A structured settlements system

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Foreword

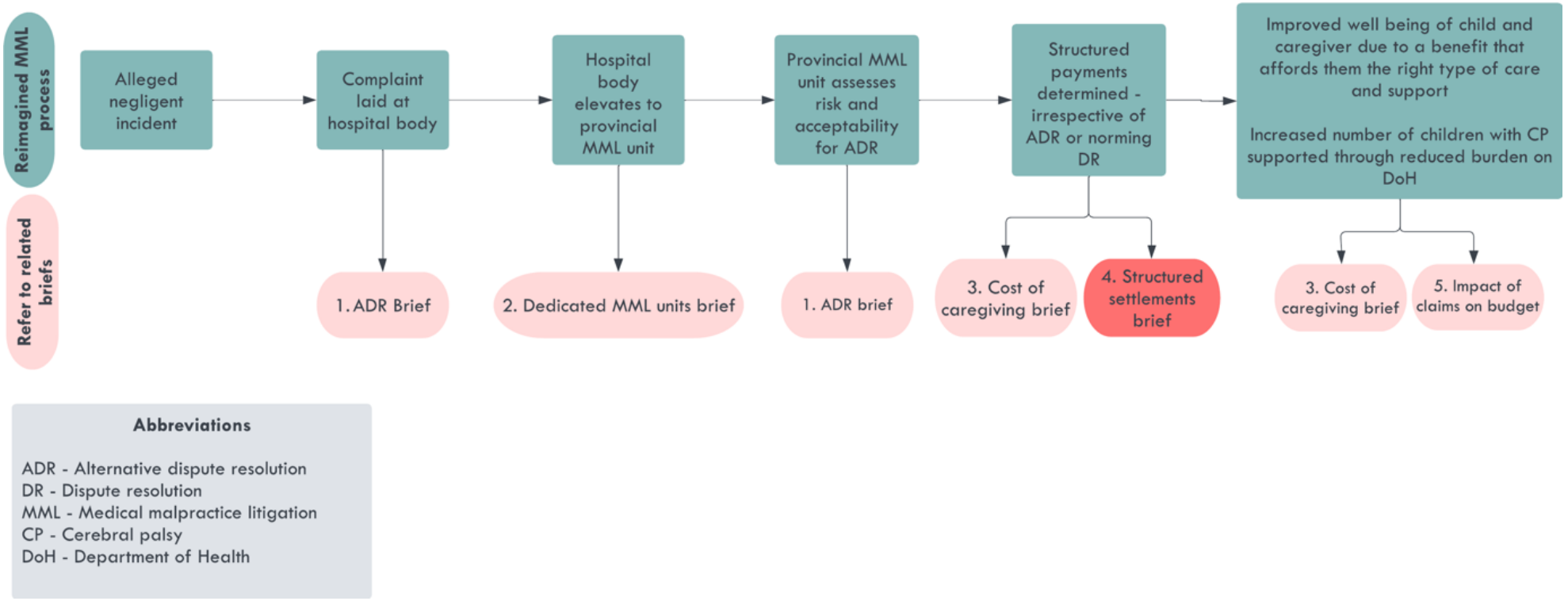
The Public Interest function was created by the Actuarial Society of South Africa (ASSA) to enable the organisation to pro-actively participate in public policy discussions. ASSA seeks to inform debate on matters of public interest in South Africa, especially when it is deemed that actuarial expertise can add value. ASSA can provide facts, figures, comments, and analyses of consequences on a wide range of topics where the actuarial skillset can provide unique insights.

There is no specialised legislation governing the medical malpractice (medico-legal) space in South Africa.[1,2] Claims are therefore dealt with by way of the common law.[1,2] This increases the risk of exploitation and abuse. The South African Law Reform Commission (SALRC) seeks to reform the law to address the risks inherent in using common law for medico-legal claims. In collaboration with other experts in this space, such as ASSA, the SALRC aims to draft legislation that will best serve the citizens of South Africa.

ASSA aims to provide feedback, research, and commentary throughout the process to help shape the SA medico-legal legislation space.[3] A series of work and policy briefs were commissioned to research the recommendations of the SALRC, of which this forms one of the briefs in the series. It is envisaged that the findings from this research would equip the SALRC with the evidence needed to tighten legislation and provide outcomes that are fair to all involved parties. It is our view that by linking these policy briefs together, one can understand the policy levers available to the SALRC to reimagine or shape the future of the medico-legal space.

Figure 1 shows the flow of the research briefs Percept was commissioned to write. The briefs follow the same order as a medico-legal claim and thereby paint a story of the necessary reform along the medico-legal journey. The brief herein is the fourth brief in the series and discusses the possibility and potential of structured settlements. This is one of the ways that claims can be paid out and would serve as a reform from the current "once and for all" rule.

Figure 1: Reimagining of the SA medico-legal space



Background

One of the recommendations outlined in the SALRC discussion paper[1] was the establishment of **structured settlements as a norm for the settlement of medico-legal claims**. The past and future pay-outs within a structured settlement, for the different heads of damages, was also discussed. ASSA has therefore commissioned this policy paper to consider structured settlements as a policy lever to reform medico-legal claim pay-outs.

The issues prevalent in the medico-legal space are examined in associated policy briefs[4–6], therefore this brief only deals with the structured settlement consideration. Under the common law, awards are prescribed to be paid out "once-and-for-all".[1,2] This entails large upfront awards that are final and paid using a lump sum.[1,7] Lump sums are particularly large where the cases relate to birth injuries as the purpose of the award is to fund the expenses of a disabled child over their lifetime. The calculation of the lump sum amounts relies heavily on underlying assumptions. Therefore, the award provided can only be an estimate of the actual expenses of a child injured at birth. It will inevitably be either too much or too little. A structured periodic payment is more likely to more closely match the expenses of the injured child, because it is being paid out in real time, rather than a lump sum prospectively. It is worth mentioning that in a recent case (February 2023), the common law has been developed to allow a structured settlement solution which signals that reform is on the horizon.[7]

The number of cases and size of quantum have been increasing over time. The accumulation of these large and increasing lump sums strains the Provincial Departments of Health (PDoHs) budgets, which is the source for award pay-outs for the public sector.[1,2,8] Having to pay large lump sums gives rise to other opportunity costs and the risk of the PDoHs not meeting their constitutional obligations of providing public healthcare to the citizens of South Africa.[8] The reduction in health budget allocations[8,9] due to the current fiscal environment means that even less money is available to fund public healthcare and its improvement, making medico-legal claim pay-outs even more devastating for the PDoHs.

This policy brief addresses the area of the largest pay-out only, which is the future medical expense aspect of a medico-legal claim. Refining further, Cerebral Palsy (CP) cases (resultant from birth injuries) were investigated specifically as these matters comprise the largest benefit pay-outs. A recent judgment on a CP claim illustrated that 86% of a total award comprised the medical expenses component.[7]

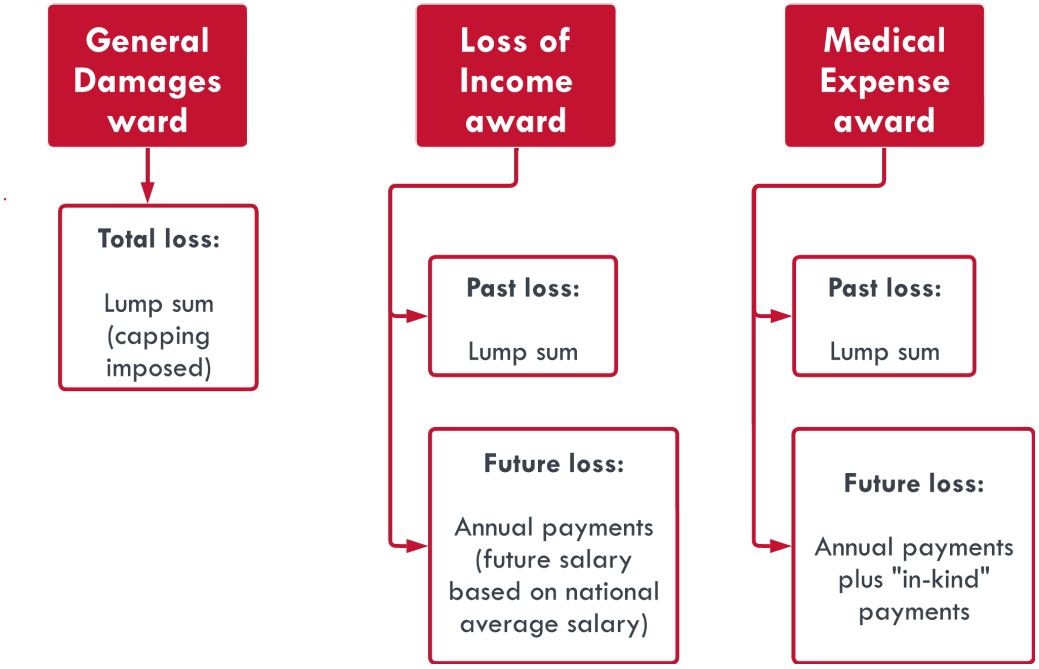
This brief follows on from previous work done on the design of a benefits package required for a child with CP[10] and the structured settlements costing tool.[11] The brief provides a summary of annual structured settlements for children with CP, building on from these previous pieces of work. The brief ends with the advantages and disadvantages of a structured settlements system and a discussion of the aspects to consider when designing such a system for the management of medico-legal claims in South Africa.

Structured settlements

A structured settlement, as suggested by the State Liability Amendment Bill[12] and as recommended by the SALRC, is a mixture of a lump sum payment, delivery of services ("in-kind" payments) and periodic payments per the medico-legal claim.[12,13] This differs to the lump sum award currently paid into a trust for future use of the injured party.

As summarised in Figure 2 below, the SALRC project 141 note suggests that in a structured settlement environment, the awards related to general damages, past loss of income and past medical expenses could be paid as a lump sum. The services that could be rendered by the State for future medical treatment, equipment and its maintenance, be provided by the State ("in-kind"). And lastly, future loss of income and future medical services that cannot be offered by the State and therefore sought at private facilities be paid for periodically. Specifically, annual periodic payments are suggested. This type of award is more recently referred to as the "public health care remedy", the "undertaking to pay" remedy or the "DZ defence".[1,7]

Figure 2: Structured settlement recommendation summarised for each head of damages as outlined in the SALRC project 141 discussion paper[1]



The key issue underlying large lump sum pay-outs is the crippling reduction imposed on the already constrained public health care system and budget.[2,7] These pay-outs affect the cash flow of the PDoH, hampering the delivery of vital medical services and therefore the State's constitutional obligation.[7,8]

When large cash pay-outs are made, there is an additional risk of the money not being used for the intended purposes. This risk is amplified where the money is meant to look after a minor who has little control over the funds and who does not directly receive

[1] These recommendations are taken from the SALRC discussion paper and do not reflect the recommendations of the author.

the money. It is further noted that once money has been paid out to attorneys for inclusion into a trust, it cannot be verified how the money flows into the trust and how it is managed and used thereafter.[3,7,14] To avoid the above issues, the SALRC and recent judgments[8] request the setup of a structured settlement mechanism.

It has been suggested that the quantum cost for structured settlements would be lower than that of the lump sum arrangement, **but this is not necessarily true**, especially in matters where "in-kind" payment cannot be used, where the child's condition has deteriorated over time and if the child lives longer than expected. Essentially, the true cost paid over a person's lifetime will differ to what may have been paid out as an upfront lump sum, where approximations were used in its calculation.

Reform of the common law

Moving to a structured settlement would mean reforming the common law of "once-and-for-all" (which has been recently done). This method makes it possible to closely match the expenses of the injured party over their lifetime, in both cashflow amount and timing. The claimant would also benefit by having a smoother cashflow, not having to worry about how to ensure they will still have enough money in future. By closely matching the true cost required by the injured over their lifetime, the method is fairer to both parties. There will be no need for protection of funds in a trust (and the associated risks with using this setup) if frequent periodic payments are made. However, it also means that while the judgment may be final, the award may not be final - as it depends on the lifespan of the injured party, severity levels and its changes, medical treatment, and equipment available and associated costs (current and in the future).

Pay-as-you-go basis

By enabling annual structured settlements, the State is essentially switching from a lump sum compensation method to a pay-as-you-go basis. All things equal, this basis may foster faster payment of claims to the injured party, which matches needs more closely. It also means that the annual payments for existing cases can be easily accounted for and budgeted for by the PDoHs.[7] However, a pay-as-you go basis may not be to the advantage of the State, if an aggregation of claims causes a large magnitude of claims for payment, resulting in the PDoHs struggling to fund annual settlements. This argument is discussed in greater detail in the section '
Aggregation of claims'.

In-kind payments

The cost of structured settlements per case heavily relies on the services that can be rendered by the State. It is assumed that "in-kind" payments will differ on a case-by-case basis, especially according to the geography of the injured. Prevention of re-traumatisation of the injured party and family will need to be considered carefully.[3] The more services that can be rendered by the State, the lower the quantum cost of the claim. Especially given that care is always cheaper to fund in a public setting due to economies of scale and the streamlining of all Human Resources for Health (HRH) members being employees of the state rather than self-employed.

Multi-disciplinary public treating facilities

Services rendered in public facilities such as centres of excellence (COEs) where there are multidisciplinary teams that care for the injured are more beneficial, particularly for long term care, than going to singular private facilities that provide care in silos.[15] "in-kind" payments for services from these types of facilities are therefore more beneficial for both the injured party and the State.

Additional costs of a reimagined system

It is difficult to understand whether or not there will be added costs related to the existing facilities being able to see medico-legal claimants or the additional costs required for the creation of new facilities to meet the demand. Some facilities, such as the COEs, will be public facilities and therefore will have open access, which cannot only be used for the treatment of claimants. Facilities will require new staffing yet the funding for HRH is a swampy problem. Previous work done in this space shows that there is a shortage of HRH in South Africa[16]. This means that even if more nurses and doctors are required, they cannot be employed due to this shortage and therefore costing for extra HRH is not realistic.

Schedule of benefits

In associated work[10,11], the authors developed three benefit tables detailing the needs for children with CP. The high-level benefits between the three tables are similar but the specifics differ according to the severity of a child's CP diagnosis. These tables are referred to as "Mild", "Moderate" and "Severe". To illustrate the difference between tables, "Mild" CP cases have comparatively lower costs per medical item due to requiring less frequent therapy and less equipment. Total costs however will need to be considered in the context of the longer lifespan of a child with mild CP in comparison to a child with more severe CP. Children classified as "Severe" may have higher costs but shorter lifespans.

Children are clinically classified according to a 12-point system (as documented) into the three categories and benefits needed are illustrated in the appropriate table. It is recommended that children are re-categorised, particularly at certain ages (as documented) where benefits clinically change, to ensure that the correct benefit table is being used as a child's condition may deteriorate over a lifespan.

The benefit tables are grouped per high-level care category and age band. The age band categories comprise the following ages:

- 0 – 3 years 11 months,
- 4 – 7 years 11 months,
- 8 – 17 years 11 months and
- 18+ years

It was found that these chosen age categories allowed for the easy clinical grouping of medical benefits. This also means that children would need to be reassessed and reclassified into severity levels upon reaching a new age band by the treating facility that is responsible for their care.

The benefit categories have different frequencies dependant on age groups and severity levels of CP. The categories are outlined in Table 1 below.

Table 1: High-level benefit categories

Benefit categories	***Examples***
Caregiving	Carer and relief salaries
Equipment	Assistive, communication and therapy devices
Medical care	Paediatricians, medication
Support	Education, environmental (housing), nutritional, psychosocial and transport support
Therapy	Regular, block and additional therapy

The advantages of drawing up a schedule of benefits is that it provides a framework over which CP claims can be standardised nationally. If the benefit package is used in the current highly litigious environment, hopefully, the length of matters and costs required for expert reports will be reduced. The framework can also be used as a checklist for the State to understand the medical care and treatment required to be provided in-kind over the injured person's lifetime.

For the purposes of the reimagined medico-legal environment, the underlying framework of the benefit package will need to be discussed and signed off by the relevant parties initially before it can be used for the payment of structured settlements. The initial costs per benefit were estimated from desktop research, experience in the field[2] and from queries with various providers and is summarised in Appendix C: Cost sources of the benefit schedule.

Provision is made for the user of the tool to be able to select high, standard or low costs per benefit category which will suit a child's contextual needs. We refer to this input as the cost basis. The cost basis does not necessarily relate to the severity of a child's CP. Cost base could be used as a proxy for the child's additional need due to

[2] This included interviews with caregivers and the authors' experience with CP-treating public health facilities and non-government organisations.

the environment that she lives in. For example, a more expensive buggy might be required to navigate rural terrain. This high-cost base would apply regardless of whether the child has been classified as mild, moderate or severe CP. The tool will also need to be updated regularly for changes in the environment such as price increases for private rates.[3]

It is envisaged that the dedicated medico-legal units, which would be new units formed to deal with medico-legal claims would be the financial users of the tool. The unit will be financially responsible for the case management of the injured child and would work closely with the treating facility such as the COE who will be responsible for the therapeutic case management of the injured child. These two bodies will look after the assessment and reassessment of the child and locate the benefits that can be provided by the state and make provision for the benefits that need to be privately funded per child.

Tool for structured settlements

A structured settlement tool[11] was developed using the schedule of benefits mentioned above.[10] The purpose of this tool is two-fold. The most valuable feature of the tool is that it can be used to approximate a structured annual settlement for the injured. The second feature, which is more for the purposes of illustration and hopefully future budgeting needs, is the approximation of the total settlement needed to fund medical costs for the injured party's entire lifetime. In this section, the annual settlement functionality is illustrated. More details on the total settlement calculation feature can be found in

Appendix A.

Tool functionality: Annual payment calculation

As mentioned, the most valuable function of the tool is the annual payments calculation, using parameters specified by the user. This functionality enables the understanding and planning for annual structured settlements. The tool allows the user to determine the annual amount needed to fund care. This amount is only for one year ahead and the size of annual payment differs from one year to the next depending on the needs of a child for the year ahead. The user of the tool would need to ensure that the latest prices are being used for the calculation and the prices for services that can be rendered in-kind are zeroised where appropriate. The tool is well-signposted for ease of use.

Items within the benefit packages may inflate at different rates, for example caregivers receive increases based on salary inflation whereas medical goods will increase at medical inflation rates. It is therefore best that the most up to date prices are inputted in the tool rather than using assumptions to inflate prices. Furthermore, services that may be rendered within the geographical location of one child may differ from the next. The user of the tool, which we envisage to be the responsibility of the dedicated medico-legal units, must ensure that all prices are up to date and that the items that can be rendered by the State are zeroised in the tool.

Actuarial discounting has been ignored for the calculation of annual payments. The principle of discounting and providing a lower amount now for future payments is less important over a one-year period, especially if the party receiving the funds does not invest it in an interest-bearing bank account. A mortality assumption has also been ignored. If this assumption is applied, it will marginally reduce the amount payable to the injured over a one year period. If the injured survives, they will be short of money to fund benefits over the year – which would be unfair to the injured party. If the injured dies, there will be excess funds in their bank account and some mechanisms for clawback would need to be considered for these cases. However, this risk is far less than the lump sum, "once and for all" rule most often used.

The annual amount calculated by the tool could easily fit in with the treasury budgeting process. To budget for all CP claims, calculations would need to be aggregated for structured claims in payment for the year ahead, when the budget is drawn up. The tool developed by the authors would provide the evidence provincial treasury would require to support this budget line item.

The tool also illustrates the annual payment required over the next 10 years, albeit not allowing for price changes, changes in severity, discounting and mortality assumptions. These figures should not be used for the purposes of budgeting for the future but rather as an illustration to understand how cash flow may change over the next 10 years if the person remains alive, all things equal. It highlights that the amount paid annually varies by need for the year. For example, a vehicle might be required and costed in year 1 but not in the subsequent year. In the fifth year a car will be budgeted for again considering the sales price of the depreciated car bought in year 1.

A working example using the structured settlement tool

Example case

As a working example, the tool was run using a life similar to BN in the matter 26/2017 TN obo BN vs MEC for Health of Eastern Cape.[7] BN is a male child aged 11 years old, with a life expectancy of 22.8 years. The child was diagnosed with severe CP, microcephaly, intellectual impairment, and epilepsy. Therefore the benefits needed may be even more than what is needed for a severe CP child.

A lump sum claim amount of R35,489,921, before structured settlements were requested, comprised the components as set out in **Table 2** below. The future loss of earnings and general damages components were agreed upon whilst the other components were disputed.

Table 2: Components of the lump sum award requested for case 26/2017

Component	***Award***	***Proportion of total award***
Medical care	R30 523 518	86%
Future loss of earnings	R386 087	1%
General damages	R1 800 000	5%
Protection and administration	R2 780 316	8%
Total	**R35 489 921**	**100%**

The total estimated settlement (for the lifespan) functionality of the tool and the tool's benefit packages were used. If a life expectancy of 22.8 years is assumed, the model calculates a total estimated settlement of R15,301,986 if high costs are used, which is around half of the amount claimed for of R30,523,518. There could be a wide variety of reasons as to why these differences are so large. Some of these differences are listed below:

- The lump sum amount was disputed in court.
- The benefit packages could be the main source of the difference, especially since the child is diagnosed with more than CP. However, some items such as the washing machine do not form part of our drafted standardised benefits packages. The housing allowances were also significantly different - the draft benefit package[10] allows a budget of R600,000 for housing whereas the case allowed for R1,100,000.
- The frequency and prices of items may differ.
- The actuarial assumptions used for the lump sum/total estimated structured settlement calculation may differ e.g., mortality tables used and discount rates
- There may be duplicate items costed for across expert reports
- There may be some inflated medical costs if medical experts provided costs for a range of treatment possibilities rather than the best estimate costs for the specific case.

As a point of comparison, looking at the historic birth related medico-legal cases (that are publicly available) in the Eastern Cape, the average claim size for the Eastern Cape for the period 2017 – 2020 was R17.7m. Therefore a 2022 estimate of R15.3m for

a total estimated settlement for a severe CP claim on a high-cost basis sounds reasonable comparatively.

Out of interest, the total estimated settlement equivalent using the structured payment tool, if a standard cost basis is used is R11.2m and R10.2m on a low-cost basis in 2023 terms. This shows the importance of fair and accurate pricing estimates.

Annual payment illustration

Table 3 below illustrates how the annual payment calculation works, using the same parameters of the child above, including the life expectancy assumption of 22.8 years. The first column displays the cost needed to fund the child over the next year, not allowing for any discounting or mortality assumptions. The future illustrative payments show the magnitude of funds needed for subsequent years if prices are the same and if the child is still alive at the beginning of the period.

Table 3: Annual payment illustration

Overall Grouping	***Annual budget (R)***	***Future illustrative payments (R)***			
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Caregiving	312 000	312 000	312 000	312 000	312 000
Equipment: Assistive devices	135 375	36 325	18 125	36 775	36 325
Equipment: Communication devices	12 000	2 000	2 000	12 000	2 000
Equipment: Therapy devices	3 500	1 200	1 200	1 200	1 200
Medical care	53 430	60 190	60 430	62 690	56 780
Support: Education	72 600	72 600	72 600	72 600	72 600
Support: Environmental	600 000	-	-	-	-
Support: Nutritional	120 428	20 428	20 428	20 428	20 428
Support: Psychosocial	14 400	14 400	14 400	14 400	14 400
Support: Transport	1 427 450	127 450	127 450	127 450	127 450
Therapy: Additional	39 452	38 702	39 452	38 702	39 452
Therapy: Block	26 500	26 500	26 500	26 500	26 500
Therapy: Regular	91 767	81 617	78 617	78 617	78 617
Total yearly payment	**2 908 901**	**793 411**	**773 201**	**803 286**	**787 751**

More money is required in the first year, as one would expect, to settle the child with the requisite equipment and services. The child needs large cost items such as a vehicle, a housing and reallocation allowance and other equipment such as wheelchairs. In subsequent years, the costs are reduced.

Undertaking illustration

If a large proportion of the above schedule of benefits can be rendered in services, the amount would reduce. For example, if the zeroised benefits in **Table 4** below can be provided per undertaking, the reduction in annual budget and total estimated settlement over the period would be as illustrated.

Table 4: Annual payment with undertaking estimation

Overall Grouping	*Actuarial Present Value (R) Severe (LE 22.8)*	*Annual payment (R)*	*Future illustrative payments(R)*			
		Year 1	*Year 2*	*Year 3*	*Year 4*	*Year 5*
Caregiving	4 742 981	312 000	312 000	312 000	312 000	312 000
Equipment: Assistive devices						
Equipment: Communication devices						
Equipment: Therapy devices						
Medical care						
Support: Education	725 653	72 600	72 600	72 600	72 600	72 600
Support: Environmental	600 000	600 000				
Support: Nutritional	73 067	12 692	12 692	12 692	12 692	12 692
Support: Psychosocial						
Support: Transport	5 261 291	1 427 450	127 450	127 450	127 450	127 450
Therapy: Additional						
Therapy: Block						
Therapy: Regular						
Total	**11 402 992**	**2 424 742**	**524 742**	**524 742**	**524 742**	**524 742**

For contextual purposes, the actuarial present value of R11.4m above relates to the lumpsum payment that would have been paid if annual payments are not made (R15.3m) less the benefits to be paid in-kind. The year 1 budget falls by 17% if the services are rendered, from
Table 3 to **Table 4**. The subsequent year annual payments are reduced by ~34%.

Aggregation of claims

In the 2021/2022 fiscal year, 4,443 medico-legal claims were lodged against the Eastern Cape PDoH.[17] Of course, not all claims will be successful and of the successful claims, a proportion would relate to CP birth injury matters. Further, the claims often stem from many years back, making it difficult to ascertain whether a PDoHs quality is improving or not because the claims continue to come in.

It is difficult to forecast the number of successful claims that would arise from the reimagined system. In the 2018/2019 fiscal year[14], the Eastern Cape PDoH reported an average claim size of R9m with total claims paid of R797m for all medical negligence cases. This equates to around 89 claims in that year for the EC. Again, that would not all be related to CP birth injury matters.

Worst case scenario for Eastern Cape: Once-and-for-all

Considering the worst-case scenario, let's assume that Eastern Cape PDoH has slightly less than two CP-related medico-legal claims lodged a week or about 100 CP related matters a year. If the average lump sum pay-out equates to ~R9m per claim, the total lump sum deducted from the provincial health budget would be ~R900m per year under the current environment. For context, the EC PDoH budget for the 2023/2024 fiscal year is R28bn[18] and therefore this worst case scenario would be ~3.2% of the EC PDoH budget.

An aggregation of claims could mean that the PDoHs are eventually needing to pay-out annual large sums of money equivalent to the lump sum awards they are paying at present. An aggregation will put the claimants at risk as currently PDoHs often simply do not pay-out, owing to cash flow constraints, which would be a far worse scenario for the claimants than the lump sum where, even if late, at least they are guaranteed an amount upfront to manage their child's care.

Worst case scenario for Eastern Cape: Structured settlements

To understand the effects of a worst-case scenario aggregation of claims in the reimagined environment, we simulated 100 new claims per year and analysed the outcome over a 10-year period. The demographic details of children, their severity levels and changes thereof, the applicable cost basis per benefit category, their associated life expectancy estimates and proportion of private treatment to be paid were established using the generation of random numbers. The exercise followed 10 cohorts of 100 lives added annually for 10 years. The simulation was repeated multiple times with approximately 5 000 lives simulated and followed over 10-year periods.

On average the age of all new claimants were about 5 years old with an average life expectancy of 28 years. On average, at the beginning of the period, simulated children were evenly distributed across severity classes and cost bases. The average of private payments required was about 50% of the cost of care per year.

In the first year, claims average around ~R110m for the year for 100 simulated claims. As the years progressed, considering the claims in payments, death of claimants and new claimants added on every year, ~R360m in claims will be paid annually at the end of the 10th year. This amount forms 1.3% of the EC PDoH budget for 2023/24 and is still significantly lower than the lump sum amount that would be needed to fund 100 claimants a year on a lump sum basis without a public health undertaking (R900m). It is important to note that this amount relies on the life expectancy assumption calculated by the tool.

The model illustrates that if claims are funded completely by means of annual settlements to be used for private treatment, and considering mortality assumptions, that the annual pay-outs would be ~R730m which is lower than the lumpsum settlement that would be needed for the period (~R900m). If no mortality assumption is used, the aggregation of annual settlements would be ~R800m in year 10, which is still lower but closer to the R900m that would be paid out in a lump sum system.

The annual payments will initially be lower than the R360m quoted above. However, when aggregating these amounts for different cohorts over time for the lifespan of

the various children, it may mean that many children are being funded annually and claims may start to add up. From our simulations the aggregation of claims may only be a problem after the first 10 years and closer to the 20th year of the system being in operation. Hopefully the reform that can be done during this time will equip the environment to reduce the risks of aggregation, reduce overall claims amounts and increase the number of good quality of services that can be provided publically, which also has implications for SA's National Health Insurance (NHI) plans.

It is important to pair structured settlements with a public health undertaking where a large proportion of services can be rendered to reduce these costs. However, the number of claims in payment over a year will need to be carefully monitored and budgeted for appropriately.

Discussion

Structured settlements will need to be considered on a case-by-case basis and cannot be standardised across cases. However, the process may now be easier to understand and implement using the benefit schedules and the structured settlement tool developed. Annual payments will not be the same every year and will depend on what benefit is required to be paid for in the next year, considering deterioration of the CP condition and whether the child remains alive.

While meeting cash flow and timing needs of the injured and smoothing cash flows for the defendant, a true reduction in claims over the lifetime of a claimant will only truly be seen if the standardised schedule of benefits can be used for each claim and if the "in-kind" services can be rendered. However, if private rates are to be used by all claimants, eventually in the longer term, an aggregation of such claimants over the years may result in annual aggregate budgets being similar to the current draining lump sum amounts claimed for individual cases per year.

If more claims can be settled out of court using alternative dispute resolutions now that these tools have been developed (and with development of the common law), more claims can be settled earlier on. This will better suit the needs of the claimant and will change the nature of legal fees being paid out for these claims.

The question then remains whether an appropriate system can be developed for the payment of the annual benefits. The system needs to be responsive enough such that the family of the injured party trusts that the injured will be appropriately taken care of. The system will need to verify/FICA the claimant and ensure that payments are being made to the correct person or designate. Verification will need to be done to ensure that the injured party is still alive at the time of payment[3,13] and whether their severity class is still valid. **These conditions highlight the administrative difficulty, technical complexity and the level of management required to effectively build and maintain a fit for purpose periodic system.**

Currently, legal fees can be paid in two ways. Either for services rendered or on contingency basis which equates to pay if a case is won. Contingency arrangements are regulated in terms of the Contingency Fees Act No 66 of 1997. The Act regulates and caps how much can be charged by both attorney and advocate. The Act is silent on when payment must be made to attorneys. Given that most medico-legal

matters are taken on contingency basis, attorneys are paid years later. It is unlikely that it would be required that successful attorneys wait to be paid in instalments. There would need to be a mechanism in place to settle legal fees and disbursements associated with the trial upfront if successful. If not, this could likely lead to attorneys not wanting to take on medico-legal matters which they already take at great risk. Fewer attorneys taking on matters would disadvantage claimants. The mechanism for payment of legal fees however, and the number of claims settled out of court, will determine how much legal fees are paid out and may change the dynamic of how many claims are taken on by attorneys.

For structured settlements to work, the common law needs to be extended and the "once and for all" rule will need to be changed. The extension of the common law relies heavily on the pleading party to provide appropriate evidence to make this change[7] on a case by case basis. This pathway, even though already achieved in a recent matter, will need to be made easier so that matters can be settled earlier on, with ease and out of court.

Annual payments can be disbursed at the start of each financial year (1 April) to ensure adequate funding is available. The country is currently experiencing low budgetary increases in the current fiscal environment, unaligned with inflation. The more refined planning that can be done, should be done.

The above levers are all reactive responses to the larger underlying issues surrounding medico-legal claims.[19] To reduce these claims a reform of the health system is required. We need to strive towards a person-centric healthcare system and understand why injuries happen and how to stop them before injury and loss of life occur. The shortage of Human Resources for Health (HRH), particularly of medical specialists[16] and nurses and the appropriate skills mix in the sector needs to be addressed. The low budgetary increases result in even less money available to solve the HRH shortages and skills mix issues, which could in turn result in more overburdened staff and negligence.[16,20] Proper hospital complaints procedures need to be standardised and visible, alternative dispute resolution and provincial medico-legal units needs to be set up, as described in other policy briefs. Similarly, the current system creates incentives for lawyers and claimants to bring forward cases that are fraudulent or without merit - this is weighing the system down administratively, and financially, and ultimately reducing access to quality public services.

In the face of a health reform that may only happen in the future, the policy levers mentioned above need to be legislated and used together to develop the law and the medico-legal environment. South Africans require a health sector that is safe and fair for all users of the public health system. Even if we are not there yet, hopefully refining and developing the common law may bring us closer to a fairer outcome for all citizens. Development of the jurisprudence is particularly important now as our trust needs to be placed in the South African health system, its reform and appropriate budget provisions as we strive towards universal health coverage and National Health Insurance.

In closing, we summarise the advantages and disadvantages of a structured settlement system drawn from this brief, in **Table 5** and **Table 6** below.

Table 5: A summary of the advantages of a structured settlements system

	Advantages
1.	A structured settlements system closely matches the needs of the claimants in terms of cash flow amount and timing or the funding of health care expenses. The award is no longer a final, single payment.
2.	If the aggregation of claims does not result in large crippling outflows of the PDoHs annual budget, the structured settlements system within the envisaged complaints framework, may provide benefits earlier in comparison to the lump sum award payout currently received at the end of a lengthy litigation process. For the PDoH, this Pay-as-you-go system could translate to lower annual claims payouts, and better cash flow to carry out its constitutional responsibilities especially within a constrained health budget.
3.	This system leverages the public healthcare sector to provide care. Care is always cheaper to fund in a public setting due to economies of scale and the streamlining of all Human Resources for Health (HRH) members being employees of the state rather than self-employed.
4.	There are no duplicate items in the tool unlike when costing items from siloed expert reports. The included items are fit for purpose and fair for children with CP.
5.	If the structured settlements and complaints framework system leads to a more efficient medico-legal environment and does away with waste, the legal costs could be reduced. More funds could be available in the healthcare sector to fund quality healthcare. This in turn could hopefully further reduce the number of medico-legal claims further.
6.	The structured settlement costing tool will be instrumental for understanding the costs that are needed to be paid to each child with CP for treatment that cannot be offered by the state. It can be used for budgeting purposes, which can even be extended over future periods if the opportunity arises.
7.	For implementation of a structured settlements system, refinement of the common law would be required. This is a step in the right direction and needed for to pave the path for the National Health Insurance.
8.	A structured settlements system, together with the formation of medico-legal units, Alternative Dispute Resolution teams and Centres of Excellence provides more hands-on support to the claimants. Claims can be expedited, and patients and their families may feel more empowered.
9.	The advantages of drawing up a schedule of benefits is that it provides a framework over which CP claims can be standardised nationally so that a single child is not afforded more or less than another.

	Advantages
	If the benefit package is used in the current highly litigious environment, hopefully, the length of matters and costs required for expert reports will be reduced. The framework can also be used as a checklist for the State and other stakeholders to understand the medical care and treatment required to be provided over the injured's lifetime. The package highlights to the family and society the child's needs thereby educating and creating a more inclusive society for children with CP and their families.
10.	Caregivers' voices are heard and better understood in the reimagined system. They are given some autonomy over care and finances to make the best decisions for their family unit. The care that they choose is not necessarily the most expensive option as recommended by experts in individual expert reports.
11.	The reimagined complaints framework would result in a fairer complaints system. More patients and their families can complain regardless of whether they would have been able to do so in the current litigious environment or not. Not all complaints will result in medical negligence claims. Increased complaints would also strengthen the healthcare system as guardrails will be put in place after feedback is received.
12.	May lead to reduced litigation which has several benefits. Litigation is costly, unaffordable to most, long time delays result claimants having to wait for urgent benefits and care, it is disempowering to the families involved. Reduced litigation may also impact the private sector as such a reduction would mean lower frequency of claims and in turn a lower insurance premium for medical insurance. This could even lead to more specialists practicing who previously could not afford the large premiums.
13.	There may not be a need for protection of funds in a trust (and the associated risks with using this setup)

Table 6: A summary of the disadvantages of a structured settlements system

	Disadvantages
1.	It essentially transforms the system into a pay-as-you-go (PAYG) system, which leaves the claimant at the behest of the PDoH for funding especially for care that cannot be provided in-kind. The disadvantage of a PAYG system is that the aggregation of claims could again lead to the PDoH having to fund large amounts towards medico-legal claims in future. A large number of claims in payments could result in a large liability similar to the RAF liability. This risk is worse than that of the lump sum alternative as multiple vulnerable claimants will be dependent on this payout.
2.	Using the public health sector, the dedicated medico-legal unit that links children with facilities needs to ensure that the child and its family are not retraumatised, if the only treating facility available to the injured child is the facility where the injury occurred. Regardless of how care is provided, public or private sector, the dedicated medico-legal unit in collaboration with the treating facility will need to be able to ensure that good quality and timeous care is provided to the injured parties
3.	A lot of set up, new bodies and elevated responsibilities of existing bodies are needed for a complete reimagining of the space. It is difficult to understand the cost versus the benefit of all the recommended resources to the environment. Structured settlements will differ on a case-by-case level. The system requires a fair amount of case management from a financial and therapeutic perspective. There is a fair amount of claims handling, interception and reporting which means that there is room for error. Some facilities, such as the COEs will be public facilities and therefore will have open access, which we will not be able to control. Facilities will require new human resources. The funding for Human Resources for Health (HRH) is a swampy problem. Previous work done in this space[16] shows that there is a shortage of HRH in South Africa. This means that even if more nurses and doctors are required, they cannot be employed and therefore costing for these extra HRH is not realistic. The modelling done alluded to a lifetime cost saving for claims amounts and when various components in the framework were used such as in-kind payments and a standard benefits package. Hopefully claims frequency may also reduce given that the reimagining also involves a complaints framework for quick complaint response and resolution. The cost savings from the reimagined system is therefore difficult to forecast and there are a lot of unknowns which exacerbates the forecasting exercise.
4.	The award is no longer final which means that there is a large upside risk of paying out claims amounts larger than expected over the child's future life. If a child

	Disadvantages
	deteriorates due to other factors not related to the injury sustained at birth, then there is a risk that larger benefits will be afforded to the child on reassessment.
5.	The reimagined complaints framework could result in more injured parties coming forward, especially those who could not afford the previous litigation process.
6.	It is unclear whether an appropriate and well-functioning system for the payment of funds to be used for treatment at private facilities, can be easily built.
7.	If the size of an award is small, one would need to weigh up whether or not the administrative difficulties of setting up structured settlements is worth the burden.

Appendix A: Tool functionality - Lump sum calculation

The structured settlements tool also has the functionality of an actuarial lump sum calculation. This calculation is similar to the actuarial present value amounts reported in actuarial expert reports. Specific parameters related to the injured party need to be inputted into the tool and the calculation is performed using these parameters. The user can compare the quantum of previous reports to the tool to see that the benefits are similar to other fair recommendations and that the overall lump sum amount will be similar to what has been previously paid out under a fair benefit package. There are no duplicate items unlike when costing items from siloed expert reports and the items displayed are fit for purpose and fair for children with CP.

The tool uses private practitioner rates as a placeholder which can be zeroised by the user for those services that could be rendered by the State. As mentioned in the report body, there are three cost bases namely High, Standard and Low and the sources for these rates are in Appendix C: Cost sources of the benefit schedule.

The tool can also be used to illustrate that if certain medical services were offered in-kind, what the remaining approximate lifetime lump sum will be to fund the additional expenses that cannot be offered by the State. It might even be palatable for the State to fund these lump sums upfront and provide services "in-kind," for certain matters, if the law will allow it. Although the advantages and disadvantages of such an alternative need to be considered carefully.

This functionality was included to provide a different view as it is difficult to come up with a one-size-fits-all structured settlements solution. Additionally, there are other considerations such as, if the size of an award is small, whether or not the administrative difficulties of setting up structured settlements is worth the burden.

The lump sum calculations are based on approximations. It therefore cannot be used for the purposes of annual budgeting or annual structuring of payments. As a result, the annual settlements are calculated separately. For example, over a child's lifespan, the severity levels, geographical circumstances, medical technology, inflation rates and mortality assumptions may be different to what was originally assumed. The assumptions used in developing this tool are summarised in the tool itself but for completeness' sake, the main actuarial assumptions are listed below:

- For the lump sum calculation, a net discount rate of 2.5% was used. This rate is often not standardised between actuarial experts for lump sum quantum calculations, and standardisation of calculations could lead to cost savings.[3,14] The net discount rate however will not affect the annual payment calculation as described in the next section.
- A mortality table was constructed as follows:
    - SA life table 1984 – 1986 White (also known as Koch's table 2[21]) was used for ages and genders below 4 years of age. After age 4, Californian CP tables[22] were used that were contextualised to South Africa. A life expectancy assumption is derived based on that of the Californian estimate, again contextualised to SA. There is also space in the tool for

a life expectancy estimate to be provided by an expert which will override the above default assumption.

Even though the lump sum calculations are unsuitable for budgeting on an individual case level, it could be useful as a tool for aggregate budgeting per province.

Lump sum illustration

Using this example, the tool was run to illustrate to the reader severity related aspects of the tool. It is important to note that the below lump sum calculations assume no benefits paid in-kind. Summary statistics are visible in **Table 7** below.

Table 7: Comparison of severity, cost basis, sex and life expectancy assumptions for an 11 year old child

Sex	Cost Basis	Benefit Table	Life expectancy: 22.8	Calculated Life expectancy	
			Lump sum (R)	Lump sum (R)	Life expectancy (Age in years)
Male	High	Severe	R 15.3m	R 11.8m	14.8
Male	High	Moderate	R 12.3m	R 14.6m	30.0
Male	High	Mild	R 10.9m	R 16.5m	48.0
Male	High	Severe	R 15.3m	R 11.8m	14.8
Male	Standard	Severe	R 11.2m	R 8.6m	14.8
Male	Low	Severe	R 10.2m	R 7.6m	14.8
Male	High	Severe	R 15.3m	R 11.8m	14.8
Female	High	Severe	R 15.0m	R 12.1m	15.5

The first value column displays the lump sum calculated if life expectancy was assumed to be the same for all severity levels, equal to 22.8 years as per the demographics of the child used for illustrative purposes in the policy brief. This is for illustration only as research shows that life expectancy is linked to the severity of a child.[22] Children living with milder forms of CP tend to live longer than more severely affected children. If however, we set the life expectancies the same, the total benefit amount increases with level of severity, as expected for a more severe child needing more benefits. Some specific benefits may not move in this manner though, as sometimes a less severe child may need more benefits under certain categories. For example, for communication devices, there is allowance for low technology devices for severe children but a mixture of low and high with a weighting towards high for the milder cases. This means that communication devices cost less for more severe children compared to less severe.

The second lumpsum value column, shows the difference in benefits if the default life expectancy assumption is used. The life expectancy assumption considers that children with more severe forms of CP have shorter life spans than those who have milder forms, as shown in the Life expectancy (Age in years) column. Severe forms of CP cost more initially (in the younger age bands). Yet for milder forms of CP, even

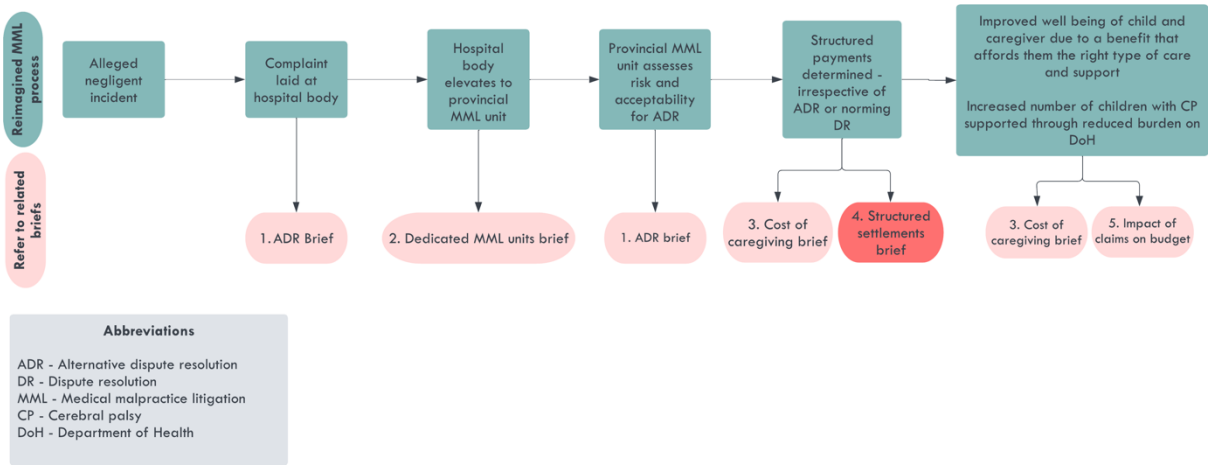
though it is less costly initially, the lower cost is paid over a longer lifespan hence are more costly over a lifetime.

Table 7 also highlights the magnitude in total lifetime costs if different cost bases are used. The higher the cost basis, the larger the lifetime cost. The illustrative figures above assume all costs are on the same basis. Yet this assumption can be changed per benefit category. This allows for model flexibility to deal with the environmental context of the child. For example, if there is rough terrain outside a child's house, he may need a specific more expensive wheelchair to be able to navigate this terrain. The tool makes allowance for allowing a high-cost basis for equipment and different bases for all other benefits.

Appendix B: The reimagined medico-legal environment

This appendix provides more detail on how we reimagine the medico-legal space, in light of the research done and content produced for the series of policy briefs produced in response to the SALRC discussion note[1].

Figure 3: Reimagining of the SA medico-legal space



All alleged negligent incidents will need to be reported to the facility in which it occurred. This can be done through a variety of means and must be received by the facility in question. Every facility will need to create an internal body, called a **Public Relations Services (PRS)** unit which will intercept these complaints. The details of the complaints procedure is described in the policy brief titled "Dedicated alternative dispute resolution units for better management of claims"[4] and which we refer to as the ADR brief. At a high level, the PRS will record and field complaints. Complaints will be classified according to the risk of a Medico-legal claim and redirected appropriately. The unit will also need to respond to the complaints within an appropriate timeframe and feedback to various stakeholders and complainants until the issue is resolved. ***The unit is accountable to and should provide reports to internal hospital management, the PDoH medico-legal units*** *(ML units)****, the Department of Health*** *(DoH)* ***and the Office of the Health Ombudsman*** *(OHO)*.

Each PDoH will need to create a **ML unit**. This unit will receive reports detailing the high-risk cases per hospital (from the PRS units) in their province. The operations, roles and responsibilities of the ML unit is detailed in the policy brief titled "Dedicated medico-legal units for better management of claims"[5] and which we refer to as the Dedicated ML units brief. At a high level, their role and responsibilities include:

- Information gathering and legal assessment
- Initiation and management of the role of ADR and structured settlements when necessary
    - Management of ADRs: Employ a skilled ADR team who can perform the relevant duties as mapped out in the ADR brief
    - Management of Structured settlements: Details of structured settlements are set out in the brief entitled "A structured settlements

system" and which we refer to as the Structured settlements brief (this brief). At a high level, their responsibilities will include financial case management of the injured child with CP, the linking of the child to a healthcare facility for treatment (such a Centre of Excellence when available), making available funds needed for private treatment if care cannot be sought at the treating facility, organising the initial and follow-up assessment within the chosen facility, users of the benefit schedule[10] and costing tool[11] designed for this series of briefs (with assistance from ASSA), annual update of price files to be used for private healthcare payments, reporting and tracking of all claims in payment to the DoH and OHO. Any other case management of children needed to ensure correct/quality treatment. Responsible for the FICA/follow up processes to ensure that a child is still alive/eligible for a benefit.

- Budgeting for Medico-legal claims for the year ahead

  These units are accountable to the DoH and the OHO. Their role is also to manage that the PRS and hospital reporting process runs according to the rules and regulations set out by the DoH and OHO.

The **Office of the Health Ombudsman (OHO)** is an existing body which has a different scope at present. In our briefs, we imagine that the OHO can become responsible to function as a watch dog for this whole process. To work together to develop and refine the process such that it works well and is fit for purpose (e.g. specify what reporting is needed from which departments and timeframes) and to hold various players accountable. The OHO will remain separate from the DoH although will receive similar information in this process. ***The OHO will be held accountable by the presidency.***

Appendix C: Cost sources of the benefit schedule

Caregiver research					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Previous reports	R6 500		R6 500		Own experience reading expert reports
My Wage	R2 795 – R11 475	R11 475		R2 795	Link here
Minimum wage (1 March 2023)	R4 067			R4 067	Minimum wage R25.42 per hour, 8 hour day, 20 days per month Link here
Nursing assistant Grade 1 Notch 1		R11 210			DSPA - public sector salary for nursing assistant (1 July 2021) Grade 1
Nursing assistant Grade 1 Notch 2		R12 617			DSPA - public sector salary for nursing assistant (1 July 2021) Grade 1
Babysitter/Nanny				R6 404	Link here
Average		R11 767 (64%)	R7 161 (76%)	R4 067	

Vehicle research					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
VW transporter	R483 600 - R727 300	R727 300	R569 000	R483 600	Link here
VW Caddy Cargo		R521 100	R492 600	R432 300	Link here
VW Caravelle		R1 394 300			Link here
Kia Sorento			R852 995		Link here
Kia Carnival			R824 995		Link here
Suzuki Vitara				R438 900	Link here
Ford Everest		R1 146 500	R832 400		Link here

Vehicle research					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Hyundai Staria			R780 900		Link here
Mercedes Benz Vito		R1 273 718	R643 650		Link here
Ford Tournea		R827 300	R692 700		Link here
Average		R1 271 506	R807 648	R534 231	

Travel cost research					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Average South African travel in KMs per day		75km	50km	25km	Link here
Fuel Efficiency litres per 100km	10				Link here
Fuel costs per day dependent on Petrol or Diesel as at 23 May 2023		R23.34 – R22.62	R20.50 – R19.75	R20.15 – R19.43	Link here
		Petrol unleaded	**Diesel 50 PPM**	**Diesel 500PM**	
Average	R20.97	R22.98	R20.15	R19.79	
Travel costs per day		R157.29	R104.86	R52.43	Link here
Travel costs per month		R4 789.40	R3 192.94	R1 596.47	
Average		R4 790	R3 190	R1 600	

Special Needs School Fees (link)					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Pathways (Gauteng and KwaZulu-Natal)	R4 875 pm for 12 months	R58 500			Link here

Special Needs School Fees (link)					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Browns School (KwaZulu-Natal)	R20 700 per annum			R20 700	Link here
Friends Day Care Centre (Western Cape)	R1400 pm for 12 months (Under 18) R1600 pm for 12 months (Over 18 years)			R16 800– R 19 200	Link here
Flutterbys (Gauteng)	Annual fee R75,600	R75 600			Link here
Average		R67 050	R42 975	R18 900	

Pain medication research					
(This is a brief list to demonstrate that the translation of medication prices to amount needed for severity are inline with previous expert reports)					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Panado	R65.99				Link here
Calpol	R76.99				Link here
Neurofen	R85.99				Link here
Ibugesic	R56.99				Link here
Average	R71.49	R1 501.23	R1 286.82	R1 000.86	

Housing allowance research					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Price of an RDP house	R584 000				Link here
Price of an RDP house (township)	R320 000				Link here
Used		R500 000	R500 000	R500 000	

Case Management research (including team meetings)					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Case management by an allied health professional (per hour)		R1 200	R1 000	R800	Link here (As well as personal experience)
Used (per year)		R30 000	R25 000	R20 000	

Block therapy research					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Malamulele Onward (Two week block, includes accommodation for child and caregiver)			R21 000		Link here to organisation. Quote received via email.
Used		R26 500	R22 000	R18 000	

Individual therapy research (all ages)					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Occupational therapy (1 hour)			R515.70		Discovery Medical aid rates
Physiotherapy (1 hour)			R675		Discovery Medical aid rates
Speech therapy (1 hour)			R679.80		Discovery Medical aid rates
Used		R750	R600	R500	

Family counselling					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
FAMSA Pretoria (per hour)			R600		Link here

Family counselling					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Therapy Now (Online)		R1 700			Link here
Private psychologist (per hour)			R600		Link here
Used		R1 200	R600	R450	

Ankle Foot Orthoses (AFO)					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
AFO moulded with system joint				R5 641	Link here
AFO moulded with lap joint			R7 322		
AFO moulded with CROW/PTB Gaiter		R12 946			
Used		R13 000	R7 500	R5 750	

Hi-low bed					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Prima care		R36 000	R25 000	R15 000	Link here
Med Q		R31 000	R25 000	R16 000	Link here
Average		R33 500	R25 000	R15 500	

Home adaptations					
		Price categorisation			
Source	**Price**	**High**	**Standard**	**Low**	**Reference**
Basic adaptations (hand rails, ramps, widening of doorways)		R100 000	R50 000	R30 000	Link here Quote received over email
Used		R100 000	R50 000	R30 000	

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