time.

16 The estimates have been updated with the latest data, experience and assumptions.

- A.4.23 We have to rely extensively on the high-level cash flow projections provided by industry actuaries. Data often changes significantly year on year, and they can be very different to the historical payment trend as suggested by Services Australia payments data. Attempting to reconcile the two different sources of data is one area of difficulty when estimating run-off cover claims cost.
- A.4.24 The IBNR component is also dependent on the assumed notification pattern. This has been updated several times since the beginning of the scheme as more data emerged. This has reflected the shorter notification delays that we have observed. In theory, a shorter notification pattern would imply a lower ROCS liability as the medical practitioner is less likely to have ceased private practice at the time of notification.
- A.4.25 Ultimately, uncertainty is evidenced by the fact that the scheme is still relatively immature and there is still insufficient reliable data for a ground-up granular modelling approach. Only 862 claims have been notified to insurers that have a case estimate attached to them. The limitation in the claims data still dictates our reliance on the industry's projections.
- A.4.26 The half year payments made by Services Australia to December 2022 and the significant increase in the latest industry projections lend credence to a new normal level of ROCS payments. Furthermore, the temporary ROCS eligibility exemption and the waiver of the three-year waiting period for those resigned under 65 could potentially increase the payments further.

APPENDIX 5: PROJECTED LIABILITIES AND CASH FLOWS

A.5.1 The Medical Indemnity Act requires that the report include a projection of the Commonwealth's liabilities in relation to amounts of Run-Off Commonwealth contributions in future financial years. This Appendix summarises the results of that projection, describes the methodology and assumptions and discusses the uncertainty in relation to the liability projections.

Summary of Projected Liability

A.5.2 In line with previous reports, we have projected the liabilities forward from the valuation date by taking the liability at the valuation date, adding the interest assumed in the valuation, adding an amount for new accrued claims and deducting payments expected in that year along with their associated claims handling expenses.

A.5.3 Table 15 below sets out estimates of the liabilities of the Notional Account at the end of each of the next five financial years. The purpose is to illustrate the short-term development of the Scheme. There is substantial uncertainty in these estimates. The new accrual after 2023-24 will revert to the long-term trend as the temporary ROCS exemption will end on 21 September 2023. The numbers shown have been discounted to the end of the relevant financial year but have not been discounted to give values in today's terms. The projected liabilities start off being higher than the corresponding amounts presented in last year's report, but will grow at a slower rate due to higher projected payments.

Table 15: Projected balance sheet liabilities of the Notional Account

Year ending 30 June	Liability at start-year (\$'000)	New accrual (\$'000)	Payments (\$'000) ^(a)	Interest cost (\$'000)	Liability at end-year (\$'000)
2022					156,115
2023	156,115	25,061	26,682	8,392	162,887
2024	162,887	22,840	21,272	8,755	173,209
2025	173,209	22,957	20,624	9,293	184,835
2026	184,835	24,450	20,452	9,953	198,786
2027	198,786	26,039	20,854	10,720	214,691

Description of the model used to project the accrual of new Run-Off Cover Scheme liabilities after 30 June 2022

A.5.4 The approach involved projecting the expected future ROC indemnity payments for each medical practitioner who was practising as at 30 June 2022.

A.5.5 A practitioner can become eligible for the Scheme by reason of:

- retirement
- permanent disability
- death
- maternity
- resignation
- satisfaction of other eligibility criteria specified in the regulations.

A.5.6 The probability of becoming eligible for the Scheme was estimated for each practitioner based on their age as at 30 June 2022 and their gender. Note that, prior to 1 July 2020, practitioners do not become eligible by means of resignation until three years have passed since cessation of practice. From 1 July 2020, this three-year waiting period has been waived. Our model has been adjusted accordingly.

A.5.7 In previous years, the estimated likelihood of practitioners becoming eligible for the Scheme was overlaid on the projected claim notifications to give the projected ROC claim notifications for each practitioner. The expected notified claims cost was multiplied by the likelihood of eligibility in each future year, and summed across all practitioners to arrive at the expected cost of ROC claims notified in that year. It was assumed that on average practitioners who become eligible for the Scheme do so half-way through the financial year.

A.5.8 Since last year, the above approach is only appropriate for some practitioners. Due to the temporary exemption stipulated by the *Medical Indemnity Rules 2020*, a significant group of practitioners who earned a sufficient premium in the most recent financial year to be considered “risky” were also already eligible for the Scheme.

A.5.9 Compared to the practitioners who are not yet eligible for the Scheme, this group has immediate access to the Scheme. This group was previously insignificant to be modelled separately. But the temporary exemption has made this group material. Hence, we have modelled them separately this year. In essence, no ROCS eligibility probabilities were overlaid on their projected claim notifications. However, this group is likely to have lower claims costs as many carried out low-risk vaccination related work, which is covered by the newly established COVID-19 Vaccine Claims Scheme. Therefore, we have revised down the claim assumptions for this group. The future cessation of ROCS eligibility is very difficult to model and will only reduce the claims costs, hence, has been ignored.

A.5.10 Projection of indemnity payments entailed the projection of:

- incidents which will result in a claim
- the delay involved in notification of claims
- the cost of claims after allowing for the HCCS
- the likelihood of eligibility for the Scheme at the time a claim is notified (if the practitioner is not yet eligible for the Scheme)
- the delay involved in the payment of notified claims.

A.5.11 The total expected future ROC claim notifications were calculated as the scalar product of the vector of claim notifications and the vector of probabilities of Scheme eligibility (if applicable) for each practising medical practitioner in each future year.

RUN-OFF COVER CLAIMS

Components of claim cost

A.5.12 For the purposes of the model, a ROC claim includes any eligible claim notified and finalised at direct cost to the MII. Claim costs include all costs which are directly attributable to the claim. Indirect CHE are dealt with separately.

A.5.13 Directly attributable claim costs include damages, plaintiff legal costs to the extent that they are awarded, and legal defence costs to the extent that they are directly attributable to the claim.

ASSUMPTIONS

Economic assumptions – claims inflation & long-term discount rate

A.4.17 Medical indemnity claims costs tend to increase at a faster rate than general inflation. Claim payments were projected to increase in line with wage inflation plus superimposed claim cost inflation.

- Wage inflation was assumed to be 4 per cent per annum. This is not inconsistent with general expectations of long-term wage growth.
- Superimposed inflation was assumed to be 2.5 per cent per annum. Superimposed inflation refers to the tendency for medical indemnity claim amounts to increase at rates faster than general inflation. Whilst superimposed inflation has been observed in “bursts” the past, the timing is

unpredictable. As a consequence, superimposed inflation is typically allowed for with a constant assumption. Due to the limited data, there is some judgement required in selecting this assumption.

- Claim payments were discounted at a rate of 5 per cent per annum. This chosen rate provides consistency with the rate adopted in a number of similar contexts and therefore is suitable from a whole of government perspective at 30 June 2022. This rate is unchanged from last year.

Practitioner population

- A.5.14 As noted above, the analysis aims to project the expected future ROC indemnity payments for each medical practitioner who was practising as at 30 June 2022. This starts with the population of medical practitioners who were practicing in 2021-22. This data is provided by the MIIIs and maintained by Services Australia.
- A.5.15 Practitioners with total medical indemnity payments (including both medical indemnity premiums net of discounts and loadings plus membership fees) of less than \$1,700 were excluded from the analysis in order to ensure that only genuine 'at-risk' medical practitioners were the focus of the investigation¹⁷. The excluded group contained interns and trainees that exist in some of the data provided by the MIIIs. A total of 94,882 practising medical practitioners have paid some medical indemnity payments during 2021-22. After excluding those medical practitioners, we were left with 57,407 'at-risk' medical practitioners. This approach is unchanged from our previous reports. The riskiness threshold has not been indexed since the average premium has broadly remained constant. Note that we have not used a lower riskiness threshold for the eligible practitioners, even though in theory their premiums during the exemption period should have been adjusted downwards to only include new incidents. We have taken this approach due to insufficient information and also because of the conservative claim rate assumption already adopted for this group.
- A.5.16 Table 16 summarises the age distribution of the cohort of 'at-risk' practitioners, with the total premium representing a proxy for risk of medical indemnity claims for each age group. This includes the practitioners who were already eligible for ROCS in 2021-22 but who also earned a sufficient premium during the year to be considered 'at-risk'. Note that age and gender were not available for a small number of medical practitioners and were randomly allocated.

¹⁷ One insurer's membership fees were not available in the Services Australia data.

Table 16: Cohort of 'at-risk' medical practitioners

Age at 30 June 2022	Number 'at-risk'	Total premium (\$'000)	Proportion males (per cent)
<30	81	678	41
30-34	1,903	7,003	48
35-39	5,772	29,124	48
40-44	8,533	58,964	54
45-49	9,129	76,227	58
50-54	8,241	77,795	61
55-59	7,546	69,138	62
60-64	6,628	58,729	67
65-69	4,804	37,516	72
70-74	2,866	20,489	80
75-79	1,366	8,879	86
80-84	445	2,647	89
>85	93	458	94
Total	57,407	447,647	61

Note: Numbers may not add due to rounding. Total premium includes membership fees from some insurers. If membership fees are excluded, total premium across both categories is approximately \$408 million.

Demographic assumptions

- A.5.17 Demographic assumptions are required to project the number of eligible medical practitioners in future years from the current population of 'at risk' medical practitioners who are not yet eligible for the Scheme. We have not changed any of the assumptions this year.
- A.5.18 In order to assess the future rate at which liabilities will accrue, we project the expected number of new entrants in the categories that are expected to generate a future liability. Those events that are expected to generate a material liability under the scheme are considered to be retirement, resignation from private practice¹⁸, death, permanent disability and maternity leave. We have not projected new entrants in the 'other' category. Historically, practitioners in this category have paid very low premiums. Accordingly, we have assumed that medical negligence claims against them are likely to make an immaterial contribution to the Scheme costs.
- A.5.19 The probabilities of death and disablement are assumed to be an increasing multiple of the probabilities of death in the Australian Life Tables 2015-17 (ALT 2015-17). The probabilities of death are assumed to be 28 per cent of ALT 2015-17 until age 64, 40 per cent from age 65 to 69, and 48 per cent of ALT 2015-17 thereafter. The probabilities of permanent disability are assumed to

18 The three-year waiting period has been waived from 1 July 2020 as legislated in the *Medical and Midwife Indemnity Legislation Amendment Act 2019* (Amendment Act). This has been allowed for in our model.

be 12 per cent of ALT 2015-17 up to age 24, an increasing multiple of ALT 2015-17 from 12.3 to 24 per cent from age 25 to 64, and 0 from 65 onwards.

- A.5.20 Probabilities of maternity leave were assumed for ages between 27 and 44. Each medical practitioner was assumed to take one year of maternity leave for each child.
- A.5.21 Probabilities of resignation were assumed for ages between 29 and 64. It was assumed that the probability decreases with age before increasing again from age 50. Compared to last year, the probabilities have been revised to align with past experience, which has consistently shown a higher concentration of resignations in ages 60 to 64, and a higher overall number of resignations. This was discussed in sections 3.3 and 4.2.
- A.5.22 Probabilities of retirement were assumed for ages between 65 and 89. We have assumed that all medical practitioners will retire before age 71. We have allowed slight differences between males and females based on historical experience.
- A.5.23 It is instructive to combine the above assumptions and present the probabilities that a practising male medical practitioner will be eligible for the Scheme in future years. The decrement assumptions are summarised in Table 17 in the form of assumed probabilities of being eligible for the Scheme at the end of each of the next 10 financial years for males.

Table 17: Assumed probabilities of eligibility for the Run-Off Cover Scheme over the next 10 financial years for male medical practitioners

Year ending	Age at 30 June 2022						
	30-Jun	20	30	40	50	60	70
2023	0.0002	0.0203	0.0036	0.0064	0.0283	0.0924	0.2725
2024	0.0004	0.0353	0.0073	0.0128	0.0561	0.1770	0.4729
2025	0.0007	0.0453	0.0110	0.0193	0.0834	0.2669	0.6199
2026	0.0009	0.0552	0.0147	0.0260	0.1102	0.3476	0.7273
2027	0.0012	0.0603	0.0185	0.0327	0.1366	0.4366	0.8055
2028	0.0014	0.0654	0.0224	0.0396	0.2781	0.5141	0.8623
2029	0.0017	0.0705	0.0263	0.0466	0.3280	0.5817	0.9032
2030	0.0020	0.0757	0.0303	0.0538	0.3748	0.6469	0.9325
2031	0.0022	0.0808	0.0344	0.0612	0.4186	0.7096	0.9534
2032	0.0225	0.0859	0.0385	0.0687	0.4626	0.7706	0.9681

- A.5.24 The resulting number of practitioners who are expected to become eligible in 2022-23 is set out in Table 20.

Population average claim frequency

- A.5.25 The overall claim frequency for the 'at-risk' population was assumed to be 5 per cent. That is, on average each 'at-risk' medical practitioner was assumed

to have a 5 per cent chance of being involved in a medical incident in the next year which will result in a future medical indemnity claim.

- A.5.26 This assumption has been increased from 4 per cent last year. Both the NCPD data we received recently and the information provided by insurers in late 2022 suggest that the previous assumption was no longer adequate. Although, the relatively lower risks associated with vaccination work may temporarily make this assumption more conservative for certain practitioners.
- A.5.27 Furthermore, since last year, this assumption is only applied to the practitioners who were not yet eligible for the Scheme. For the practitioners who were already eligible for the Scheme, the claim frequency was assumed to be half of the full rate i.e. 2.5 per cent this year. This is because around half of the latter population were non-procedural GPs who probably carried out low-risk vaccination work and the related claims costs will be picked up by the newly established COVID-19 Vaccine Claims Scheme. Some of the other returned practitioners may have also been involved in vaccination work, as the exemption was intended for practitioners who returned with COVID-19 being the sole reason. On the other hand, the premiums for this group in theory should have only included new incidents, as opposed to including all new notifications under the usual claims-made basis. Therefore, this group in theory should have lower premiums than the other practitioners with the same “riskiness” for new incidents. However, there is insufficient data to ascertain whether the insurers adjusted the premiums for this group. Overall, the claim frequency of 2.5 per cent is still likely to be conservative.
- A.5.28 Finally, individual claim frequencies were then adjusted based on premium as discussed below. This approach has not been changed from our previous reports.

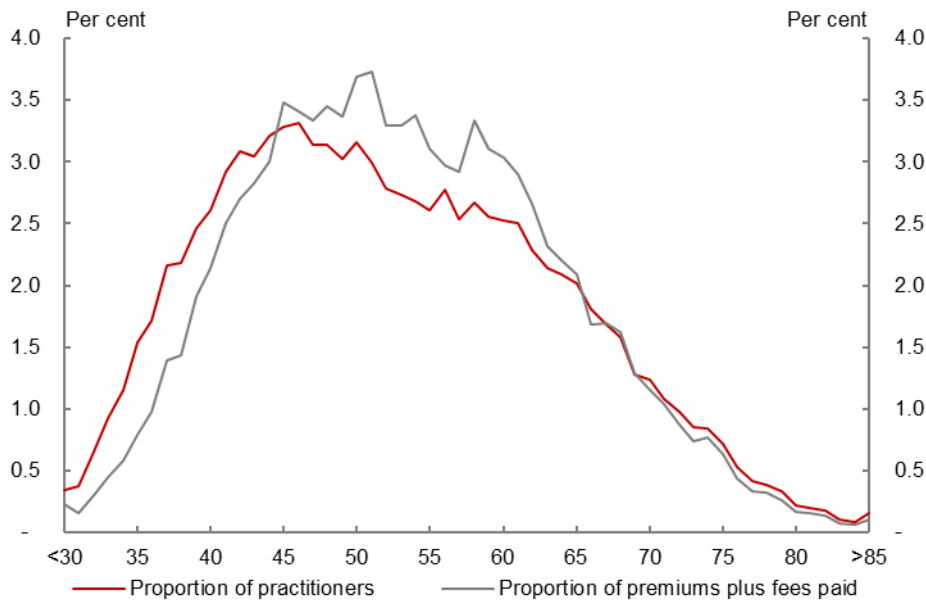
Individual claim frequencies based on premium

- A.5.29 The likelihood of future notifications of ROC claims was projected according to the assumed ‘riskiness’ of each individual practitioner. The risk of medical indemnity claims posed by each practitioner was determined based on risk categorisation. Practitioners were categorised according to specialisation, age, gender and MII.
- A.5.30 The average premium for each risk group was used as a proxy for the risk of medical indemnity claims. The claim frequency for each group was multiplied by the ratio of the premium for the group to the premium of the entire cohort of ‘at-risk’ medical practitioners.
- A.5.31 Although insurance premiums are broadly determined in line with claim risk, the premium of a group is at best an imprecise proxy for risk. For example, market and financial considerations affect premiums charged. However, given the data limitations, relative premiums have been assumed to be a reasonable means of

categorising practitioners according to their risk of medical indemnity claims for the purposes of this model.

A.5.32 Insurance premiums tend to diminish for practitioners towards retirement age. This supports the suggestion that medical practitioners tend to wind down their practice hours and possibly perform fewer risky medical procedures (for example, surgery) as they approach retirement. The possible reduction in risk towards retirement is somewhat apparent from the pattern of relative premiums for ‘at-risk’ medical practitioners shown in Figure 5. Note that age and gender were not available for a small number of medical practitioners and were randomly allocated.

Figure 5: Relative premiums by age for ‘at-risk’ medical practitioners



Note: The graph includes all practitioners with total payments (including membership fees) of at least \$1,700 from all MIIIs.

Individual claim frequencies based on assumed wind down of risky practice

A.5.33 The relative premiums of older medical practitioners appear to indicate a reduction in risky practice as medical practitioners approach retirement. Consistent with this, industry actuaries have also suggested that medical practitioners tend to wind down riskier elements of their practice as they approach retirement. However, relative premiums may not capture the full extent of the reduction, since premiums are calculated on a claims-made rather than claims-occurring basis.

- A.5.34 We have continued the practice of assuming that medical practitioners wind down their risk exposure from age 60, at a rate that is reflected in the premiums shown above. Premium relativities are augmented with a wind down from age 60 according to the exponential formula $0.8^{(\text{age}-59)}$. This is unchanged from last year.
- A.5.35 This assumption is very subjective and is not amenable to objective validation. Nonetheless, it does not appear unreasonable considering observed claim experience.

Claim size

- A.5.36 Claim sizes are assumed to increase, the longer the delay from the incident occurring until it is notified to the insurer. This is on the basis that claims which take longer to report tend to be bigger on average. One example is cerebral palsy cases.
- A.5.37 The assumed claim reporting pattern is shown in Table 18 below. Assumed claim sizes presented in the table do not include allowance for inflation or superimposed inflation.

Table 18: Claim reporting and size pattern

Development year	Proportion of number of claims notified (per cent)	Gross average claim size (\$'000)
1	33.0	110
2	25.0	125
3	14.0	140
4	10.0	155
5	6.0	170
6	3.3	185
7	2.5	200
8	2.0	215
9	1.0	230
10	0.7	245
11	0.6	260
12	0.5	275
13	0.4	290
14	0.3	305
15	0.2	320
16	0.1	335
17	0.1	350
18	0.1	365
19	0.1	380
20	0.1	395

(a) Gross average claim sizes presented in the table are intended to be in 2021 dollars and do not include allowance for inflation and superimposed inflation.

- A.5.38 The projected ROC claims cost is sensitive to the proportion of claims which are assumed to be reported late. The longer the delay between the incident and the

claim, the greater the likelihood that a practitioner will be eligible for the Scheme at the time the claim is notified. Thus, the Scheme's costs are dominated by the small proportion of claims which are notified very late.

A.5.39 The average claim size was assumed to be around \$140,000. This was unchanged from last year given there was no definitive claim size inflation in the latest industry data and the increase in the claim rate assumption in light of the latest NCPD data.

A.5.40 Each year, we also sense check our model's new accrual estimate against the industry's estimate.

Impact of the High Cost Claim Indemnity on claim size

A.5.41 The claims cost net of the HCCS indemnities is calculated assuming that the HCCS threshold will change such that a constant proportion of the gross average claim size will be met by the HCCS. Thus, for simplicity, the HCCS threshold is assumed to increase in line with claims inflation over time.

A.5.42 The model effectively assumes that around 16 per cent of the ROC discounted claims cost will be met by the HCCS. This is explained in more detail in Appendix 6.

Payment patterns – notification to settlement

A.5.43 ROC indemnity payments in relation to medical incidents occurring after 30 June 2022 were projected assuming the payment patterns from the point of notification to the point of settlement, as set out in Table 19 below. This payment pattern was unchanged from last year.

Table 19: Payment pattern assumed

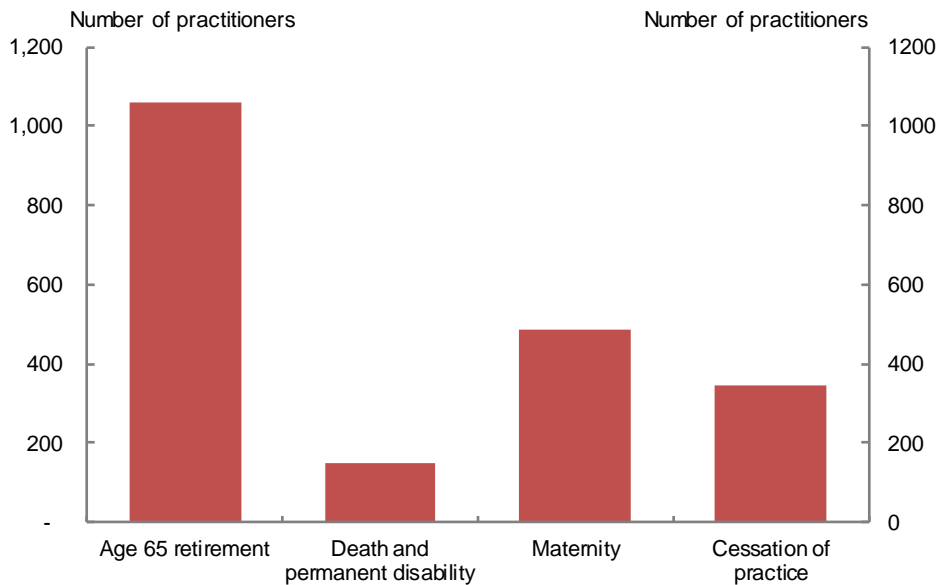
Delay from notification to payment (year)	Proportion of claim costs paid (per cent)
1	8.20
2	18.54
3	19.21
4	15.87
5	12.86
6	8.56
7	6.07
8	4.72
9	1.83
10	1.32
11	0.92
12	0.76
13	0.27
14	0.21
15	0.16
16	0.13
17	0.11
18	0.10
19	0.09
20	0.07

PROJECTION RESULTS

Projection of new entrants

- A.5.1 We have applied the demographic assumptions to the 'at-risk' population to project the new 'at-risk' medical practitioners expected to join the scheme in future years. Where the date of birth or gender was not available for a practitioner, these were assigned randomly according to the age and gender distribution of 'at-risk' medical practitioners.
- A.5.2 Figure 6 depicts the number of 'at-risk' practitioners projected to become eligible for the Scheme by various means during the 2022-23 financial year. Due to the waiver of the three-year waiting period from 1 July 2020, we projected a one-off spike in the number of new entrants by resignation in 2020-21, as it covers resignations that occurred in four years (i.e. 2017-18 to 2020-21 inclusive). This has been validated in the latest data. Going forward, the number of new entrants by resignation was expected to revert to historical levels. However, COVID-19 and its related policy responses will continue to affect the exit pattern in the short term.

Figure 6: Projected entries of 'at-risk' practitioners to the Run-Off Cover Scheme based on decrement assumptions



A.5.3 In addition to the above eligibility categories, medical practitioners from overseas who have worked in Australia under an appropriate visa also become eligible for the Scheme when they have permanently ceased medical practice in Australia and ceased to reside in Australia. We have not projected the number of new entrants from this category because we were advised at the start of the Scheme that these practitioners had historically paid very low premiums. Accordingly, we have assumed that medical negligence claims against them are likely to make an immaterial contribution to the Scheme costs. We have not been able to review this assumption as these practitioners cannot be identified in the data provided to us.

A.5.4 The numbers of practitioners projected to enter the Scheme are in line with the long-term historical numbers (excluding 'Other') provided by the insurers as shown in Table 20, noting the one-off jump in resignations in 2020-21 due to the waiver of the three-year waiting period and possible temporary distortions caused by COVID-19 since January 2020. It allows multiple entries by counting practitioners who regained eligibility after cessation.

Table 20: Run-Off Cover Scheme historical and projected new entrants by reason of eligibility

	Industry data										Model
	2005-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Retired	3,828	721	843	728	895	912	929	1,045	753	843	1,062
Maternity	2,389	358	366	389	434	532	508	558	436	415	485
Permanent disability	264	34	28	39	31	37	28	19	4	3	28
Died	976	108	123	107	128	100	107	115	94	58	118
Resigned	1,347	243	176	226	188	265	246	258	684	369	346
Sub-total	8,804	1,464	1,536	1,489	1,676	1,846	1,818	1,995	1,971	1,688	2,040
Other ^(a)	1,303	447	355	366	432	508	547	562	234	329	-
Total	10,107	1,911	1,891	1,855	2,108	2,354	2,365	2,557	2,205	2,017	2,040

(a) Overseas trained medical practitioners who had permanently ceased practice in Australia under an appropriate visa.

A.5.5 Notwithstanding, temporary movements in new entrants have an immaterial impact on next year's new accrual estimate. For the new accrual estimate, it is the ROCS eligibility status of the practitioner at the time of the claim's notification that is crucial. Given the frequent long delays in the notification of medical indemnity claims, the cumulative ROCS eligibility probabilities over the long term have a far greater relevance than each year's eligibility probabilities.

A.5.6 Considering all the factors above, the only adjustment made to the ROCS eligibility assumptions this year is to allow for higher resignation probabilities.

A.5.7 The eligibility assumptions are subject to review each year, and we tend to update the assumptions when there is sufficient evidence to support a fundamental shift in experience.

Projection of future Run-Off Cover Scheme costs

A.5.8 We rely heavily on industry projections of future cash flows to determine the value of outstanding notified claims as well as future IBNR claims. Each insurer prepares a projection of cash flows associated with notified claims and a projection of their expected future cash flows for claims expected to be notified over the next five years.

A.5.9 There is limited opportunity to independently review the industry projections noted above. This year we reviewed the historical actual payments data up to 31 December 2022 provided by Services Australia and compared this to the industry projections. In addition, the Amendment Act is expected to increase future cash flows as resigned medical practitioners will become eligible for ROCS earlier, from 1 July 2020. This impact appears to have been allowed for in the data provided by the industry in late 2022.

A.5.10 We have not allowed for the possible impact of potential court closures due to COVID-19 which could delay settlements hence payments.

A.5.11 Table 21 summarises the next 10 years' ROC indemnity payments which were aggregated to derive the projected Scheme costs in future years.

Table 21: Calculation of projected Run-Off Cover indemnity payments

Year ending 30 June	Medical incidents pre 1 July 2022			Medical incidents post 1 July 2022	
	Notified as at 30 June 2022	IBNR as at 30 June 2022	Total (\$m)	Total (\$m)	Grand total (\$m)
	(\$m)	(\$m)			
2023	25.7	1.0	26.7	0.0	26.7
2024	15.7	3.4	19.1	2.2	21.3
2025	10.9	5.8	16.7	3.9	20.6
2026	7.1	7.7	14.7	5.7	20.5
2027	4.4	9.0	13.5	7.4	20.9
2028	2.8	9.7	12.5	9.1	21.6
2029	1.8	10.0	11.8	10.9	22.6
2030	1.2	10.0	11.2	12.6	23.8
2031	0.8	9.5	10.3	14.7	25.0
2032	0.5	9.0	9.5	16.6	26.2

Note: numbers may not add up due to rounding.

Uncertainty in relation to liability projections

A.5.12 The projected ROC indemnity payments summarised in Table 20 are subject to uncertainty which relates to:

- the claiming behaviour of eligible practitioners
- substantial random variation associated with medical incidents and the notification of claims from year to year
- calibration of the model claim size and claim frequency assumptions to the underlying claim process (medical indemnity liabilities are characterised by few claims associated with large random variation such that a wide range of results can be obtained with equal statistical validity)
- the extent to which medical practitioners approaching retirement might cut down on their practice hours and possibly engage in less 'risky' practice (for example, less surgery)
- sensitivity of the model to the proportion of late-reported claims
- sensitivity of the model to the eligibility assumptions
- the possibility that not all notified Scheme eligible claims have been identified by insurers and that recoveries will be more diligently pursued later in the claim process

- tort reforms in several jurisdictions with the possible effect of 'bringing forward' claims and distorting claim experience.

A.5.13 The information provided by the actuaries of the MIs and MDOs relied on broadly similar valuation models. The range of assumptions adopted by industry actuaries reflects the substantial uncertainty involved in estimating liabilities of the Scheme. It must be emphasised that different results can be obtained from different yet equally plausible models and assumptions. Again, this is a common issue with liabilities of this nature.

A.5.14 The uncertainty is heightened this year from the impact of COVID-19 on the nature of medical practitioner's work and the impact of the corresponding legislative responses on potential claims costs. For example, telehealth has taken on a greater importance and carries its own unique and less-understood claims risks. The legislative responses include the temporary exemption for returned practitioners as well as the newly established COVID-19 Vaccine Claims Scheme. These factors coincide with the waiver of the three-year waiting period for eligibility through resignation, thus could have masked the impact of this permanent change. In addition, insurers may not have fully recognised the impact of the legislative changes in reporting the eligible practitioners to Services Australia and in identifying all notified Scheme eligible claims. For the above reasons, the new normal level of claims costs and new entrants will not become apparent until the temporary factors associated with COVID-19 have completely subsided and the insurers have fully adjusted to the new environment.

APPENDIX 6: HIGH COST CLAIMS

The High Cost Claims Scheme

- A.6.1 The HCCS is part of the broader package of Australian Government measures announced on 23 October 2002 that were designed to address problems with the medical indemnity insurance industry.
- A.6.2 The HCCS is governed by Division 2 of Part 2 of the Medical Indemnity Act. Under the HCCS, MIs and MDOs are reimbursed for part of the costs of large claims notified to them on or after 1 January 2003.
- A.6.3 The HCCS meets 50 per cent of the excess above the threshold (currently \$500,000) of the cost of individual large claims, before the operation of the Scheme.
- A.6.4 The HCCS threshold and the percentage used to calculate the amount of indemnity can be changed by way of regulation. The HCCS threshold has been changed by way of regulation as follows:
- \$2 million for claims notified between 1 January 2003 and 21 October 2003
 - \$0.5 million for claims notified between 22 October 2003 and 31 December 2003
 - \$0.3 million for claims notified between 1 January 2004 and 30 June 2018, and
 - \$0.5 million for claims notified from 1 July 2018.
- A.6.5 For example, for a claim which costs \$1 million notified on 1 April 2012, the HCCS will pick up:

$$50 \text{ per cent} \times (\$1,000,000 - \$300,000) = \$350,000$$

Data collection

- A.6.6 Services Australia collects data in relation to the HCCS, in addition to the Scheme data described in section 3. They provide some insight into the likely profile of large medical indemnity claims.
- A.6.7 Data collected in relation to the HCCS include:
- details of claims/incidents notified to MIs and MDOs by 30 June 2022 which might lead to recoveries under the HCCS

- actuarial estimates of that part of the cost of claims relating to incidents which occurred before 30 June 2022 and are expected to be recoverable under the HCCS
- an estimate of that part of the future claims cost of medical incidents notified during the 2022-23 to 2026-27 financial years which is expected to be recoverable under the HCCS.

Analysis of large claims

- A.6.8 A small proportion of medical indemnity claims are larger than \$500,000. These high-cost claims have a noticeable influence on the total cost of medical indemnity each year.
- A.6.9 According to the data collected, as at 30 June 2022, 2,938 claims/incidents had been notified to MIs and MDOs which were expected to be covered by the HCCS. They all have either a case estimate or an amount reimbursed attached to them.
- A.6.10 The cost estimates available for HCCS claims/incidents represent total case estimates, including amounts already paid as at 30 June 2022. This figure is around \$2,544 million. Of this, around \$767 million is estimated to be recoverable from the HCCS (including past recoveries). These estimates should be viewed with caution given a range of data issues apparent with the industry data. Services Australia data shows that \$624 million has been paid by 30 June 2022, compared to \$595 million as shown in the industry data.
- A.6.11 The HCCS data provides a reasonable, but imprecise, measure of the likely profile of large medical indemnity claims.
- A.6.12 The distribution of estimated costs of HCCS-eligible claims notified between 1 January 2004 and 30 June 2022 is shown in Table 22. The distribution is presented in terms of the proportion of total estimated claim cost attributable to each claim size band and tends to be relatively stable. For example, about 29 per cent of the total estimated cost of HCCS-eligible claims was attributable to claims expected to cost above \$2.0 million, which is unchanged from last year.

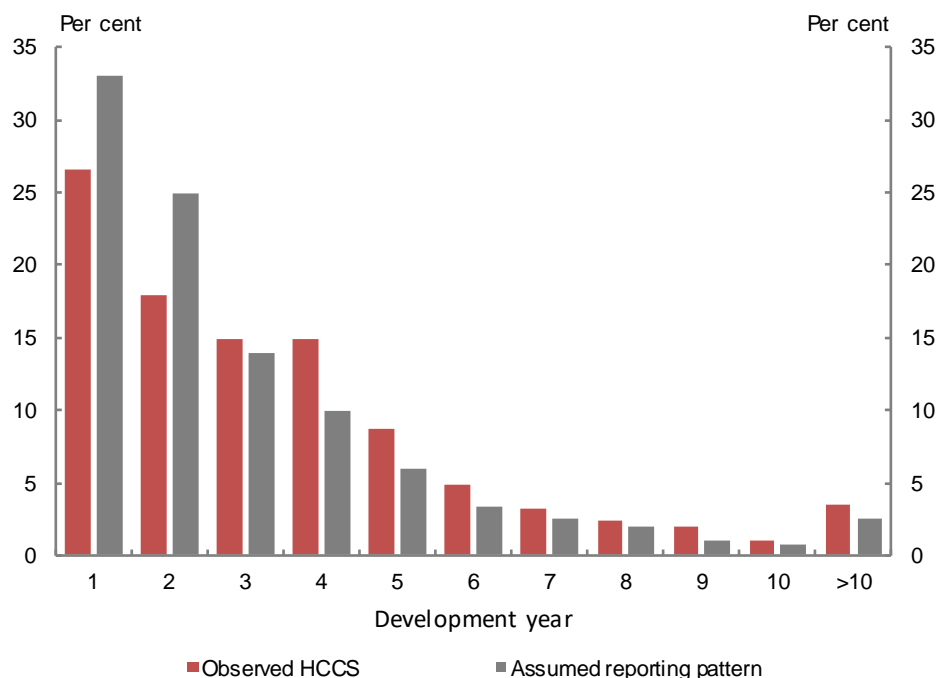
Table 22: Distribution of High Cost Claims Scheme-eligible claims

Claim size (\$'m)	Proportion of claims cost (per cent)
0 to 0.3	N/A
0.3 to 0.5	16
0.5 to 2.0	55
>2.0	29

Relevance of High Cost Claims Scheme data to the Run-Off Cover Scheme

A.6.13 The HCCS data illustrates the pattern of delay between a relevant negligent medical incident and the date that a large claim/incident is notified to the MII or MDO. The claim reporting pattern (based on claim numbers) observed in relation to HCCS claims is compared in Figure 7 to the general medical indemnity claim reporting patterns assumed for the purpose of undertaking the Scheme cost analysis. Note that the HCCS eligible claims included were notified between 1 January 2004 and 30 June 2022, with an applicable threshold of \$0.3 million prior to 1 July 2018 and \$0.5 million thereafter.

Figure 7: High Cost Claims Scheme claim reporting pattern



A.6.14 Claims which take longer to report tend to be bigger on average. In addition, the longer the delay involved in notifying a claim, the more likely the claim will be notified at a time when the practitioner is eligible for the Run-Off Cover Scheme.

A.6.15 Thus, the small proportion of large claims made against retired practitioners will have a marked impact on the total cost of the Scheme.

A.6.16 The proportion of HCCS recoverable for ROCS claims will increase with the delay in reporting, and the assumed proportions are listed in Table 23. These have not been changed since the last review.

Table 23: Proportion of High Cost Cover Scheme recoverable

Development year	Proportion of HCCS recoverables (per cent)
1	10.0
2	12.0
3	13.0
4	15.0
5	16.0
6	17.0
7	18.5
8	18.7
9	18.9
10	19.0
11	19.1
12	19.2
13	19.3
14	19.4
15	19.5
16	19.6
17	19.7
18	19.8
19	19.9
20	20.0