Role and Scope of Practice for Credentialled Diabetes Educators in Australia

Your trusted partner in diabetes care

Published 2007. Revised 2015

Australian Diabetes Educators Association

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2 Acknowledgements

The original Role and Scope of Practice publication, developed in 2007, was the result of many hours of research, discussion and feedback. Previous and current leaders from ADEA participated in a face to face workshop to identify key issues, themes and definitions for inclusion in the original publication and provided ongoing critique to draft documents.

ADEA would like to acknowledge these contributors to the original publication:

Jan Alford, Julie Bligh, Shirley Cornelius, Professor Trisha Dunning AM, Jane Giles, Marie Gill, Heather Hart, Judy Reinhardt, Erica Wright, and Kaye Neylon.

In 2014-15, the original publication was reviewed to reflect the current health landscape in Australia, diabetes educators practice and scope internationally and evidence based best practice in diabetes education. Appendix I outlines the background to this review.

A consultation period via survey took place involving ADEA members and health discipline associations.

ADEA would like to thank all those involved in the consultation process and make particular mention of those who helped to finalise the 2015 publication:

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3 Introduction

The Australian Diabetes Educators Association (ADEA) was established in 1981 and in 2014 is the acknowledged peak professional body in Australia on matters relating to diabetes education. ADEA is a member organisation of Diabetes Australia to whom it provides expert advice on diabetes education. ADEA is a multidisciplinary body with membership open to all health professionals involved in diabetes education and care.

ADEA benchmarks excellence in the practice of diabetes education and supports a cycle of best practice by:

- Promoting and disseminating evidence based research findings in diabetes education and care
- Establishing evidence based standards for diabetes education and care
- Facilitating planned and systematic education and training programs for health care providers
- Advocating for equitable access to best practice diabetes education and care services for all people affected by diabetes.

ADEA conducts the ADEA Credentialling Program, providing professional recognition for Credentialled Diabetes Educators (CDEs) in Australia. Credentialled Diabetes Educator is a multidisciplinary credential; the use of the credential is regulated by ADEA. The Credentialling Program is underpinned by the ADEA Course Accreditation Program that accredits post graduate courses in diabetes education. Successful completion of an ADEA accredited Graduate Certificate in Diabetes Education is a prerequisite for recognition as an ADEA Credentialled Diabetes Educator (CDE)®.

Credentialled Diabetes Educator is the nationally accepted credential for the quality assured provision of diabetes self-management education. Medicare Australia, the Department of Veteran Affairs (DVA) and an increasing number of private health insurers recognise CDEs as the providers of diabetes education services.

Diabetes self-management education is a specialty area of practice and is both a therapeutic and educational intervention. It has as its overarching goal the optimal health and wellbeing of people affected by diabetes. Diabetes self-management education as defined by ADEA and as practised by CDEs is discussed in more detail in Appendix II.

The evolving role of the CDE has been, and will continue to be, shaped and influenced by the changing health environment, such as:

- Current diabetes prevalence and recognition of its direct health care costs and loss of productivity
- Research, development and technological change
- Impact of changing social environments and community development on lifestyle
- Increased focus on and need for prevention and early intervention in diabetes and other chronic conditions
- Impact of increasing demands for chronic disease management on both the health system and the person with a chronic disease
- An increasing focus by governments on ambulatory care programs and primary care
- Increased acknowledgement of the importance of, and funding for, multidisciplinary team care
- Changes in the Australian health workforce and recommendations for health workforce reform from the Productivity Commission
- Changes in state and territory drugs and poisons legislation and in jurisdiction policies related to role and function of allied health professionals.

A brief discussion of these influences can be found in Appendix III.

The credential held by CDEs recognises a level of competence necessary for:

- Authorising registrations on the National Diabetes Services Scheme (NDSS)
- Authorising NDSS registration to access insulin pump consumables
- Providing an initial supply of insulin (Registered Nurse Credentialled Diabetes Educator in some Australian states and territories).

These important processes emphasise the need for the CDE to have exemplary clinical skills, as well as expertise in client centred care that is required to promote self-management and psychological wellbeing in the person with diabetes and their families.

The former Australian Council on Safety and Quality in Health Care defines credentialling and scope of practice for medical practitioners [(1)], although this can be applied to other health professionals, as follows:

Credentialling refers to the formal process used to verify the qualifications, experience, professional standing and other relevant professional attributes of medical practitioners for the purpose of forming a view about their competence, performance and professional suitability to provide safe, high quality health care services within specific organisational environments.

Defining the scope of clinical practice follows on from credentialling and involves delineating the extent of an individual medical practitioner's clinical practice within a particular organisation based on the individual's credentials, competence, performance and professional suitability, and the needs and the capability of the organisation to support the medical practitioner's scope of clinical practice.

In defining the role and scope of practice of the CDE, ADEA embraces the positive influences and future changes in health care, where these changes provide better access to quality diabetes education, improved outcomes for people with diabetes in the community and ensure quality and safety of service provision.

ADEA defines scope of practice to mean: the procedures, actions and processes in which a health professional is authorised, educated and competent to perform.

4 Purpose of this document

The Role and Scope of Practice for Credentialled Diabetes Educators in Australia has been developed to articulate the role and scope of practice of CDEs and the factors that contribute to the scope of practice of CDEs. CDEs have a unique and integral role in the provision and advancement of diabetes care and the specialty practice of diabetes self-management education.

The Role and Scope of Practice for Credentialled Diabetes Educators in Australia drives and promotes standards of practice in diabetes education and care and is the foundation on which other key ADEA documents are based.

This publication is relevant to a number of ADEA stakeholders, including:

- **ADEA members -** to aid reflective practice and the development of personal learning and professional development plans
- **Post graduate certificate diabetes education and management course coordinators and advisory committees –** to aid developing curricula and the course assessment processes
- **Employers -** to ensure they attract and retain appropriately qualified staff to deliver diabetes self-management education and care
- **Health service funding bodies** and organisations providing third party reimbursement to establish standards for delivering quality diabetes self-management education programs
- **Health professional colleagues –** to help define the role and what to expect from a CDE working in a multidisciplinary team
- **Other health professional bodies –** to help define the scope of practice of a CDE and of the role of ADEA
- **Consumers-** to identify appropriately qualified providers of diabetes self-management education.

This Role and Scope of Practice document should be read in conjunction with the following ADEA documents:

- ADEA Code of Conduct
- ADEA National Standards of Practice for Credentialled Diabetes Educators
- ADEA Core Competencies for Credentialled Diabetes Educators
- ADEA Client Centred Care position statement
- *ADEA National Standards for Diabetes Education Services (being developed)*
- Australian Credentialled Diabetes Educators and prescribing of Insulin and glucose lowering medication: interim position statement
- Australian Credentialled Diabetes Educators and prescribing of Insulin and glucose lowering medication: discussion paper
- Initiating Insulin Therapy in Ambulatory Care Settings
- Managing Insulin Therapy in Ambulatory Care Settings.

5 The Role of the Credentialled Diabetes Educator

Credentialled Diabetes Educators promote optimal health and wellbeing for individuals, communities and populations at risk of, or affected by, diabetes using a range of specialised knowledge and skills. They integrate diabetes self-management education with clinical care as part of a therapeutic intervention to promote physical, social, spiritual and psychological wellbeing.

Credentialled Diabetes Educators adopt a client centred approach when providing diabetes self-management education to those affected by diabetes to:

- Develop the knowledge, skills and confidence for the everyday management of diabetes
- Understand personal health risks
- Explore the meaning and implications of these risks in the context of personal, social and cultural influences and in terms of current lifestyle behaviours
- Activate the determination of a comprehensive self-management plan that will maximise health outcomes.

6 Credentialled Diabetes Educators Criteria for Recognition

A wide range of health care services provide some form of diabetes education to people with diabetes. Such service providers include general practitioners and practice nurses, other generalist nurses, allied health professionals and Indigenous health workers. In addition, all members of the multidisciplinary diabetes team provide discipline specific diabetes education to support their clinical intervention. ADEA acknowledges the critical role played by all of these health care providers.

However, the term 'Credentialled Diabetes Educator' is used by ADEA to identify those health professionals who provide comprehensive, interdisciplinary diabetes self-management education as described by ADEA (Appendix II) and who meet the criteria of the ADEA Credentialling Program.

ADEA Credentialled Diabetes Educator (CDE) is registered as a certification trademark. Its use is authorised by ADEA to eligible health professionals who meet the criteria identified by ADEA. These criteria include:

- Authorisation to practice in an eligible health discipline
- Completion of a post graduate course of study in diabetes education and management that is accredited by ADEA
- Experience in providing diabetes self-management education as defined by ADEA and in accordance with the Standards of Practice identified by ADEA
- Submission of a referee report by a Credentialled Diabetes Educator to ADEA
- Completion of the ADEA mentoring program
- Evidence of continuing education across all domains of practice for Credentialled Diabetes Educators
- Commitment to the ADEA Code of Conduct.

6.1 Disciplines eligible for recognition as a Credentialled Diabetes Educator

The health disciplines ADEA recognises as eligible for credentialling are:

- Registered Nurses* (RN)
- Accredited Practising Dietitians (APD)
- Pharmacists
- Medical practitioners
- Podiatrists
- Accredited Exercise Physiologists
- Physiotherapists.

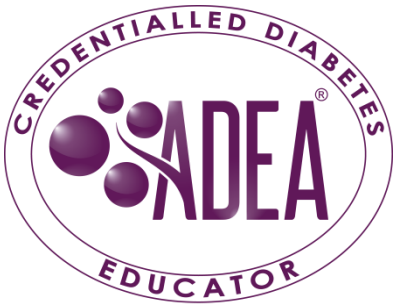
*In Victoria, this includes Division One Registered Nurses only.

The above health professionals were approved by the ADEA Board as having in place:

- The appropriate level of professional governance for their discipline
- The necessary foundation clinical competence that underpins the development of advanced clinical skills in diabetes management
- The competence in providing comprehensive diabetes self-management education.

All individuals from eligible health disciplines must still meet all the requirements of the ADEA Credentialling Program.

CDEs are expected to identify themselves by their primary health qualification followed by 'Credentialled Diabetes Educator' (CDE), for example RN CDE, APD CDE and are entitled to use the certification trademark in association with their name.



6.2 Post-graduate training and developing competence in diabetes self-management education and care

Credentialled Diabetes Educators are advanced clinical practitioners who provide diabetes self-management education. The entry level qualification for practice in diabetes self-management education, in addition to a qualification and authorisation to practice in an eligible health discipline, is the completion of an ADEA accredited post graduate course in diabetes education and management.

Eligible health professionals who have completed a post graduate course are expected to have the knowledge, skills and expertise to deliver diabetes self-management education across many specific aspects of diabetes care and management. In order to provide quality support and ensure safe practice, ADEA recommends that employing organisations ensure appropriate processes are in place to support diabetes educators working towards credentialling to achieve ongoing competence in diabetes self-management education. These processes should include access to ongoing professional development and mentoring by a Credentialled Diabetes Educator.

Mastery of the knowledge and skills to be recognised as a Credentialled Diabetes Educator is gained through a planned and ongoing program of continuing education and professional development, mentoring and experience across all the domains of practice of a Credentialled Diabetes Educator. Credentialled Diabetes Educators are capable of autonomous practice in diabetes self-management education with the expertise and professionalism to be able to work collaboratively within a team as required. ADEA recommends ongoing professional mentoring, especially for Credentialled Diabetes Educators working in isolated practice.

7 Scope of Practice

Credentialled Diabetes Educators work in a variety of practice settings and roles and across the intervention and care continuum. Their practice is underpinned by a core body of knowledge, skills and activity in the following domains:

- Clinical Practice, Diabetes Education and Counselling
- Research and evidence-based practice
- Management, Administration and Leadership.

Credentialled Diabetes Educators practice in, and maintain professional development across all three domains, although at any one time their practice may focus more on particular domains depending on their employment setting or role.

An individual CDE must determine their own scope of practice and the services they provide within this scope of practice by taking account of:

- Legislation
- Individual experience, training, competence and qualifications
- The professional skill-mix available in the employment context
- Available supervision and support
- Service policies and role descriptions
- ADEA code of conduct and professional practice standards
- The needs of the local community and the person with diabetes
- The clinical context
- Professional indemnity.

Competence is defined as the state of having the knowledge, judgement, skills, energy, experience and motivation required to respond adequately to the demands of one's professional responsibilities. [(2)]

Each individual CDE has an obligation to consider these variables to make informed judgements about their own scope of practice.

7.1 Clinical Practice

Clinical competence gained through training in an eligible health discipline provides the foundation for learning advanced knowledge and skills in diabetes management through a combination of postgraduate study and experience in diabetes education and care. Independent of their primary health discipline, CDEs demonstrate knowledge of current and interdisciplinary best practice diabetes management and education. Their practice is informed and guided by best practice guidelines, research and policy from the range of disciplines involved in diabetes care.

CDEs provide comprehensive diabetes self-management education to support people with diabetes, their families and/or carers, to identify appropriate goals and develop effective self-care behaviours across all key areas of diabetes self-management. They use a systematic approach that engages the individual and/or their family and carers to assess an individual's mental, physical, spiritual, functional and cognitive status to inform their clinical care planning.

CDEs monitor progress towards desired goals and the outcomes of all interventions. They act as care coordinators, identify needs that are not being met and refer (or recommend referral where appropriate) to other specialist nursing, medical or allied health professionals as required.

CDEs provide direct clinical care and interventions according to their individual scope of practice. They must be cognisant of the regulatory and decision making frameworks, in which they and other members of the diabetes team practice. CDEs must delegate, refer and accept delegated clinical care according to their level of knowledge and competence as a CDE.

CDEs may assume or be delegated, case management roles in designated programs or for specific aspects of diabetes care.

7.2 Diabetes Education

CDEs apply health behaviour and education theory to inform, motivate and support clients and communities to adopt healthy lifestyles and appropriate self-care behaviours. They undertake a comprehensive assessment of the individual (or target population) in terms of their life stage and disease stage, their preferred learning style, readiness to learn and change behaviour and other psychosocial factors, including the social context in which they live.

CDEs are skilled at planning a range of learner centred and client driven health education interventions using a range of modalities. They evaluate the impact and outcome of these interventions, including their own performance, based on the person with diabetes' related goals. They evaluate both at the individual and program level and contribute to population level data where appropriate.

7.3 Counselling

CDEs use an empowerment approach to help clients develop self-responsibility, be self-determining and to achieve self-mastery. They are cognisant of the relationship between chronic disease, sense of wellbeing and depression and the impact of an individual's psychological state on their capacity to self-manage. CDEs use impartial, reflective and empathetic listening to clarify client beliefs, issues and concerns.

CDEs use validated tools to assess psychological status as part of their interventions. They are able to communicate the findings of such assessments to the individual and discuss options to address them. CDEs assess level of risk, acknowledge their own limitations and refer to appropriately qualified professional counsellors when relevant.

7.4 Research

Evidence based practice underpins all domains of the CDE's practice. CDEs are research consumers. They apply research knowledge and skills to critically evaluate the relevant research literature. Such evaluation informs all aspects of their practice, including clinical care, education, counselling and program and service development and management and their own need to develop their research knowledge and competence. They also identify deficits in the evidence base for diabetes education and care and advocate for and support research to address such gaps.

CDEs continuously monitor the quality and outcomes of their practice in order to improve the services they provide. Continuous quality improvement is fundamental to their practice.

CDEs may participate, collaborate or lead research in all aspects of diabetes education and care, working within relevant codes of ethics.

7.5 Management, Administration and Leadership

CDEs develop diabetes care policies and procedures for their service regardless of whether they work in solo practice or as part of a larger diabetes team. They apply a systematic approach to service planning, including assessing the needs of the population they serve, developing service plans and monitoring the delivery of those plans. They liaise with other health professionals and consumers, services and agencies to promote a comprehensive and integrated diabetes service. They ensure their service(s) meets recognised standards for professional, ethical, human resource, organisational and business practice and community needs.

The role of the CDE extends to supporting other health professionals, agencies and the wider community. CDEs participate in and contribute to the work of relevant committees, disseminate research findings and advocate for best practice diabetes care. They act as a consultant and resource to their colleagues, other agencies, and to policy and decision makers, continuously advocating for people affected by diabetes and their right to comprehensive diabetes self-management education, clinical care and support services.

CDEs act as role models and mentors for their peers and for practitioners working towards credentialling in diabetes self-management education. As experts in diabetes education and care, they develop and provide training and continuing professional development for a wide range of health care providers, in a variety of settings and at a variety of levels.

8 Current professional context for CDEs

CDEs are unique as a professional group because they emerge from a range of primary health disciplines. CDEs remain individually accountable to the standards set by their primary health discipline and by national, state, local, and institutional laws, regulations and policies that define and guide professional practice [3].

Practitioners from each discipline undergo the same process of preparation and credentialling benchmarked by ADEA in their Credentialling Program.

CDEs assume responsibility for practising diabetes self-management education to the extent that they have:

- Established and maintained their ability to work safely and competently and within the relevant state/territory legislation (see Appendix IV for links to relevant legislation)
- Undertaken necessary additional education and training, clinical practice supervision and support
- Recognition and support for their role through their workplace
- Ensured they have appropriate professional indemnity insurance cover for that practice.

All CDEs are qualified to sign NDSS forms.

CDEs current role and scope of practice is likely to include:

- Community education and health promotion programs that aim to prevent diabetes and diabetes complications
- Provide healthy lifestyle advice including basic nutrition and physical activity
- Consider psychosocial factors, their impact on self-management and how to address these factors to enhance diabetes education and care
- Educate people with diabetes and their carers on the relationship between diabetes and other health conditions and how to prevent, recognise and treat short term and long term complications
- Individualise structured blood glucose monitoring regimens to assist people with diabetes, their carers and their health professionals to assess the effectiveness and evaluate lifestyle/medication interventions
- Educate people with diabetes and their carers in the role, options, safe use, side effects and storage of diabetes medications
- Educate people how to prevent, identify and treat hypoglycaemia
- Educate people how to prevent, identify and treat hyperglycaemia, which includes developing a sick day care plan and managing sick days
- Initiate referral to a medical practitioner or NP to optimise the medication regimen if required

- Educate and evaluate the knowledge and skills of people with diabetes, their carers and health professionals to inject glucose lowering medicines
- Regularly re-evaluate the person with diabetes and/or their carers self-management knowledge, skills and strategies over the continuum of diabetes care
- Input into policy and procedures relating to all aspects of diabetes education, management and care.

The current scope of practice of the CDE does not include prescribing or titrating of any medications, unless there is legislated change or endorsement of these functions by state and territory governments.

CDEs who do not have current experience in a specific area of diabetes education requiring expertise, e.g. insulin pump therapy initiation, children with type 1 diabetes, diabetes in pregnancy, support for dose adjustment of insulin, should not practice autonomously in these areas.

In all situations, CDEs should consider their role and scope of practice, as described in this document and the ADEA Code of Conduct.

9 Scope of Practice Decision Pathway

The following decision pathway has been adapted with permission from the Dietitians Association of Australian [4] and was developed considering the NMBA Nursing Practice Decision Flowchart [5], for use by CDEs.

ADEA urges CDEs to use this decision pathway when considering their individual scope of practice within their current work environment.

DECISION PATHWAY

1. Is the activity considered a core activity for a CDE?
   - Yes
   - No
2. Is the activity permitted by legislation?
   - Yes
   - No
3. Is this activity consistent with the ADEA Code of Conduct?
   - Yes
   - No → **Stop!** Do not proceed.
4. Would it be reasonable for a CDE to undertake? Is the activity consistent with the "National Standards of Practice for Credentialled Diabetes Educators"?
   - Yes
   - No → **Stop and resolve,** Performance of activity or service may place CDE and client at risk – discuss / implement referral to more competent health care professional (HCP) or establish professional relationship with more competent HCP.
5. Will I be performing the activity often enough to maintain my skills and competence?
   - Yes
   - No
6. Is it covered by organisational, jurisdictional, national guidelines and standards, or regulations?
   e.g. institution job description, organisation accrediting / credentialling standards, CDE practice guidelines /clinical recommendations.
   - Yes
   - No
7. Do I have the authority from my employer to undertake the activity?
   Is the activity or service consistent with following my job description? (You are the employer if self-employed).

Yes

8. Do I have the knowledge, skills and demonstrated competence needed?
Have I acquired the depth and/or breadth of knowledge, skills and competence needed to safely and effectively perform this activity or service through recognised training, self study or mentoring?

No → **Stop and resolve,** Performance of activity or service may place CDE and client at risk – discuss / implement referral to more competent HCP or establish professional relationship with more competent HCP until education acquired.

Yes

9. Can I demonstrate the knowledge, skill and competence through participation in a recognised accreditation / certification program?
eg. DAFNE, Certified Pump Trainer program.

No → **Stop and resolve,** Complete a competency based learning and development program and have formal supervision from a more experienced HCP.

Yes

10. Do I accept responsibility and accountability for my actions?
Am I personally prepared to accept the consequences of my actions?

No → **Stop!** Notify the appropriate person (go back to point 6).

Yes

11. Does my current insurance policy and level coverthis activity?
Does my employer indemnify me?

No → **Stop!** Until appropriate insurance is in place.

Yes

12. Proceed with supporting evidence documented and consider a strategy to maintain competence.

10 Future Directions

ADEA recognises that the role of the CDE will continue to evolve in the context of social, epidemiological, workforce and health system change. The ADEA is committed to its responsibility to promote, enhance and strengthen the integral role CDEs play in the specialty practice of diabetes self-management education.

ADEA is committed to national uniformity and recognition of CDEs. It will work to address inconsistencies in state and territory human resource practices such as employment criteria for diabetes education service providers, and in legislation governing practice such as providing an initial supply of insulin to a person with diabetes. The ADEA will represent and advocate for CDEs in workforce reform programs addressing issues such as prescribing rights and direct referral pathways.

ADEA will:

1. Continue to engage with members to expand the role of CDEs
2. Continue to monitor amendments made by state and territory governments to legislation that will enable changes to prescribing practices
3. Provide support for changes to the current post graduate training for CDEs to include competency based advanced medication management in preparation for the expanded role.
4. Continue to advocate for CDEs to work as health care professionals within a multidisciplinary team
5. Monitor and support the progress of projects such as the Health Professionals Prescribing Pathway Program undertaken by Health Workforce Australia, currently being managed by the Department of Health
6. Continue to benchmark excellence in the practice of diabetes education and care and promote equitable access to quality diabetes self-management services for all people with diabetes in order to attain its vision of optimal health and wellbeing for all people affected by diabetes.

11 Appendices

Appendix I – Investigation into the Scope of Practice of 'Diabetes Educators' from multidisciplinary health professional backgrounds following Certification / Credentialling.

This summary is part of the review of the ADEA publication *Role and Scope of Practice of Credentiallied Diabetes Educators in Australia.*

The 2007 version of the document was commented on by ADEA members via survey monkey. The results of the member consultation were summarised with the main concerns of the document being:

- Current document is not specific enough and is outdated
- Areas of clinical competence should be addressed
- Needs to be specific reference to medication management
- More detail required regarding legislation
- Primary health care nurse roles (not CDEs) and NPs could be addressed

Consultation with stakeholders continued to take place, along with international benchmarking which is documented in this summary.

11.1.1 International Benchmarking

11.1.1.1 Current Scope of Practice in Australia

The term Credentialled Diabetes Educator (CDE) is used by the ADEA to identify those health professionals who provide comprehensive, interdisciplinary diabetes self-management education as described by ADEA and who meet the criteria of the ADEA Credentialling Program [6]. Health practitioners with primary discipline registration or practicing certificate as a Registered Nurse (RN or Division One), Accredited Practising Dietitian, Registered Medical Practitioner, Pharmacist, Podiatrist, Accredited Exercise Physiologist, or Physiotherapist are eligible to apply.

CDEs provide direct clinical care and interventions according to the scope of practice of their primary health discipline. They are cognisant of the regulatory and decision making frameworks in which they and other members of the diabetes team practice and refer and accept delegation of clinical care according to their level of competence as a CDE [6].

11.1.1.2 United States of America

Diabetes Educators in the United States of America (USA) are professionally recognised via either one of two certification pathways. Certified Diabetes Educators (CDEs) are credentialled through the National Certification Board for Diabetes Educators (NCBDE) and the American Association of Diabetes Educators (AADE) provides the Board Certified Advanced Practice in Diabetes Management (BC-ADM) credential.

The NCBDE is an independent organisation which Diabetes Educators in the USA apply to become CDEs. Primary health disciplines eligible for certification include: clinical psychologists, registered nurses, occupational therapists, optometrists, pharmacists, physical therapists, physicians (M.D. or D.O.), podiatrists, dietitians or dietitian nutritionists, physician assistants, exercise specialists, exercise physiologists, health educators, and social workers.

The BC-ADM certification by the AADE is the second avenue for Diabetes Educators in the USA to become recognised as health professionals with specialised knowledge and expertise in the management of people with diabetes. Eligible primary health disciplines include: RN's, dietitians, pharmacists, physician assistants and MD/DO's.

The boundaries of professional practice are determined by state practice acts. Job descriptions and job functions are determined by employing agencies, not the CDE credential [7]. Neither the CDE nor the BC-ADM credential authorises an individual to perform tasks outside his or her scope of practice [8]. Those who hold the credential may possess the knowledge and skills to 'teach' the person with diabetes about a variety of self-care activities if they have demonstrated 'competency' in this activity. The AADE recognise that within this specialty of diabetes education, education, training, and experience will contribute to a range of competency levels [9] and have therefore developed a tiered approach to practice levels for diabetes educators. For example, a Registered Dietitian CDE who demonstrates specialist or advanced level competence in diabetes self-management education would include in their scope of practice the selection and initiation of pharmacotherapy, including instruction on medication delivery systems [10].

11.1.1.3 Canada

Certification as a Diabetes Educator in Canada is conducted by the Canadian Diabetes Educator Certification Board (CDECB). Before sitting the examination to become a Certified Diabetes Educator (CDE) candidates must be registered with a regulatory body in Canada as a health professional [(11)]. The CDE credential requires that the provision of diabetes education remains within the scope of the health professional registration.

The College of Dietitians of British Columbia state that it is within dietitians' (RDs) scope of practice to provide diabetes self-management education. Diabetes self-management education may include, but is not limited to, self-monitoring of blood glucose, food and beverage intake, physical activity and insulin dose adjustment (IDA). RDs must practice IDA within limits of their competence and in compliance with CDBC standards and codes, current evidence-based clinical practice guidelines as well as any policies and guidelines that may be required by a Health Authority or health care facility [(12)].

11.1.2 Conclusion

The ADEA CDE credential is recognition of demonstrated experience and expertise in diabetes education and commitment to professional development and ongoing learning that meet the ADEA's expected standards. CDEs must demonstrate ongoing participation in professional development within the specialty of diabetes education.

At present, applicants must complete an ADEA accredited diabetes education course as a criterion to be eligible for initial credentialling. A referees report is also required that addresses the *National Core Competencies for Credentialled Diabetes Educators*.

Currently there exists debate about the level of competency for each discipline undertaking accredited courses in diabetes education and management. Many members would like to see a level playing field and competency outcomes developed for each of these courses. ADEA will explore this issue with the education facilities that offer the diabetes education and management courses.

Appendix II – Diabetes Self-Management Education

The American Association of Diabetes Educators (AADE) provided a useful definition when they released the *National Standards for Diabetes Self-management Education and Support:*

Diabetes self-management education (DSME): the ongoing process of facilitating the knowledge, skill, and ability necessary for pre-diabetes and diabetes self-care. This process incorporates the needs, goals, and life experiences of the person with diabetes or pre-diabetes and is guided by evidence-based standards. The overall objectives of DSME are to support informed decision making, self-care behaviours, problem solving, and active collaboration with the health care team and to improve clinical outcomes, health status, and quality of life.

Diabetes self-management support: activities that assist the person with pre-diabetes or diabetes in implementing and sustaining the behaviours needed to manage his or her condition on an ongoing basis beyond or outside of formal self-management training. The type of support provided can be behavioural, educational, psychosocial, or clinical [(13)].

The clinical care requirements of people with diabetes are diverse and best met by a multidisciplinary team (3) of medical, nursing and allied health professionals including but not limited to dietitians, podiatrists, exercise physiologists, physiotherapists, social workers and psychologists. Evidence based clinical practice guidelines guide the clinical care provided [(14)].

The nature of diabetes, however, demands that much of the day to day management of diabetes (decision making and behaviour choices) is carried out by the person with diabetes. Involvement of the person with diabetes is critical for achievement of goals [(15)]. The self-management demands of diabetes are perhaps greater than for all other chronic diseases requiring a range of lifestyle and treatment decisions to be made on a daily basis. People with diabetes require information and education to support them in their self-care.

A wide range of health care providers deliver some form of discipline specific diabetes education to support their clinical intervention. Such providers include general practitioners and practice nurses, other generalist nurses, allied health professionals and Indigenous health workers.

In contrast to the discipline specific diabetes education provided by these health professionals, diabetes self-management education provided by Credentialled Diabetes Educators is unique in that it moves beyond traditional discipline boundaries and encompasses the full spectrum of diabetes self-management and self-care behaviours. However; where discipline specific education is required

to achieve best outcomes for the person with diabetes, CDEs acknowledge where referral is needed and initiate this referral.

Referral and collaboration with general practitioners, medical specialists and other health professionals involved in the multidisciplinary care team is part of the diabetes self-management education intervention and further integrates the provision of clinical care with the education process. Diabetes self-management education is client centred and outcomes focused. It integrates client identified needs and goals with clinical targets to achieve a continuum of outcomes.

The AADE identify seven self-care behaviours that are essential for successful and effective diabetes self-management. These are:

- Healthy eating
- Being active
- Monitoring
- Taking medication
- Problem solving
- Healthy coping
- Reducing risks (15)

These behaviours are consistent with the self-care behaviours identified in leading models for chronic disease self-management training such as the Flinders University (South Australia) [16] and Stanford University (USA) [17] models. The Flinders Model also identifies patient knowledge of their condition as an indicator for supporting effective self-management.

The ADEA has adapted the outcomes identified in these various models to propose the following key diabetes self-management behaviours to guide diabetes self-management education interventions and to evaluate their immediate outcomes in the Australian context.

- Applying an understanding of the diabetes disease process and treatment options in order to make informed health and lifestyle choices
- Making appropriate food choices
- Incorporating physical activity into daily life
- Monitoring blood glucose and using results to improve diabetes management
- Using medications for therapeutic effectiveness
- Problem solving for high and low blood glucose levels and for sick days
- Adapting to work, family and social roles
- Reducing the risks of chronic complications.

ADEA proposes the above behaviours are assessed pre and post interventions and, along with clinical and other health status measures such as quality of life, are used to evaluate the longer term outcomes of diabetes self-management education.

It is the process of diabetes self-management education as much as the self care behaviours on which it focuses that contributes to effective diabetes outcomes. Diabetes self-management education is a comprehensive, collaborative and iterative process between the CDE and their client(s) and includes:

- Performance of an individualised psychosocial, clinical and cognitive assessment of the person with diabetes or impaired glucose metabolism and/or their care givers
- Formulation of an education plan including collaboratively identified behavioural goals based on a core body of knowledge in diabetes management and self-care behaviours and agreed clinical targets
- Implementation of the plan based on evidence based principles of teaching-learning theory and behaviour change theory
- Evaluation to assess the person's attainment of self-management goals and progress toward attainment of clinical targets
- Documentation of all encounters in a permanent client record and communication with referring practitioners.

Diabetes self-management education supports clients to achieve self-identified goals through facilitating an understanding of their condition and the risks and benefits of lifestyle choices and treatment options and supporting them to make informed choices.

Appendix III – The Health Care Environment – Factors Influencing the Role of the Credentialled Diabetes Educators

Results from the 2011-12 Australian Health Survey estimated that around 1 million people (more than 4% of the population) had been diagnosed with diabetes (excluding gestational diabetes) in Australia [18]. This rate has risen from 1.5% in 1989. The rate of diabetes remained stable between 2007–08 (4.1%) and 2011–12 (4.2%) [19]. Diabetes has been a National Health Priority Area since 1997. In 2006, in the face of a doubling of diabetes prevalence in Australia (1981-2000) and its impact on national productivity, the Council of Australian Governments (COAG) identified type 2 diabetes as a national health reform priority.

In addition to those diagnosed with diabetes, a further 16.3% of the Australian population over 25 years of age have impaired glucose metabolism placing them at high risk of developing diabetes and heart disease [20]. Around 5% (1 in 20) of pregnancies are affected by diabetes with consequences for both the infant and future health of the mother [21].

Diabetes can lead to complications devastating for both the person with diabetes and the health system. Retinopathy resulting from diabetes is the leading cause of blindness in people under 60 years of age. Diabetes is the fastest growing cause of end stage renal disease, a common cause of non-traumatic lower limb amputation and increases the risk of heart disease 2-3 times. A diagnosis of diabetes and diabetes complications impacts negatively on measures of wellbeing and quality of life [18].

In 2008-09, almost $1.5 billion was spent on diabetes. Of this, 43% was on hospital admitted patients, 24% on out-of-hospital medical services, and 33% on blood glucose lowering medicines. An additional $153 million was spent on governmental programs and subsidies, research and gestational diabetes programs [19].

Type 2 diabetes, and the complications of type 1 and type 2 diabetes, may be prevented or at least delayed. The Diabetes Prevention Program in the United States and a similar primary prevention intervention in Finland demonstrated a 58% reduction in the risk of progressing from impaired glucose metabolism (pre- diabetes) to type 2 diabetes as a result of intensive lifestyle intervention. Medication based interventions have demonstrated similar or lesser reductions in risk. The Diabetes Control and Complications Trial (DCCT) (type 1 diabetes) and the United Kingdom Prospective Diabetes Study (UKPDS) (type 2 diabetes) clearly demonstrated the association between blood glucose control and reduced rates of microvascular complications. Other studies have demonstrated the benefits of reducing blood pressure and lipidaemia on the development macrovascular

complications. In Australia, both the National Chronic Disease Strategy and the Diabetes National Service Improvement Framework have identified this opportunity for prevention across the diabetes intervention spectrum.

The demonstrated value of early and aggressive diabetes management and the recognition of systematic care to support this, have given rise to a range of incentives (Practice Incentive Payments and Service Incentive Payments), quality improvement programs (National Primary Care Collaboratives) and the introduction of Medical Benefits Schedule (MBS) item numbers (Chronic Disease Management) to support systemised care in general practice. Some Primary Health Care Networks (formerly Divisions of General Practice/Medicare Locals) are employing or contracting allied health services needed in their areas, including Diabetes Educators. There has also been recognition of the need to improve ambulatory care services in order to manage the impact of chronic disease in the acute care sector and on the health care system as a whole. Programs such as the Victorian Hospital Admission Risk Program (HARP) and other state and territory funded ambulatory care programs have resulted in the employment of diabetes educators in client education and clinical care as well as care coordination and case management roles.

It has now been well recognised that medical intervention alone is insufficient to improve diabetes outcomes. The critical role of the person with diabetes in their own self-management, the factors that influence their capacity to self-manage and the need for self-management support and education provided by a range of health care providers are widely acknowledged. Self-management education and support are key strategies identified in both the *National Chronic Disease Strategy and the National Service Improvement Framework for Diabetes*. The introduction of MBS item numbers for diabetes education, and other allied health services is one example of government's response to this need. In addition, the introduction of MBS item numbers for group services for type 2 diabetes provided by Credentialled Diabetes Educators, Accredited Practising Dietitians and Accredited Exercise Physiologists is further evidence of government support for multidisciplinary primary care for diabetes. The introduction of these MBS items has led to private practice as being a growing area of practice for Credentialled Diabetes Educators.

A Deloitte Access Economics report *Benefits of Credentialled Diabetes Educators to people with diabetes and Australia* commissioned by the ADEA in 2014 reveals that people with diabetes supported by structured education achieve better blood glucose management and are less likely to be hospitalised for secondary complications than people who forgo education. The Report concludes that it would cost $173 to provide a full year of structured education to a person with diabetes and that every dollar spent on education would deliver $16 in healthcare savings.

The Diabetes Care Project (DCP) is a three-year pilot that commenced in July 2011 and is part of the Australian Government's response to the growing incidence of chronic disease in Australia and the significant challenge that diabetes presents for the Australian community and health sector. The pilot, which ran until 30 June 2014, aimed to assess how the reform can support a more consumer-centred approach to care through expanding the choices available to adults (18 years and over) with either type 1 or type 2 diabetes, and by providing more coordinated multidisciplinary education and care.

The Access Economic report and the DCP pilot may bring about significant changes to CDE practice and funding.

Appendix IV – Links to Relevant State and Territory Legislation

State and Territory Legislation related to scope of practice in the administration and prescribing of medications in Australia.

- Australian Capital Territory ACT Medicines, Poisons and Therapeutic Goods Act 2008
- New South Wales NSW Poisons and Therapeutic Good Act 1966 No. 31
- Northern Territory Poisons and dangerous drugs act
- Queensland Health (drugs and Poisons) regulations 1996 and Health Act 1937
- South Australia Controlled Substances Act 1984
- Tasmania Poisons Act 1971
- Victoria Drugs, Poisons and Controlled Substances Act 1981
- Western Australia Poisons Act 1964

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