Diabetes mellitus has become one of Australia’s most significant health issues. Aboriginal and Torres Strait Islander peoples have one of the highest rates of diabetes in the world. The rate for Aboriginal and Torres Strait islander people three times more likely than non-Indigenous people and four times more likely to be hospitalised with diabetes.

Improving health outcomes for Aboriginal and Torres Strait Islander people is a key priority for Australia. Drawing upon digital technology is an innovative way to enhance and distribute educational diabetes resources to Aboriginal and Torres Strait Islander people now and in the future. For most of us, staying connected on a daily basis is something we take for granted. Yet there is a gap between those of us who are connected and those who are not. This is particularly so in many of our Aboriginal and Torres Strait Islander communities in Australia where factors such as distance, language, infrastructure, education and other factors only add to the complexity of the digital “divide”. However, from these challenges can rise great opportunities to advance digital inclusion for Aboriginal and Torres Strait Islander people, specifically those living in rural and remote areas of Australia.

Evidence suggests that short-term healthy lifestyle programs designed to prevent type 2 diabetes among Aboriginal and Torres Strait Islander people, can have positive health effects for up to two years, and are more likely to be effective if initiated by the community. Evidence also suggests that structured management strategies used in primary care settings can lead to sustained improvements in diabetes care and health outcomes for Aboriginal and Torres Strait Islander people.

Digital technologies used successfully to provide culturally relevant information to regional and remote communities in areas of health and education and to store and circulate cultural knowledge. Corn (2013) has described the recent digital uptake in Indigenous Australia as the “indigital revolution” that is rapidly changing the way that Indigenous communities come to know and interact with the rest of the world and how the rest of the world come to know and interact with them.

The future of diabetes care will increasingly lie in self-management systems, and education and motivation the key to improving self-management of diabetes.

Hitnet Innovation (contracted by Diabetes Qld) draws upon their experience in developing interactive technologies to develop a digital diabetes self-management module. The goal of the module is to customise culturally targeted health information through creating and sharing new media information in ways that empower individuals and families, and to strengthen communities and their culture. Building on the success of existing resources, the not-for-profit organisations, government, and Aboriginal Community Controlled Sector formed a partnership to use interactive technology to develop digital animations and deliver diabetes education for Aboriginal and Torres Strait Islander people.

The resultant diabetes module, *The Diabetes Story*, sits on over 70 touchscreen kiosks throughout Australia, delivering culturally appropriate health and wellbeing diabetes information to Aboriginal and Torres Strait Islander people. ‘The Diabetes Story’ uses digital technology to explain a complex issue in a direct, interesting way that encourages people ‘to take charge of their diabetes’. It is an interactive self-management module targeting Aboriginal and Torres Strait Islander people.
The six domains uses visual aids as the Feltman and Feltmum\footnote{4} to show what happens inside their bodies, if they have type 1 diabetes, type 2 diabetes or gestational diabetes.

Feltman is a diabetes education tool developed by the Victorian Aboriginal Community Controlled Health organisation (VACCHO) and Diabetes Australia – Victoria (DA-VIC). The National Diabetes Services Scheme (NDSS) funded the national roll-out of Feltman in 2009-10 and the distribution of the Feltman manual and DVD as a training resource. The Feltman resource is a life-sized felt mat that shows the key organs involved in, and affected by diabetes. Developed for use in Aboriginal and Torres Strait Islander communities, its prime use is for teaching about diabetes prevention and diabetes management and used with individuals or group sessions. Feltman has been a great success, with over 500 kits distributed nationally. Recognised for its excellence as a teaching tool, receiving the 2010 Victorian Public Healthcare Awards for “tackling chronic disease and improving health” in two categories: Reducing Inequalities Award (Gold Award) and Premier’s Excellent Award (Highly Commended).

The topics covered in the module and DVD are:

- What is diabetes
- How can I manage it
- How can I prevent it
- Diabetes and pregnancy
- Personal stories from people living with diabetes
- Information about the NDSS and health services.

The module uses young Indigenous hosts to show consumers how to stay well with their diabetes. Access to the modules are through stand-alone kiosks touchscreens located in communities around Australia. The Diabetes Story sits on over 70 touchscreen kiosks throughout Australia, delivering culturally appropriate health and wellbeing diabetes information to Aboriginal and Torres Strait Islander people. ‘The Diabetes Story’ uses digital technology to explain a complex issue in a direct, interesting way that encourages people ‘to take charge of their diabetes’.

The initiative aims to assess the effectiveness and cultural appropriateness of using digital, interactive diabetes self-management resources for Aboriginal and Torres Strait Islander people. Usage Reports from the kiosks provide tailored trace data from the network highlighting what information people are using. This includes the number of users, type of information viewed, and the time spent using the module.

The next step in this digital environment is to tailor this initiative to the smartphones and tablet devices.

While modules and apps are an innovative way to help with self-management strategies, people living with diabetes are encouraged to talk to their health professional as part of your general health plan. The number of Aboriginal and Torres Strait Islander health professionals are increasing however, the numbers are inadequate to match the growing rate of diabetes and other chronic illnesses.
References

2. Review of diabetes among Aboriginal and Torres Strait Islander people
3. Digital Futures in Indigenous communities, Research paper 3-2016
4. Diabetes Victoria and VACCHO

Presenter

Patricia Elarde, a Torres Strait Islander woman, has been involved in Aboriginal and Torres Strait Islander health for about 19 years. Her working experiences expand across a range of areas that include health, child protection and financial management. Patricia is currently the Manager of the Indigenous Health Unit within Diabetes Qld. The team has a strong working relationship with a variety of key stakeholders that include Queensland Health, the Primary Health Networks and more specifically with the state peak body, QAIHC and their Aboriginal and Torres Strait Islander Health Services. The education and training programs for Aboriginal and Torres Strait Islander health workers and members of the communities are highly regarded. Patricia is also an NDSS priority leader for Aboriginal and Torres Strait Islander people. This national role involves providing national coordination and leadership assistance to Diabetes Australia for various aspects of diabetes education and support programs for Aboriginal and Torres Strait Islander peoples. Other responsibilities are establishing and fostering relationships to assist in the promotion of the NDSS (National Diabetes Service Scheme) resources and training for the Indigenous diabetes workforce. While Patricia has travelled all over Australia with the many health focused projects, she has been involved in the sport of basketball as a player and elite coach at local, state, national and international levels, in states of Qld, NT, ACT and NSW.