PROPOSAL – SAFE AND LEGAL ADMINISTRATION OF INSULIN IN AUSTRALIAN SCHOOLS

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EXECUTIVE SUMMARY

There are currently over 11,000 children with type 1 diabetes attending schools and preschools in Australia, including 4,000 children of preschool and primary school age.

Contemporary diabetes management guidelines recommend intensive diabetes management (with multiple daily injections or insulin pump therapy) for all children with type 1 diabetes to reduce morbidity and mortality. This involves insulin administration by injection or insulin pump every day at meal time at school.

Currently there is no consistent process to ensure the safe and legal administration of insulin at school in Australia.

Due to the lack of training and support for school staff in diabetes management, many children with type 1 diabetes are either missing out on meal time insulin, relying on parents to attend school every day or giving their own insulin unsupervised.

There is an urgent need to provide children with type 1 diabetes access to safe insulin administration at school, to ensure they have the same health and learning opportunities as other children.

The development of a national online training program for school staff, supplemented by face to face training for selected staff responsible for administering insulin would provide the training and support needed. A national training program for school staff will be developed in conjunction with the education sector and based on International Society for Paediatric and Adolescent Diabetes (ISPAD) guidelines. The training program will be supported by a clear legal framework.

This proposal is supported by the key national professional, consumer diabetes and paediatric organisations, is consistent with The Australian National Diabetes Strategy 2016-2020 and complements existing diabetes programs funded by the Australian Government through the National Diabetes Services Scheme (NDSS).

BACKGROUND

Type 1 diabetes is a life-long condition that has a major impact on the life of a child or young person and their family. The incidence of type 1 diabetes in Australia rates in the top 10 countries in the world, affecting over 120,000 Australians, with an incidence of 24 per 100,000 population in children aged 0-14 years[1]. National Diabetes Services Scheme (NDSS) statistics (https://www.ndss.com.au/facts-figures) showed there were 11,052 pre-school and school aged children in Australia with type 1 diabetes in August 2016; 4.7% preschool age (3-5yrs), 35.3 % primary school age (6-12yrs) and 59.9% secondary school age (13-18yrs).

There are very serious issues and concerns that, too often, schools cannot or do not provide a safe and supportive environment for insulin administration and this may be adversely impacting learning and both long and short term health outcomes.

The Australian Diabetes Educators Association (ADEA), Australian Diabetes Society (ADS), Australasian Paediatric Endocrine Group (APEG), Australian Paediatric Society (APS), Juvenile Diabetes Research Foundation (JDRF), and Diabetes Australia represent the key national clinical and consumer organisations in Australia dedicated to improving the health of all children and young people affected by type 1 diabetes.

Together, we have developed this proposal to ensure that children and young people with type 1 diabetes receive the same health and educational opportunities in Australian schools as those who do not have diabetes.

PROPOSAL

This proposal is seeking funding of $19,663,039 over four years to:

1. Develop a nationally consistent framework that ensures all Australian children with type 1 diabetes can and do receive insulin doses at schools in a safe and supported environment.
2. Develop and deliver a nationally consistent training program for teachers and schools about the management of children with type 1 diabetes in schools.
3. Enable compliance to the current legislative frameworks by both the health professionals providing the training and the school staff responsible for administering insulin.
4. Evaluate the program.

Alignment with Government Policy

This proposal is strongly aligned and integrated with existing Australian Government policy and other programs including:

- The Australian National Diabetes Strategy 2016-2020. The strategy specifically identified the school setting and calls for collaborative efforts between parents, the healthcare team and the education team to allow children with type 1 diabetes to participate fully and safely in the school experience.

- The Coalition Government commitment to provide new funding of $54 million over four years to provide access to Continuous Glucose Monitoring (CGM) devices for up to 4,000 children and young people with type 1 diabetes. This proposal will enhance that initiative.

- The National Diabetes Services Scheme (NDSS) provides the data registry for all children and young people with type 1 diabetes in Australia and provides a range of support services for children and families affected by type 1 diabetes.

- The Federal Government Insulin Pump Program is funded for the next three years to support the allocation of 68 pump subsidies each financial year. This proposal will assist in enabling legal compliance to administer insulin through an insulin pump during school hours.

The Problems the Proposal Will Address

Insulin treatment in schools

Intensive insulin therapy (ITT - multiple daily injections or insulin pumps accompanied by carbohydrate counting and insulin dose adjustment) is now recommended for all children with type 1 diabetes to optimise health and learning outcomes. Intensive therapy requires insulin administration at school at least once every day[3]. Currently however, there is no consistent process to ensure the safe and legal administration of insulin at school.

Most Australian schools do not have a school nurse and paediatric diabetes teams are inadequately resourced to provide training to school staff. This often results in a parent visiting the school daily to administer prescribed insulin, the insulin dose being missed or given by the child without supervision or school staff being trained by the child's family to administer insulin. While some diabetes services have successfully trained school staff in insulin administration, the process is not system wide and medico-legal implications for schools and staff health professionals and diabetes servicesremain a concern.

Many children with type 1 diabetes need insulin administration during school time, most commonly at mealtime. However, too often children with type 1 diabetes at school do not receive the prescribed mealtime insulin dose because the school does not have the capacity to safely provide or supervise this necessary treatment. Issues that contribute to this problem are:

- schools do not have nominated staff trained to give or supervise insulin injections
- schools have concerns about the legality of school staff giving or supervising insulin injections
- school staff may be willing but not able to access training in insulin injections because of medico-legal concerns of health professionals outside the school environment, or the training is not available in the school area
- inconsistent and inappropriate application of available protocols.

The NDSS *Mastering Diabetes* resource for schools[2] provides good general diabetes information, however this resource was not designed to address the detailed requirements for safe and legal administration of insulin in schools, and related training.

There is a common misconception that students with type 1 diabetes can self-manage their condition and fully participate in school activities without support. However, leaving a child or adolescent to independently manage their diabetes at school has potentially dangerous consequences and is not consistent with the legal requirements and duty of care of schools.

We recognise that schools and education are primarily administered by state and territory governments. Various state and territory diabetes organisations and local health services have attempted to work with the jurisdictions to address issues and concerns for families and health professionals. However, there has been limited or no progress and there is clearly a need for national coordination and leadership by the Australian Government.

Medico-legal issues

Health professionals providing care and support for children and young people with type 1 diabetes, including members of the Australian Diabetes Educators Association (ADEA) are concerned about their indemnity exposure if:

- they provide education to school staff when schools have not made the reasonable adjustments required by law
- school staff are not adequately trained and accredited, or are trained by others without appropriate qualifications and experience.

The current model of insulin delivery in school presents unacceptable medico-legal risks for credentialled diabetes educators (CDEs), school staff and medical staff and is therefore unsustainable. To enable school staff, CDEs, and medical staff to practice within the law requires urgent action before various unions reasonably demand that action from Government.

Access by schools and teachers to training is affected by the uncertainty of the legal position of health professionals training teachers. Diversity in interpretation is across and within jurisdictions.

Schools have a duty of care to provide a safe and supportive environment for insulin administration, including supervision, even when the child is capable of self-administering insulin. However, this duty of care is not consistently delivered.

Schools have a legal obligation to make reasonable adjustments to ensure full participation in activities on the same basis as their peers and have a duty of care to protect from risks that are reasonably foreseeable.

Furthermore, children with type 1 diabetes have significantly increased risk of issues with discrimination, self-esteem, stigmatisation, fear of being different from their peers (including fear of consequences of type 1 diabetes such as effects of hypoglycaemia [low blood sugar] or polyuria [excessive urination]) and consequently have increased missed school days, bullying and emotional health issues, especially in secondary school.

Whilst it is important for children with type 1 diabetes to be treated the same as their peers and be encouraged to fully participate in school life and learning, this does not free schools from the responsibility to ensure the child with type 1 diabetes is provided with a supportive and safe environment to ensure these outcomes can be facilitated.

Access to optimal diabetes care in schools

All children have the right to experience world best practice (IIT) which requires insulin delivery during school time. However, too often children with type 1 diabetes at school do not receive the prescribed school insulin dose because the school does not have the capacity to safely provide or supervise this necessary treatment. Issues that contribute to this problem are:

- schools do not have staff who have freely volunteered to receive training and be accredited to administering or supervising insulin
- schools and teachers have concerns about the legality of a teacher or other staff member giving or supervising insulin administration/supervision. Teaching staff are under no obligation to participate in any medical management of a child with type 1 diabetes.

Teachers or other school staff may be willing but not able to access training in insulin administration because training or accreditation is sporadic and not nationally consistent in Australia.

Rural Issues

Children with type 1 diabetes in regional Australia generally have worse long term outcomes, reduced quality of life and less access to multidisciplinary healthcare team care than those in metropolitan regions. However, these outcomes can be reversed with dedicated models of care. To date, parents have generally provided education of school staff with the assistance of a CDE from the child's team.

In some rural areas, the education and training has frequently been delivered by CDEs in unpaid time, and may not be supported by local area health services. If this initiative is accepted, the Australian Paediatric Society (http://auspaediatrics.com.au/position-statements/) considers that regional and remote communities are likely to benefit from the assistance of the child's nominated specialist diabetes team to work collaboratively with local staff and provide upskilling.

The proposed model using on line modules and telemedicine will save money for regional schools for training and upskilling - those funds could then be re-deployed to provide hands on assistance for the child. Current models of school staff training (attending seminars sometimes hundreds of kilometers away) are costly for regional schools, especially with staff time and backfill, are inflexible for those with new diagnoses of type 1 diabetes or who have changed schools and do not deliver the continuity of care required for individualised care of children and families with type 1 diabetes.

Current programs and resources, while helpful at one level, do not address the issue of insulin administration, training and accreditation. Telemedicine, which the suggested model promotes, is an effective and acceptable conduit to remote families and enhances face to face diabetes team consultations.

How This Initiative Will Help?

The process we are proposing will bring together teachers and schools with diabetes health professionals and services to ensure all children with diabetes in Australia have access to optimal diabetes care at school, including safe and legal insulin administration

This proposed initiative will enhance the effectiveness of the Governments new CGM access program. CGM technology is used to display blood glucose levels and trends, which can be managed with insulin dose adjustment. Having an understanding of blood glucose levels is only one part of the overall equation needed to gain optimal glycaemic management. If insulin cannot be safely administered to children whilst at school (1/3 of the child's day), having the knowledge of the blood glucose level without the ability to respond with insulin will not treat the blood glucose reading.

Rationale – The Evidence

Clinical

Specialist multi-disciplinary team management with intensive insulin therapy (IIT - multiple daily injections or insulin pumps accompanied by carbohydrate counting and insulin dose adjustment) is now recommended for all children with type 1 diabetes, as the only strategy to reduce morbidity and mortality [3,4,5].

This recommendation followed the findings of the Diabetes Control and Complications Trial (DCCT), which showed unequivocally that intensive therapy reduced the risk of microvascular and macrovascular complications (renal failure, blindness, and heart attacks) when compared to conventional treatment delivered in the 1990s (two injections per day) [6].

In addition, follow-up of the adolescent cohort from the DCCT has provided strong evidence that paediatric outcomes are strong determinants of adult outcomes. The importance of optimising diabetes management in childhood is critical, as improving diabetes management in adulthood cannot reverse the life shortening effects of suboptimal control in childhood and adolescence [7]. It is now clear that irreversible damage may occur as a result of sub optimal management during puberty that unfortunately cannot be reversed by better diabetes management in adulthood.

Studies of neurocognitive imaging differences related to hyperglycaemia in children provide further compelling evidence of the need for optimal glycaemic management. Furthermore, studies documenting neurocognitive imaging differences related to hyperglycaemia in children provide additional and compelling motivation for lowering glycaemic levels [8] Recent research has demonstrated the need for normal blood glucose levels to maximise learning potential, with high or low blood glucose levels having significant negative effect on working memory, concentration, and verbal comprehension [9,10].

The International Society for Pediatric and Adolescent Diabetes (ISPAD) recommends a target HbA1c (a marker of diabetes management) of <7.5% (58mmol/mol) for all children and adolescents [11]. Contemporary HbA1c targets are supported by improved outcomes. A large New South Wales cohort study between 1990 and 2009 of adolescents aged 12-20 years showed a continued reduction in complication rates (retinopathy 53% to 12%, borderline elevation of kidney function (AER/ACR) 45% to 30% and kidney function (microalbuminuria) 8% to 3%). Intensive therapy (multiple daily injections or pumps) increased from 17% to 88% over this time and the median HbA1c fell from 9.1% (76mmol/mol) to 8.5% (69mmol/mol) [8].

The Australasian Diabetes Data Network (ADDN) registry provided the first nationwide audit data of diabetes outcomes in 2015. 3279 children and adolescents from five paediatric centres (NSW, QLD, SA, VIC, WA) participated and concerningly, only 27% met the recommended HbA1c target of <7.5% (<58mmol/mol) [12]. While the majority of patients (82%) were on intensive insulin therapy (44% insulin pumps, 38% multiple daily injections), twice daily injections were used more frequently in younger children, with more than a third of children <10 years remain on twice daily injections.

This high number of Australian preschool and primary school children not on recommended therapy, likely reflects the difficulties obtaining support for insulin administration at school in Australia. In many cases the insulin at school regimen is facilitated by parents coming into the schools into the day to assist with the injection and this has direct impact on their work potential and productivity.

Legal

Insulin is a Schedule 4 Commonwealth SUSDEP (Standards for Uniform Scheduling of Drugs and Poisons) drug. Insulin is a “high risk medicine” - one that has heightened risk of causing significant or catastrophic harm if used in error.

In recognition of the dangers associated with mismanagement of insulin, legislation limits their possession, administration and approval for use by an:

- authorised medical practitioner, authorised registered nurse**;** or
- the agent of a person who has the care of, or who is assisting in the care of a person and referred to (in these categories).

Agency is an authority or capacity in one person to create legal relations between the child with type 1 diabetes (and legal guardians) and a third party. The state government or health team cannot simply confer the agency – it must have informed consent by the parents.

Agency is further restricted by imposition of specialised requisite training before specific professionals can be regarded as suitably qualified by those approved to use S4 drugs:

- it is considered illegal for parents to give consent on behalf of their child to be administered insulin if the person administering is not qualified or appropriately trained
- the treating medical teams (medical practitioner and CDE) must comply with their registration obligations under AHPRA and National Law (https://www.ahpra.gov.au/About-AHPRA/What-We-Do/Legislation.aspx). Training and accreditation for school staff cannot be performed by other school staff unless they possess those qualifications – for example a registered school nurse. During diabetes camps, regulations require on site medical and nursing staff to ensure safety of the children with type 1 diabetes.

Discrimination law is also relevant if a child with type 1 diabetes is not afforded optimal therapy (IIT) when the effects of hyperglycaemia and hypoglycaemia can have such significant effect on learning. Type 1 diabetes is recognised under Commonwealth legislation as a disability.

In provision of education, discrimination occurs when an individual treats or proposes to treat a prospective student with a disability less favourably. For example, the *Equal Opportunity Act* (Vic) creates an express and positive obligation for an educational authority to make reasonable adjustments for students to enable them to “participate in …or derive any substantial benefit from an educational program.” Failure to do so can amount to unlawful discrimination.

Recent independent pro bono legal opinion from Arnold Bloch Leibler (ABL) was obtained concerning the statutory duty of governments to provide suitably qualified and accredited resource to facilitate optimal management for a child with type 1 diabetes in school. The advice outlines the requirement of legislation for insulin delivery in schools and it appears that the current model of insulin delivery in schools (ad hoc, good will, pro bono without endorsed training and accreditation and consent or denied insulin when requested or clinically indicated) does not meet current legal frameworks.

The Solution – What Will Be Delivered?

Coordinated training and accreditation and ongoing support for school staff is essential for optimal diabetes management for children and adolescents with type 1 diabetes.

Training and accreditation of school staff in diabetes management and the safe administration of insulin will be the first step to ensure children with type 1 diabetes of all ages are given the best opportunity to achieve optimal glycaemic management and the resultant benefits in health and learning outcomes. This proposal relies heavily on school staff feeling sufficiently supported to volunteer their services so that schools can make the reasonable adjustments required by law. This is why diabetes teams caring for the child are the optimal liaison professionals for school staff.

This proposal seeks funding to improve the outcomes for children with type 1 diabetes and their families by:

1. developing a nationally consistent diabetes management and insulin administration training program for schools, using online, face to face and videoconferencing modalities
2. clarifying and documenting a nationally consistent policy for schools to address the safe, legal and timely administration of insulin at school and addressing the legal and indemnity issues for all parties
3. engaging with independent parent advocacy groups
4. engaging with the education sector to develop 1 and 2 above
5. developing an evaluation framework for the training and accreditation program.

1. *Developing a nationally consistent diabetes management and insulin administration program for school staff*

The framework will be based on training and accreditation frameworks from other countries, work already developed in Australia and internationally, and Australian professional guidelines.

The framework will enable the parent/guardian of the child with type 1 diabetes to consider providing informed consent to trained and accredited school staff to administer or supervise the self-administration of insulin to their child at school.

Accordingly, the steps involved are:

- create the nationally consistent model for training and accreditation
- relevant school staff to consent to undergo training and accreditation
- parental consent may then be freely provided to trained and accredited staff member. This cannot be provided by third party and cannot be forced
- medical staff may be able (with parent consent) to delegate to trained and accredited school staff member
- Federal Government legislation require the actions to be implemented in school to ensure that the school staff have an **obligation** to act on behalf of the child with type 1 diabetes under their supervision and in accordance with the consent provided by the legal guardians

Method

- Collaborative members will develop a three-level training and accreditation program based on ISPAD Guidelines[3] and the APS Position Statement, *Type 1 diabetes in regional schools, 2015* (http://auspaediatrics.com.au/position-statements/)
- Reference the successful schools' anaphylaxis training program in Australia and the work of the Australian Society of Clinical Immunology and Allergy (ASCIA)
- Use on line model of learning "Flipped Learning" (allows personal interaction with team) which is much more successful and less costly than day seminars or pure on-line learning; and
- Clarify medico legal accountabilities for:
  - administration and supervision of insulin; and
  - storage and use of insulin and equipment (insulin is an S4D medication and subject to drugs and poisons legislation and work health and safety legislation regarding needles and their disposal).

Target Group

Children with type 1 diabetes (over the age of 10 years) may be able to self-administer their own insulin. However, while some children may be very capable, all primary school aged children with type 1 diabetes (and many at secondary school) should not be considered independently responsible for their insulin administration at school. All children with type 1 diabetes in primary school MUST always be supervised for insulin administration, and students in secondary school may need supervision as required and negotiated by their parents and/or medical team.

There is no separation of responsibility between supervision of the administration of medication and the actual administration of medication. Supervision of administration of a Schedule 4 Drug into a person means the supervisor (teacher or other school staff member) is legally responsible for that administration. All school staff who are acting in a supervisory capacity for a child with type 1 diabetes MUST have level 3 training as outlined below.

Level 1-3 Training and Accreditation of School Staff

Lessons from Other Countries

Many countries, including the US, UK, Canada and Sweden, have developed successful and consistent national models for diabetes care in schools. These models include the three levels of training identified below and will be based on the ISPAD Guidelines [3].

The suggested three-levels of training are as follows:

- Level 1 - All school staff should be educated about basic type 1 diabetes pathophysiology and its effect on the child and family. This can be provided by easily accessible on line modules. The *Mastering Diabetes* initiative is likely to be helpful at this level.
- Level 2 - Those school staff most responsible for the day to day management of the child with type 1 diabetes should be also trained to recognise hypoglycaemia symptoms, initiate treatment for high or low blood glucose levels and know when to call for assistance. This will include introduction and understanding of continuous glucose monitoring. This training can be provided through online modules using ISPAD guidelines and authorised by treating medical team. The parents should have access to these modules to assist in education of school staff about the individual characteristics of their child with type 1 diabetes.
- Level 3 - Fulfilling the requirement for insulin delivery and supervision of children with type 1 diabetes in schools requires that reasonable adjustments must be made to ensure that authorised and/or designated and freely consented school staff are trained and accredited to provide or supervise care prescribed by the treating diabetes team responsible for the clinical care of the child.

Trainer

- Preferably a member of child’s specialist medical team.
- Person authorised by child’s specialist medical team (must be a CDE or doctor with experience in type 1 diabetes).

Education Resource Delivery/Format

- Initial on line module with Q&A based on the successful anaphylaxis training.
- “Flipped learning” is the most cost effective method of learning so ability to follow up with Q&A with child’s medical team or authorised representatives of child’s medical team. This is an effective method already used in anaphylaxis training.

Accreditation

Level 3 training would include accreditation.

- Accreditation at completion of education modules via face to face or videoconference meeting with a member of the child’s medical team or delegate. Following questions, technique examined. If passed, proceed to final online questionnaire.

- Annual review.

2. Developing a process for the legal, safe and timely administration of insulin

The precedent for the Federal Department of Health becoming the overarching authority to enable appropriate safe and legal administration of insulin in Australian schools is the successful creation of a National Law for Childcare/Kinder/ After school care services (Education and Care Services National Law) (http://www.acecqa.gov.au/National-Law) and the creation of The Australian Children's Education and Care Quality Authority (ACECQA), a national quality framework/regulatory compliance body.

A mandated approach to insulin delivery would be modelled on the anaphylaxis management in schools initiative.

3. *Engaging with independent parent advocacy group*

Parents of children with type 1 diabetes have immense personal experience of the trauma and distress associated with type 1 diabetes, especially when substandard therapies are all that are on offer and when schools fail to make the reasonable adjustments required by law. Many experience discrimination when advocating for their children and labelled "problem families" for doing so. Accordingly, they are an invaluable resource to enable this proposal and are indeed the lynchpin in providing free and informed consent to administer insulin and meeting the legal obligations they have to their children.

Hence they must be engaged in ongoing discussions and implementation of this program with the consumer participation consistent with the Australian Safety and Quality Framework for HealthCare[13].

4. Engaging with the education sector to develop 1 and 2 above

Members of this Collaborative respect and acknowledge the difficulties that teachers, school administrations, and Departments of Education/jurisdictions have had in the past. We propose to work cooperatively and respectfully with teachers, school administrations and Departments of Health and Education to support school staff and deliver optimal outcomes for the child in the most efficient and cost-effective manner.

Issues requiring consultation and collaboration with the Education Sector/ Union include:

- review of education resource content and delivery format
- employee entitlements for extra training and accreditation
- the provision of additional funding is required for schools to make reasonable adjustments to support younger children/primary school aged children and secondary school children that are less capable **of managing their own diabetes**. It is an unrealistic expectation for a teacher to undertake the additional tasks required for younger, primary school aged children while supervising the rest of the class.

Such scenarios create a duty of care issue for teachers with other children. The *Education and Care Services National Law* deals with this issue and provides specific requirements for a “nominated supervisor”, and other qualified teacher to be present at all times. The principal preschool teacher (who is the nominated supervisor) should not be taken up with one child to address something such as a hypoglycaemic episode – if they did they would be in breach of their duty to the other children. Primary and secondary schools are legislated on a state by state basis, but the needs of early primary years are not entirely different to a 5-year-old pre-school /child care situation.

5. *Developing an evaluation framework.*

An evaluation framework will be developed that can be used in the implementation of the training and the impact on prescribed insulin administration in schools.

Diabetes outcomes are easily evaluated, as the marker of glycaemic management (HbA1c) is also a surrogate marker of health outcomes. The Australian Diabetes Data Network (ADDN), established in 2015 and jointly administered by APEG and ADS and JDRF Australia provides outcome data from all tertiary paediatric diabetes centres in Australia, allowing us to benchmark and track outcomes over time. A fall in median HbA1c would translate to improved health outcomes and reduced mortality in early adulthood.

An increased uptake of intensive therapy in children <10years would also be identified thought the ADDN.

Feedback will be sought from consumers, regional health and community health professionals and school staff and feedback from teachers on training will be built into the training programs.

FUNDING MODEL

The most efficient and cost effective model for recurring funding is to have funding *attached to child rather than to an organisation or institution.* This is because:

- This model allows equity of service delivery in regional areas with the school staff having the ability to access the on-line module and teleconference to their diabetes team rather than either school staff or medical diabetes team taking substantial periods of time off to travel to distant places.
- This model allows public diabetes teams who may be overloaded with work to either employ more staff with the expected funding or have the option of entrusting the training and accreditation to private diabetes teams or persons of appropriate medical standard to medical or nursing professionals.
- Does not create a third party administration cost and allows full transparency of how the funding is being used and any necessary resourcing requirements/adjustments.
- The model allows for a reasonably rapid upskilling of school staff soon after diagnosis to allow earlier and safe return of the child to school.
- The model is less costly and more efficient than other models that require staff to travel to seminars at cost, especially of funding backfill positions in schools while various staff members attend such seminars.

How Will It Work?

Funding is “virtual” based on the model of Helping Children with Autism. The funds are not distributed to the families directly. Practically, the fundholder would be the federal government and billed through Medicare or NDSS to provide low cost seamless remuneration using existing infrastructure and avoiding excess overhead costs. Each child would attract an allocation of up to $600 Primary school and $300 secondary school. This can only be triggered by a CDE who is authorised by the treating medical team (signed off by medical staff).

Service organisations can budget for these funds to employ more CDE staff to ensure contact with the schools. Smaller regional areas can also budget to cover the time to engage, train and accredit school staff and more distant remote regions can engage the time of tertiary CDEs or CDEs from diabetes teams from larger regional catchment areas. There is sufficient payment to ensure a quality service, with minimal impact on school staff time and need for backfill etc.

Once service is delivered, application for the funds are made by the CDE to Medicare.

Frequency of Training and Accreditation Sessions per Child per Year

The expected frequency of Level 3 training and accreditation is once per child per year. In some circumstances extra sessions, up to a maximum of 3 per year may be required. This would allow for:

- one session with nominated staff for the school year (up to three staff members)
- one extra session for a change in school staff or family relocation
- one extra session for a change in insulin regimen (e.g. multiple daily injection to pump)

Savings

The access to optimal diabetes management at school delivered by this program will ensure children with type 1 diabetes have the best opportunity to achieve optimal glycaemic mangement and the resultant benefits in health and learning outcomes. This work will result in savings on a number of levels:

- reducing the short term complications of diabetes, namely hypoglycaemia and hyperglycaemia, thereby reducing missed class time and improving learning outcomes for the child and reducing class time interruptions for the teacher
- reducing long term complications of diabetes in early adulthood (renal failure, blindness, and heart attacks) with the attendant health and productivity costs
- reducing parental time off work and therefore increasing productivity if school staff volunteer and state governments make reasonable adjustments
- casual relief teachers backfill saving for responsible staff being required to attend day seminars for type 1 diabetes education
- Insurance risk minimisation for future liability.

BUDGET

Budget assumes a four year national program totalling $19,663,039. The first year will involve investing approximately $349,000 to plan, design, develop and implement the whole program and its infrastructure. This will include delivery of:

- nationally consistent resources – online and face to face
- consultation with the education sector and other key stakeholders
- on-line accreditation capability
- evaluation model
- database protocols

The program will commence actual operations in the second year with total annual expenditure increasing from $6.3 million to $6.5 million in the fourth year based on cost indexation and growth in type one diabetes students. Annual recurrent expenditure will also include:

- maintenance and updating of online modules and content
- face to face training in schools
- accreditation
- maintenance of a dedicated web based education platform

The following table summarises program expenditure over the four year period.

Year	1	2	3	4	Total
Expenditure	348,887	6,332,805	6,434,480	6,546,867	19,663,039
Activities	Establishment	Operation	Operation	Operation	

Key budget assumptions for the four year program include:

- An initial type 1 diabetes population of 4,431 pre and primary school and 6,621 high school students totalling 11,052 students
- An annual compound growth rate in the total student population of 1.56% per annum resulting in 11,577 students by year 4 end
- Both Level 2 and 3 pre and primary school training (post online modules) total 3 hours each
- Both Level 2 and 3 secondary school training (post online modules) total 1.5 hours each
- An hourly teacher training and accreditation session rate of $200 per hour (GST exclusive) delivered face to face or videoconferencing
- Only Level 3 training will attract accreditation
- A 30% contingency has been applied to annual teacher and training accreditation expenses of approximately $4.8 million
- An annual national inflation indexation rate of 3% applied to all expenses
- A dedicated full time Program Manager with associated on-costs totalling $101,764 in year one
- $10,300 Insurance expense commencing in year 2 for a standalone policy for the whole program providing $20 million public liability and professional indemnity cover etc
- $11,000 Web Hosting expense in year two ensuring a high level of I.T. security and excess bandwidth and storage for fast streaming of video content to thousands of teachers nationwide
- $21,600 Website Security and Update expense commencing in year two providing website and plugin version updates, general I.T. security enhancements and website functionality and layout amendments etc

Please refer to **Attachment A** for the detailed program budget.

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