



Australian Government
Australian Government Actuary

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

2019-20 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'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; and
- a projection of the Commonwealth's liabilities in relation to amounts of Run-Off Commonwealth contributions in future financial years.

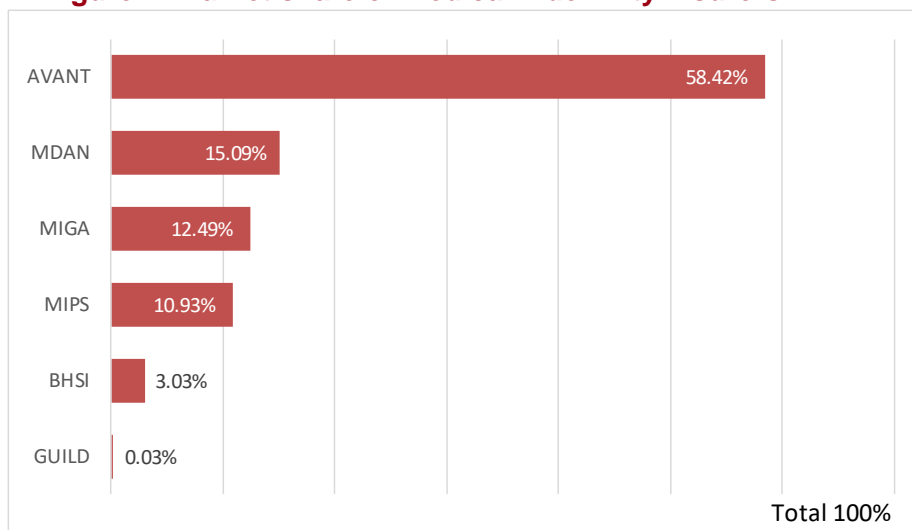
1.1.2 This is the sixteenth report that has been prepared under section 34ZW of the Medical Indemnity Act. It relates to financial year 2019-20. The fifteenth report was tabled in Parliament on 31 August 2020. The requirement for the report to be tabled each year in Parliament has since been removed.

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.¹
- 2.1.2 Medical practitioners who undertake private medical practice in Australia generally purchase medical indemnity insurance from private sector underwriters.² This report considers the six private sector underwriters operating in Australia during 2019-20. 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



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- 1 Medical indemnity insurance can also cover other costs such as those associated with appearing at coronial inquiries.
- 2 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 is made up 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 data obtained from the National Claims and Policies Database (NCPD) in 2017, while most of claims are finalised for less than \$100,000, a small number of claims are large (around 6 per cent of claims cost more than \$500,000). These large claims have a significant impact on the overall cost of medical indemnity insurance. The NCPD data shows that around 65 per cent of the cost of all finalised medical indemnity claims relates to claims which are larger than \$500,000.
- 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 take a number of 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 long delay 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, in order 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 a 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. In order 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 cover³ 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.
- 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

³ 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.

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 midwives 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 2010. 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 immature. It will probably take many years to reach maturity when income from ROC support payments and expenditure on ROC Commonwealth contributions are of a similar order of size.

3 DATA

3.1 DATA COLLECTION

- 3.1.1 For the purpose of preparing this report, certain data was collected from the MIs by the Department of Human Services (Services Australia) during late 2020 including:
- details of practitioners who were identified as having become eligible for membership of the Scheme before 30 June 2020;
 - details of claims (including incidents) notified to MIs and MDOs by 30 June 2020 which might eventually become eligible for reimbursement under the Scheme;
 - details of ROC support payments;⁴
 - actuarial estimates of that part of the future claims cost of medical incidents projected to be notified during the 2020-21 to 2024-25 financial years which is expected to be reimbursed under the Scheme; and
 - actuarial estimates of that part of the future claims cost of medical incidents occurring during 2020-21 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.

3.2 DATA VERIFICATION

- 3.2.1 The results in this report rely on information provided by MIs. This information is regarded as the most suitable information available for the current purpose. Almost all insurers have indicated that their data has allowed for the latest changes in the legislation as well as the impact of COVID-19.
- 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

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

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. 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 Certain information was sought from industry actuaries. Guidance was provided as to the nature of the data, calculations and information required.
- 3.2.5 A range of assumptions were used by industry actuaries. 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.
- 3.2.6 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 retirement at age 65 years or older, cessation of private

practice for three years,⁵ 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 2020 by removing the practitioners whose eligibility subsequently ceased 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 2020; and
- 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 with minor adjustments.

5 The three year waiting period is waived from 1 July 2020 as legislated in the *Medical and Midwife Indemnity Legislation Amendment Act 2019* (Amendment Act).

Table 1: Run-Off Cover Scheme eligible practitioners

Eligible from	2020	2019
Start up (that is 1 July 2004)	2,112	2,112
2004-05	325	331
2005-06	451	455
2006-07	510	516
2007-08	599	603
2008-09	535	535
2009-10	614	619
2010-11	829	831
2011-12	916	907
2012-13	1,076	1,078
2013-14	1,354	1,356
2014-15	1,356	1,372
2015-16	1,356	1,374
2016-17	1,571	1,605
2017-18	1,799	1,881
2018-19	1,897	1,856
2019-20	1,861	N/A
Total number of practitioners at 30 June 2020	19,161	17,431

- 3.3.6 We estimate that 19,161 practitioners are currently eligible for ROCS at 30 June 2020. If a practitioner had multiple entries, we have used the most recent eligibility start date in Table 1. All practitioners whose eligibility is shown as subsequently ceased in the data have been excluded from the above counts. In addition, we have excluded around 204 practitioners who became eligible between 1 July 2004 and 30 June 2019 but appear to have returned to private practice during 2019-20 as evidenced by their material ROCS contributions during the year. This is the same approach as last year and is more closely aligned with the requirement of the Medical Indemnity Act.
- 3.3.7 The estimated number of currently eligible practitioners is subject to considerable uncertainty. On one hand, it is reasonable to expect that a small proportion of the practitioners eligible at start-up have returned to private practice as at 30 June 2020. On the other hand, the 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.
- 3.3.8 Table 1 shows that that the number of eligible practitioners reported at 30 June 2019, in respect of certain years, decreased by 30 June 2020. Apart from data changes from year to year, this is mainly attributable to 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 ceased eligibility once they returned to work. This is consistent with our assumption that maternity leave is temporary.

3.3.9 Table 2 illustrates the breakup of new entrants by reason of eligibility, based on the data provided by the MIIIs. The numbers are not directly comparable with Table 1 as they include practitioners whose eligibility has subsequently ceased and they include multiple entries in different time periods. Note that the numbers of practitioners who became eligible have increased in recent years, driven by maternity leave and retirement. While maternity leave is likely to constitute a temporary eligibility, retirement most likely gives rise to permanent eligibility. The number of retired doctors is expected to grow. After allowing for the natural lag in reporting, the 2019-20 experience is in line with our expectation last year. We have therefore left the eligibility assumptions unchanged, except for allowing a one-off jump in new entrants by resignation because of new legislation that waives the three-year waiting period from 1 July 2020. This is explained in section 4.2. The eligibility assumptions are subject to review each year, and we will continue to monitor and review the experience.

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

	Industry data									
	2005-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Retired	2,214	504	514	672	766	689	840	881	890	781
Maternity	1,619	277	268	295	307	330	330	525	506	445
Permanent disability	173	24	20	30	26	35	28	37	25	10
Died	673	106	127	107	121	104	121	93	98	71
Resigned	682	149	154	214	157	220	182	258	226	170
Sub-total	5,361	1,060	1,083	1,318	1,377	1,378	1,501	1,794	1,745	1,477
Other ^(a)	682	227	336	429	346	357	424	504	538	481
Total	6,043	1,287	1,419	1,747	1,723	1,735	1,925	2,298	2,283	1,958

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

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, MIIIs and MDOs 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 notification;⁶ and
- meet the other requirements for 'payable claims'.⁷

3.4.2 As at 30 June 2020, MIs and MDOs had reported 912 medical incidents relating to eligible medical practitioners since the commencement of the Scheme. 348 of those were shown as 'closed' or 'finalised' with null case estimate⁸ attached to them, and 30 were shown as 'open' with null case estimate. This leaves 534 claims where an amount has been or is expected to be paid.

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	7
2004-05	12	1
2005-06	16	5
2006-07	19	47
2007-08	12	9
2008-09	21	17
2009-10	44	39
2010-11	37	24
2011-12	16	14
2012-13	50	18
2013-14	26	15
2014-15	28	22
2015-16	37	18
2016-17	60	44
2017-18	72	43
2018-19	32	9
2019-20	17	N/A
missing	16	8
Total number of reported incidents with a case estimate at 30 June 2020	534	340

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 MIs as reimbursement of the costs of eligible claims.

6 Refer Appendix 1.

7 Refer Appendix 2.

8 Estimate of likely cost to the insurer.

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	8,160
2004-05	1,168	1,168
2005-06	938	938
2006-07	1,816	1,793
2007-08	2,256	2,073
2008-09	7,594	6,996
2009-10	1,348	1,327
2010-11	4,894	2,353
2011-12	1,718	1,718
2012-13	3,710	3,166
2013-14	2,542	2,416
2014-15	3,049	2,303
2015-16	1,221	428
2016-17	5,935	1,747
2017-18	1,402	127
2018-19	388	7
2019-20	-	N/A
missing	1,770	1,780
Total Amount of ROC Indemnity Payments at 30 June 2020	50,586	38,500

3.5.3 ROC indemnity payments totalling \$50.6 million (including indirect claims handling expenses) have been made up to 30 June 2020, all of them since 1 July 2007. Specifically during 2019-20, \$12.1 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 \$21 million in compliance cost payments have been made to MIs up to 30 June 2020. Based on applications received by Services Australia, we have estimated that a further \$2.4 million relating to periods prior to 30 June 2020 is payable. This includes one-off payments to Guild and Berkshire Hathaway in accordance with the legislative changes that came into effect from 1 July 2020. Table 5 shows the historical compliance costs paid by the Scheme as provided by Services Australia.

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
Total paid at 30 June 2020	21,002

- 3.5.5 The Commonwealth's own administration costs are Budget-funded and so are 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 2019-20, the applicable rate was 5 per cent for all insurers.
- 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 2019-20 increased from the previous year. This was driven by an increase in the number of contributing doctors and partially offset by a slight decrease in the average premiums during 2019-20. Some parent holding companies of the MIIs continue to collect membership fees in addition to medical indemnity premiums. The amounts vary widely across the industry. ROC support payments are not payable on membership fees.

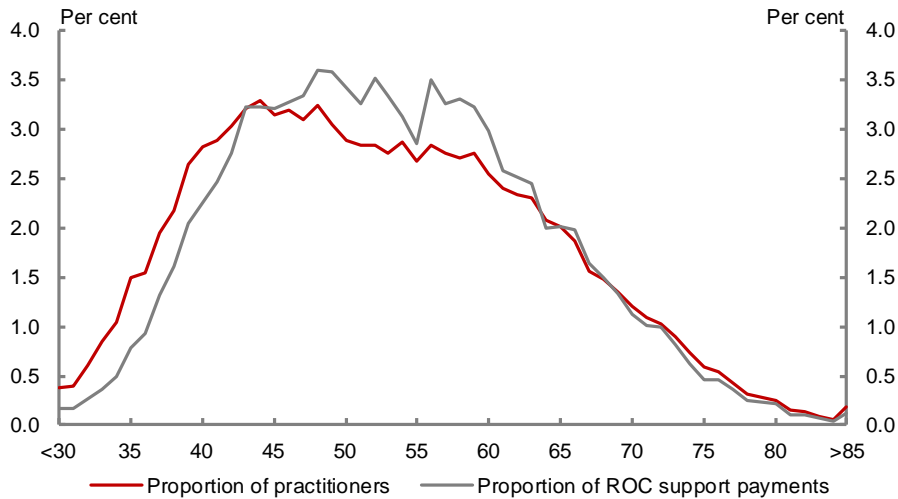
Table 6: Run-Off Cover support payments

	ROC support payments (\$'m)										
	2005-2010	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
AVANT	64.413	7.426	7.175	7.258	8.271	8.338	8.852	9.823	10.743	11.080	11.377
MDAN	22.909	2.522	2.332	2.432	2.624	2.607	2.648	2.546	2.798	2.711	2.935
MIGA	16.862	2.061	2.218	2.422	2.115	2.183	2.413	2.451	2.370	2.504	2.438
MIPS	16.826	1.718	1.781	1.596	1.617	1.613	1.604	1.630	1.676	1.924	2.136
BHSI	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.080	0.261	0.428	0.594
Guild	n/a	n/a	n/a	n/a	n/a	0.006	0.006	0.007	0.006	0.006	0.006
Total	121.010	13.727	13.506	13.708	14.627	14.746	15.523	16.536	17.853	18.654	19.486

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

- 3.6.5 In order to provide full transparency for practitioners, MII's 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 at the short term bond rate 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 2019-20. 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.

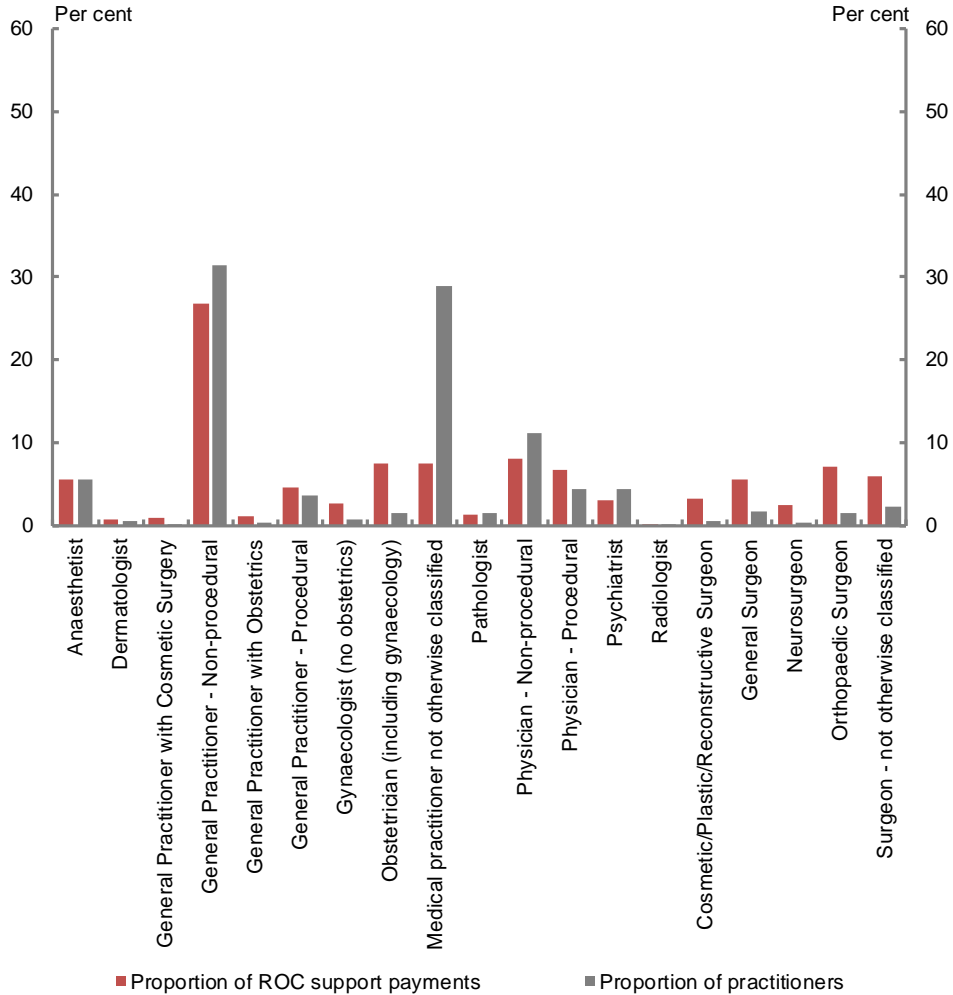
Figure 2: Contribution to Run-Off Cover support payments by age



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. Similar to 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 2019-20 CASH FLOW

- 4.1.1 Table 2 sets out the cash flow statement of the Notional Account for 2019-20. It is worth noting that the notional interest is significantly higher than previous years due to a higher interest rate being applied. The reason for and the implications of this change are discussed in section 4.4.

Table 7: Cash flow statement of the Notional Account 2019-20

	\$'000
Income	
ROC support payments (received 30 June 2020)	19,486
ROC support payments (in respect of doctors eligible at 1/7/2004 start up)	677
Notional interest	33,374
Expenses	
ROC indemnity payments (in respect of doctors eligible at 1/7/2004 start up)	677
ROC indemnity payments (in respect of doctors eligible post 1/7/2004)	11,413
Administration cost payments to MIIIs	2,509
Net cashflow	38,939

4.2 EXPERIENCE AND MODEL

Comment on experience during 2019-20

- 4.2.1 ROCS indemnity payments have been relatively low in the past, although payments have exceeded \$4.5m for the past three consecutive years. The spike in 2020 can be attributed to one large claim that has been fully reimbursed. It is reasonable to expect the general upward trend to continue as the scheme matures. The actual payments made by Services Australia in the first six months of 2020-21 is \$4.1m. It was driven by more claims rather than one or two very large claims. It is an indication that the scheme is starting to mature.
- 4.2.2 In relation to Scheme-eligible claims which had been notified at the time of the previous review (30 June 2019) but not yet paid, actuarial estimates of the corresponding ROC indemnity payments had an undiscounted value then of \$24.9 million (excluding claims handling costs). In 2019-20, claim payments of about \$10 million were made by MIIIs/MDOs relating to these claims (based on industry data). All else being equal, this would suggest a residual figure at 30 June 2020 of about \$14.9 million. Updated industry estimates put this number at around \$22.2 million (excluding 2019-20 notifications), which is higher than expected. This indicates that

that the industry estimates for claims notified at the time of the previous review have increased from last year.

- 4.2.3 Based on input from industry actuaries, the previous report estimated the incurred-but-not-reported (IBNR) Run-Off Cover Scheme liability at 30 June 2019 as \$43.7 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. Note that the estimates below have been calculated from projected cashflows discounted at 5 per cent per annum to the middle of each notification year. It shows that the estimates have generally slightly decreased from last year, except for 2019-20, where the estimate has been updated based on the actual claims notified during the year.

Table 8: Expected new notifications (excluding CHE)

Notification year	This year's data (\$'000)	Last year's data (\$'000)
2019-20	9,032	6,611
2020-21	6,833	7,004
2021-22	7,185	7,348
2022-23	7,551	7,701
2023-24	7,925	8,053

- 4.2.4 However, the slight reductions in the expected new notifications are more than offset by the significant increase in the estimated cost of the claims already notified, resulting in higher projected ROC indemnity payments as shown in Table 9.

Changes to model and assumptions

- 4.2.5 Three years ago, we revised a range of assumptions in light of the NCPD data that we received in 2017. These assumptions still appear reasonable in light of the most recent data. We have not made any changes this year except those described below.
- 4.2.6 The ROCS eligibility probabilities have been updated to reflect the change legislated in the *Medical and Midwife Indemnity Legislation Amendment Act 2019* (Amendment Act) which waives the three year ROCS eligibility waiting period for those resigned from private practice under the age of 65 from 1 July 2020. This causes a one-off jump in new entrants in 2020-21 because not only are the doctors resigned in 2020-21 eligible for ROCS immediately, those who resigned in the previous three years will also become eligible for ROCS in 2020-21.
- 4.2.7 Appendix 4 sets out the main assumptions and describes the methodology that was used to estimate the liabilities at 30 June 2020. Appendix 5 describes the assumptions and methodology used to project future

liabilities. Appendix 6 considers the effect of the High Cost Claims Scheme (HCCS). The applicable HCCS threshold has been changed from 1 July 2018.⁹

COVID-19

4.2.8 In the last few months of 2019-20, COVID-19 had a negative impact on economic conditions. However, the specific impact on the medical indemnity liabilities is indirect and very difficult to estimate. As a policy response to COVID-19, retired medical practitioners were able to return to work without losing their ROCS eligibility status. This can potentially increase the number of medical indemnity claims. On the other hand, it has been reported that many elective surgeries were paused, acting to reduce the number of medical indemnity claims. Consequently, we have considered whether any adjustments were necessary for this year's ROCS estimate. We concluded that no adjustment could be meaningfully made and the net impact is likely to be small. This is due to a range of considerations including the following:

- Economic forecasts such as CPI and wage price inflation are used as a basis for our assumptions (e.g. the long term growth rate of the average claim cost). However, the relationship is not direct or constant. Short term changes in economic forecasts cannot be assumed to apply to medical indemnity schemes;
- Medical indemnity schemes are by nature long tailed, especially for claims not yet notified. It can take many years for any COVID-impact on medical indemnity scheme payments to appear in the cashflow data. For claims that have been notified, there is no data to estimate the impact of COVID-19;
- The medical indemnity schemes' liability as at 30 June 2020 relate to all incidents occurred prior to 30 June 2020, therefore any impact of COVID-19 on the frequency or severity of incidents is limited to 3 to 4 months. This is not a credible base from which to project the likely impact of COVID-19. Further, it is perceivable that more general practitioners than specialists could have responded to the back-to-work policy initiative, limiting the impact on scheme liability as they perform predominately low risk tasks. In addition, the pause on elective surgeries could have offset any such increase.

⁹ As announced by the Government on 19 December 2017 in the Mid-Year Economic and Fiscal Outlook 2016-17, the High Cost Claim Threshold has increased from \$300,000 to \$500,000 from 1 July 2018.

- Almost all insurers have incorporated the impact of the back-to-work initiative in their projections provided in late 2020. Some insurers have also adjusted their projections to allow for the impact of COVID. For example, one insurer reduced future inflation assumption slightly, and another insurer reduced expected claims costs slightly for the next few notification years.

4.2.9 Next year, we will have some additional data that incorporates the preliminary impact of COVID-19 on the medical indemnity scheme payments. We will reassess if any material impact on ROCS is able to be determined at that time.

4.3 RESULTS: PROJECTED RUN OFF COVER COMMONWEALTH CONTRIBUTIONS

4.3.1 This section sets out projections 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 2020 was broadly consistent with the trend implied in the past payments data provided by the 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 a number of 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 2020 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 2020-21 does not appear inconsistent with the actual payments to the end of December 2020. 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.

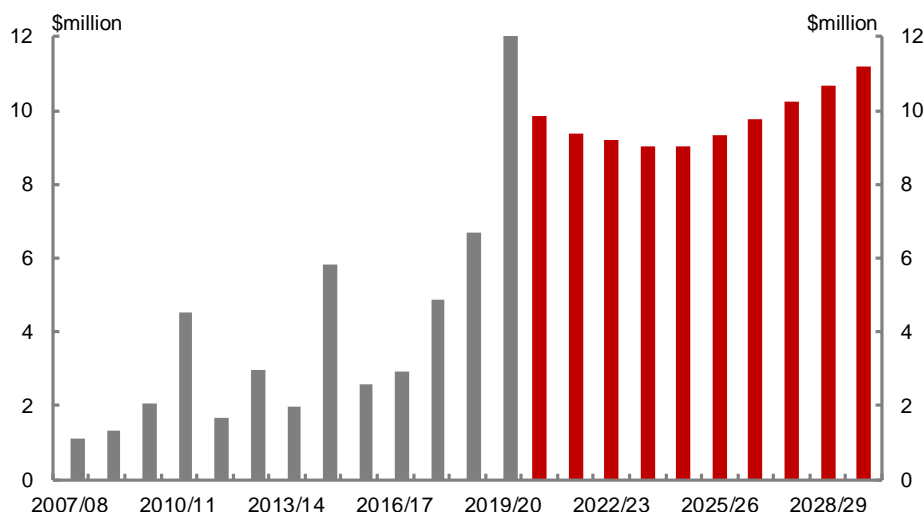
4.3.3 Given the spike in payments in 2019-20 and the actual payments to the end of December 2020, it is reasonable that the insurer's projections in relation to the subsequent years are optimistic. It is, however, very difficult to ascertain given the immaturity of the scheme.

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

Year ending 30 June	Projected ROC indemnity payments plus CHE (\$'000) ^(a)
2021	9,848
2022	9,379
2023	9,215
2024	9,052
2025	9,050
2026	9,320
2027	9,761
2028	10,262
2029	10,690
2030	11,208

(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 2020 & 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 a number of 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 2020 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 MIIIs, but not yet recovered from Services Australia;
 - Scheme eligible claims which had been notified to the MIIIs at the time of the review but not yet paid;
 - Incurred claims that have not yet been reported to the MIIIs; and
 - Claims handling expenses.
- 4.4.5 The Scheme must be managed over a long time frame. 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; and
- 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. In previous years, notional interest was applied at the short term bond rate for consistency with section 34ZS of the Medical Indemnity Act which required interest at the short term bond rate to be applied to the total run-off cover credit balances of individual practitioners. However, this short term bond rate was repealed by the Amendment Act. The interest rate that was applied to the balance as at 30 June 2020 is the applicable general interest charge rate as prescribed by the *Medical Indemnity Rules 2020*. This rate is 8 percentage points higher than the previous year's notional interest rate and increased the notional interest by around \$30m. 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; and
- 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 claims handling expenses (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 funded¹⁰. 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 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.

¹⁰ As announced by the Government on 19 December 2017 in the Mid-Year Economic and Fiscal Outlook 2016-17, the High Cost Claim Threshold has increased from \$300,000 to \$500,000 from 1 July 2018.

4.4.17 Table 11 below sets out the balance sheet of the Notional Account as at 30 June 2020.

Table 11: Balance sheet of the Notional Account as at 30 June 202

	\$'000
Assets	
Cash as at 1 July 2019	262,486
Net cashflow	38,939
Total	301,424
Liabilities	
Outstanding compliance costs	2,428 ^(a)
Paid by MIs but not yet recovered from DHS	6,519 ^(b)
Notified to MIs but not yet paid by them	27,658 ^(c)
Incurred but not yet notified to MIs	49,643 ^(d)
Claims handling expenses	5,049 ^(e)
Total	91,297

(a) Based on actual and expected payments made by Services Australia in 2020/21 in relation to prior claim years. Includes amounts that are payable to Guild and Berkshire Hathaway.

(b) Based mainly on estimates provided in relation to claims/incidents notified to MIs and MDOs by 30 June 2020.

(c) Based mainly on estimates provided by industry actuaries.

(d) Based on estimates provided by industry actuaries and models developed within this office.

(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 2020 has disclosed an estimated notional surplus of about \$210 million. 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 data provided by Services Australia, this amount could be up to \$400 million as at 30 June 2020. Furthermore, this amount will grow at a faster rate than the incoming ROCS support payments, if the general interest charge rate continues to be used for crediting ROCS levy balances. This is demonstrated in Table 7, where the notional interest for 2019-20 was \$13m greater than the ROCS support payments.

4.4.19 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 by Services Australia.

4.5 RESULTS: PROJECTED LIABILITIES OF THE SCHEME

4.5.1 Finally, it is appropriate to provide a benchmark 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 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. 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)
2020					91,297
2021	91,297	14,176	9,848	5,027	100,652
2022	100,652	15,098	9,379	5,553	111,924
2023	111,924	16,079	9,215	6,170	124,959
2024	124,959	17,124	9,052	6,878	139,909
2025	139,909	18,238	9,050	7,681	156,778

(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
 11 May 2021

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 65 years or older who has permanently retired from paid medical practice.
- A medical practitioner who has not engaged in paid medical practice during the preceding three years. (Note: unlike other categories, eligibility does not occur immediately upon ceasing practice).¹¹
- 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.

Provision and notification of compulsory run-off cover

A.1.2 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.1.3 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)).

¹¹ 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).

A.1.4 Section 26D compels MIIIs to notify eligible practitioners of:

- the nature and range of incidents encompassed by the compulsory run-off cover; and
- the terms and conditions on which it is provided.

A.1.5 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)); and
 - 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.¹²

¹² As announced by the Government on 19 December 2017 in the Mid-Year Economic and Fiscal Outlook 2016-17, the High Cost Claim Threshold has increased from \$300,000 to \$500,000 from 1 July 2018.

APPENDIX 3: RUN OFF COVER SCHEME CLAIMS

- 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 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

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

- 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; and
 - plus/minus other payments specified in the regulations.
- A.3.6 For premium payments relating to 2019-20, 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 2020

- 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 2020

- A.4.3 Table 13 summarises the estimated accrued Scheme liabilities as at 30 June 2020. The Scheme liabilities are divided into outstanding compliance costs, those attributable to claims notified as at 30 June 2020, those attributable to IBNR claims as at 30 June 2020 and overall claims handling expenses.

Table 13: Run-Off Cover Scheme liabilities related to medical incidents prior to 30 June 2020 (\$'m)

Outstanding Compliance Costs	2,428
Liabilities in relation to claims notified as at 30 June 2020	
Paid by MIs but not yet recovered from DHS	6,519
Notified to MIs but not yet paid by them	27,658
Sub Total	34,177
Liabilities in relation to IBNR claims as at 30 June 2020	49,643
Claims Handling Expenses	5,049
Total Run-Off Cover Scheme liabilities	91,297

- 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 2020 and the expected amount that Services Australia will pay to insurers after 30 June 2020 in respect of previous years' operation. It includes the amounts that Services Australia potentially have to pay Guild and Berkshire Hathaway in respect of previous years' operation as they are now allowed under the legislation.

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 compared the insurer past payments (including CHE) with the Services Australia reimbursements as at 30 June 2020. The difference is, by definition, the amount paid by insurers but not yet reimbursed by Services Australia, and it is higher than the corresponding amount derived from the insurer's data provided in late 2020. We have used the higher figure.

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 notified many years (potentially as long as 20 or more 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, and are therefore 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 5 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.

Claims Handling Expenses

A.4.14 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.

ASSUMPTIONS

Industry cash flow projections

A.4.15 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.4.16 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 2020 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 has been allowed for in the data provided by the industry in late 2020, hence we made no further adjustments. We have not allowed for the possible impact of potential court closures due to COVID-19 which could delay settlements hence payments.

Proportion of Scheme claims paid by the HCCS

A.4.17 Our model effectively assumes that 17 per cent of ROCS claims costs will be reimbursed by the HCCS for claims notified from 1 July 2018, following the threshold change¹³. This is unchanged from last year. Our assumption is not dissimilar to that used by most insurers.

Economic assumptions — claims inflation & long term discount rate

A.4.18 Medical indemnity claim 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

¹³ As announced by the Government on 19 December 2017 in the Mid-Year Economic and Fiscal Outlook 2016-17, the High Cost Claim Threshold has increased from \$300,000 to \$500,000 from 1 July 2018.

contexts and therefore is suitable from a whole of government perspective at 30 June 2020. This rate is unchanged from last year.

Comparison of Actual and Expected Liabilities at 30 June 2020

A.4.19 In any valuation, it is informative to compare the 'actual' estimated liabilities¹⁴ 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 2020 to the 'expected' amounts, which are based on the prior review and expected cash flows during 2019-20. 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 2020 (\$'m)

	Actual	Expected	Actual minus expected
Notified but not yet paid	27.7	19.1	8.5
IBNR	49.6	50.1	-0.4
Total	77.3	69.2	8.1

A.4.21 The 'actual' estimated liability is about \$8.1 million higher than the 'expected' liability based on the prior review. It is mainly driven by higher estimates provided by industry actuaries in late 2020 pertaining to the claims notified but not yet paid, which more than offsets the small reduction in the IBNR estimate.

Uncertainty in the Liability as at 30 June 2020

A.4.22 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.

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

- A.4.23 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.
- A.4.24 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.4.25 The IBNR component is also dependent on the assumed notification pattern. This has been updated a number of times since the beginning of the scheme as more data has become available. 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.4.26 Ultimately, uncertainty is evidenced by the fact that the scheme is still immature. Fewer than 600 claims have been notified to insurers that have a case estimate attached to them, and only 352 claims have had some reimbursement by Services Australia. There is insufficient data for a more scientific modelling approach.
- A.4.27 Last year, we estimated a temporary spike in payments in 2019-20. The half year payments made by Services Australia to December 2020 supports a lower total payment estimate for 2020-21. We estimate that payments will be slightly reduced in the next few years before rising again steadily and at a level that is much higher than the years prior to 2019-20. Payments have exceeded \$4.5m a year continuously since 2017-18. This reflects the increasing number of practitioners who are now eligible for benefits from the ROCS.

APPENDIX 5: PROJECTED LIABILITIES

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 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 are not too dissimilar from the corresponding amounts presented in last year's report.

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)
2020					91,297
2021	91,297	14,176	9,848	5,027	100,652
2022	100,652	15,098	9,379	5,553	111,924
2023	111,924	16,079	9,215	6,170	124,959
2024	124,959	17,124	9,052	6,878	139,909
2025	139,909	18,238	9,050	7,681	156,778

Description of the model used to project the accrual of new Run-Off Cover Scheme liabilities after 30 June 2020

A.5.4 The approach involved projecting the expected future ROC indemnity payments for each medical practitioner who was practising as at 30 June 2020.

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

- retirement at 65 years and older;

- permanent disability;
- death;
- maternity;
- resignation; or
- 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 2020 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 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.

A.5.8 It was assumed that on average practitioners who become eligible for the Scheme do so half-way through the financial year.

A.5.9 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; and
- the delay involved in the payment of notified claims.

A.5.10 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 for each practising medical practitioner in each future year.

RUN-OFF COVER CLAIMS

Components of claim cost

- A.5.11 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 claims handling expenses (CHE) are dealt with separately.
- A.5.12 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

- A.5.13 Three years ago, for the first time we have had access to the NCPD data. This allowed us to review and update a range of assumptions at that time.
- A.5.14 We have altered the ROCS eligibility assumptions in light of the Amendment Act. We have not altered any of the other assumptions in this review. Economic assumptions are set out in Appendix 4 and have been used consistently in both the calculation of the liability at the valuation date and in the projection.

Practitioner population

- A.5.15 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 2020. This starts with the population of medical practitioners who were practicing in 2019-20. This data is provided by the MIIs and maintained by Services Australia.
- A.5.16 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 investigation. The excluded group contained interns and trainees that exist in some of the data provided by the MIIs. A total of 96,443 practising medical practitioners have paid some medical indemnity premium during 2019-20. After excluding those medical practitioners, we were left with 54,273 'at-risk' medical practitioners. This approach is unchanged from our previous reports¹⁵.

¹⁵ One insurer's membership fees were not available in the Services Australia data.

A.5.17 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. Note that age and gender were not available for a small number of medical practitioners.

Table 16: Cohort of ‘at-risk’ medical practitioners

Age at 30 June 2020	Number 'at-risk'	Total premium (\$'000)	Proportion males (per cent)
<30	75	310	40
30-34	1,704	5,935	45
35-39	5,319	28,021	50
40-44	8,280	58,317	57
45-49	8,541	71,575	59
50-54	7,716	69,825	62
55-59	7,472	67,361	64
60-64	6,328	52,424	68
65-69	4,496	35,434	75
70-74	2,700	19,074	83
75-79	1,170	7,460	86
80-84	370	2,256	90
>85	102	483	93
Total	54,273	418,475	63

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 \$394 million.

Demographic assumptions

A.5.18 Demographic assumptions are required to project the number of eligible medical practitioners in future years from the current population of ‘at risk’ medical practitioners. We have not changed any of the assumptions this year.

A.5.19 In order to assess the future rate at which liabilities will accrue, we project the expected number of 2020-21 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 at 65 or older, resignation from private practice for three years¹⁶, 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.

16 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.

- A.5.20 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 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.5.21 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.5.22 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 60.
- A.5.23 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.5.24 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 2020							
	30-Jun	20	30	40	50	60	70	80
2021		0.0002	0.0553	0.0146	0.0089	0.0118	0.0924	0.2725
2022		0.0004	0.0651	0.0192	0.0128	0.0203	0.1770	0.4729
2023		0.0007	0.0748	0.0239	0.0169	0.0291	0.2669	0.6199
2024		0.0009	0.0825	0.0285	0.0211	0.0380	0.3476	0.7273
2025		0.0012	0.0902	0.0318	0.0254	0.0425	0.4366	0.8055
2026		0.0014	0.0961	0.0351	0.0299	0.1994	0.5141	0.8623
2027		0.0017	0.1019	0.0385	0.0346	0.2548	0.5817	0.9032
2028		0.0020	0.1077	0.0420	0.0394	0.3067	0.6469	0.9325
2029		0.0222	0.1127	0.0455	0.0445	0.3553	0.7096	0.9534
2030		0.0421	0.1176	0.0491	0.0503	0.4040	0.7706	0.9681

- A.5.25 The resulting number of practitioners who are expected to become eligible in 2020-21 is set out in Table 20. Note that the waiver of the three year waiting period for eligibility through resignation will result in a temporary spike in the number of new eligible practitioners in 2020-21.

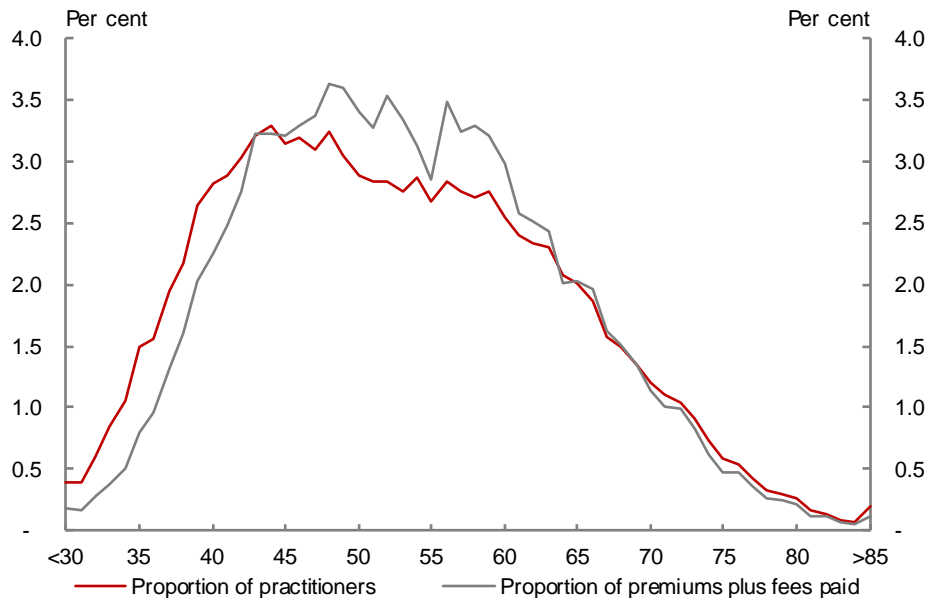
Population average claim frequency

- A.5.26 The overall claim frequency for the entire at risk population was assumed to be 4 per cent. That is, on average each 'at-risk' medical practitioner was assumed to have a 4 per cent chance of being involved in a medical incident in the next year which will result in a future medical indemnity claim. This is unchanged from last year.
- A.5.27 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.5.28 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.5.29 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.5.30 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 available, 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.5.31 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.

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 MIIs.

Individual claim frequencies based on assumed wind down of risky practice

- A.5.32 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.5.33 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 $0.8^{(age-59)}$. This is unchanged from last year.
- A.5.34 This assumption is very subjective and is not amenable to objective validation. Nonetheless, it does not appear unreasonable in light of observed claim experience.

Claim size

- A.5.35 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.5.36 The average claim size was assumed to be around \$140,000. This was unchanged from last year. We review this assumption periodically based on the NCPD data.
- 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 2020 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 majority of Scheme cost relates to the small proportion of claims which are notified very late.

Impact of the High Cost Claim Indemnity on claim size

A.5.39 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.5.40 The model effectively assumes that 17 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.5.41 ROC indemnity payments in relation to medical incidents occurring after 30 June 2020 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

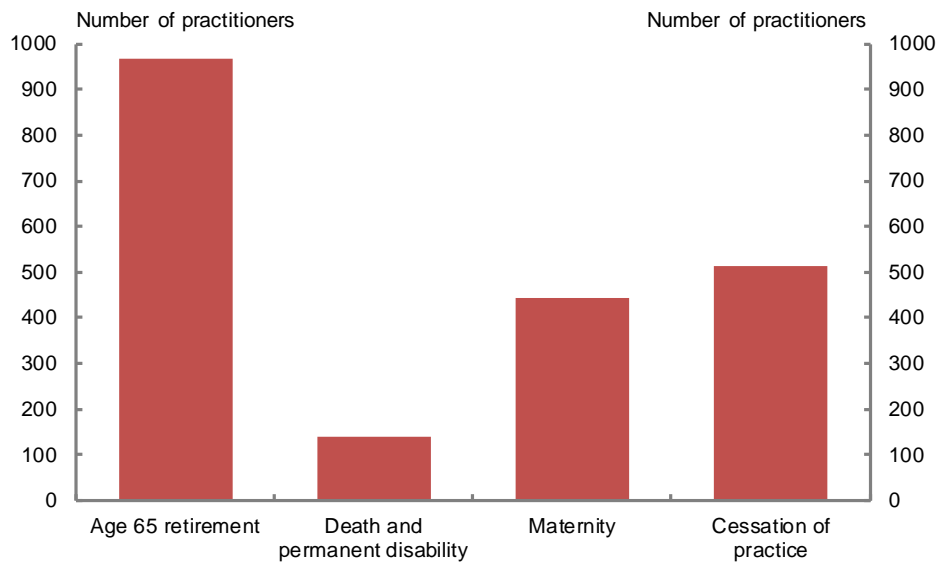
Delay from notification to payment (year)	Proportion of claim costs paid (per cent)
1	8.20
2	18.54
3	19.21
4	15.87
5	12.86
6	8.56
7	6.07
8	4.72
9	1.83
10	1.32
11	0.92
12	0.76
13	0.27
14	0.21
15	0.16
16	0.13
17	0.11
18	0.10
19	0.09
20	0.07

PROJECTION RESULTS

Projection of 'at-risk' medical practitioners

- A.5.42 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.
- A.5.43 Figure 6 depicts the number of 'at-risk' practitioners projected to become eligible for the Scheme by various means during the 2020-21 financial year. Due to the waiver of the three year waiting period from 1 July 2020, there is a one-off jump 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). Going forward, the number of new entrants by resignation is expected to revert back to historical levels.

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



- A.5.44 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.5.45 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. We have not adjusted any of the eligibility assumptions this year apart from adjusting for the removal of the three year waiting period for resignation from 1 July 2020. This also affects the probability of a claim being eligible for ROCS at the time of notification.

A.5.46 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.

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

	Industry data										Model
	2005-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Retired	2,214	504	514	672	766	689	840	881	890	781	968
Maternity	1,619	277	268	295	307	330	330	525	506	445	445
Permanent disability	173	24	20	30	26	35	28	37	25	10	27
Died	673	106	127	107	121	104	121	93	98	71	110
Resigned	682	149	154	214	157	220	182	258	226	170	515
Sub-total	5,361	1,060	1,083	1,318	1,377	1,378	1,501	1,794	1,745	1,477	2,065
Other ^(a)	682	227	336	429	346	357	424	504	538	481	-
Total	6,043	1,287	1,419	1,747	1,723	1,735	1,925	2,298	2,283	1,958	2,065

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

A.5.47 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.

Projection of future Run-Off Cover Scheme costs

A.5.48 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 2020			Medical incidents post 1 July 2020	
	Notified as at 30 June 2020	IBNR as at 30 June 2020	Total	Total	Grand total
	(\$m)	(\$m)	(\$m)	(\$m)	
2021	9.3	0.6	9.8	0.0	9.8
2022	7.2	1.9	9.1	0.3	9.4
2023	5.5	3.3	8.8	0.4	9.2
2024	3.8	4.5	8.2	0.8	9.1
2025	2.5	5.4	7.9	1.1	9.0
2026	1.7	5.9	7.5	1.8	9.3
2027	1.1	6.2	7.2	2.6	9.8
2028	0.8	6.3	7.0	3.2	10.3
2029	0.5	6.1	6.5	4.2	10.7
2030	0.3	5.8	6.1	5.1	11.2

Note: numbers may not add up due to rounding.

Uncertainty in relation to liability projections

A.5.49 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 Scheme eligible claims have been identified and that recoveries will be more diligently pursued later in the claim process; and

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

A.5.50 The information provided by the actuaries of the MIIs 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.

A.5.51 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.

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 2020 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 2020 and are expected to be recoverable under the HCCS; and
- an estimate of that part of the future claims cost of medical incidents notified during the 2020-21 to 2024-25 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 2020, 2,373 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 2020. This figure is around \$1,990 million. Of this, around \$615 million is estimated to be recoverable from the HCCS. Services Australia data shows that \$496 million has been paid by 30 June 2020.
- 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 2020 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. For example, about 30 per cent of the total estimated cost of HCCS-eligible claims was attributable to claims expected to cost above \$2.0 million.

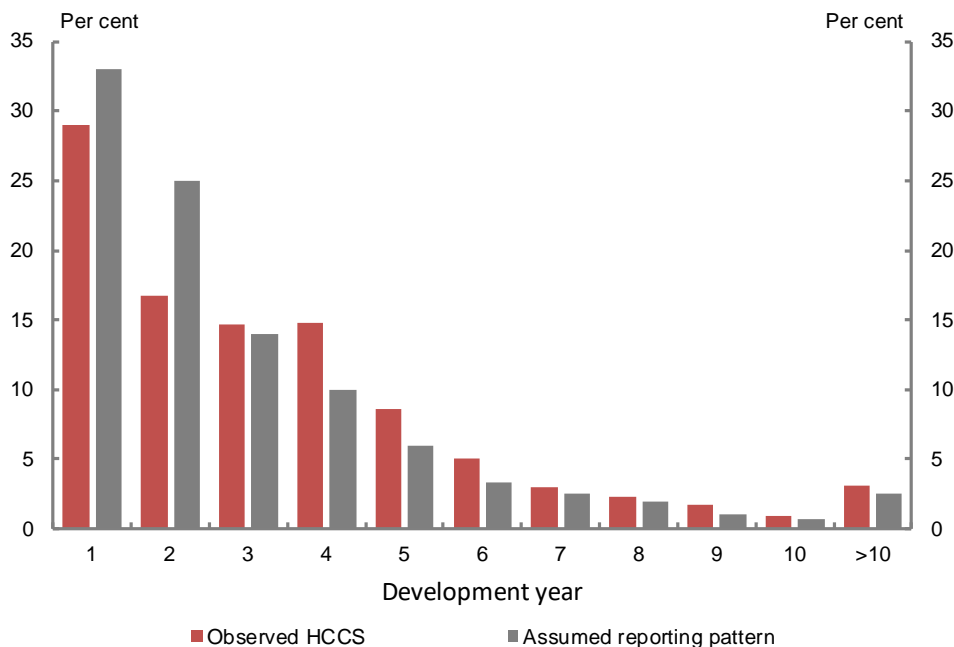
Table 22: Distribution of High Cost Claims Scheme-eligible claims

Claim size (\$'m)	Proportion of claims cost (per cent)
0 to 0.3	N/A
0.3 to 0.5	20
0.5 to 2.0	51
>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 2020, 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 ROC claims will increase with the delay in reporting, and the assumed proportions are listed in Table 23. These have been updated since last review to reflect the change in the average claim size assumption as well as the changes in the notification pattern assumption.

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