Victoria University

Promoting using ICT for
Chronic Disease Self-Management by Culturally and Linguistically Diverse (CALD) Communities

Final Report
20 May 2010

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Date funding commenced:	 **June 2009**
Period covered by this report:	**08/06/2009 to 20/05/2010**

Note: Please ensure this report is submitted in MS Word 2003 format.

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1 EXECUTIVE SUMMARY

The project commenced on 8 June 2009. This report covers the period from 8 June 2009 to 6 May 2010. The project has achieved the required milestones and provides evidence of achieved outputs in the project plan section of this report and the attached appendices.

The main aim of the project was to expand the range and reach of quality chronic disease self-management (CDSM) interventions and supports available to people with chronic diseases, and to their carers and families, who are of culturally and linguistically diverse (CALD) backgrounds. This was a demonstration project that looked at innovative ways of using information communication technologies (ICT) in chronic disease management within different cohorts of culturally diverse groups in the Western suburbs of Melbourne. The project has developed a *Digital CDSM Framework* for use in communication with CALD consumers. The *Digital CDSM Framework* was evaluated against information from stakeholder consultations and literature review. The framework was then revised in view of diabetes focus and piloted and again evaluated with 67 health and CALD community workers and with key community members. The use of ICT as an innovative methodology to promote chronic disease self-management was also demonstrated in the Vietnamese community which achieved much enthusiasm and promise. The knowledge gained from the pilot was documented and used as an evidence base and a guide to make it a transferable application in other locations.

The project work was underpinned by strategies that focussed on how culturally diverse consumers can engage in self management, increase awareness and receive information on CDSM and how technology can be used to deliver CDSM interventions. The project has identified good practice strategies in CDSM in sub groups such as women, men and different age groups in culturally diverse communities. Health and CALD community workers are using the ICT skills in their organisations which they acquired during training sessions. This is evident from their feedback to the facilitator and responses through the Wiki - a space created (as an application of ICT in the project) to share ideas and enhance knowledge.

Finally, a project evaluation report is developed to ascertain the efficacy of the project and recommendations are provided for the application of the Framework to other locations and contexts.
Overall, the project has been successful at all levels operational and delivery including development and testing of resources. It is anticipated that the trained health and CALD community workers will continue to use the skills they have acquired during their training and will continue to transfer knowledge about self-management of chronic diseases in CALD communities.
For simplicity purposes this report is supported by several appendices that also reflect the required outputs. A list of acronyms used in the project is included in Appendix18.

2 PROJECT SUMMARY

2.1 Actual performance against the aims of the project.

Summarise the progress in achieving the project's aims, including a comparison between the achievement of the Aims of the Project against the expected objectives and outcomes for the Program.

The first objective of the project involved the development of a Chronic Disease Self-Management (CDSM) Digital Framework that was communtiy driven and created in response to the needs of CALD consumers. The development of the CDSM Digital Framework involved a number of strategies. For example, a broad framework was developed as a skeleton which was then augmented by findings from the literature review and consultations with key stakeholders. The final framework was tested with relevant agencies and communities in workshop settings and feedback obtained. The framework was enhanced in view of the feedback. There are three outputs from the first objective;
1. Literature Review (Appendix 1);
2. Stakeholder Consultation Report (Appendix 2); and
3. Digital Framework (Appendix 3.)

1. Literature Review: Several key themes were identified, for example, for the effective management of CDSM, the patient has to adopt a proactive approach which includes interacting productively with the providers, the community and others in the network; patient empowerment to effectively participate in the decision making is vital; peer-led self empowerment training programs help to mitigate cultural barriers; patient education or training programs have been found to be effective in enhancing patient skills and confidence in self-management; coordinated care is most effective – when delivered by a social care team involving the medical practice, community workers, peer leaders, family and the patient; culturally specific health care models driven by technology may be the most effective option overcoming many of the present barriers in health promotion; technology makes possible the close partnership required between providers, the community and the patient for effective models of long term care; Internet and ICTs have the potential to be a powerful everyday link between the patient and others in the network - through web portals, networking sites, telecare, customized care, electronic monitoring and integrated medical practice; organisational innovation needs to be aligned with ICT utilization for effective outcomes.
The literature review provided several insights into self management of chronic diseases such as diabetes. A number of key themes were identified from evaluation of relevant models and interventions that strongly suggest that in order to empower patients to acquire self management techniques partnership between patients, health care workers and health care organisations is critical to develop and implement effective programs. For example, patients are required to be active agents rather than passive recipients in order to make decisions about their health and wellbeing and be prepared to learn critical skills to manage their condition. A second key component of effective self management is a coordinated effort between various parties such as patients, health care workers, health care organistaions, nutritionists and dietitians, and family members. Finally, customized health care models driven by technology may be the most effective ways to inform and empower individuals and their carers for effective self management of chronic conditions

Please see Literature Review in Appendix 1. The literature review was used to develop the CDSM Digital Framework.

2. Consultations with Key Stakeholders: Consultations with 20 key stakeholders were completed and a report was developed in view of key issues identified. For example, the

current medical system is inadequate to meet the health needs of the migrant and refugee communities coming from different cultures and speaking different languages; face to face, interactive group sessions are widely acknowledged as most effective in communicating with CALD communities; using the services of people from the same racial, cultural and linguistic background – often the widely respected members of the community; language is identified as the predominant barrier to seek information and access health services; improvements can be made through compulsory cultural awareness training for health and other service providers; the elderly and the chronically ill are often isolated for a variety of reasons; lack of knowledge in the communities about diseases and the health services available often hinder access to appropriate treatment and care options; and acquiring information through various communication technologies is often preferred by the younger and middle aged people while the elderly prefer traditional methods like radio and ethnic newspapers. This can be overcome by utilising their preferred media to disseminate health information and through engaging the services of the younger generation in the community to educate and inform the older generation. This knowledge gained from stakeholder consultations was used to inform the communication strategy and development of training material. **Please see Stakeholder Consultation Report in Appendix 2.**

3. Digital Framework: A CDSM Digital Framework was developed with literature and key stakeholder consultations in mind to ensure that it was communtiy driven and designed to address the needs of CALD consumers to self manage chronic conditions, using innovative ICT strategies. It was then tested with key health professionals and community representatives in a workshop context to make sure the final product was useful for the purpose it was designed. Please see **Digital Framework in Appendix 3.**

The second objective of the project involved development of strategies to equip consumers of CALD backgrounds in Western suburbs with information and awareness in relation to CDSM. This objective had the following outputs:

1. Development of Communication Strategy Using the Digital Framework **(Appendix 4.)**
2. Translation of Communication Strategy Using ICT to selected CALD Communities in CALD languages **(Appendices 5 (Hindi), 6 (Vietnamese), 7 (Samoan).**
3. Development of project Wiki for use in training **(Appendix 8.)** and link http://diversitycdsmict.wordpress.com/
4. Creation of DVD version of video (Video 1).

1. Development of Communication Strategy:
Communication strategy for CALD communities, in relation to diabetes self management as a case study, was developed by using the CDSM frame work developed in Objective 1. This was named *Training Resource: Digital Technology and Diabetes: Supporting Self management with Culturally and Linguistically Diverse (CALD) communities.* This was translated into three ethnic languages; Hindi, Vietnamese and Samoan.

***2. Delivery of Communication Strategy*:** The communication strategy was delivered to key CALD communities by piloting the diabetes framework during six workshops with selected ethnic communities in the western suburbs of Melbourne. Please see Appendix 8 for feedback on effectiveness of workshops. In addition, the 'Digital Technology, Diabetes and CALD Communities Introductory Video for Training' project was initiated as a visually based communication product to form one part of a suite of ICT communications materials for CDSM with the diverse range of people from the selected communities in the Western

suburbs of Melbourne. A two minute digital video (Video 1), in multiple languages, was produced which introduces key aspects of the framework and general techniques for using ICT for diabetes prevention and management with CALD communities. Three presenters from different cultural and linguistic backgrounds were the focal point of the narrative. The video is professional looking, easy to understand and produced on a minimal budget.

There are English and Hindi versions of the video to complement PDF translations of the communication strategy and engage with audiences from a specific non-English speaking background. A high quality DVD version of the video has been created for screening on affordable technology such as televisions and DVD players, as well as lower quality versions for upload online and distribution across mobile devices. Having been designed as a training aid this demonstration project was screened as part of project workshops, and included in the training Wiki for participants. This highlights the potential of the video to not only be used in face-to-face training with health service providers and community organisations, but also online promotional materials and web based training products.

3. Development of Project Wiki for Use in Training:

The 'UsingITBetter' wiki, a free collaborative online forum built using the CoActivate web platform, was set up as part of the training program developed by ICEPA for the project. This online space was used throughout all workshops. It functioned as a clearinghouse for information relating to ICT, CALD and CDSM. Health and community professionals could access and use this for: templates and forms; further professional development beyond the training; downloading and watching health information videos and other resources; sharing ideas, projects, successes and failures in relation to using ICT to support CALD communities managed chronic disease; and, contributing feedback to resources made available through the facilitator and ICEPA researcher, Dr. Ben O'Mara. Thirty-five participants set up user profiles and are able to access the Wiki beyond the duration of the project. The facilitator has noted that many participants have made contact outside of training in order to seek further advice, tips and help on using ICT as part of their everyday work.

The third and fourth objectives of the project involved development of community workers, community leaders, migrant settlement workers and other mediators ICT skills to enable them to create innovative and effective multimedia content for communicating CDSM messages and information. Similarly, strategies were developed to equip Health Service Providers to improve awareness of the need for culturally sensitive ICT communication methodologies when using ICT to communicate CDSM information to CALD communities. It was rationalised to invite participants from both community organisations and health service organisation to jointly take part in the workshops. This with the view to enhance knowledge and understanding of issues faced by each sector and to commence a dialouge for working together on using ICT to communicate health messages to CALD community members. The outputs generated by these objectives are:

1. Training Strategy for Community Organisations (Appendix 9.)
2. Training Strategy for Health Service Providers (Appendix 10.)
3. Invitation to Participate Flyer (Appendix 11.)

These training strategies (Appendices 9 and 10) defined a strategic approach for engagement with community organisations and health service providers outlining the recruitment process, purpose, number of topics and training content. In addition, a flyer was used to invite potential participants to take part in training sessions (See Appendix 11). In order to achieve

this objective a number of training and evaluation guides were developed as a Training Package which was used in the training sessions. These are presented in Appendix 12.

The Training Package included:
Item 1. Assessment of ICT Capacity
Item 2. Information Sheet Definitions of New Digital Tools
Item 3. Information Sheet Facts about Digital Proficiency
Item 4. Information Sheet Links to improve your digital proficiency
Item 5. Innovative Practice-DoHA pilot project brief – Vietnamese
Item 6. Training Evaluation Form
Item 7. Training Program Outline
Item 8. Using IT Better Training Manual

Six workshops were held with key stakeholders in relation to chronic conditions and communication with CALD communities and health service providers with the view to identify issues faced by health services. Several issues were documented during consultations with health services representatives through informal meetings and during workshops sessions. The issues identified during the workshops were taken into consideration in the subsequent session. Participant feedback on digital technology and diabetes workshops is provided in Appendix 13.

In addition, consultations with key health service providers were held to identify issues faced by health service organisation with regard to chronic conditions and communication with CALD communities. The identified issues were similar to those learned during initial consultations earlier in the project. Workshop participants were invited to discuss the issues and constraints faced in using ICTs in their organisations to promote self-management of chronic conditions and to develop and or enhance communication with CALD communities. These issues are documented in a report- *consultation with health service providers in relation to chronic conditions and communication with CALD commu*nities in Appendix 14.

The final objective (five) involved demonstration and evaluation of the model - innovative ICT practices for the flexible, multimodal delivery of CDSM communication with the diverse range of people from the selected communities in the Western suburbs of Melbourne. This was undertaken by applying the framework to different chronic diseases and working with three health services to apply framework to other chronic diseases for self management communication using ICT. An evaluation of the demonstration project was undertaken to ascertain the effectiveness of the framework. Feedback on usefulness of framework was documented and is presented in Appendix 15.

In addition, we piloted the Framework with the Quang Minh Buddhist Temple (QBT) which is a centre for the Vietnamese community in Victoria and other Buddhist communities across the state, as well as the office of the United Vietnamese Buddhist Congregation of Victoria. 38 members from Vietnamese community took part in the demonstration. A report from this pilot - *ICT, Diabetes and CALD Communities: A digital technology demonstration project with members of the Vietnamese community* is presented in Appendix 16.).

We have evaluated the conclusions and have documented the application of the framework to other locations. This is presented in the *evaluation report* (See Appendix 17).

The following outputs were achieved from this objective:

1. Video 1. (DVD version): Introduction to diabetes, digital technology and CALD communities (Hindi, Ethiopian dialect and English) and Multi-lingual to demonstrate diversity with the use of subtitles.

2. Video 2. A demonstration of application of innovative ICT practice through the use of video camera in Vietnamese community. The video captures the demonstration of application through a member of the community taking footage. In addition, photos were taken to show community members participation in the demonstration. We have obtained permission from relevant organisation and individuals to use the photos taken during the demonstration for the purpose of this project.

3. Report: ICT, Diabetes and CALD Communities: A Digital Demonstration Project With Members of the Vietnamese Community. This report provides a detailed description of demonstration of use of video as innovative way of using ICT.

2.2 Whether the aim of the project was achieved and if not, why not?
If satisfactory progress towards achieving the aims was not achieved please explain why this occurred and how the relevant issues were addressed.

The overall aim of the project - *to expand the range and reach of quality chronic disease self-management (CDSM) interventions and supports available to people with chronic diseases, and to their carers and families, who are of culturally and linguistically diverse backgrounds* has been achieved by completing the set objectives and associated outputs and outcomes. A project evaluation report was prepared to establish the effectiveness of the project, especially the Framework, and recommend use of the Framework to different locations. This is provided in Appendix 17.

The project objectives have been achieved successfully and the following observations were made:

1. Recruitment of participants from communities and health service organisations during the festive season over 2009-10 meant we had to reschedule out workshops until late in April. This had led to time constraints for holding the workshops and undertaking the evaluation of the project and provide recommendations. However, these tasks have been achieved successfully.

2. We also encountered that the participants were not at the same level of knowledge with regard to the scope and use of ICT. This meant we had to spend extra time to provide a base level understanding to bring everyone at the same level. The enthusiasm brought by the participants to know and learn about using ICT compensated the deficiencies.

2.3 Performance against Project Plan (Schedule Attachment A)

Complete the 'Describe objective achieved' column of the Project Plan (brief description).

Project objectives	What were the key strategies undertaken in order to meet these objectives	Please outline the activities you undertook for each strategy	How will you know if you had achieved your objectives	Completed	Describe objective achieved
1. Develop a CDSM Digital Framework that is communtiy driven and created in response to the needs of CALD consumers to self manage chronic conditions, using innovative marketing and information and communication strategies using ICTs	1.a Identify examples from past practice in health and other related areas	Literature Review	Completion of literature review report and analysis of emerging themes	Month 1	Yes. The objective has been achieved by compiling the literature and extracting key themes Literature review is presented in Appendix. 1.
		Preliminary consultations with 20 key stakeholders, information delivery strategy and needs identification	Report of initial consultations	Month 2	Yes. This objective has been achieved. Consultations with 20 key stakeholders were undertaken using a consultation instrument developed using knowledge from the literature. Consultation Report With Key Stakeholders is presented in Appendix. 2.

	1.b Develop a framework based on 1a	Test the framework with key health professionals and community representatives	Final CDSM framework document completed	Month 2	Yes. The objective has been achieved with final CDSM framework document completed. It was tested with key health service providers and community representatives. Feedback was obtained through workshops and individual consultations with key communities (e.g., Vietnamese, Maltese community, Samoan, migrant resource centre). The Digital Framework is presented in Appendix 3.
2. Develop strategies to equip consumers of CALD backgrounds in Western suburbs with information and awareness in relation to CDSM	2.a Develop communication strategy for CALD communities in relation to diabetes self management as a case study	Using the Framework develop a communication strategy for CALD communities in relation to diabetes in different languages and using different media	Application of the framework to diabetes	Month 3	Yes. The objective has been achieved. The final framework was completed and tested with relevant agencies and communities. The framework was applied to diabetes and a final document was developed for use in the training of health and CALD community workers. Secondly, Communication strategy for CALD communities in relation to diabetes self management as a case study had been developed (See Digital Technology and Diabetes: Supporting Self management with Culturally and Linguistically Diverse Communities in Appendix 4.) Thirdly, Communication Strategy Using ICT to selected CALD Communities was translated in three CALD languages (Hindi, Vietnamese and Samoan (Appendices 5, 6, 7 respectively). (Samoan translation in Appendix 7)

	2.b Design and delivery of communication strategy using ICT to selected CALD communities	Facilitate the piloting of the framework with CALD consumers in selected ethnic communities in the Western suburbs of Melbourne.	Piloting completed with diabetes self management Partnerships forged with relevant agencies	Months 4 and 5	Partnerships were forged with relevant agencies. Project Wiki was developed for use in training. See (Appendix 8.) and link http://diversitycdsmict.wordpress.com/ The framework was piloted with CALD consumers with selected communities. A two minute digital video, in multiple languages, was produced which introduces key aspects of the framework and general techniques for using ICT for diabetes prevention and management with CALD communities.
3. Develop community workers, community leaders, migrant settlement workers and other mediators ICT skills to enable them to create innovative and effective multimedia content for communicating about CDSM messages and information	3.a Develop a training strategy for community mediators	Identification of relevant training content	No of topic identified	Months 6-7	Yes. This objective was completed successfully. The outputs generated by these objectives are: 1. Training Strategy for Community Organisations (Appendix 9.) 2. Training Strategy for Health Service Providers (Appendix 10.) 3. Invitation to Participate Flyer (Appendix 11.)

		Preparation of training materials	Completed training materials Printing of materials		Training materials were developed and printed. Training pack included- 1. Assessment of ICT Capacity 2. Info Sheet Definitions of New Digital Tools 3. Info Sheet Facts about Digital Proficiency 4. Info Sheet Links to improve your digital proficiency 5. Innovative practice-DoHA pilot project brief – Vietnamese 6. Training Evaluation Form 7. Training Program Outline 8. Using IT Better Training Manual See Appendix 12 for the Training Package.
	3.b Delivery of training to selected community mediators	Recruitment of participants	No of participants involved Partnerships forged with relevant agencies	Months 7-8	• A total of 67 participants (representing both community organisations and health service providers) working with CALD communities attended the training sessions. (RSVP list is available but not attached due to confidentiality reasons). • Recruitment Invitation Flyer (diabetes focussed-those working with CALD) (See Appendix 11).

		Delivery of training	Evaluation of training Formal and informal feedback	Months 8-9	The training sessions were evaluated using an evaluation form and received information was collated. In addition, participants contacted the team to further informally discuss their ICT needs and how best they could use the tools to promote health messages. See Appendix 13 for evaluation of training sessions.
4. Develop strategies to equip Health Service Providers to improve awareness of the need for culturally sensitive ICT communication strategies when using ICT to communicate CDSM information to CALD communities	4.a Identification of issues faced by health services	Consultations with key health services in relation to chronic conditions and communication with CALD communities	No of consultations held No of issues identified Report of issues	Months 9-10	Yes. This objective was achieved by holding consultations with key health service providers. The identified issues were found to be similar to those identified during initial consultations earlier in the project. In addition, feedback was obtained during training sessions from health service providers with regard to the use of particular ICTs and constraints faced by individuals and organisations working in the health service organisations. See Appendix 14 for issues identified and discussed using ICT in relation to chronic conditions and communication with CALD communities.
	4.b Use of framework to address issues identified	Hold workshops for health services on communication and ICT and use of framework	No of health services/professionals Partnerships forged with relevant agencies No of workshops Feedback on usefulness of framework	Months 10-11	Six workshops with 67 participants were held over a period of 3-4 months Feedback on usefulness of framework was obtained and is provided in Appendix 15.

5. Pilot, demonstrate and evaluate a model of innovative ICT practice for the flexible, multimodal delivery of CDSM communication with the diverse range of people from the selected communities in the Western suburbs of Melbourne	5.a Application of the framework to different chronic diseases	Working with 3 health services to apply framework to other chronic disease self management communication using ICT- developing communication strategies	Participation of other services Chronic diseases identified Application of framework completed	Months 11-12	Yes. This objective was achieved by holding a final workshop to pilot, demonstrate and evaluate the model of innovative ICT practice for the flexible, multimodal delivery of CDSM communication with the diverse range of people from the selected communities in the Western suburbs of Melbourne. In addition, we piloted the Framework with the Quang Minh Buddhist Temple (QBT) which is a centre for the Vietnamese Buddhist community in Victoria and other Buddhist communities across the state, as well as the office of the United Vietnamese Buddhist Congregation of Victoria. 38 members from Vietnamese community took part in the demonstration (See Appendix 16.). The following outputs were achieved from this objective: • Video 1 (DVD)-Introduction to diabetes, digital technology and CALD communities)-Hindi, Ethiopian dialect and English) and Multi-lingual -to demonstrate diversity with the use of subtitles. (Video 1. will be sent along with hard copy of the Final Report). • Video 2. A demonstration to Vietnamese community for the use of ICT using video. It captures the demonstration of application through a member of the community taking footage. (Video 2 will be sent along with hard copy of the Final Report).

					• In addition, Photos were taken to document community members' participation in the demonstration. We have taken permission from relevant organisation and individuals to use the activities' photos for the purpose of this project. • Report- Demonstration of use of ICT in Vietnamese community • Testing it on the Wiki - feedback on video received.
	5.b Evaluation of demonstration project	Analysis of findings from total project	Final Report	Month 12	Analysis from the total project is drafted and will be finalised before 20th May.
		Evaluation of conclusions and documentation of application to other locations	Final Report	Month 12	• Evaluation report that describes a framework of evaluation of conclusions and documentation of application to other locations and recommendations is provided in Appendix 17.

2.4 Performance against budget
Please complete the funds expended column of the budget table and the budget statements below. Add explanatory notes if necessary.

Resource (itemised)	Total	Funds Expended
Staffing costs (GST Exclusive)		
Salaries Project Coordinator 1 year @ Academic Level A + on costs Project Management and Supervision ¼ of Director's salary Administrative Support Worker ¼ HEWR 4	$81,100 $22,000 $12,000	$82,152.55 $22,000 $12,000
Other employee costs (please provide detail)		
Bi-lingual Project Workers @ $25 per hour x 600 hours	$15,000	$15,000
Trainer Fees @$300 per day x 30 days	$9,000	$9,000
Multimedia Consultant @$400 per day x 15 days	$6,000	$6,000
Health service expertise	$21,000	$21,000.29
Other costs (GST Exclusive)		
Purchase of equipment- computer and software	$4,000	$4052.23
Venue Hire - training	$2,000	$2,000
Translations	$8,000	$7574.24
Training Methods	$12,000	$12,000
Travel	$400	$396.24
Project Administration Costs	$5,000	$5,000.30
Editing and reporting 100 hours @$25 per hour	$2,500	$2,500
TOTAL funding costs (GST Exclusive)	$200,000	$200,675.85
+ 10% GST	$20,000	$20,000
TOTAL PROJECT COSTS (GST Exclusive)	$200,000	$200,675.85
Additional income (Interest Earned $797)-Additional Expense (Auditor's Fee $500)	$297	
TOTAL PROJECT COSTS WITH INTEREST (GST Exclusive)	$200,297	$200,675.85
BALANCE OF FUNDS (GST Exclusive)	$0	-$378.85

Notes -
1.Total project cost ($200,297)-Total funds expended ($200,675.85)=$378.85 overspent.
2. Final invoice=$20,000(Exc GST)
3. Earned interest and auditor's fee does not include GST.

The balance of the funds in the bank account in relation to the project is $0. The project went over budget by $378.85.

The funds needed from the final payment to meet the current liabilities under legal commitments entered into for the performance of the project is $20,000 (Excluding GST).

If all of the final payment funds are not required, the final payment will be reduced by the appropriate amount.

Statement of Compliance:

I certify for the above mentioned Project that:

(i) the Funds and Other Contributions received were spent for the purpose of the Project and in accordance with the Funding Agreement and that Victoria University have complied with this Agreement;

(ii) salaries and allowances paid to persons involved in the Project were in accordance with any applicable award or agreement in force under any relevant Law on industrial or workplace relations; and

(iii) at the time the Final Report is provided to the Commonwealth, Victoria University is able to pay all debts as and when they fall due.

I acknowledge that under section 137.1 of the schedule to the *Criminal Code Act 1995* it is an offence to provide false or misleading information to the Commonwealth.

Signed for and on behalf of Victoria University by

.....
(*Signature)

.....
(*Print name of signatory)

.....
(*Position of signatory)

.....
Date

**The Statement must be completed and signed by the Participant's Chief Executive Officer or Chief Financial Officer, or a person authorised by the Participant to execute documents and legally bind the Participant by their execution.*

2.5 Audited Financial Statement
Attach an audited detailed statement of receipts and expenditure in respect of the Funds prepared by an Approved Auditor in compliance with the Australian Auditing Standards which must include a definitive statement as to whether the financial accounts are complete and accurate.

An extension until 28th May 2010 has been granted for the submission of Audited Financial Report.

3 PROJECT EVALUATION

3.1 What worked well?

List major achievements of the project, and include who is benefiting, or will benefit, from this project and how their needs were addressed. Describe the processes that were perceived to be appropriate and/or effective for the project.

This project's success is in the fact that it targeted digital technology to frontline community health and CALD community workers. The ideas, skills and knowledge were placed in the hands and heads of people who can have a direct and immediate impact, which will be even more significant if they are supported by their organisation.

Some major achievements of the project are:

1. Enhanced knowledge of health and CALD community workers: 67 health and CALD community workers who took part in the training workshops are reasonably equipped with the ICT and its use and as a result are enthusiastic adopters of ICT. Overall, the capacity for the participants to understand the concepts presented to them, develop basic skills quickly (within one session) and be enthused to implement them was very high. The stereotype that these workers are not interested or capable of developing these skills and using them to support the digital inclusion and health and wellbeing of CALD communities needs to be reconsidered.

2. Development of video and audio skills: After each session of the training workshops there was a strong demand for more information and skill development in the area of simple video and audio production. Participants showed an eagerness to be able to try using audio and video in a number of ways and wanted further skills in areas from purchasing technology, effectively downloading and editing through to knowledge of how to deal with issues of privacy and copyright.

3. Awareness of benefits of ICT in delivering health messages through ICT effectively and efficiently: This project has shown health and community workers how to use ICT innovatively to communicate chronic disease self management messages. It has also identified issues and constraints experienced by organisations in utilising technology effectively. The project highlights the need for better ICT planning & smarter investment in organisations dealing with CALD communities. Given the issues discussed in the training sessions by participants regarding the capacity of their organisations to support them in the

use of digital technology it is clear that the health and community sector have significant work to do to improve their ICT planning process. There is definitely room for the project to be extended to look at how organisations can undertake the change required to help support frontline workers use digital technology to support the work they do improving the health and well being of those with chronic disease and those in CALD communities.
There is a breadth to these outcomes that extends beyond just CALD communities. Participants identified that many of the tools and practices in the framework also would be useful for clients that had literacy issues, for empowering those with chronic conditions in mental health and across the broad spectrum of the work they do.

4. Development of health and CALD community workers: Importantly, in the delivery of the framework and professional development, what was widely appreciated in the sessions was the fact technology was not being offered up as a solution. Digital technology was present as a tool that may or may not be of use depending on client's and organisations level of digital proficiency. And, that seemed to be the point that really helped people to engage.

5. Value-adding aspect of the project: The framework developed in this project has been piloted and evaluated and has the potential to be used by all communities to promote self management of chronic diseases. As part of the project, a wiki was developed to house training materials and be used by participants to access information and share information. A majority of participants signed up and logged in to visit the site and download materials. The wiki did not evolve to be a point of discussion and exploration. This should not be regarded as a failure, just a demonstration that the needs of the participants were able to be met through the provision of digital information online through a wiki. In fact, in two sessions, in response to questions the facilitator actually put more content on the wiki so that participants did not have to take notes, but could visit the wiki later to access links and find YouTube videos that provided the answers to the questions they had. Participant engagement after the training sessions involved email.

6. Case Study of impact of the project: The most interesting enquiry is presented below in a case study to demonstrate the broader impact that the project may have. This case in point is an example of how one participant led a change in her organisation after receiving the training.

Sue[1] undertook the training session and returned to her organisation with the clear message to start small and introduce technology into one project. That project was to be a health promotion tool that would be visual and use digital technology. She decided that a PowerPoint presentation that could be shared by her team of diabetes educators would be valuable. They could use it for presentations, but also just on their laptops with clients individually. Sue had some excellent video footage, and used the skills she had learnt to try and find a help website or YouTube video that would show her how to insert a video into PowerPoint. She worked out that she had to convert the video file into a different format, but still could not establish how to do it. She then emailed the training facilitator to explain the

[1] The name is changed for confidentiality reasons.

project and ask whether he had any suggestions. He pointed her to a couple of websites that might be of further assistance. Sue completed the presentation, but before showing it to her staff, she presented it at their organisational mini-conference. Others also presented different video and audio tools on this day. Sue and her colleagues' presentations, and interest in engaging with clients and CALD communities using digital technology made the Manager of Information Technology in the organisation ask at the end of their day whether the organisation was adequately dealing with the level of interest and digital proficiency that the staff had. Consequently, Sue is now part of a working group in her organisation looking at undertaking a new ICT Plan to help position their organisation so that they can better use digital technology to support health and well being in the broader community.

7. Potential use of developed resources: The resources developed from the project can be used in providing training to health and CALD workers in a variety of settings for enhancing communication with CALD communities to disseminate health messages.

8. Online Wiki will continue to provide interested users knowledge and understanding on the innovative use of ICT in self management of chronic diseases in CALD communities.

3.2 What could be improved?

What difficulties (if any) in performing the project were encountered during the project and the action proposed or undertaken to overcome these difficulties. Describe any processes that were perceived to be inappropriate and/or ineffective for the project.

The project was undertaken without major difficulties however, some small constraints were experienced during the commencement of the project. These are:

a) Late start of the project due to a delay in the recruitment of the project. This was overcome by employing additional staff and undertaking several project activities simultaneously.
b) The training workshop had to be postponed and/or rescheduled due to the festive season (December 2009 and January 2010) which meant the sessions continued until late April. As a result a component of the last objective was still underway after the submission of the draft final report. This output has been achieved and is provided in Appendix 17.
c) Recruiting health and CALD community workers proved to be rather cumbersome mainly due to a lack of knowledge on their part about the ICT and a lack of time as well as perception of lack of resources to implement ICTs in their everyday community work; ICT is perceived to be costly. This issue was overcome by persevering and not giving up as well as providing detailed information on the value of attending the training workshops. The fact that the sessions were free of charge also helped.

3.3 Evaluation of resources developed

List resources developed from the project and include an evaluation of their effectiveness.

The following table shows the resources and associated effectiveness. This work is currently underway and will be completed in the final report.	
1. Literature Review	Highly useful in documenting key themes in use of ICT and self management of chronic diseases in CALD communities. This provided the backdrop for the questions for stakeholder consultations and development of digital framework.
2. Stakeholder Consultation Report	Provided documentation of issues faced by health and CALD community workers in the use of ICT in self management of chronic diseases in CALD communities. Key issues identified through consultations informed the development of digital framework.
3. Digital Framework	Its usefulness was in the fact that it was communtiy driven and designed to address the needs of CALD consumers to self manage chronic conditions, using innovative ICT strategies. It formed the basis of subsequent frameworks.
4. Communication Strategy Using the Digital Framework	This is a training resource that is to be used in providing training to health and CALD community workers. This resource was piloted and evaluated against the literature review, consultations with key stakeholders and in workshop situations with health and CALD community workers. It was found to be reasonably rigour and yet flexible to be translated into CALD languages.
5. Translation of Communication Strategy Using Digital Framework into selected CALD Communities' languages	Communication Strategy was translated into three languages - Hindi, Vietnamese and Samoan. The translators found the content to be easy to be translated into different languages without losing the actual meaning.
6. Wiki	The purpose of establishing the Wiki was to provide members a space to share ideas about the use of ICT in the self management of chronic diseases. Another purpose was to train health and CALD community workers

	the scope of ICT and how they can utilise this tool to engage in discussions about health management with their colleagues and community members. Currently there are about 35 members.
7. Training Strategy for Community Organisations	The training strategy proved to be a useful tool for following stakeholder engagement protocols consistently. It provided sufficient information to generate their interest to attend.
8. Training Strategy for Health Service Providers	As above.
9. Invitation to Participate Flyer	The flyer was useful in alerting the potential participants about the training workshops and many contacted us for more information.
10. Training Package • Assessment of ICT Capacity • Info Sheet Definitions of New Digital Tools • Info Sheet Facts about Digital Proficiency • Info Sheet Links to improve your digital proficiency • Innovative Practice-DoHA pilot project brief – Vietnamese • Training Evaluation Form • Training Program Outline • Using IT Better Training Manual	The usefulness of the documents developed in the training package was evaluated during the workshops and during demonstration in Vietnamese community. These were refined after each session to manage the expectations of the participants. We have assessed the conclusions and outputs of this project and have developed a project evaluation report (Appendix 17) which outlines the use of the Framework and provides key recommendations.
11. Video 1. (DVD version)	Introduction to diabetes, digital technology and CALD communities)-Hindi, Multi-lingual including Ethiopian-to demonstrate diversity with the use of subtitles.
12. Video 2.	A demonstration of application of innovative ICT practice through the use of video camera in Vietnamese community. The video captures the demonstration of application through a member of the community taking footage. In addition, photos were taken to show community members participation in the demonstration.

4 CONCLUSIONS

Provide a summary of the conclusions drawn throughout the project.

Background research and a literature review supported the development of a framework that outlined approaches for using digital technology to support culturally appropriate practice in working with CALD communities to understanding and improve chronic disease self management. This framework was titled: *"Empowering Chronic Condition Self-Management with ICT"*. This generic document was then condensed to produce a diabetes specific training resource titled: "*Digital Technology & Diabetes: Supporting Self Management with CALD communities"*.

These tools were then adapted into a training program, *Using IT Better*, and delivered to frontline workers who had regular contact with CALD communities. This summary is a reflection on those training sessions, as these are considered to be the main component of the project. It documents how the training was run, what key issues came out in discussions with participants and reflect on the feedback and further value-added activities that have taken place as part of the project as a whole. The development of the Framework was supported by input from a diverse range of sources which allowed the key question of how digital technology can be best used to support health workers to work with CALD communities in more culturally appropriate ways that lead to better self-management of chronic diseases such as diabetes. The key concept that evolved from the background research, literature review and input from participating stakeholders was that:

"Digital technology can be used to empower CALD individuals and communities, to develop better cultural awareness and culturally appropriate practice and allows content to be shared in cost effective and efficient ways".

The framework helped to build a training session that was flexible and engaging because rather than being prescriptive in what skills and knowledge needed to be developed, it focussed on developing and enhancing health and CALD community workers' understanding of key concepts in the framework. Those being:

1. Diabetes Issues & Content to develop an understanding of issues facing CALD communities like social isolation, challenges accessing services and information and the reasons behind these
2. Cultural Awareness to develop cultural knowledge around the specific communities the participants were working with
3. Digital Proficiency to assess the digital proficiency of different groups (i.e. young people, woman, aged) in the community itself. This knowledge then informed what digital tools and ICT strategies they could put in place.

This approach allowed for discussions and the addressing of participants issues from day-to-day scenarios they faced. The training centred on an exploration of potential solutions through digital technology, depending on the level of digital proficiency of the community or individual they were working with.

Key Issues Identified During Training:
During the training sessions the keys issues were very clear for participants. These can be grouped in two categories. First, issues relating to CALD communities and CDSM. Secondly, issues relating to digital technology in their organisations. These are outlined below:

1. CALD Communities & CDSM

Translation: Overall, the greatest issue that participants were seeking support with was translation and the challenges of communicating across culture. The discussions around this issue focussed on the fact that while digital technology cannot provide better computer moderated translation, the use of still and moving digital images, of flow charts and communicating using visual digital tools can be an effective way to improve communication, cultural awareness and understanding.

Understanding the nuances of different cultures: Participants were not comfortable with the challenges of dealing with the differences that exist both within and between CALD communities. By the end of training however, they were aware that empowering individuals with digital technology and using video, digital cameras, audio and web-based tools to allow their clients to share their culture with them can help in the process of developing more culturally appropriate ways of managing diabetes.

2. Digital Technology

Resourcing: Participants identified the challenges they face in gaining access to the kind of resources required to effect change (like the introduction of digital technology) in their organisations. The resourcing issue included both budget constraints, but also acknowledge the time constraints on a workforce already over-stretched.

Policies and Procedures: During discussions it became clear that organisational policies and procedures have not been designed to consider the growing impact of the digital age. Policies and procedures make it more difficult for participants to implement digital technology approaches to improve diabetes self management in CALD communities because it can limit access to technology the organisation has, specific procedures about how to engage with clients or how long someone can spend working on projects outside of direct client contact. This was regarded by participants as a significant impediment and dampened their enthusiasm that they gained during the sessions.

Systemic Constraints: Different to policies and procedures, organisational systems make it difficult for frontline workers to make progress with their ideas through management. This included issues like: inability to get support from IT Departments, a lack of any ICT Planning and no plain English policies that deal with the use of digital technology across the organisation.

Key Areas of Interest during Training
Over the course of all training sessions, participants demonstrated interest in some specific areas which they were seeking more knowledge and skills. These were:

1. Video and Audio: Participants identified the value of empowering CALD clients with video and audio and the benefits that using these forms of digital technology could have in

helping to develop chronic disease self management plans that were culturally appropriate and nuanced to each individual.
2. *Wikis:* Participants all expressed interest in wiki tools and saw the value of using wikis where otherwise they had considered Facebook or blogs. There was a good awareness of what tools people could use, but they sought more information on wikis once they had a number of different web-based tools described to them.
3. *Empowerment:* Across all training sessions, participants saw the value of putting digital tools in the hands of clients as a way of empowering them to take some control and responsibility for their health, wellbeing and management of their chronic condition whether it was diabetes or another. Participants were interested in further case studies and examples of how this type of practice can be undertaken and how it is best done with CALD communities.

Feedback from Participants
Participants, overall, found the sessions very useful and engaging. Their feedback was very positive and in many instances they identified that the training session was not specific, but general in its discussion of digital technology and would have like more support in developing their skills with digital tools.
Overall, it was clear that participants were seeking to build on the knowledge and skills they had developed. Here are some comments from the evaluation that present that in a clear way:
a) "Excellent and inspirational. Interested in using assessment tools to open up conversation. Would like to explore opportunities further".
b) "Mind expanding information that I hope to put into practice in my work as health promotion worker. I see relevance in empowering individuals and giving a voice to a marginalized community, by way of participation, recognition and documentation. Thanks!"
c) "Today was not necessarily as I expected, but very valuable, and has sparked my imagination and filled my head with ideas … now, just to work out how to encourage the 'powers that be' to let me try putting them into practice!"

Participant engagement after the professional development involved email. In total 11 participants either contacted the facilitator by email or via twitter to ask questions related to the implementation of digital technology in their work place. Several of these regarded the purchase of video and audio tools, others related to the use of web-based software and others were regarding methods to implement strategies with their staff and clients.

In addition, project evaluation report has been written that documents the efficacy of the project and its outputs and scopes the application of the Framework developed during the course of the project. This report is provided in Appendix 17.

5 APPENDICES

Where necessary, appendices can be attached to provide any relevant supporting information, such as:

- *a complete version of the project material (including drafts) produced to date of the progress report;*
- *a glossary listing key terms and abbreviations used in the report; and*
- *a list of stakeholders.*

There are 18 appendices to this report, which are attached herewith. Two videos will be sent in the mail.

APPENDIX 1.

LITERATURE REVIEW:
CALD COMMUNITIES AND CHRONIC DISEASE SELF MANAGEMENT

This literature review was undertaken to inform the development of Chronic Disease Self Management (CDSM) digital framework. The purpose was to identify issues in health promotion, disease prevention and wellbeing, current policy and strategies and best practice models and frameworks in CDSM in Culturally and Linguistically Diverse (CALD) communities. The knowledge gained from the literature review was used to inform the content for consultations with key stakeholders, development of communication strategy, as well as application of the digital framework to diabetes.

METHODOLOGY

Approach: This literature review was undertaken by using a systematic approach to identify, critically evaluate and synthesise relevant information.

Search Strategy: The search for the review focused on literature that covered CALD communities and health promotion; chronic disease self management and specifically the management of type2 diabetes. Searches of multiple databases were conducted using a list of key words including Culturally and Linguistically Diverse Communities, Health and Wellbeing, Chronic Disease Self Management, Information Communication Technologies (ICT), communication strategies, health promotion, disease prevention to name a few. The reference lists of published material, policy documents and the Internet specifically through Google Scholar were also searched for the same keywords. The material was collated in an annotated EndNote library; selected publications were analysed to identify the best practice strategies, frameworks and models. In addition, national guidelines and policy documents were also consulted.

Academic databases and a range of 'on line' full text journals were also searched to gain an in-depth understanding of various frameworks, especially in digital format, currently available in use of CDSM. Policy statements and publications from both government and non-profit organizations were also considered. Furthermore, documents commonly referred to as *grey literature* available from on-line sources, conference papers, reports, key-note speeches, discussion papers and websites are also included.

Inclusion and Exclusion Criteria: Publications were considered if they included information, especially frameworks, on health promotion, education, interventions, on CDSM. Similarly, information, especially in health promotion, relevant to management of diabetes was included. Although there was ample information on CDSM the emphasis was given to information that made association with diabetes and ICT. Publications considered were in English language and material that was in other languages was excluded.

Limitations: The searches were conducted for publications dating back to 1990**.** No other limitations were set.

Information Sources: A wide range of information sources were searched including:

- Cumulative Index to Nursing and Allied Health Literature (CINAH)
- The Agency for Healthcare Research and Quality website
- Cochrane Library
- Medline
- Proquest
- Sage Journals on-line
- Google Scholar
- Georgetown University- National Centre for Cultural Competence website
- American Government Websites
- Commonwealth Government Websites
- State Government Websites (NSW, Victoria, Queensland, South Australia)

REVIEW FINDINGS

Findings from the review are categorised into the following major sections which are intended to underpin the strategies and concepts for the development of CDSM digital framework. The findings were also used to develop consultation discussion questions with key stakeholders and to develop communication strategy as well as to apply the digital framework to diabetes and develop a training resource to communicate self management of diabetes using ICT.

Cultural Competence in Healthcare

The National Health and Medical Research Council (NHMRC) guide for cultural competency in health acknowledges that health inequalities exist for many CALD background communities despite the efforts of the government, the healthcare system and policy makers. The guide advocates the formation of partnerships between the health sector and ethnic organisations to develop a culturally appropriate, consistent and sustainable health promotion and service delivery. The document -

- outlines the four dimensional model – systemic, organisational, professional and individual - for increasing cultural competency in the health sector,
- has tabulated competencies needed to underpin effective health promotion
- includes strategies for developing culturally competent health promotion programs and projects, illustrated by examples of evaluated projects
- identifies the health risks for communities and factors that improve health promotion in CALD communities and
- proposes practical steps to turn principles into actions.(National Health and Medical Research Council, Australia 2005).

Studies have revealed the efficacy of CDSM programs in CALD communities in Australia. Swerissen et al. conducted a randomized control trial of a CDSM program among Vietnamese, Chinese, Italian and Greek communities in Victoria and point to the successful implementation of these programs in CALD communities (2006). The study by Adily and Ward point to the need of ethno-specific evidence to be available for effecting changes in culturally appropriate approaches to population health in Australia (2005). An earlier study by Milat et al. also point to the insufficiency of evidence to identify the characteristics of effective population health campaigns in CALD communities (2005). Another Australian

study on CDSM relates to the Peer-led Self Management of Chronic Illness Project funded by NHMRC. This explored the modifications required for CDSM programs to cater to CALD communities, specifically the Vietnamese, Greek, Chinese and Italian communities in Melbourne. Findings indicate that literacy problems are one of the major barriers and modifications are required for generalized programs to cater to specific groups (Walker et al. 2005).

Chun and Chesla (2004) studied diabetes management in Chinese immigrant families to identify cultural issues in disease management and have highlighted five primary considerations:

1)Conceptualization of diabetes, illness and health;
2)Significance and meaning of food;
3) Perceptions of Chinese and Western medicines;
4) Exercise and physical activity; and
5) Effects of the disease on family dynamics.

A similar study was conducted by Brezo et al. among Americans of African ancestry with the conclusion that 'family-based communication about health, intrafamilial sharing of diabetes diagnosis, and sense of ethnic identity may have complementary effects' (2006). An Australian study on ageing Filipinos contends that family roles, intergenerational conflict, social isolation and geographic dispersion adversely affect health outcomes (Cichello & Thomas 2003).

Caperchione et al. (2009) present the case of CALD communities and the detrimental effect of migration on their health as they learn to adjust to cultural and modernization gaps. Barriers that limit physical activity in CALD communities include cultural and religious beliefs, issues with social relationships, socioeconomic challenges, environmental barriers, and perceptions of health and injury. The study outlines strategies to overcome the barriers and emphasises

> 'the need for cultural sensitivity, the provision of education sessions addressing health behaviours, encouraging participation of individuals from the same culture, exploration of employment situational variables, and the implementation of 'Health Action Zones' in CALD communities'.

Vincent et al. studying Mexican Americans confirm the impact of culturally tailored diabetes intervention programs to raise knowledge levels and effect changes in lifestyle leading to positive clinical outcomes and increased self-efficacy scores (2007). Andrulis and Brach suggest health literacy, cultural and linguistic competence as strategies to improve quality of healthcare (2007).

Another culturally competent model of intervention considers the target group's ethnic beliefs, values, customs, food preferences, language, learning methods and healthcare practices (Anderson-Loftin et al. 2005). A culturally sensitive treatment model for health care providers has been proposed by Core et al. which incorporates a cultural training component in professional education (2008). Wright et al. discuss the Cultural Awareness Tool (CAT) developed to help providers in the assessment of patients from CALD backgrounds. Though developed primarily for the mental health scenario the tool can be a model in general health contexts. The tool which employs simple language has been proved to be effective (2003).

In a study of diabetes among Pacific people, Foliaki and Pearce discuss how efforts to counteract sudden changes in their lifestyle can be maximized by proper understanding of the political and economic factors and the social structure (2003). Myrick in a study of HIV prevention in African American communities in Alabama highlights the necessity of culturally sensitive and inclusive prevention efforts (1998).

Several studies have been conducted into the cultural attitudes to health of migrant ethnic communities which again highlight the necessity of cultural sensitivity and tailored interventions, for example, Le and Le on the Vietnamese community in Australia (2005); Hsu-Hage et al. on the Chinese community in Melbourne (2001); Khwaja et al. and Schweitzer et al. on Sudanese refugees (Khawaja et al. 2008; Schweitzer et al. 2006); Levy-Storms et al. and Tamasese et al. on the Samoan communities (Levy-Storms & Lubben 2006; Tamasese et al. 2005).

Chronic Disease Self Management

The widely acknowledged role of self-management to provide long lasting benefits to the patient and the health system are studied in an Australian context by Walker et al. highlighting the importance of access issues in communities of cultural and linguistic diversity and low socioeconomic status (2003). Common themes in the CDSM scenario in Australia and future directions are also discussed in Glasgow et al.'s article on CDSM support. Results from the study indicate that health literacy is the foundation of self-management programs and the authors advocate promotion of health literacy within the whole population. Other suggestions by the authors include; research and evaluation of self-management to fill gaps in the evidence base, improved integration of self-management into clinical, educational and workplace contexts, and foster engagement of patient, carer, clinician and organizations with self-management programs (Glasgow, et al. 2008). Challenges to the incorporation of self –management support programs into Australian general practice – capacity constraints and difficulties of incorporating these into existing work practices - are studied by Harris et al. with the conclusion that a broader systemic approach is needed. The authors make the following suggestions; a collaborative approach between providers, a range of self-management options, training of general practice staff, and changes to the organization of services (2008).

Self-management support enabling self efficacy for the patient is regarded as central to successful CDSM programs. Bazata et al. propose interaction with health educators and patient empowerment support as beneficial in effecting sustained behaviour change (2008). Other studies advocate programs that teach self management skills rather than information only sessions and introduce the paradigm of patient-provider partnerships for improved self efficacy (Bodenheimer et al. 2002; Farrell, Wicks & Martin 2004); and multi-level support including individual, family and healthcare provider (Bull, et al. 2006). Heisler et al. studied the impact of provider communication and participatory decision making on health outcomes in the management of diabetes and concludes that these strategies enhance self-management through increased patient understanding or self confidence (2002). Patient-provider communication in the context of chronic disease management specifically in ethnically diverse communities is considered essential by Piette et al. in their analysis of the dimensions of such communication (2003).

Gucciardi et al. in a Canadian study of culturally diverse patients analyse the use of diabetes resources in self-management and conclude that the basic determinants of health in this context are age, sex, ethnicity or primary language spoken and level of education. The authors make a number of recommendations including the need to develop resources that ensure equitable access, particularly for non-English speakers, the aged, and those with low levels of literacy and education (Gucciardi, Smith & DeMelo 2006). Bell and Orpin in a study of self-management of chronic conditions in rural Australia conclude that gender and living arrangements affect self-management; therefore programs should be tailored to meet the needs of specific sub-groups (2006).

The delivery of care needs to be tailored to the patient's preferences and life goals and Redman finds that the risks associated with self management can be minimized by careful patient selection for such programs (2007). Patient dissatisfaction with the quality of care in Australia for people with diabetes was noted in the study by Tabrizi et al. leading to a gap in patient expectations and service received. Overall service quality and the six major aspects – choice of care provider, accessibility, prevention, continuity, timeliness and safety – were found inadequate (2008). An analysis of health literacy self-management by Sakraida and Robinson identify a pattern of two major threads – the transition experience to self advocacy by seeking knowledge and forming a partnership with the health care provider with helpful messaging (2009).

Overcoming the barrier of low health literacy and effective communication are required to ensure patient compliance and success in chronic disease management. Villaire and Mayer advocate incorporating the teach-back method where the patient is allowed to explain the process, in addition to culturally appropriate and literacy compatible materials (2007). Schenker et al. propose a framework to help the provider in deciding to use an interpreter; the four factors to be considered include the clinical situation, degree of language gap, available resources and patient preference (2008).

Effective communication with the patient within a supportive network is acknowledged as vital in CDSM. The Chronic Care Model (CCM) proposed by Wagner et al., the Expanded Chronic Care Model and later models based on the CCM all highlight the necessity of productive interaction among the patient, provider and community networks.

The Expanded Chronic Care Model

The Chronic Care Model was derived as an evidence-based guideline for the management of chronic illness. It proposed a multi-pronged approach where productive interaction takes place between active, informed patients and the proactive practice team with the necessary expertise, relevant patient information, time, and resources to ensure effective clinical and behavioural management (Wagner et al. 2001). The Expanded Chronic Care Model (ECCM) is an enhanced version of the earlier CCM integrating the functions of disease and injury prevention and health promotion in the model. Here the patient is in an activated community and the practice team collaborates with prepared, proactive community partners resulting in improved health outcomes for the population through 'productive interactions among community members, healthcare professionals, organisations, individuals and community groups'(Barr et al. 2003).

Later studies based on the CCM have proposed variations to the global model to integrate other specific and local needs. Dennis et al. studied the model in the context of primary care

in Australia and suggest education and training programs for providers and include self-management support in multidisciplinary care plans (2008). Solomon conducted a review of the use of information technology to support the CCM, linking patients to the exchange of health information to promote self-management (2008). The Home-based Chronic Care Model (HBCCM) incorporates home care into the traditional model and acknowledges its role in chronic disease management (Suter et al. 2008).

Schillinger proposes a collaborative model with input from diverse populations and debates the concept of functional health literacy (FHL) and the potential of health communication interventions (2001). In a later study Schillinger et al. examine the effect of two self-management strategies – automated telephone self-management support and monthly group medical visits – across outcomes of the CCM in participants with limited English and concludes that patient centered self-management support positively influences self-management behavior (2009). Jordan et al. emphasize the need for coordination and integration of self-management support programs in the Australian health care to effectively implement the system changes required – mainly the need to better understand the infrastructure, training for key stakeholders (2008). Wellingham et al. developed a chronic care management model for people of the Counties of Manukau region in New Zealand. Components of the model included 'targeting of high risk patients, organisation of cost effective interventions into a system of care, and an integrated care server acting as a data warehouse with a rules engine, providing flags and reminders (2003).

Other Frameworks, Models, Best Practices

The Diabetes Australia document 'Information and Education for People with Diabetes: A 'Best Practice' Strategy' in 2004 is intended 'to inform and guide improvements to the structure, process, and outcomes of information and education to people with diabetes across Australia over the next 3-5 years. While analysing the scenario in terms of what should be happening, what is happening now and what needs to happen the report proposes a conceptual model and a strategic framework to think about, understand and build interventions. The model incorporates the following elements:

- The person – who needs/is receiving the intervention
- The person in context – family, social groups(s), society
- The characteristics of the information – quality, settings, modalities
- The Australian multi culture – the linguistic, religious and sociological richness that is uniquely Australian
- Structure and process – a learner centred model based on mutual understanding. (Diabetes Australia 2004)

Culturally Tailored Models

Kim-Godwin, Clarke and Barton in 2001 proposed a Culturally Competent Community Care (CCCC) model to focus on the relationship between culturally competent health care and improved health outcomes for culturally diverse populations. The major construct of the model is cultural competence which has four dimensions – caring, cultural sensitivity, cultural knowledge and cultural skills. Optimum health outcomes are produced when cultural systems, community systems and health systems, driven by cultural competence, intersect in the area healthcare. The model supports the use of assessment of health within an individual's

cultural context, educators in native language, non-verbal behaviours, cultural bridging and advocacy as essential cultural skills (2001).

A University of Virginia study of culturally tailored interventions for rural African Americans with diabetes emphasized the efficacy of group learning in a supportive atmosphere and the incorporation of culturally familiar and appropriate learning methods and simple language. The design included storytelling and used figurative language of the participants' region, presenter of same ethnic identity and simple, colorful one page handouts (Utz et al. 2008). A similar study of a culturally competent program for Mexican Americans achieved better outcomes through bilingual service providers, appropriate language, diet, social emphasis, family participation and incorporation of cultural health beliefs (Brown et al. 2002). Project Dulce is claimed as an effective program for improving outcomes for diabetes patients; it incorporates a nurse management program and a culturally tailored peer-led self empowerment program for patients (Gilmer, Philis-Tsimikas & Walker 2005). Leeman describes another tailored intervention model in diabetes self care for older African American women considering their cultural differences and attitudes to healthcare. The results of the study point to improved participation in self-care practice, satisfaction and long term benefits in metabolic control (2008).

Renzaho proposes a model for cultural consultation based on needs-led rather than service-led programs (2008). The cultural competence framework of Betancourt et al. includes the strategies of minority recruitment into health professions, interpreter services, education materials in patients' language and cross-cultural education for providers (2003).

The CSHCM or the culturally specific health care model developed for HIV/AIDS care has four features aimed at tackling a complex problem – a culturally specific description of the target community, a culturally sensitive approach to assessment and intervention, interdisciplinary collaboration among providers and the use of key indigenous providers (Goicoechea-Balbona 1997).

Information Communication Technology -Driven Frameworks

The literature review on the use of Information Technology (IT) in diabetes management primary care by Adaji et al. finds conclusive evidence that IT can be used to improve care by improving patient-provider interactions (2008). This review was undertaken to support the development of a conceptual framework for the Chronic Disease Management Network project in the Barwon region of Victoria, Australia.

Studies also point to the necessity of improved patient-provider communication through Information Communication Technology (ICT) supported models of practice. Allen et al. advocate achieving this with the help of an internet-based coaching intervention through a nurse who becomes the E-coach to guide and empower patients in self-management strategies (2008). The study by Bull et al. suggest that the internet has not yet been harnessed effectively in the CDSM programs as although a majority of websites provide information but few offer interactive assessment opportunities, social support, problem solving assistance of evidence-based care (Bull, et al. 2005). Jbilou et al. propose the combining of ICT utilisation (ICTU) and Organisational Innovation (OI) to achieve better outcomes in healthcare(2009). Gerber et al. propose clinic-based multimedia sessions with patients using

audio/video sequences, to provide information, psychological support and promote self-management behaviour (2005).

Internet-based intervention strategies in the management of chronic diseases also include [in addition to email communication which most studies uphold as central to patient-provider communication (Baker et al. 2003)] virtual health networks, electronic health records, patient-managed home tele-care system with integrated clinical signs monitoring, automated scheduling and medication reminders, access to health education and daily logs. (Celler, Lovell & Basilakis 2003).

Models of internet-based interventions also include interactive online diaries (Cohen et al. 2006), the D-Net self management program (Glasgow, et al. 2003), Interactive Voice Response (IVR) services (Gomaa, Morrow & Muntendam 2001; Piette 2000), patient education using interactive multimedia (Huang, Chen & Yeh 2009), electronic diary or hand-held monitoring systems (Tsang et al. 2001), Asthma 1-2-3, a low literacy culturally tailored multimedia tool (Sobel et al. 2009), self-care reporting help (Wangberg 2008), online collection of sensitive health information leading to better self disclosure of health-risk behaviours (Kam & Chismar 2006), electronic health records (Dorr et al. 2006) and a broader concept of E-health (Baur 2008; Schiavo 2008; Sternberg 2004).

Other studies, Australian and international, also uphold the potential of internet-based interventions in improving patient self efficacy. O'Connell and Cherry describe the Health Hero online service which is an internet-based communication platform facilitating the daily activities of the patient (2000). A similar concept called the Home Health Hub is "an advanced residential Internet gateway" which acts as a link between patient and technology and incorporates patient interactivity and has the potential for automated diagnosis (Bryant & Colgrave 2006). The Care Plan On- Line (CPOL) system was developed to provide internet-based support for the South Australian HealthPlus Coordinated Care model for chronic disease management (Warren, Frankel & Noone 2002).

Another development is the Violet Technology (VT) which claims to provide features beyond existing health information tailoring systems for the management of diabetes. This web-based technology uses the Diabetes Information Profile (DIP) and prioritises information for individual patients (Ma et al. 2006). Rothschild et al. put forward the Virtual Integrated Practice (VIP) approach in primary care to improve chronic disease management; this approach establishes virtual networks of clinicians in different disciplines and locations and includes four strategies – planned communications, process standardisation, group activities and patient self - management (2004).

The study by Young et al. highlights the need to develop health information technology models that integrate clinical information, evidence-based treatment and proactive management for care and adequate software to implement these models (2007). Scritchfield foresees the establishment of communication technology –driven caregiver networks supported by the development of personal health records in the long term care scenario (2007).

Telecare and telehealth are modes of health care delivery that use advances in telecommunications like interactive telephone technology. Falsafi argues that these models are important in chronic health management as they facilitate collaboration among providers and also increase participation of patients in managing their illness (2007). Telecare can also

incorporate personalised monitoring plans through web portals (Lim et al. 2007). Huston and Huston outline the challenges that telemedicine should overcome before it can be fully integrated as a practice (2000); Brownsell et al. identify the major challenge as that of developing a strategy and sustainable business model for a mainstream telecare service (2008); Whitten offers 'an overview of the evolution of telemedicine applications, with long term ethical and policy implications'(2006).

Community/Peer Support Models

Disparity in equity of access to services has been identified as a challenge to be overcome to ensure quality healthcare in CALD communities and rural areas. Ward et al.'s study on patterns of Home and Community Care establish the existence of this disparity in CALD communities in rural Victoria with clients from non-English speaking countries receiving 35% less hours of home and community care service (2005).

Many studies confirm the positive role of community health workers (CHWs) in providing support in self-management of chronic diseases. Norris et al. conducted a review to study the effectiveness of community health workers, specifically in minority populations in the USA. The study affirmed that roles of CHWs ranged from substantial involvement in patient care to assistance in education sessions, but overall had a positive impact on patient's knowledge, lifestyle and self-care (Norris et al. 2006). The study by Cherrington et al. assesses the methods of implementation of the community health worker model in diabetes programs and identifies specific problems like CHW retention, intervention fidelity, sustainability and gender and cultural issues (Cherrington et al. 2008).

The Sharing Health Care SA CDSM project proved the effectiveness of peer-led CDSM programs in rural South Australia. The education and support provided by the project, which included a 6-week peer-led program, led to improved understanding of illness and self-efficacy in management with a positive effect on skills, confidence and health related behaviour (Harvey et al. 2008).

Denberg proposes a patient outreach program between visits leading to improved timeliness and intensity of diabetes care (2009). Funnell's study provides examples of peer-based programs in self-management of diabetes (2009). Crespo and Shrewsberry discuss a social marketing plan and decision making support tool to guide self-management behaviour changes (2007). In the 'National Health Service (NHS) and Social Care Long Term Conditions Model' presented by Astin et al., the patient is central, no longer a passive recipient, supported rather than directed by the care team (2005).

Samuel-Hodge et al. present a culturally appropriate church-based intervention strategy for diabetes management among African Americans. The model included one individual counseling visit, 12 group sessions, monthly phone contacts and three encouragement postcards and significant improvements were observed in knowledge and diabetes - related quality of life (2009). A model for CDSM proposed by Griffiths et al. is a lay-led self management program which is culturally adapted and peer-led. The trial found the model to improve self-efficacy and self-care behavior in the South Asian group involved (2005). Heisler provides an overview of various approaches to moblilise peer support for diabetes self-management (2009). Pullen-Smith et al. come up with the Community Health

Ambassadors Program (CHAP) which is a training program for community leaders to be involved in the health promotion in specific communities (2008).

Self-care Behaviors Framework and the Role of Diabetes Education

The American Association of Diabetes Educators promotes a seven step self-management framework. The seven areas of self-care identified are (1) healthy eating, (2) being active, (3) monitoring (blood glucose), (4) taking medication, (5) problem solving, (6) reducing risks, and (7) healthy coping (AADE/American Association of Diabetes Educators 2009).

DESMOND (Diabetes Education and self-management for ongoing and newly diagnosed) is UK based collaborative program providing support in self-management of diabetes through an education course delivered by health professionals in primary care. Consistency of the program is ensured through a written curriculum. Patients "are supported to identify their own health risks and then respond by setting personalised goals which are behavioural and specific" (*http://www.desmond-project.org.uk/about.html*). Several studies and trials have established the effectiveness of the program in teaching patients vital skills and promoting their confidence and motivation in self-management (Davies et al. 2008; Skinner, Chase. et al. 2008; Skinner, Chas et al. 2006).

Enhancing patient skills in self-management is seen as a challenge in many programs. Hill-Briggs presents the problem solving model to enhance patients' problem solving abilities by providing problem-solving orientation, disease-specific knowledge and aiding transfer of past experience (2003).

Renders et al. conducted a study of 41 interventions to manage diabetes with the conclusion that a combination of professional interventions and interventions which included patient education were more effective (2000). Other studies have also recommended educational programs for the patients and the providers. Polonsky et al. discuss a community based education program which comprised of a brief small group workshop about diabetes care with a 3-month follow up questionnaires. Results point to better self-management patterns (2005); Utz et al. conducted a pilot study among rural African Americans and found culturally tailored group training sessions, which included story-telling, hands-on activities and problem-solving exercises to be effective in producing significant life style changes and resulted in empowerment (2008).

The Expert Patients Program (EPP) provides self-management support by developing people's self-care skills through a six week course which includes pain and medication management, relaxation, diet, exercise, communication with health professionals, problem solving and action planning (Rogers et al. 2008).

Evaluation of Frameworks

Lemmens et al. present an evaluation framework for disease-management programs. Factors to be considered in the evaluation include organizational design and effects of multiple interventions (2008).

Key Themes Identified in the Literature Review

- For effective self-management of chronic illness the patient cannot be a passive recipient but has to adopt a proactive approach which includes interacting productively with the providers, the community and others in the network.

- Patient has to evolve in self efficacy through health literacy. Patient empowerment to effectively participate in the decision making is vital. Peer-led self empowerment training programs help to mitigate cultural barriers.

- Patient education or training programs have been found to be effective in enhancing patient skills and confidence in self-management.

- Coordinated care is most effective – delivered by a social care team involving the medical practice, community workers, peer leaders, family and the patient.

- Culturally specific health care models driven by technology may be the most effective option overcoming many of the present barriers in health promotion – models incorporating cultural attitudes to health and nutrition, and concepts of management and prevention lead to better awareness, interaction and responsibility for self-management.

- Technology makes possible the close partnership required between providers, the community and the patient for effective models of long term care.

- Internet and ICTs have the potential to be a powerful everyday link between the patient and others in the network – through web portals, networking sites, telecare, customized care, electronic monitoring and integrated medical practice.

- Organisational Innovation in alignment with ICT utilization is found to be effective.

- Prevention education strategies need to be improved.

SUMMARY

The literature review provided several insights into self management of chronic diseases such as diabetes. A number of key themes were identified from evaluation of relevant models and interventions that strongly suggest that in order to empower patients to acquire self management techniques partnership between patients, health care workers and health care organisations is critical to develop and implement effective programs.

For example, patients are required to be active agents rather than passive recipients in order to make decisions about their health and wellbeing and be prepared to learn critical skills to manage their condition. A second key component of effective self management is a coordinated effort between various parties such as patients, health care workers, health care organistaions, nutritionists and dietitians, and family members. Finally, customized health care models driven by technology may be the most effective ways to inform and empower individuals and their carers for effective self management of chronic conditions.

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APPENDIX 2.

PROMOTING USING ICT FOR CHRONIC DISEASE SELF-MANAGEMENT BY CULTURALLY AND LINGUISTICALLY DIVERSE COMMUNITIES

Community Consultations Report

This document reports on the outcomes of community consultations undertaken during September-October 2009 for the project 'Promoting using ICT for Chronic Disease Self-Management by Culturally and Linguistically Diverse (CALD) Communities'. Twenty organisations working with CALD communities from the Western regions of Melbourne participated in the consultations with representatives from community organisations and health service providers. The purpose of the consultations was to understand the perceptions of these organisations regarding health, chronic disease self-management and the use of information communication technology. The following organisations provided information for the report:

1. Westgate Health Cooperative
2. ISIS Primary Care
3. Migrant Resource Centre North West Region
4. Multicultural Women's Health Centre
5. Office for Child Safety Commissioner
6. Diabetes Australia
7. Australian-Polish Community Services
8. Western Region Health Centre
9. Westgate general practice network
10. Ethnic Communities Council of Victoria
11. Western HARP
12. Community Treatment Program, South West Area Mental, Mental Health Program
13. Orygen Youth Health
14. Maltese Community Council of Victoria
15. CELAS – Spanish Latin American Welfare Centre
16. Muslim Women's Council of Victoria
17. Quang Ming Buddhist Temple
18. Multicultural Arts Victoria
19. CoAsIt – Australian Italian Assistance Association
20. Islamic Women's Council of Victoria Inc.

1. Health Issues

1.1 Access to health information

Doctors and health care centres: Most of the respondents identified doctors or health care centres as a major source of health information in their communities. Many people prefer to see doctors from the same cultural background and who speak their language. Doctors provide accurate information and the clinic and

CHCs also provide information in print in the form of brochures, pamphlets and booklets on their services and specific health issues. Community members also receive information in brochures and pamphlets that promote government initiatives and disseminate information on health related issues.

Word of mouth: Word of mouth plays a big role in how communities receive their health information. Friends and family talk about illnesses in people they know and how they are treating and managing it. Knowledge is passed on through the community. Health service providers recalled many situations where their clients had learned of a certain illness from others which enabled them to provide anecdotal information concerning their understanding of their own health and wellbeing. Certain communities had a few leaders with a suitable educational background who were able to pass on health information to others in the community. Some Asian and Samoan communities have recognised elders who impart knowledge on traditional systems of healthcare like the Chinese traditional medicine. They also teach the younger generation about the spiritual aspects of health. Younger children in the family often interpret and provide health information for their parents as they have better access to various sources through their fluency in English and skills in use of technology like the internet.

Media: Many people in the community get health messages and information through radio and television. The elderly mostly listen to radio everyday and specifically the community language programs in their own language. Information received in the media is often discussed with family and friends in the community and with doctors.

Workshops and information sessions: A number of community organisations and healthcare providers run workshops and information sessions for the public on specific topics ranging from healthy eating, exercise, obesity, women's health, to illnesses like diabetes and cancer. These sessions become effective sources of information when the message is delivered with the help of interpreters by culturally appropriate methods and when there are incentives like food and socialising opportunities to attract community members.

Websites: The younger generation who are skilled in the use of computers often search internet websites for medical information. Medical websites also provide updated information.

1.2 Barriers in accessing health information and health services

Language: Language was identified as a barrier by all the respondents. Language limits access to a variety of health information which is available only in English. Using interpreters helps to overcome this barrier, but comes with its own problems like availability and cost of the service. Most of the health information on prevention is delivered in English and not fully understood by the community. Translations often do not take into account the cultural sensitivity and often use terms like 'depression' which is equated to mental illness in many cultures. Careful, culturally sensitive use of language was highlighted as necessary strategy to communicate messages effectively.

Lack of doctors with cultural knowledge: Many community leaders expressed the view that people may become hesitant because of cultural barriers preventing building a trusting relationship with the doctor, or they may not be fluent in English to frame and ask a question to the doctor; this can seriously restrict their knowledge and choices. The consultation time with a doctor is very limited and often inadequate for the patient to understand the session and build trust especially if the doctor speaks only English. A few other issues were identified in the use of the services of a doctor. Most community members wait until they have an illness to see a doctor and it becomes more of an intervention than a prevention measure. A doctor is often perceived as someone who cures – their role in providing preventative or self-management advice is not often understood. A community worker pointed out that the health service providers' knowledge of and attitude to the community also plays a part in effectively conveying the message; if the provider has wrong assumptions or assume that the patient has a degree of prior knowledge it can make the communication difficult.

Cultural attitudes and approaches: Many communities do not have the notion of preventative healthcare. For them there is only treatment to take away an illness and it is difficult to create awareness about prevention before there is an illness. Pap smears or breast screens are often unfamiliar procedures in many countries. There may be a need for education for migrant and refugee women on what they are and why they are valuable.
There is also a stoic attitude in many communities to chronic illnesses which pressures them to accept their predicament of illness and death with dignity rather than seek solutions. Some communities have a certain pride in their culture that they consider seeking an outside solution to their problems as a breach of that sense of pride. They also fear exposure to the rest of the community as a shame. Many cultures have an element of fatalism which also prevents them from actively seeking remedies. The elderly, isolated and others out of reach of quality health information and services often resign to their fate willingly, withdraw from life and wait for the illness to take over.

Differing levels of health literacy and knowledge about services: Migrant communities often have limited knowledge about diseases in general, and of the specific medical services available to them in Australia. There is not enough information presented to CALD communities in their language. Not enough information is translated into their language in a culturally sensitive way for them to fully understand the issues. This problem, combined with the low levels of literacy in many CALD communities, especially among women and the elderly, severely limits their access to health information.

Different systems of medicine: Some communities, especially elders, consider traditional medicine more suited for them as they consider traditional systems to have a have a holistic approach to health which they find lacking in the western systems of healthcare. The western system is sometimes very different to what the people are familiar with. For them the system does not make sense.
"For example, a woman with breast cancer would not sign a consent form for treatment. She did not understand the decision she was making. She thought the option to not have treatment meant the illness was not serious or life threatening.

In the system she was used to they were not working with a consent form or given an option not to have treatment when things were life threatening".

Literacy: Varying levels of literacy, with most migrant communities having low to medium levels of literacy, was identified as another barrier to a proper understanding of illnesses, prevention and the support services available. Women and the elderly are more affected than the young and the educated and this often leads to further isolation of these groups.

Difficulties in accessing the medical service: Some community leaders think that medical receptionists should be trained to fully appreciate the unique needs of newly arrived refugees. A background of trauma with issues of trust and confidence prevent them from accessing medical centres where the staff are either not aware or indifferent to their cultural and personal backgrounds.
Certain communities perceive the doctor as someone who treats with a medicine. They do not develop a trust in the treatment if no medicines are prescribed.
"If a doctor does not prescribe a medicine to treat an illness, there is sometimes a perception that, if they were Australians they would be given something. In the mind of many a GP is meant to be the expert and treat an illness with medication. Running tests or suggesting preventative options may be seen as not providing a service".
Multiple medical appointments for asymptomatic illnesses, without proper explanation, often deter people from attending the clinic. Religious restrictions, general shyness and gender related cultural behaviours in certain situations, like if women have to consult a male doctor, also restrict many communities from seeking medical help when needed. The referral system has also been blamed for restricting access by frustrating people with long delays to secure an appointment.

Financial situation: Money has also been pointed out as a major factor in determining access to good health services and information. When new migrant families are struggling to make ends meet health and medical issues are overlooked.

1.3 Sections of the community without access to health information

Culturally isolated sections of the community mainly because of language barrier often miss out pertinent health messages. New migrant communities in their struggle to settle down often find themselves bombarded by a wealth of information which makes it harder for them to understand how the system works. People who are illiterate in their own languages and people with low levels of literacy require specially tailored messages including more graphics and culturally relevant images to ensure comprehension.
The elderly are also often left out mainly because of cultural attitudes and language barriers. Older people tend to revert to their first language, particularly if they start to show signs of dementia, they tend to forget what they have learnt since settlement.
Socially isolated groups like single mothers in some communities and other home bound people do not receive health information. People without family networks may also miss out if they are out of significant social connections within the

community. Programs like the senior citizens groups are often ignored by many communities as something western and not needed for them.
People living in rural and remote areas are often isolated and less confident to approach a doctor with or other people in the community about certain illnesses that are considered taboo in their communities.
Some specific language groups are also excluded from health messages. This is true of minority language groups which come under a bigger national or religious group. There may be specialised services available for the bigger group but cultural and linguistic barriers cut off the minority groups. This is seen in smaller Islamic communities which are all catered for under a broader Arabic group.

1.4 Best ways to deliver health information

Face to face: Majority of participants from CALD communities expressed a preference for face to face communication than other media and print communication. This is important to ensure that the information provided is not misinterpreted by new communities. Many cultures are traditionally oriented towards oral communication. Information in face to face sessions is often given in the community language and with the help of graphics.
"Giving our community a pamphlet or a DVD doesn't mean anything. They'll just read it or watch it; it doesn't sink in. So what we have to do basically is to really drag them to our offices and have workshops or face to face sessions with them and make it sort of an informal talk." (Community worker)
"It should be face to face and interactive; then they will start talking and things come out that has been suppressed for many many years, even very personal issues, things that really have been taboo. Once they trust you, once they are happy with you and comfortable with the language they can start talking." (Community worker)

Key members in the community: All communities have certain people they trust and listen to. They have an influence over the community and can effectively get the message across. For many ethnic communities in Australia the church is a place for social interaction as well. There are programs like information sessions organised by the church on health issues for migrant communities. The minister is seen as figure of authority in the community and their messages can have an impact to motivate the community.

GPs and clinics: Many community leaders expressed the view that GPs from ethnic backgrounds and who can speak different languages will greatly aid dissemination of accurate and timely information to members of the community. Clinics can run relevant programs to specific issues to cultural groups with the help of bilingual nurses or other health workers.

Community radio and ethnic newspapers: Messages broadcast in the ethnic radio are an effective means to reach the older sections of the community. Ethnic newspapers reach a wide section of many communities especially the disadvantaged age groups. Promoting health messages through them will reach those who can read and through them the others in the family. What is heard on the radio or seen in the newspaper is often discussed in the family and communities also.

Family and children: Many people learn from younger members and children in the family who learn from schools or other places. This will be a non-threatening way for the parents to learn. Peer groups also seem to work in certain community contexts. Seeking the help of family or community members who can articulate well will also ensure that the messages are properly understood.

Bilingual educators: The role of bilingual educators has been highlighted by many community leaders. Trained educators will have the ability to communicate with people at different levels of education and literacy. Training people from the communities will be a solution.

Make it compulsory: A few community leaders suggested that the GPs and health workers and put pressure on patients to make compulsory visits to the clinic and meet targets in walking.

1.5 Communication Strategies

Use multiple media in groups: People absorb and learn information differently, so a range of audio-visual media will be helpful. Group sessions encourage communication with others in the community, in their own language and create a sense of the community and belonging which will help people to know more, ask questions, understand well and practice.

Keep it simple: Information needs to be presented in plain English or translated in a culturally appropriate and relevant manner. It is also important to provide information constantly, repeated and updated, not providing once and then forgotten.

Expert guest speakers: Guest speakers work well as most communities trust expert knowledge especially if it is recommended by their community leaders and the speech is effectively interpreted in their own language to reinforce the knowledge. Interviews with professionals in health on ethnic radio are often discussed in the community as they respect those with expertise and educational qualifications.

Use graphics:
" We recently disseminated some posters around how to use a toilet for a group that were just settling here and the visuals discussing certain hygiene issues were really important as it was not something that anyone to really understand without some visual information".

Showbags: Making show bags has been a useful strategy. This has worked because through word of mouth people hear about interesting information given out in the bag. Creating interest in health issues through connecting them with art has also been suggested as a way to keep people motivated.

1.6 Ways to improve communication in health and wellbeing

Cultural awareness: Community organisations expressed the view that to improve communication there needs to be a greater awareness of cultural beliefs

and barriers. Hygiene issues especially around baby care may be different across cultures. The community may have lived in camps and may not be familiar with the approach to health management and standards recommended in Australia.
"Health service providers need to be educated about the different communities that arrive here". (Community worker)
Understanding cultural protocols is essential; the best way to ensure this is to access people, elders or leaders from the community and mediating with their help. Enhanced cultural awareness will also lead to careful, culturally sensitive use of language when designing programs. For instance terms coming under 'mental health' may be taboo and offensive in some cultures. Community leaders are often the best people to talk with to gain an understanding of how to address an issue and not offend the community. Knowledge of culinary traditions and family structures in each community is also required to advocate practical life style changes.

Bilingual communication: The role of bilingual community workers to effectively deliver health information is acknowledged by most of the community leaders and service providers.
"The elderly often receive letters in English and they just can't access this information. Bilingual health messages that target various communities are the best way to improve communication".

Consistent and accurate information: As much of the information accessible to the client group is through word of mouth, it is possible that some information that is passed on is not accurate. Many groups suggested imparting information with consistency and accuracy through a range of media that breaks down linguistic, literacy and cultural barriers.

2. Chronic Disease Self-Management

2.1 Community and Cultural attitudes

Many communities have culturally different approaches to health and disease. Mental illness was discussed by many of the respondents as something that regularly brought shame to the family and the community. People often seek help only when they reach a crisis point. This can occur if they are ashamed of a problem like a mental health issue. They may not call a Crisis Assessment and Treatment (CAT) team because they will be unaware of the service; they wait until there is a crisis. In addition, in most CALD communities there is a stigma attached to mental illness which forces them into secrecy regarding the condition. Women's health is also an area that requires culturally sensitive ways to discuss issues as barriers are evident due to varying cultural practices. One community reported that many young girls become pregnant just after settlement and are not aware of how to access the health system here. Likewise, older women have gynaecological problems that they resist talking about or seeking professional advice.
"I had a case recently that involved dealing with a woman with alcohol dependency; she was very ashamed and so was the family. It was difficult to find

a person that could support them and who understood the cultural issues that surround this problem". (Community worker)
There is an expectation in the communities that it is possible to build a relationship of trust with your doctor over time and they will treat illness with medication. Many communities cannot understand how an illness can be prevented or treated with food and lifestyle changes. They also consider chronic diseases as a one off problem that needs a onetime treatment.
Some communities are keen to make positive efforts in management and are keen to acquire basic information about the disease and take the effort to live longer with it by changing life activities and diet. Alternatively, some community leaders pointed to an attitude of passivity in the context of chronic diseases.
"If they are diagnosed with any chronic disease, that's just the end. They just give up on life; they just sit at home, they'll be very depressed. They actually bring on other diseases. This is something we have to educate them; we really have to work hard to educate them". (Community worker)

Settlement Issues: Community attitudes to chronic diseases and health in general seem to be dictated by the stage and context of their settlement in Australia. Communities struggling with issues like housing, parenting, education and employment in a new social structure tend to consider health a lower priority and neglect nutrition and healthy food. Often people need support to learn about shopping and how to purchase and produce what is available and affordable.

2.2 Approaches to self-management

Many communities rely on younger members to acquire knowledge and impart this to their parents. Some migrant groups are not accessing the web as they do not have the skills and the information available on the web is often not culturally sensitive or in a language they can read. Communities often focus on educating the young so they can discuss the health issues with their parents.
Communities also identify and choose a specific health professional like a nurse who understands their culture and speaks their language and with whom the patients feel comfortable to ask questions.

2.3 Facilitative and hindering factors

Several cultural behaviours were pointed out as hindering chronic disease management. In some communities women are not used to activities outside the home and may not be comfortable with people they don't know well. So they did not participate actively in programs like walking groups. Language again becomes a barrier as they may not fully understand the benefits of walking.
Other factors that hindered prevention efforts were a lack of health service providers with cultural knowledge, culturally specific resources and culturally relevant media promotions.
Another hindering factor was the lack of knowledge in the community about the services available to self-manage chronic diseases and how to access them. Lack of family support to treat and manage the disease, especially for the elderly, was also noted in some communities.
Facilitating factors were few compared to hindering factors. The patients usually are left to take most of the responsibility in the treatment and management. Many

communities reported having support networks mostly in the form of community forums where specialist groups presented on specific chronic conditions. But all communities agreed that more effort is required in this direction. Majority of the programs get funded on an ad hoc basis and cease after the funding period. On health issues the communities require ongoing and long term programs.

2.4 Cultural factors of significance

Perceptions of chronic disease differ widely in different cultural groups. For instance some consider illnesses like HIV as a moral issue, TB as a terminal disease, and diabetes as untreatable.

"I believe that the key is for health service providers to operate under the assumption the patient has no knowledge at all and so calibrate the message accordingly".

3. Use of Information and Communications Technologies (ICTs)

3.1 Technology in use

The most common types of technology reported as being used in the CALD communities are television, radio, mobiles and DVDs. These technologies are used by majority of the community members as they are easy to operate and easily accessible. Radio listening is mostly among the older generation who listen to ethnic language and SBS programs.

"Radio if in particular fluent in language is of more value. The community we work this are generally over 50, so this is the key source of technology they tend to access that has information they occasionally can understand".

There is also an age-related, generational difference in watching television as most of the elderly watch programs in ethnic language through satellite television. The age correlation is seen in the use of all forms of technology with the first generation migrants who were struggling to survive here using only the TV and mobiles, the second generation with better education and employment and who had gone to school use the computers and the internet, and the third generation who are more educated are proficient in all available technologies.

Mobiles are the most widely used communication device in addition to home telephones. While the elderly used mobiles only for calls, the younger generation explored all the communication possibilities.

Computer and the internet are not widely accessed in the communities and very rarely by the older generation. In some communities health service providers access the internet for information and newsletters and distribute that among the community.

DVDs are not very popular but are used to watch ethnic language films in the home environment. But DVDs are popular at information sessions conducted by experts as they reduce language and cultural barriers by providing pictures and information relevant to the culture.

Most community members pick up their knowledge of technology and how to use it from friends and family members. To learn about computers they may attend classes or the school education system.

3.2 Is it language related?

Fluency in English is not seen as a major factor contributing to use to technology though the more educated younger generation use various forms of technology. Use of technology generally correlates to age; language may be a secondary factor. There are old people not fluent in English who use technology like the internet proficiently.

3.3 Issues of trust and authority

Doctors and health professionals are trusted by communities as sources of correct information. A doctor is generally a person held in high esteem and someone they trust with the privacy of the communication. The internet is not usually a trusted source even though the younger generation seems to use it to search for all types of information.

4. Key Issues

1. The current medical system is inadequate to meet the health needs of the migrant and refugee communities coming from different cultures and speaking different languages. The CALD communities require:

   a) GPs and other service providers with cultural knowledge and who speak the ethnic language

   b) Relevant resources which are culturally sensitive and in preferred community languages; if in translation it should be culturally appropriate

   c) Use of interpreters with knowledge of the issue and cultural knowledge

   d) The possibility to establish relationships of trust over time with key personnel or doctors who have the expertise to provide accurate health information. This again requires time, cultural awareness and language skills.

2. Face to face, interactive group sessions are widely acknowledged as most effective in communicating with CALD communities. In such sessions use of ethnic language overcomes linguistic barriers; use of graphics and other visual aids through variety of media cater to different levels of literacy and different cultural patterns of knowledge acquisition; an informal setting and opportunity for interaction helps to overcome culturally ingrained inhibitions.

3. Using the services of people from the same racial, cultural and linguistic background – often the widely respected members of the community - is found to be most effective as comprehension will cease to be an issue and establishing relationships of trust will become easier.

4. Language is identified as the predominant barrier to seek information and access health services. Suggestions to overcome this barrier include use of interpreters, translations of resources, bilingual educators and use of simple language and other educational tools.

5. Improvements can be made through compulsory cultural awareness training for health and other service providers.

6. The elderly and the chronically ill are often isolated for a variety of reasons including social isolating through language barrier and cultural attitudes and difficulties in physical movement either through disability or lack of transport.

7. Lack of knowledge in the communities about diseases and the health services available often hinder access to appropriate treatment and care options.

8. Acquiring information through various communication technologies is often preferred by the younger and middle aged people while the elderly prefer traditional methods like radio and ethnic newspapers. Disadvantage to the elderly caused by this preference can be overcome by utilising their preferred media to disseminate health information and through engaging the services of the younger generation in the community to educate and inform the older generation.

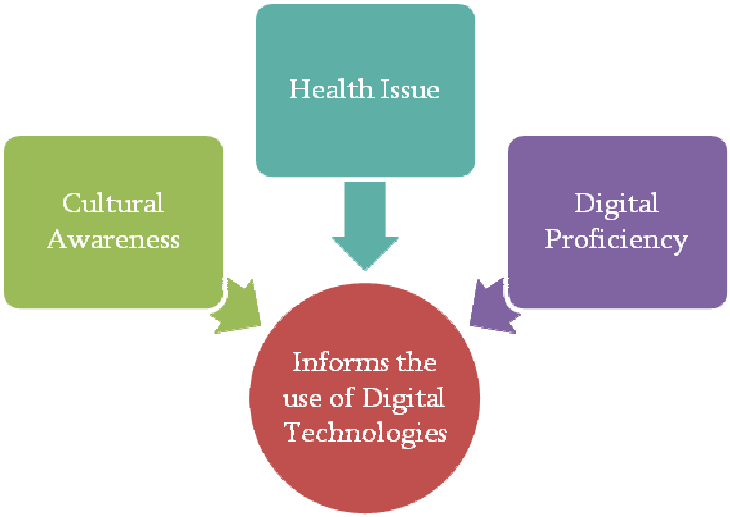
APPENDIX 3

FRAMEWORK

Empowering Chronic Condition Self-Management with ICT
A Digital CCSM Framework for improving communication and outcomes for CALD health consumers

Section 1: Background & Themes
There are many challenges for the healthcare and community service sectors in supporting self-management of chronic conditions within culturally and linguistically diverse (CALD) communities. This resource recognises that innovations in digital technology can help overcome some of those challenges in relation to developing culturally appropriate, accessible and affordable resources for chronic condition self-management (CCSM) in CALD communities.

Diagram: Context informs the use of digital technology in CALD health issues



Using digital technologies in this space requires a strong understanding of the context of both the CALD background and the health background or issues of an individual or community.

What is digital proficiency?
It is a combination of the capacity to effectively use technology and have ready access to that technology. A highly digitally proficient individual will have the ability to adapt and learn new technologies through self-directed learning. An individual with low digital proficiency will still require support to effectively use ubiquitous technology like mobile phones and basic computing.

Digital technologies can be used to help gather information and support well-being, but they can't replace an understanding and appreciation of context. This means using digital technologies relies on an initial understanding of both the cultural and health contexts of the CALD individual or community and an assessment of their digital proficiency before making decisions about how to use technology as part of a treatment or health education plan.

1.1 Chronic Condition and Disease

Chronic conditions and disease such as asthma, diabetes, arthritis, depression and cardiovascular disease are recognised as a significant burden on the health and well-being of Australians. Chronic conditions could reach 80% of national healthcare expenditure by 2020. (National Health Priority Action Council, 2006) In 2005, the development of the *National Chronic Disease Strategy* led to ongoing investment from governments to reduce the burden of chronic conditions and disease.

In 2009, a resource for primary health care (PHC) professionals titled *Capabilities for Supporting Prevention and Chronic Condition Self-Management* was produced by the Department of Health and Ageing (DoHA) and Flinders University. This document presents a series of core principles and skills for self-management support. It aims to improve the knowledge, attitudes and skills of the health & community sector (H&CS) workforce to deliver services and support more people effectively across the chronic condition continuum.

This framework identifies how digital technology can be used by organisations and professionals working with CALD communities to improve health outcomes for people with, or at risk of, chronic conditions. Digital technologies provide an important addition to the toolkit of anyone working with CALD communities and can be used to identify ways of achieving clear goals as part of any CCSM approach with CALD individuals and their communities. *Capabilities for Supporting Prevention and Chronic Condition Self-Management* the framework identifies core skills that digital technology can support and these include:

- Assessment of self-management capacity
- Use of peer support (within CCSM context)
- Cultural awareness/Interpreter service
- Structured problem-solving
- Information, assessment and communication management systems

Supporting the self-management of chronic conditions in CALD communities present a range of complex challenges. Innovative approaches are often required that are culturally sensitive and appropriate in the context of religious and lifestyle practices if they are to be effective.

1.2 Health in CALD communities

Public health and community service providers are aware that traditional models for health promotion and CCSM are limited in addressing the needs of CALD communities. Research indicates a need to better align health prevention and management with the lifestyles and beliefs specific to different ethnic groups. There are many challenges in undertaking this exercise. However, it is clear that information and support for CCSM must be culturally appropriate and sensitive to issues of lifestyle, religion and relationships that exist in the diverse number of CALD communities in Australia.

Cultural appropriateness must take place in three specific areas of health when working with CALD communities, as demonstrated below:

Table: Three areas of cultural appropriateness in health and CALD communities

Health-related issues for CALD communities

Professionals need to consider the wide range of health issues that can exist in CALD communities. These issues are complicated by the diversity between and within CALD communities on the basis of age, gender, culture, preferred language, educational background and English language proficiency. CALD community members will often have different perspectives on health. A 'one size fits all' approach to health management does not adequately address the issues facing CALD communities which can include:

Capacity for Health Literacy	**Different CALD communities will have varying levels of capacity to understand, value and contextualise concepts of western medicine and health**
Expectations of Health Professionals	Some CALD communities will put more value on advice from doctors than any other health professional. Others will prefer community-based health workers.
Communication with Health Professionals	The person a health worker will deal directly with may vary. It could be the patient directly, it could be through a family member or community member translating. Some people might want information to take home to share with their husband or wife. This presents complex issues when discussing private health matters.
Cultural perception of some diseases or conditions	Sensitivity around some types of diseases or conditions may be required for CALD communities. For example, the perception of mental illness may be rather negative, STIs could be a 'taboo' topic within the community, and men and women might prefer different health management strategies.

Diversity of the CALD communities: health and technology

There is diversity between and within CALD communities on the basis of age, gender, culture, preferred language, educational background and English language proficiency. They are also at different stages of development and have varying health needs in relation to how long they have been settled in Australia. For example, Indian, Italian and Vietnamese communities have been settled longer than recently arrived people such as the Sudanese and Burmese. Those who only just arrived in Australia, such as refugees, often face specific

health problems like trauma related illnesses and rapidly rising incidents of lifestyle diseases such as diabetes.

More established CALD communities continue to face complex health challenges as they age. In the case of dementia patients, an older Greek community member may revert to their first language as the illness progresses. This places increased pressure on the family, service providers and other people providing support to this community member due to the problem of language communication.

The use and application of ICT is similarly different between and among CALD communities. Recently arrived CALD communities will often prioritise certain kinds of ICT, such as mobile phones, over more expensive and less accessible forms of technology like broadband internet. CALD communities who have been settled longer in Australia may be better networked, have more access to economic resources and more open to new and emerging kinds of ICT. At the same time, research has found that in some CALD communities younger community members are more likely to understand and take advantage of the full functionality of more complex forms of ICT. An older CALD community member may have access to the internet, but not aware of the capacity of highly interactive social media platforms.

Health Support & Promotion Strategies with CALD communities

Given the diversity and often varying issues in CALD communities' strategies for support must fit the cultural context of the community you are working with. But, there are general considerations that you must use when working with CALD communities. Approaches that are beneficial in supporting the delivery of health promotion and support strategies include:

- Greater flexibility in service delivery
- Improved understanding of cultural and lifestyle practices
- Use of bilingual educators and/or preferred language of CALD communities
- Consideration of fasting or lifestyles/religious rituals
- Cultural consideration of the role of family in disseminating information (e.g. eldest son may do a majority of translating, or information sharing)
- Acknowledgement of often high levels of engagement by community members in healthcare decisions.

1.3 Digital Technology

What is Digital Technology?

Digital technology is general term for electronic tools that generate, store and distribute information in a particular form. They include cameras, video, computers, the internet, mobile phones and are predominantly digital in format. Both television and radio are moving to digital formats.

Visual Representation: Digital Technology Landscape

Digital technology is like traversing cities and forests. It is a complex system of different devices, tools and applications. But, if you choose the right tools to get the job done it can be navigated comfortably.

Do CALD communities use digital technology?

Findings from the VicHealth and Victoria University's *Sending the Right Message: Use and Access of ICT for Communicating Messages of Health and Well-being to CALD Communities (2009)* gives us some ideas about who in CALD communities may be using digital technology.

- Different age groups and with different levels of education and exposure to English do use and access digital technologies, like the internet, and have the capacity to apply these forms of ICT in ways which are meaningful, positive and useful in their day to day lives.
- Younger participants with higher levels of education and with good English language skills seem to be the most proficient and enthusiastic users of various new and emerging ICT.
- Middle-aged and even older tertiary-educated community members with sufficient financial resources to have internet and computer access at home, but tend to use more basic functionality. Those with lower levels of English, limited literacy and/or limited formal education, primarily use TV, DVDs and radio and use the telephone or mobile phones.

Key Concepts for using Digital Technology with CALD communities

1. Digital technology is a tool. It does not replace the need to operate in a culturally sensitive and appropriate way.
2. Digital technology should enhance face-to-face consultation and word of mouth communication in CALD communities.
3. Digital technology is something that people in CALD communities can use.
4. Digital technology has the capacity to be cost effective. Ensure the cost of using digital technologies and distributing them meets your desired aims.
5. Digital technology can be taught. Don't abandon the use of technology because of lack of knowledge. It may be beneficial to support them to learn to improve health outcomes.

Why use Digital Technology?
Distribution - Communication - Affordability

Distribution/Accessibility	Communication	Affordability
Digital formats are easily transferable across different media platforms. This means an audio recording can be sent to a multicultural radio station to play, used as a CD or provided as a podcast that can be played online or on an mp3 player. One recording can be distributed in many ways. This is important to consider when distributing culturally appropriate content across a diversity of ages and levels of digital proficiency.	Digital tools can be used to support improved communication and delivery of information to CALD communities, especially for individuals with limited language or literacy skills or communities with strong oral traditions. Audio can be used more effectively with cultures that have a strong oral tradition. Video and photography can help to provide culturally appropriate and inclusive images.	The distribution methods and communication are most beneficial because they are cost effective. You can provide a patient with a digital camera, or digital video camera and they can produce content cheaply. They will likely have these tools on their mobile phones. Cost savings come from not just the method of distribution, but also because you can reach a greater audience by using multiple media platforms.

Benefits of Digital Content

- Digital content can be developed once, and used across multiple media platforms.
- Video and audio based communication can help overcome literacy and language barriers
- Video and image rich texts can present visual signifiers of culture promoting culturally sensitive practice

How to use digital technologies?

A Health Service Project Manager said, on the importance of face to face communication, in the *Sending the Right Message* Report:

"I suppose that ICT can only ever reflect our use itself as communicators anyway. So ICT is not going to fix something that we are not doing well on a face to face basis"

Digital technology is not a solution in itself. It is a tool to support any worker to provide better support and improved health outcomes for CALD patients undertaking CCSM. It is essential to build a strong awareness and respect for a patient's cultural and develop a self-management plan with goals and objectives that support CALD patients with self-management of their chronic condition, or communicating broader issues related to CCSM to a specific community.

Digital Inclusion

However, research also indicates that there is a digital divide for many people in the community. CALD communities have similar challenges in adopting technology as other disadvantaged groups. Recent findings from the *Sending the Right Message* Report indicates that a CALD background does not immediately put you at a digital disadvantage, but that age and educational background play a key role within CALD communities level of digital proficiency. This digital divide generates further health, educational and employment disadvantage as technology continues to develop at exponential rates. In this way, healthcare providers can contribute to supporting digital inclusion if they undertake projects and activities that support improved CCSM by supporting CALD patients to adopt and effectively use new digital technologies.

Challenges of using technology in CALD communities

There are various challenges in using digital technologies in CALD communities. Depending on the levels of digital proficiency in the community, or depending on the age or situation of the group you are working with, there may be some significant barriers. Technology can also be used to help support digital inclusion and overcome some of those barriers.

Table: Meeting the challenges of technology in CALD communities

Challenge	Strategies
Access to Technology/Low Digital Proficiency	• Establish and facilitate community access points to computers and the internet and provide people to provide support. • Run a program that supports health management and requires a user to be trained in and to use a piece of technology regularly so they get comfortable with it. • Have training programs in using mobile phones, computers or other technology for identified groups in CALD communities – mothers, older men, a specific CCSM group
Inclusive Development of Content	• In the development of content engage CALD community members with skills in graphic design, or video production and collaborate with them to develop content. • Development of programs using digital technology and the development of the content needs to be culturally inclusive of CALD communities. • Support digital inclusion by developing content with community members, while simultaneously training and developing their skills using certain technologies.
Language	• Recognise the issues with direct translation and use video and audio content where appropriate and affordable • Do not allow technology to replace important face-to-face contact and discussions.
Relevant Content	• Be prepared to develop content for a specific CALD community. All CALD communities are diverse and uniform content and information will not always translate effectively. • Test out content with members of the CALD community before printing or copying and distributing information.

Health and CALD organisations – Developing your digital skills

If organisations are going to work with CALD communities using digital technologies, then they need to be proficient users of these technologies themselves.

These technologies are increasingly becoming valuable, but the potential for their use will always be dependent on the skills and knowledge of the workforce who will identify new and engaging ways to use technology to achieve better health and wellbeing outcomes for individuals and communities.

An organisation can improve its own level of digital proficiency by:

- Supporting staff to train in using digital technologies
- Developing organisational ICT Plans that identify how technology should be used and invested in.
- Ensuring the internet is available and accessible at work, and key sites like YouTube and Google Applications are not banned.
- Looking at how new technologies can improve business systems and communication in the organisation.
- Using wireless internet access, providing laptops or smartphones to field workers and driving cultures that promote flexible work arrangements and innovative ideas.

Section 2: Guidelines for using Digital Technology in CCSM

There are two ways in which those working with CALD communities can support health promotion and management using technology, especially in relation to chronic condition self-management.

- Individual support of chronic condition self-management (CCSM)
- Community education of risk factors and impact of chronic conditions

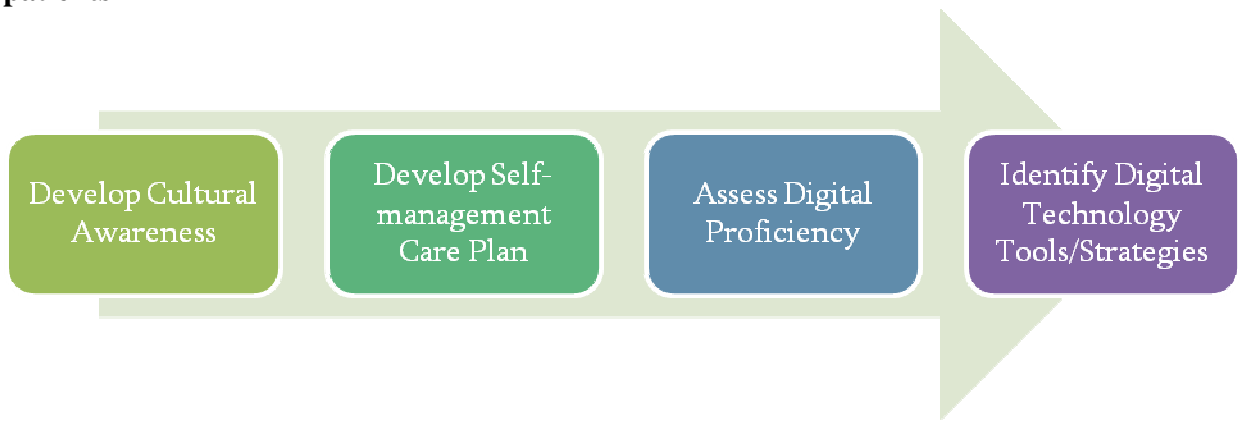
The following guidelines look at how digital technologies can be incorporated into supporting both individuals and communities.

2.1 Supporting CALD individuals in CCSM

When considering the use of digital technologies to support individuals with CCSM there are four steps to consider:

- Develop Cultural Awareness
- Develop Self-management Care Plan
- Assess Digital Proficiency
- Identify Digital Technology tools/strategies

Diagram: Supporting Self-management using Digital Technology with CALD patients



1. Develop Cultural Awareness

A core skill for self-management support is cultural awareness. This entails understanding how a patient's culture may inform their values, behaviour, beliefs and basic assumptions. It also means understanding community needs and to undertake support in a culturally appropriate manner which includes accurate communication through interpreters, family or community members.

2. Self-management Care Plans

International evidence confirms that the best practice approach to supporting self-management and empowering patients with chronic conditions is for each patient to have a self-management care plan. Developing this plan with a CALD patient should be collaboratively undertaken with health professionals, other community supports and services that can ensure the plan is developed in a culturally appropriate way.

3. Assess Digital Proficiency

As part of an early consultation or discussion it is recommended that you undertake a short assessment of their proficiency and the availability of digital tools in their life. This step is essential in identifying what digital tools will be effective. The assessment should also include the opportunity for a patient to indicate their willingness to learn new technologies if it is identified that they would better support them in their self management of their chronic condition. (A template of a digital proficiency is included at the back of this framework)

4. Identify Digital Technology Tools/Strategies

After the first three steps have been undertaken you will have adequate information to assess whether one or more digital strategies may be appropriate for improving the CCSM of the patient. You can use this information to make a decision about what tools may be useful and align to the goals in the self-management plan. For example this may include:

- A patient has identified they will be responsible for their own treatment, and have a mobile phone they use frequently, so a reminder of the time or date when they need to undertake that treatment can be entered into the mobile phone.

- A worker may feel they would like a greater understanding of the environment of patient in which they are undertaking self-management so provide a digital video camera and ask them to video their home, interview their family and community about their care and support and provide that back to the worker.
- A patient may be seeking further information, so is provided with a DVD to take home and watch which was produced by another community member who is managing the same chronic condition. A more digitally proficient patient may simply get an email with a link to where the video is available online.

Regarding Adaptability
Many people from overseas use internet technology to keep in touch with families and news from their country of birth. They may not be proficient users, but they have skills that effectively meet their need. This idea of adaptability is important, in assessing the value of using a digital technology tool or strategy to support an individual's health a worker should consider the capacity and interest a patient has in using the proposed tool. A high desire to engage is much more likely to provide a positive outcome in regards to the effectiveness of the tool as part of a self-management care plan.

2.2 Supporting CALD communities with chronic condition health promotion

Health promotion regarding chronic conditions may be an appropriate preventative approach in a community where several community members are present with conditions, and risk factors are identifiable across the community. Similar community education programs might be beneficial for communities or families where there are identified individuals undertaking CCSM with self-management care plans.

Diagram: Community education of CALD communities using Digital Technology

1. **Identification and understanding of chronic condition issues**
2. **Develop cultural awareness of identified community**
3. **Develop health promotion plan**

In the everyday activity of healthcare and community service organisations there are processes, data collection and anecdotal evidence that support the identification and improved understanding of issues of chronic conditions in different community

groups and populations. The identification and understanding is part of the work of these organisations.

Upon identifying an issue within a CALD community engagement with that community about the best approaches and methods for information delivery and education is essential before developing the final Health Promotion Plan.

4. **Identify Digital Technologies to support health promotion plan goals**

As a health promotion plan that is culturally appropriate and well-designed to meet the needs of the identified CALD community it is important to identify how digital technologies can be used in meeting the goals of the plan.

The process of identifying the best tools will require similar processes to developing the health promotion plan. Research and stakeholder engagement to help identify the level of digital proficiency and how to best target different community members depending on their age or gender with the messages you wish to deliver.

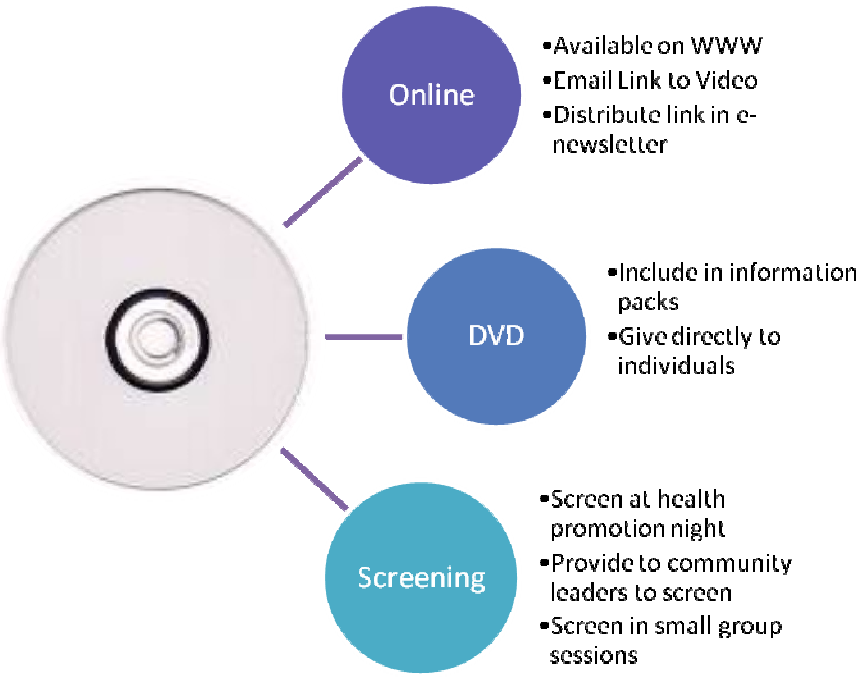
It is appropriate to have a section on the use of digital technologies within a health promotion plan, or to align this communication tools with the key messages and goals you are trying to achieve.

2.3 Content Development & Distribution

Content – Type and Development

The value of digital content is that it is transferable across different media platforms. For example, video footage can be used on a DVD which is screened or provide to patients, or it can be uploaded to the internet. This allows for more cost effective content production because it can increase the potential audience. The *You Don't Wanna Mess With Me* DVD project, an innovative creative arts ICT health communication project with CALD communities did just this by uploading the video content from the DVD to YouTube and providing access on multiple media platforms.

Diagram: Distribution of Digital Video Content



This means that if you develop video content, for instance, in a specific language in culturally appropriate ways that once you assess the Digital Proficiency of the patient you can:

- Email them a link to the video online
- Provide them with a copy of the DVD
- Invite them to the next information session where the DVD is screened.

This is an effective way of ensuring the patient has access to the content in a way that is most useful to them.

How can we collect content?

Gathering digital content does not have to be expensive. But, it can take time and there is value in engaging with CALD communities about the resource you want to develop and have their support and input. Those communities are your experts when it comes to understanding what types of technology will work best and how you can present the content in culturally sensitive ways.

Material can be gathered and presented cheaply using:

- Mobile phones
- Digital cameras & video cameras
- Open-source software tools
- A range of web-based internet tools

Table: Methods for developing culturally-relevant content

Visually	**Images and video are culturally inclusive and capture the reality of a particular CALD community is important for making content relevant and engaging.**
Culturally sensitive and culturally diverse	Ensure that the content and the medium it is produced in a way that meets the needs of the community. It should reflect and communicate in a way that is inclusive and understanding of that community's context
Orally	Audio and video are excellent tools for delivering messages to individuals that have literacy issues or for communities who have a strong oral tradition.
Stories	Delivering information through storytelling and the personal experience of members from a specific CALD community can be an excellent way to
Credibility	It is important to consider how you will make the content credible, by including the voice and advice of PHC professional in content, while simultaneously delivering the material in ways previously suggested here.

Developing Content

In the development of content it is essential to include community, to consult and use people from the community to develop content with you. This can be pursued in a number of ways. It is fundamental to engage community, whether through patients undertaking CCSM, their families and carers or their CALD community leaders. Once engaged the process of developing content can vary. You can:

- Engage professional media/digital content producers to support your project
- Use staff with the skills to develop the content.
- Train staff in the skills required to develop content.
- Identify CALD community members with the skills to collaborate in developing content.
- Train CALD community members of CCSM patients to use technology to develop content.

The ability to empower and increase the skills and knowledge of health professionals, community workers and CALD community members is an excellent way to promote digital inclusion and establish a platform for innovation and the use of digital technology to support CCSM in the future.

Section 3: Applying Digital Technology to Chronic Condition Self-Management

In this section we present ideas and case studies that look at how you can get the most from digital tools by using the most developed and innovative technology. We ask you to consider: how you can gain information about patient CCSM practice through twitter? How you can effectively use video content to get a better understanding of patient's home environment and how you need to manage their chronic condition in relation to their cultural and religious practices? Think innovatively - how you can collect and share information across multiple media platforms? And, how to develop digital tools in a way that is cost effective supports digital inclusion or further empowers CCSM patients to further improve their self-management of their chronic condition?

3.1 Some innovative ideas

Many suggestions and strategies in this framework try to capture changes and tools that can be implemented easily with a low level of digital proficiency. The ideas that follow are aimed at working at the edge of innovations of technology and considering what these tools could be used for. We hope it will inspire some innovative and worthwhile projects.

Using Twitter for self-care management monitoring

Twitter is microblogging tool that offers people more than just messages about when people are having lunch. However, for a PHC professional knowing when a CALD patient who is slef-managing their condition is having lunch could be of use, along with a range of other activities they might be doing. Mobile technology also means that people can twitter at anytime.

As part of a self-management plan and to support PHC professionals to develop an understanding of a patients day and inform future consultations a CCSM patient may set up a twitter account, use their smart phone to update twitter on what they are doing during the day.

A Twitter application like loudtwitter.com could then gather the tweets automatically at the end of each day and post them to a private blog that the patient and PHC professional have access to, or email them directly to the PHC professional. This would give the professional a very good overview of a patient's day, their environment and how that links to their self-management of their condition.

This could also be done using 12seconds.tv which is a micro-vlogging service giving people the chance to log short videos of their day.

Story-telling

Across so many cultures, the telling of stories has been an integral way of sharing information and learning. Tools like Storybird (www.storybird.com) and Prezi (www.prezi.com) are engaging online tools that can be used to support patients to tell their story, in their own language. In the case of Storybird this is text and image based, but Prezi allows this to be done using audio, video, text or any form of digital content you like.

There could be many times that the telling of a story is useful in identifying self-management issues, sharing experiences or simply helping a CALD CSSM patient to better understand the process they are going through in empowering themselves to manage their condition.

Community Podcasting

A network of PHC professionals may identify having CALD clients of similar background and CCSM experience. The prevalence of and availability of iPods and other mp3 players offers an opportunity to establish a support network not dissimilar to Australia's School of the Air. The patients could attend a training session of how to record and upload their own podcasts about their condition and collectively they could share their experiences by recording them and uploading them to a website, blog or podcasting site that would allow them to download others podcasts and listen to them.

The network could create a podcast series on the experience of self managing their chronic condition, the best of which could be broadcast on a community radio program for that CALD community or used as a CD to distribute to other patients.

An extension could be the establishment of a website where not only are the podcasts upload, but the patients could communicate or chat. It is probably more effective to set it up as a Facebook group or using a similar social network.

Capturing environment using video

A group of CALD patients from the same community could be provided with video cameras and a short training session to video their self-management of their chronic condition over a period of one week to one month.

They could be asked to video aspects of their day, interview their families, talk to the camera about their condition in a documentary style approach.

This type of work is being undertaken by Dr Michael Rich at the Boston Centre for Media and Child Health and is called "Video Intervention/Prevention Assessment".

He uses it with adolescents. But, it could be used by any age and gives the PHC professional a deep understanding of the environment in which a CALD CCSM patient is undertaking self-management.

An extension of this type of project could be the production of an educational video that is provided on DVD or YouTube to support other patients into the future by hearing and seeing the experience of someone from their community undertaking self-management. Sections of the video could be in the CALD individual's language.

Community-run Website Clearinghouse

Encouraging members of a CALD community to develop content in collaboration with PHC professionals is a powerful way of building better relationships, understanding and consequently promoting health and well-being generally in communities. Patients who have a chronic condition or risk factors relating to it can be a great resource to develop culturally appropriate tools whether in print, audio, visual or online.

The value of websites and online spaces is that uploading content and hosting it is cheap and easy. If you are developing tools of any kind it would be valuable to create a CALD Clearinghouse of CCSM materials where organisations and CALD communities can share their resources and tools. Sometimes they may not be culturally relevant, but they could lead to other ideas and projects to better support self-management of chronic conditions.

Free, easy-to-use web-based communication tools

Storybird (www.storybird.com) – an online storytelling like www.storybird.com
Prezi (www.prezi.com) – an online presentation tool that supports a wide range of digital media
Facebook (www.facebook.com) – the most prevalent social media site.
Wetpaint Wikis (www.wetpaint.com) – a free wiki site which allows collaborative content generation, sharing and communication.
Wordpress (www.wordpress) – easy-to-use free blog site.
Twitter (www.twitter.com) – popular micro-blogging tool that can be used to generate content in 140 characters of less.
LoudTwitter (www.loudtwitter.com) – a tool that collects daily twitter post and places them on your blog. Excellent for collecting information submitted to twitter.
MyLanguage (www.mylanguage.gov.au) - provides access to search engines, web directories and news in over sixty languages

Table: Content Medium, Type and Examples of use

Content	Media Type	Examples
Video	DVD TV Internet Streaming YouTube Vodcast	DVDs are used by the Multicultural Centre for Women's Health (MCWH) to hold health education sessions on topics such as Occupational Health and Safety, reproductive and sexual health and mental health and wellbeing. The 'Wise Choices Safe Children' DVD (2008), produced by the Office of the Child Safety Commissioner, includes video content in eight community languages, and has tips on how to choose a child safe organization or activity, and things to consider when leaving a child in the care of family or friends

Audio	CD mp3 download iTunes Podcast Radio	WIRE offers multilingual phone support for women from CALD communities. During January to February 2009, WIRE reported that 27.97% of its contacts identified as coming from a CALD background. Audio recordings of booklets or brochures can be distributed on CD, but also online or provided to multicultural radio stations for broadcast.
Images	Social photosharing Flickr Brochures Websites Posters	Maribyrnong City Council in its CALD Communication Strategy identifies in booklet design should included "cultural motifs, with internationally recognized symbols and relevant photos to aid in further explanation of the booklet content. Research shows the inclusion of images enhances CALD readers' understanding of key messages as oppose to using translated text alone.
Text	Blog Website Brochures Posters Information sheets	A Refugee Health Service Model Evaluation (2009) found that Western Region Health Centre re-designed its website to make it more 'user-friendly', interactive and informative for clients such as refugees and newly arrived migrants. This uses text in a dynamic and interesting way.
Community/Sharing	Wiki Facebook Twitter Ning	You could run a community training course on using wikis for a target group (e.g. Sudanese women undertaking CCSM) and help them to connect to information online and sharing information with each other by setting up a wiki. Many CALD communities have members who use the internet and sites like facebook to connect with relatives overseas. Innovative ways to use this technology to support CCSM could be an strategic in sharing information between family and community members.

Section 4: A Case Study: Supporting self-management and CCSM education in a CALD community

A Community Health Service working in rural Victoria has identified a significant number of Sudanese migrants in the community are demonstrating high risk factors of type 2 diabetes. Several members of the community are already presenting with the condition. Dieticians have identified the impact the change to western diet is having on the children in the community and key risk factors have been identified.

The organisation decides that a campaign requiring both a preventative health promotion message about diabetes and education in chronic condition self-management (targeted at those already with type 2 diabetes) is required for this specific CALD community.

A couple of workers also use an existing online network of community health services to identify that this issue is also being worked on in an inner city suburb of Melbourne. Through email and facebook they share ideas and obtain some text-based and audio resources from a migrant centre working with the Sudanese community in the city.

A meeting with community leaders is held and it is identified that there is still a significant number of the community who are developing their English literacy. They also emphasis that

they do not think written brochures will be much help. They want an information day for the community. But, also realise they need some materials that will help into the future.

They are supportive of some younger members of the community working with a media professional on an educational video, but also want healthcare professionals represented on the video to give it credibility. The video is developed, and an information day held. Vox pops and information from the day is included in the video and gives it a great sense of community ownership.

One of the young Sudanese producers has been talking about the video with other young Sudanese around Australia. They decide to create a website and upload the video to YouTube. This way, other communities can access and share the information which is cultural relevant and sensitive.

The workers share links to the video and planning for the event on their online network and others also begin to use the video resource as a tool for helping educate and inform communities in the city.

Section 5: Resources

The following resources have informed the development of this framework:

Sending the Right Message: Use and Access of ICT for Communicating Meassages of Health and Wellbeing to CALD Communities (2009), The Insitutute for Community, Ethnicty and Policy Alternatives (ICEPA), Victoria University

Capabilities for Supporting Prevention and Chronic Condition Slef-Management: A Resource for Educators of Primary Health Care Professionals (2009), Department of Health and Ageing and Flinders University.

National Chronic Disease Strategy (2005), Australian Health Ministers' Conference.

ATTACHMENT 1

Core Skills for Self-management Support (from Supporting Prevention and Chronic Condition Self-management, 2009) which Digital technology supports

Core Skill	Digital Technology Support
Assessment of self-management capacity	Equipping a CCSM patient with digital tools like video cameras, recording devices and blogs. PHC workers can empower CCSM patients to document their own self-management and help to analysis this. It is particularly useful in content of identifying cultural, spiritual or social impacts on self-management practice.
Use of peer support (within CCSM context)	Use of social media tools like Facebook and Wikis could link individuals in the CALD community to work with each other. Video case studies or similar could be used to provide positive role models through culturally targeted and appropriate sharing of stories and information in audio-visual, not just text.
Cultural Awareness/Interpreter service	Storytelling tools like video, or internet sites that people can visually and textually share their stories on are excellent for capturing the environment of an individual undertaking

	CCSM. Interpreter services are useful, but so is developing an understanding by talking with families member or community members who can work with you to engage and support a patient's CCSM
Structured problem-solving	Digital technologies may be able to help solve issues that you have with disseminating information or communicating a concept that is difficult through a visual tool like images or video. Digital technology won't solve the problem, but can be a tool that assist you to solve the problem.
Information, assessment and communication management systems	The technology to share information, make assessments and communicate effectively is well established. The principals of cultural awareness, health issue understanding and digital proficiency assessment still apply. But, the tools discussed in this framework show how you can use them to assist this process.

ATTACHMENT 2.
Individual Digital Proficiency Assessment

Name:	
Contact Details:	
Phone:	
Lanaguages:	

I have access to the following types of media (circle):

Television	Radio
Computer	Mobilephone
Telephone	Smartphone (like iPhone)
Internet	DVD player
Mp3 player (like iPod)	CD Player
Newspapers – English	Newspapers – Other Language

I regularly use the following media:

Television	Radio
Computer	Mobilephone
Telephone	Smartphone (like iPhone)
Internet	DVD player
Mp3 player (like iPod)	CD Player
Newspapers - English	Newspapers – Other Language

I am confident using technology in the following ways (tick):

- I can send and receive text messages on a mobile phone ☐
- I can search the internet and find websites ☐
- I use the computer to create documents ☐
- I talk to relatives overseas using the computer ☐
- I can upload songs to my mp3 player ☐
- I get information from the television and radio ☐
- I can operate a DVD player and watch DVDs ☐
- I use social media like facebook, bebo and twitter ☐

I would be interested in learning how to use the following technology (list):

VICTORIA UNIVERSITY | A NEW SCHOOL OF THOUGHT

APPENDIX 4.

TRAINING RESOURCE

DIGITAL TECHNOLOGY & DIABETES: SUPPORTING SELF MANAGEMENT WITH CULTURALLY AND LINGUISTICALLY DIVERSE COMMUNITIES

INSTITUTE FOR COMMUNITY, ETHNICITY AND POLICY ALTERNATIVES (ICEPA)
VICTORIA UNIVERSITY

NOVEMBER, 2009

Introduction

Diabetes Australia's 'Information and Education for People with Diabetes: A 'Best Practice' Strategy' (2004) identifies the need to recognise cultural and linguistic communities as part of the process of improving diabetes informing, education and outcomes in Australia. A key element of their model states that "the Australian multi culture" must be acknowledged and "the linguistic, religious and sociological richness that is uniquely Australian" must be understood and incorporated into practice.

Diabetes self management can be improved with culturally and linguistically diverse (CALD) communities through the strategic use of digital technologies. In this resource we will look at how you can best use digital technology with CALD communities in cost effective and culturally sensitive ways that improve health outcomes for these groups.

Background

In a review undertaken with the Chronic Disease Management Network project in the Barwon region of Victoria conclusive evidence demonstrated that information and communication technology (ICT) can be used to improve care by improving patient-provider interactions in diabetes management.

Recent research by the Institute of Community, Ethnicity and Policy Alternatives (ICEPA) has identified that CALD communities use and engage with digital technologies in different ways for a variety of reasons. Within CALD communities different groups have different levels of ICT capability and supporting CALD communities to further engage with new and emerging technology contributes to digital and social inclusion.

This resource is a guide to support workers to best use digital technology with CALD communities in achieving better diabetes health outcomes through chronic condition self management (CCSM). It identifies ways to build on the existing knowledge and ICT capacity in CALD communities.

Why use digital technology in CALD communities?

We should always consider using digital technology to deliver diabetes health promotion, education and diabetes self management to CALD communities because:

- It can help deliver more culturally appropriate content through visual and audio messages
- Messages can be delivered across multiple media platforms (radio, mp3 players, online)
- Production and distribution are increasingly affordable
- It builds upon the ICT capability that already exists in CALD communities and facilitates digital inclusion.
- It empowers CALD communities to learn about and use ICT to improve self management of diabetes
- It can enhance social inclusion and provide social cohesion within CALD and mainstream communities

But, when introducing digital technology we must consider:

- The organisation's own digital proficiency
- The capacity of the health or support worker to effectively use the technology

- How the technology actually supports outcomes (not technology for its own sake)

What is digital technology?

Using digital technology to support the self management of diabetes doesn't require complex computer programs or skills. Digital technology is DVDs and mobile phones, it is computers and websites, but mostly it is about new and different ways of providing people with information and support. We know that education and information about diabetes to those with the condition, those at risk and the general community is important. Digital technology can also assist through its visual and audio aspect to communicate messages in cultural appropriate and relevant ways to CALD communities.

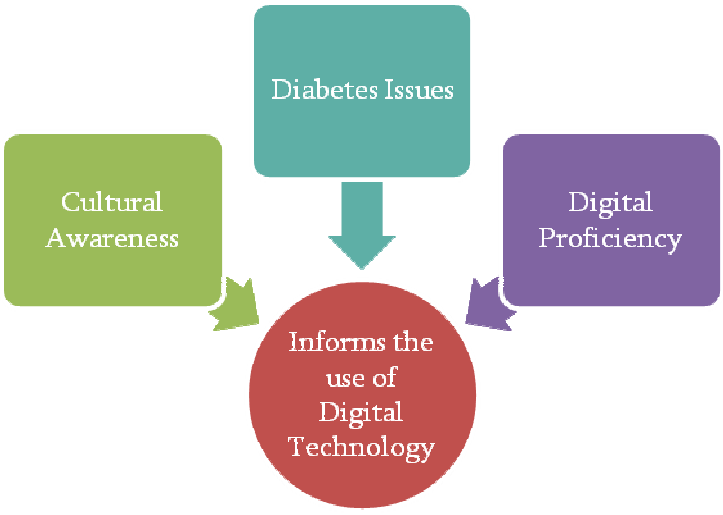
Digital technology is a tool, not a solution. It should never be used to replace the importance of face-to-face consultation and it does not develop cultural understanding for you *on its own*.

What do I need to do to use digital technology for diabetes self-management?

When identifying what technologies are best to use for diabetes self management with CALD individuals and communities, the context of the community you are working with must be considered. You need to:

- Develop an understanding of issues facing CALD communities like social isolation, challenges accessing services and information and the reasons behind these
- Develop cultural awareness around the specific communities you are working with
- Assess the digital proficiency of different groups (i.e. young people, woman) in the community itself. This knowledge then informs what digital tools and ICT strategies you can put in place.

Diagram: Context informs the use of digital technology in social issues



But, what is digital proficiency?

Digital Proficiency is a combination of the capacity to effectively use technology and have ready access to that technology. A highly digitally proficient individual will have the ability to adapt and learn new technologies through self-directed learning. An individual with low digital proficiency will still require support to effectively use ubiquitous technology like mobile phones and basic computing.

Using digital technology to get the full picture

In supporting self management health professionals advise that an understanding of the daily life of an individual with diabetes is important. This can help in supporting an individual to manage their condition and lead a healthy and fulfilling life. Digital technology can help to get an understanding of "the full picture". This information can and should still be gathered using existing methods, but digital technologies can add a new dimension and level of information.

Information required	Tools to use	How to use
Details on home life and daily activity	Digital camera Digital video	Get diabetes patients to undertake a photo record or a video record of their life. The video can be used to interview family and friends about their understanding of the condition and give a health worker a deeper understanding of the context of the individual's life.
Understanding of diet	Blog Smartphone Mobile phone	When documenting what those with diabetes eat they can record it in a blog that the professional can access, or SMS it to a website, or use twitter on a smartphone. This can allow the professional to have access to the information before consultation and improve the quality of face-to-face time.
Monitoring exercise	Mobile phone Smart phone Website	Mobile phones could be used to send SMS or automatic calendar reminders of exercise times. Applications on smart phones or web-based exercise documentation. You may even upload your own culturally appropriate exercise videos or programs to the web.

Challenges of using ICT in CALD communities

Using ICT and digital technologies in CALD communities' management of diabetes can be challenging because of the diversity between CALD communities and the diversity within CALD communities in relation to their use of technology. Here are some of the challenges and possible strategies to deal with them.

Challenge	Strategies
Access to Technology/Low Digital Proficiency	• Establish and facilitate community access points to computers and the internet and provide people support. • Have training programs in using mobile phones, computers or other technology for identified groups in CALD communities – mothers, older men, a specific CCSM group.
Inclusive Development of Content	• In the development of content engage CALD community members with skills in graphic design or video production and collaborate with them to develop content. • Support digital inclusion by developing content with community members, while simultaneously training and developing their skills using certain technologies.
Language	• Recognise the issues with direct translation and use video and audio content where appropriate and affordable. • Do not allow technology to replace important face-to-face contact and discussions.
Relevant Content	• Develop content for a specific CALD community audience. All CALD communities are diverse and uniform content and information will not always translate effectively. • Test out content with members of the CALD community before printing or copying and distributing information.

Storytelling and visual materials

Research from the United States has identified that culturally appropriate methods of engagement were successful with diabetes management and education. This included:

- Using simple, culturally familiar language
- Story telling
- Culturally relevant visual material

Digital technologies lend themselves to these methods: whether story telling through an oral tradition on video, using a digital camera to capture culturally appropriate images to use across a range of educational material or writing short and easy-to-read content for websites. See below for methods you could use in the development of diabetes self-management of health promotion activities.

Methods for developing culturally-relevant content

Visually	Images and video that capture are culturally inclusive and represent the reality of that CALD communities life is important for making content relevant and engaging
Culturally Sensitive and Culturally Diverse	Ensure that the content and the medium is produced in a way that meets the needs of the community. It should reflect and communicate in a way that is inclusive and understanding of that community's context.

Orally	Audio and video are excellent tools for delivering messages to individuals that have literacy issues or for communities who have a strong oral tradition.
Stories	Delivering information through storytelling and the personal experience of members from a specific CALD community can be an excellent means to communicate in a meaningful way with CALD communities.
Credibility	It is important to consider how you will make the content credible, by including the voice and advice of PHC professional in content, while simultaneously delivering the material in ways previously suggested here.

The real value of digital content media is that material can be reused in different formats.

Media Type	How to use
Digital Photos	Emailed, used on a website, inserted into a word document, or printed and displayed on the wall.
Digital Video	DVDs, screened at an information session, downloadable as a vodcast, put on YouTube or supplied to community TV stations.
Digital Audio	CDs, mp3s, downloadable as a podcast, broadcast on radio.
Digital Text	Websites, brochures, email newsletters, blogs, printed information sheets.

What tools can I use?

Once you have a good picture of the individual living with diabetes and an understanding of the individual and CALD community, the specific issues relating to age or gender or other culturally relevant issues and the individuals digital proficiency you can consider what tools might be useful.

ICT Tool	How it could assist diabetes self-management
Mobile Phone	Use calendars and SMS to send alerts and reminders about self management, appointment times, or new information.
DVDs	Deliver information in a format that is culturally appropriate through both audio and video.
Social Media (Facebook)	Linking geographically isolated CALD individuals with diabetes with others. As a marketing tool for organising events. A method of communicating with a digitally proficient patient.
Video camera	To develop short educational videos for screening to community groups, or to document specific information like nutrition or medication management.
Digital camera	To capture culturally appropriate and relevant images for use in visually appealing educational material and documentation.
CDs/mp3/Radio	Recordings made by diabetes patients in their own language could be provided to others (recently diagnosed) on CD, or as a downloadable mp3 or educational messages given to a community radio show targeting a specific CALD community.

CALD communities creating their own content

Empowering CALD communities and individuals with diabetes to develop their own content by providing a digital camera, digital video camera or supporting people to use web tools has real benefits in the development of health materials. It means:

- You help create culturally appropriate content that a CALD community/individual is more likely to identify with as they had control over aspects of production.
- You have a cost effective way of engaging the community - you get not only culturally appropriate content, but are simultaneously facilitating digital inclusion.

Developing organisational digital proficiency

If you are going to use digital technologies to support CALD individuals and educate CALD communities about diabetes, your organisation has to have the capacity to use digital technology well. This doesn't mean just having a good website. It means using digital audio, video and computer systems in ways that support and improve organisational goals and outcomes. An organisation can improve its own level of digital proficiency by:

- Supporting staff to train in using digital technologies.
- Developing organisational ICT Plans that identify investment & use of technology.
- Ensuring the internet is available and accessible at work.
- Looking at how new technologies can improve business systems and communication in the organisation.
- Using wireless internet access, providing laptops or smartphones to field workers and driving cultures that promote flexible work arrangements and innovative ideas.

What can I do now?

1. Continue to educate yourself and staff in your organisation about new technologies.
    - Are you using all aspects of your mobile phone?
    - Can you reduce the number of emails you get?
    - Can your organisation use a social network to more effectively communicate?
2. Assess your current work with CALD communities and begin to think about how digital technologies could improve engagement and outcomes for diabetes patients.
3. Talk with your CALD communities about their interest and capacity in using and engaging with digital technologies as a way of educating and supporting health outcomes in their community.
4. Consider developing an ICT Plan for your organisation, or incorporating digital technology/ICT into your communications plan for engaging with CALD communities.

Ideas to help...

The American Association of Diabetes Educators promotes a 7 step self-management framework for diabetes. The 7 areas of self-care identified are (1) healthy eating, (2) being active, (3) monitoring (blood glucose), (4) taking medication, (5) problem solving, (6) reducing risks, and (7) healthy coping. Imagine how an integrated digital technology approach could support this framework. Consider:

- Images on documents and websites of culturally relevant food and recipes
- Culturally sensitive DVDs on monitoring and taking medication

- Short audio podcasts distributed on flash drives in culturally appropriate language about problem solving and reducing risks
- Mobile phone reminders on when to exercise and monitor blood glucose
- Story-telling of diabetes experiences through organised CALD groups that are documented in video and audio and re-used as educational resources.

A Case Study
Supporting diabetes self-management and health education in a CALD community

A Community Health Service working in rural Victoria has identified a significant number of Sudanese migrants in the community are demonstrating high risk factors of type 2 diabetes.

The organisation decides that a campaign requiring both a preventative health promotion message about diabetes and education in chronic condition self-management (targeted at those already with type 2 diabetes) is required for this specific CALD community.

A couple of workers also use an existing online network of community health services to identify that this issue is also being worked on in an inner city suburb of Melbourne. Through email and facebook they share ideas and obtain some text-based and audio resources from a migrant centre working with the Sudanese community in the city.

A meeting with community leaders is held and it is identified that there is still a significant number of the community who are developing their English literacy. They also emphasis that they do not think written brochures will be much help. They want an information day for the community.

Community leaders are supportive of some younger members of the community working with a media professional on an educational video, but also want healthcare professionals represented on the video to give it credibility. The video is developed and an information day held. Vox pops and information from the day is included in the video and gives it a great sense of community ownership.

One of the young Sudanese producers has been talking about the video with other young Sudanese around Australia. They decide to create a website and upload the video to YouTube. This way, other communities can access and share the information which is cultural relevant and sensitive.

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APPENDIX 5.

प्रशिक्षण संसाधन

अंकीय औद्योगिकी और मधुमेह: स्व प्रबंधन के समर्थन के साथ सांस्कृतिक और भाषा विविध समुदाय

समुदाय के लिए संस्थान,
मानवजाति और नीति विकल्प
(आय.सी.ई.पी.ए)

नवम्बर, **2009**

परिचय

मधुमेह ऑस्ट्रेलिया के "मधुमेह से पीड़ित लोगों के लिए सूचना और शिक्षण": "एक सर्वश्रेष्ठ प्रथा" रणनीति 2004 के तहत सांस्कृतिक और भाषाई समुदायों को पहचानने की जरुरत को दिखाता है और मधुमेह के सुधार की प्रक्रिया के हिस्से के रुप में ऑस्ट्रेलिया में सिखाया और जताया गया है ।

उनके आदर्श राज्यों का एक प्रमुख तत्व बताता है कि ऑस्ट्रेलियाई बहुसंस्कृति को स्वीकारना चाहिए और "भाषाई, धार्मिक तथा सामाजिक समृध्दि जो विशिष्टता से ऑस्ट्रेलियाई है" उसे समझना चाहिए और अपने व्यवहार में शामिल भी किया जाना चाहिए ।

अंकीय औद्योगिकी रणनीति से सांस्कृतिक और भाषाई समुदायों में मधुमेह आत्म प्रबंधन को सुधारा जा सकता है । इस संसाधन के साथ हम यह जानेंगे कि अंकीय प्रौद्योगिकी से इन समुदायों को सबसे वाजवी और सांस्कृतिक रुप से संवेदनशील तरीके से इनके स्वास्थ को सुधारा जा सके ।

पृष्ठभूमि / आवश्यक

एक पुराने विक्टोरिया निर्णायक के सबूत बखान क्षेत्र में रोग प्रबंधन संजाल (नेटवर्क) परियोजना के साथ शुरु की गई समीक्षा में प्रदर्शित किया है कि सूचना और संचार प्रोद्योगिकी (आय.सी.टी.) के प्रबंधन में मधुमेह रोगी प्रदाता के संपर्क में सुधार के द्वारा देखभाल की जा सकती है ।

इंस्टीट्यूट ऑफ कम्यूनिटी द्वारा नवीनतम संशोधन, जातीयता और वैकल्पिक नीति (आई. सी. ई. पीए.) ने पता लगाया है कि CALD समुदाय अनेक कारणों की वजह से डिजिटल प्रौद्योगिकी (/तकनीकियों) का अलग अलग तरीकों से उपयोग करते हैं और वे उससे संलग्न हैं. CALD समदायों के अंतर्गत अलग अलग समूह हैं और उनके आईसीटी (ICT) क्षमता के अपने भिन्न भिन्न स्तर हैं जो CALD समदायों को नई और उभरती हुई प्रौद्योगिकी से और भी संलग्न कराते हैं तथा डिजिटल और सामाजिक समावेश में अपना योगदान देते हैं

यह स्रोत एक गाइड (मार्गदर्शिका) है जो वर्कर्स को समर्थन देती है ताकि वे CALD समदायों में चिरकालिक अवस्था आत्म प्रबंधन (क्रोनिक कंडिशन सेल्फ मैनेजमेंट -CCSM) के द्वारा मधुमेह के बेहतर परिणामों को पाने के लिए डिजिटल तकनीकी का सबसे अच्छा उपयोग कर सकें. यह CALD समदायों में मौजूदा ज्ञान और आईसीटी क्षमता को बढ़ाने के विभिन्न तरीकों को जानने में मदद करता है

सांस्कृतिक और भाषा विविधता समुदाय में अंकीय प्रौद्योगिकी का इस्तेमाल क्यों करें?

हमें हमेशा डिजिटल प्रौद्योगिकी का उपयोग करने के लिए मधुमेह स्वास्थ संवर्धन, शिक्षा और मधुमेह स्वयं प्रबंधन खासकर सांस्कृतिक और भाषा विविध समुदाय में क्योंकि :

- उचित संस्कृतिक सारांश वितरित करने के लिए दृष्टि और ध्वनि माध्यम से संदेश पहुँचाने में मदद करती है ।
- संदेश बहु माध्यमी संचों के द्वारा वितरित किया जा सकता है (रेड़िओ, एमपी 3 प्लेयर, ऑनलाइन)
- उत्पादन और वितरण प्रणाली तेज और वहन करने में समर्थ है ।
- यह आय.सी.टी. की क्षमता का निर्माण करता है जो सांस्कृतिक और भाषा विविधता समुदाय में है और अंकीय तत्वों को शामिल करने का सरल तरीका बताता है ।
- यह सांस्कृतिक और भाषा विविधता समुदाय को आय.सी.टी. के बारे में जानने और उपयोग करने और मधुमेह स्व प्रबंधन में सुधार ।
- यह सामाजिक समावेश को बढ़ाने और सांस्कृतिक और भाषा विविधता समुदाय और मुख्यधारा के समुदायों के भीतर सामाजिक सामंजस्य प्रदान कर सकते हैं ।

किन्तु, अंकीय तकनीक लागू करने से पहले हमें विचार करना चाहिए

- संस्था की अपनी अंकीय प्रवीणता
- स्वास्थ्य की क्षमता या कार्यकर्ता समर्थन का प्रभावी रुप से उपयोग करना
- प्रौद्योगिकी वास्तव में अपने ग्राहकों का समर्थन करता है । (प्रौद्योगिकी अपने स्वयं के लिए नहीं।)

अंकीय प्रौद्योगिकी क्या है?

मधुमेह स्व प्रबंधन के समर्थन के लिए इस्तेमाल किए जानेवाले अंकीय प्रौद्योगिकी को किसी जटिल संगणक क्रमावेश या कौशलता की आवश्यकता नही है। अंकीय प्रौद्योगिकी डीवीडी और मोबाईल फोन हैं, यह संगणक और वेबसाइट भी हैं, लेकिन इसका ज्यादातर काम है लोगों तक नए और अलग अलग तरीके से जानकारी और सहायता पहुँचाना। हम जानते हैं कि शर्त और शिक्षा के साथ उन लोगों के लिए मधुमेह के बारे में जानकारी देना जो जोखिम में है और यह आम समुदाय के लिए महत्वपूर्ण है अंकीय प्रौद्योगिकी के ऑडियो और वीडियो पहलू के माध्यम से हम संवाद और संदेश उन सांस्कृतिक और भाषाई विविध समुदायों तक पहुँचा सकते हैं।

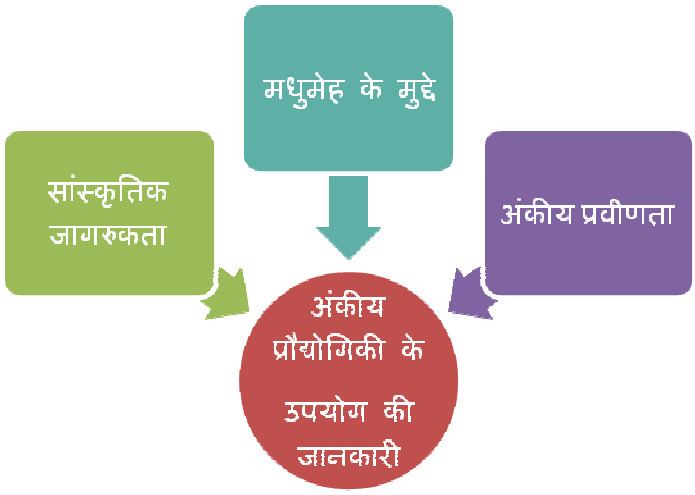
डिजिटल प्रौद्योगिकी एक समाधान नही, उपकरण है । इसे आमने सामने परामर्श की जगह कभी इस्तेमाल नही करना चाहिए, यह हमारे लिए सांस्कृतिक समझ को विकसित नही करता ।

मधुमेह आत्म प्रबंधन में अंकीय प्रौद्योगिकी का इस्तेमाल करने के लिए मुझे क्या जानना चाहिए?

सांस्कृतिक और भाषा विविध समुदायों और व्यक्तियों में मधुमेह आत्म प्रबंधन में किन प्रौद्योगियों का इस्तेमाल करें यह पहचानना आवश्यक है इसके अलावा हम किस समुदाय के साथ काम कर रहे हैं और किस संदर्भ में कर रहे हैं, यह भी जानना आपकी जरुरते हैं:

- मुद्दे की समझ को विकसित करके सांस्कृतिक और भाषा विविध समुदायों द्वारा सामना किए गए मुद्दे जैसे कि सामाजिक अलगाव, चुनौतियाँ सेवाओं और सूचना और इनके पीछे की वजह।
- जिन विशिष्ट समुदायों के साथ आप काम कर रहे हैं उनमें सांस्कृतिक जागरुकता का विकास करना ।
- अपने समुदाय में विभिन्न समूहों की अंकीय प्रवीणता का मूल्यांकन उनके ही समुदाय में (जैसे कि युवा, औरत) यह ज्ञान सूचित करता है कि अंकीय उपकरण और आय.सी.टी. रणनीती को अपनी अपनी जगह में ड़ालना ।

चित्र: सामाजिक मुद्दों के संदर्भ में अंकीय प्रौद्योगिकी का उपयोग सूचित करता



किन्तु, अंकीय प्रवीणता क्या है ?
प्रौद्योगिकी का सही उपयोग और क्षमता तथा प्रौद्योगिकी की सही पहूँच इन दोनों का संयोजन है अंकीय दक्षता । उच्च अंकीय कुशल व्यक्ति में सीखने की क्षमता होगी और वह भी आत्म निर्देशित तरीके से । एक व्यक्ति जिसकी अंकीय प्रवीणता कम हो उसे सर्वव्यापी तकनीक

जैसे कि मोबाईल फोन, बुनियादी कम्प्यूटर आदि के प्रभावी ढ़ंग से प्रयोग करने में समर्थन की आवश्यकता होती है ।

पूरी तस्वीर मिलने के लिए अंकीय प्रौद्योगिकी

स्वास्थ्य पेशेवर जो आत्म प्रबंधन का समर्थन करते हैं यह सलाह देते हैं कि मधुमेह के साथ जीने वाले व्यक्ति का दैनिक जीवन कैसे बीतता है यह भी समझना चाहिए । एक व्यक्ति को उनकी स्थिति प्रबंधन और स्वास्थ और भरा पूरा जीवन कैसे निर्वाह किया जाए उसमें यह मदद कर सकता है । पूरी तस्वीर को समझने में अंकीय प्रौद्योगिकी मदद कर सकती है । यह जानकारी मौजूदा तरीको के उपयोग के द्वारा इकठ्ठा की गई है, लेकिन डिजिटल प्रौद्योगिकी एक नया आयाम और सूचना का स्तर जोड़ सकता है ।

आवश्यक जानकारी	इस्तेमाल करने के उपकरण	उपयोग कैसे करें
घर और दैनिक जीवन गतिविधि पर विविरण	डिजिटल कैमरा डिजिटल वीडियो	मधुमेह के रोगियों को अपनी तस्वीर या वीडियोज् दर्ज करने को कहें । इस वीडियो का इस्तेमाल उनके परिवारवालों और दोस्तों को उनकी समझ का साक्षात्कार करने और एक स्वास्थ्य कार्यकर्ता को एक गहरी देन देने के लिए इस्तेमाल करने के लिए जा सकता है ।
खान-पान की समझ	ब्लॉग (ठसवह) स्मार्ट फोन मोबाईल फोन	जब प्रलेख करें कि मधुमेह के साथ जीनेवाले क्या खायें क्या न खायें वह व्यक्तिगत रुप से रिकार्ड़ कर सकते हैं और उसे ब्लॅग पर या स्मार्टफोन द्वारा व्यवसायिक उपयोग कर सकते हैं । इससे पेशेवरों के परामर्श से पहले ही जानकारी मिल सकती है और इससे आमने सामने की गुणवत्ता में सुधार और समय की बचत हो सकती है ।
व्यायाम की	मोबाईल फोन,	मोबाईल फोन एस.एम.एस. से या

निगरानी	स्मार्टफोन, वेबसाईट	स्वत: अनुस्मारक के जरिए व्यायाम का समय भेजने के लिए इस्तेमाल किया जा सकता हैं स्मार्ट फोन या वेब आधारित व्यायाम पर आवेदन । आप भी अपने उचित सांस्कृतिक व्यायाम या कार्यक्रम वेब पर खुद अपलोड कर सकते है ।

सांस्कृतिक और भाषा विविध समुदायों में आय.सी.टी. का उपयोग करने की चुनौती। आय.सी.टी. और अंकीय प्रौद्योगिकी का इस्तेमाल सांस्कृतिक और भाषा विविध समुदाय में चुनौती हो सकता है क्यों कि उस समुदाय में भी विविधता है तकनीक के बारें में यह हैं कुछ चुनौतिया और उसके लिए संभव रणनीति ।

चुनौती	रणनीती
प्रौद्योगिकी तक पहूँच	• समुदाय के लिए कम्प्यूटर और इन्टरनेट की सुविधा स्थापित करें एवं जनता का समर्थन प्रदान करें । • सांस्कृतिक और भाषा विविध समुदाय के पहचान पात्र समूहों का मोबाईल फोन, कम्प्यूटर या अन्य तकनीक में पशिक्षण कार्यक्रम करें जैसे - माता, वृध्द, एक विशिष्ट सीएसएसएम समूह ।
सारांश मे समावेशी विकास	• सांस्कृतिक और भाषा विविध समुदाय के सदस्य जिसे ग्राफिक ड़िजाइय या वीडियो उत्पादन में प्रावीणता हासिल है उन्हें लेकर सारांश विकसित किया जा सकता है । • समुदाय के सदस्यों के समर्थन से और डिजिटल तकनीक के साथ सारांश को विकसित करें । साथ ही उनके कौशल और प्रशिक्षण को विकसित करने के लिए तकनीक का इस्तेमाल करें ।
भाषा	• मुद्दे को पहचानें तथा सीधे अनुवाद और जहाँ उपयुक्त और सस्ती हैं वहाँ ऑड़ियो और वीडियो का उपयोग करें। • आमने सामने के महत्वपूर्ण संपर्क को प्रौद्योगिकी से बदलने की अनुमति ना दें ।
प्रासंगिक सारांश	• सांस्कृतिक और जातीय विविध समुदाय के दर्शकों के लिए एक विशेष सारांश का विकास हमेशा सारांश का अनुवाद और जान इस समुदाय पर प्रभावी नही हैं ।

- मुद्रण और बंटने से पहलें सारांश की जांच सांकृतिक और भाषा विविध समुदाय के सदस्यों के साथ परीक्षण कर लें ।

कहानी और दृश्य सारांश

संयुक्त राज्य अमेरिका के अनुसंधान ने पहचाना है कि सांस्कृतिक उचित तरीके से कार्य करने से मधुमेह प्रबंधन और शिक्षा के साथ सफल रहते हैं । उन में शामिल है:

- सरल और सांस्कृतिक परिचित भाषा का उपयोग ।
- कहानी सुनाना ।
- सांस्कृतिक रुप से प्रासंगिक दृश्य सामग्री ।

अंकीय प्रौद्योगिकी स्वयं इन तरीकों को योगदान देती है । कहानी परंपरागत तरीके से मौखिक रुप से सुनाते वक्त उसे एक डिजिटल कॅमेरे से वीडियो बना लें । यह छबियॅं सांस्कृतिक रुप से उपयुक्त हैं और इस तथ्य को शैक्षणिक या वेब साइट पर आसानी से पढ़ने योग्य लेखन भी हो सकते हैं । स्वास्थ्य संवर्धन गतिविधियों से मधुमेह आत्म प्रबंधन और विकास के तरीके नीचे हैं ।

सांस्कृतिक-प्रासंगिक सामग्री के विकास के लिए तरीके

दृष्टिगत रुप से	चित्र और वीडियो जो कब्जा करते हैं उसमें सांस्कृतिक समावेश होना चाहिए और उस समुदाय के लोगों का जीवन बनाने के लिए महत्वपूर्ण और वास्तविकता का प्रतिनिधित्व होना चाहिए और वह भी आकर्षक तरीके में ।
सांस्कृतिक संवेदनशीलता तथा सांस्कृतिक विविधता	यह सुनिश्चित करें कि सामग्री तथा माध्यम का इस प्रकार निर्माण किया जाए कि वह संप्रदाय की जरूरतों को पूरा करे। इस प्रकार से बातचीत करें तथा प्रतिबिंबित इसे करें जो कि संयुक्त हो तथा सांप्रदायिक संदर्भ को प्रस्तुत कर सके।
मौखिक	ऑडियो तथा वीडियो उन व्यक्तियों को संदेश देने के लिए उत्कृष्ट उपकरण है जो निरक्षर हैं या उन समुदयों में जहाँ मौखिक परम्परा है।
कहानियाँ	कहानी का माध्यम एक विशिष्ट CALD समुदाय के व्यक्तिगत अनुभव को दूसरे CALD समुदाय तक पहुँचाने का उत्कृष्ट साधन है।
विश्वसनीयता	यह विचार करना अत्यावश्यक है कि सामग्री को कैसे विश्वसनीय बनाया जाए, स्वर के समावेश द्वारा, सामग्री के लिए पेशेवर पी

	एच सी की सलाह और साथ ही साथ पहले सुझावी तरीकों के साथ विचार करें।

डिजिटल मीडिया सामग्री का वास्तविक मूल्य यह है कि उसे अलग-अलग स्वरूपों में बार बार इस्तेमाल किया जा सके।

मीडिया टाइप	कैसे इस्तेमाल करें
डिजिटल चित्र	ई-मेल, वेबसाइट पर इस्तेमाल, शब्दों को दस्तावेजों में सम्मिलित करना या दीवार पर छापना या प्रदर्शन करना।
डिजिटल वीडियो	डीवीडीज़, जानकारी सत्र पर जाँच, पोडकास्ट की तरह डाउन लोड करने लायक, यू ट्यूब पर डालना या सामुहिक टीवी स्टेशनों पर भेजना
डिजिटल ऑडियो	सीडी, एमपी थ्री, डाउनलोडेबल पोडकास्ट, रेडियो पर प्रसारण
डिजिटल टेक्सट	वेबसाइट, ब्रोशर, ई-मेल, समाचार पत्र, ब्लॉग्स, छपे हुए सूचना पत्र

हम कौन सा उपकरण इस्तेमाल कर सकते हैं?

जब एक बार आप के पास मधुमेह से ग्रसित व्यक्ति की अच्छी छवि हो और CALD समुदाय के व्यक्तियों की अच्छी समझ हो, तो उम्र तथा लिंग से संबंधित विशिष्ट मुद्दे तथा डिजिटल व्यक्तिगत प्रवीणता के आधार पर आप समझ सकते हैं कि कौन सा उपकरण इस्तेमाल करना चाहिए।

ICT उपकरण	यह किस प्रकार से मधुमेह के आत्म प्रबंधन में सहायता कर सकता है
मोबाइल फोन	कैलेंडर्स का इस्तेमाल करके और एसएमएस द्वारा चेतावनी भेजना, आत्म प्रबंधन का स्मरण कराना, नियुक्ति का समय या नई जानकारी।
डीवीडीज़्	उस प्रारूप में जानकारी भेजना जो ऑडियो तथा वीडियो दोनों के द्वारा सांस्कृतिक रूप से उपयुक्त हो।.
सामाजिक मीडिया (Facebook)	भौगोलिक दृष्टि से पृथक किये हुए मधुमेह पीड़ित व्यक्तियों के साथ जुड़ना। आयोजित घटनाओं के लिए विपणन उपकरण की तरह डिजिटली प्रवीण रोगी के साथ संवाद करने का तरीका।
वीडियो कैमरा	सामूहिक समूहों की जाँच के लिए छोटे शैक्षणिक वीडियोज़ को विकसित करना या फिर पोषण या चिकित्सक प्रबंधन की विशिष्ट जानकारी के दस्तावेज बनाना।

डिजिटल कैमरा	शैक्षणिक सामग्री तथा दस्तावेजों को आकर्षित बनाने के लिए सांस्कृतिक तथा प्रासंगिक रूप से उपयुक्त छवियों को अधिकृत करना।
सीडीज़/एमपीथ्री/रेडियो	सीडी पर मधुमेह रोगियों द्वारा उनकी अपनी भाषा में की गई रिकार्डिंग (हाल ही में निदान किये गए मधुमेह रोगी), दूसरों को देना या फिर डाउनलोडेबल एमपीथ्री की तरह या विशिष्ट CALD समुदाय को लक्ष्य बनाकर समुदायिक रेडियो शो पर शैक्षणिक सूचना देना।

सी ए एल डी - CALD समुदायों का अपनी स्वत: संतुष्टि का निर्माण

समूहों का सशक्तिकरण तथा मधुमेह पीड़ित व्यक्तियों को डिजिटल कैमरा तथा डिजिटल वीडियो कैमरा प्रदान करना, जिससे वह अपनी सामग्री का खुद विकास कर सकें या फिर ऐसे वेब टूल्स का इस्तेमाल करने के लिए प्रोत्साहित करना जिससे सेहत सामग्री के विकास में वास्तविक लाभ हो।

मतलब -

- क्योंकि **CALD** समूह/ व्यक्ति के उत्पादन के पहलुओं पर नियंत्रण है, इसलिए आप सांस्कृतिक रूप से उपयुक्त सामग्री बनाने में मदद करते हैं, जिनको उन्हें अधिकृत के साथ समझने की संभावना हो।
- आपके पास समुदाय को व्यस्त रखने का प्रभावी तरीका है – आपके पास न ही सिर्फ सांस्कृतिक रूप से उपयुक्त सामग्री है, बल्कि डिजिटल समावेश के साथ ही साथ सुविधा भी हैं।

संगठित डिजिटल कुशलता का विकास

यदि आप **CALD** व्यक्तियों का समर्थन करने तथा **CALD** समुदायों को मधुमेह के लिए शिक्षित करने में डिजिटल प्राद्योगिकिकरण का इस्तेमाल करने जा रहे हैं, तो आपके संगठन के पास डिजिटल तकनीक को अच्छी तरह से इस्तेमाल करने की क्षमता होना जरूरी है। इसका यह मतलब नहीं कि आप डिजिटल ऑडियो – वीडियो तथा कम्प्यूटर सिस्टम का इस प्रकार इस्तेमाल करें, जो कि संगठनात्मक लक्ष्यों तथा परिणामों का समर्थन करे। एक संगठन अपनी प्रवीणता के स्तर में कथनों द्वारा सुधार ला सकता है।

- अपने कर्मचारियों को डिजिटल तकनीकी में प्रशिक्षण प्राप्त करने में समर्थन देना
- ऐसे ICT सामूहिक योजनाओं का विकासीकरण, जो निवेश की पहचान कर सके तथा तकनीकी का इस्तेमाल कर सकें

- काम की जगह पर यह सुनिश्चित करें कि इंटरनेट सुलभ तथा उपलब्ध हो
- नई तकनीकियाँ किस तरह से वाणिज्य प्रणाली तथा सामूहिक संचार में सुधार लाती हैं इस पर नजर रखें
- क्षेत्रीय कर्मचारियों को वाहन चलाना तथा बिना तार के इंटरनेट तथा उनको लैपटॉप तथा स्मार्ट फोन प्रदान करना, जिससे काम को आसानी (लचीलता) के साथ करने में बढ़ावा मिल सके तथा नये विचारों की खोज हो

अब मैं क्या कर सकता हूँ?

5. नई तकनीकियों के बारे में खुद को तथा अपने कर्मचारियों को प्रशिक्षित करते रहिए।

   - क्या आप मोबाइल के सभी पहलुओं का इस्तेमाल कर रहे हैं?
   - क्या आप अपने द्वारा प्राप्त किए ई-मेल में कटौती कर रहे हैं?
   - क्या आप का समूह प्रभावी ढ़ंग से सूचित करने के लिए सामाजिक नेटवर्क का इस्तेमाल कर सकता है?

6. CALD समूहों के साथ अपने वर्तमान कामों का मूल्यांकन तथा इस बारे में सोच विचार करना कि किस प्रकार से डिजिटल तकनीकी द्वारा मधुमेह रोगियों के लिए अपने कामों तथा उसके परिणामों में सुधार लाएं।
7. उनके समूह को शिक्षित करने तथा उनके स्वास्थ्य के परिणामों के समर्थन के लिए CALD समूह से उनके हितों तथा उनकी डिजिटल तकनीकी को इस्तेमाल करने तथा उसमें व्यस्त रहने के बारे में बात करें।
8. अपने समूह के लिए एक ICT योजना को विकसित करने का विचार करें या डिजिटल तकनीकी को शामिल करें/CALD समूह में होने के लिए अपने वार्तालाप योजना में ICT को शामिल करें।

सहायक विचार...

मधुमेह शिक्षकों की अमेरिकन एसोसिएशन, मधुमेह के लिए आत्म संबंधित ढ़ाँचे के सात उपायों को बढ़ावा देती है। आत्म-देखभाल को पहचानने के सात क्षेत्र हैं (1) सेहतमंद खाना (2) चुस्त रहना (3) जाँच करना (रक्त में ग्लूकोज़ की) (4) इलाज करना (5) समस्या – निवारण (6) जोखिम को कम करना (7) सेहतमंद परछति (coping), जरा सोचिए कि डिजिटल तकनीकी के एकीकरण का दृष्टिकोण किस प्रकार से इस ढ़ाँचे का समर्थन करता है। विचार कीजिए : -

- दस्तावेजों पर छवियाँ तथा सांस्कृतिक प्रासंगिक भोज तथा व्यंजनों की वेबसाइट
- चिकित्सा लेने तथा उसकी जाँच पर आधारित सांस्कृतिक संवेदनशील डीवीडीस्
- समस्या निवारण तथा जोखिम को कम करने के लिए उपयुक्त भाषा में फ्लैश ड्राइव्स् पर या पोडकास्ट पर शॉर्ट सांस्कृतिक ऑडियोज़ का वितरण करना।

- कब व्यायाम करना है और कब रक्त की जाँच करनी है इसको मोबाइल पर निर्देशित करना
- संगठित CALD समूह के द्वारा मधुमेह के अनुभव पर कहानी कहना जो ऑडियो और वीडियो में रिकार्ड किया गया हो, तथा शैक्षणिक संसाधनों की तरह इस्तेमाल किया गया हो।

मामले का अध्ययन

CALD समूह ने सेहत की शिक्षा तथा मधुमेह के प्रबंधन का समर्थन किया। ग्रामीण विक्टोरिया में काम कर रही एक कम्यूनिटी हेल्थ सर्विस ने, काफी बड़ी मात्रा में सूडान के प्रवासियों के इस सम्प्रदाय को पहचाना, जो उच्च जोखिम कारक टाइप 2 मधुमेह का दर्शा रहे थे।

सम्प्रदाय ने निर्णय लिया कि एक मधुमेह के लिए स्वास्थ्य संवर्धन को रोकने का संदेश देने तथा स्वचालित पुरानी स्थिती में शिक्षा के लिए (टाइप 2 मधुमेह वालों को लक्ष्य बताया) विशिष्ट CALD संप्रदाय में एक आंदोलन की सख्त जरूरत है।

कुछ कर्मचारियों ने इस मुद्दे का इस्तेमाल मेलबॉर्न के भीतरी उपनगरों में किया। इसकी शिनाख्त करने के लिए कम्यूनिटी हेल्थ नेटवर्क की मौजूदा ऑनलाइन का इस्तेमाल किया गया। इनके द्वारा तथा फेस बुक के द्वारा वे अपने विचार बांटते हैं। तथा प्रवासी केन्द्र जो शहर में सूडानी सम्प्रदाय के साथ काम कर रहे हैं, उससे पाठ्य पर आधारित तथा ऑडियो रिसोर्सेज़ लेते हैं।

सांप्रदायिक नेताओं के साथ एक बैठक की गई जिसमें पहचाना गया कि वहाँ पर अभी भी अच्छे सम्प्रदाय के लोग हैं जो कि अपने अंग्रेजी साहित्य को विकसित कर रहे हैं। उन्होने इस बात पर जोर दिया है कि ऐसा ना सोचें कि लिखे हुए ब्रॉशर ज्यादा काम के हैं, वे सम्प्रदाय के लिए सूचना दिवस चाहते हैं, शैक्षणिक वीडियो पर छोटे सदस्यों का समूह जो मीडिया प्रोफेशन के साथ काम कर रहा है उसे साम्प्रदायिक नेताओं का समर्थन है, और वे यह भी चाहते हैं कि स्वास्थ्य प्रोफेशनल्स वीडियो को विश्वसनीयता प्रदान करने के लिए खुद दिखाई दें। जब वीडियोज़् बनाया जाता है तथा सूचना दिवस आयोजित किया जाता है, उस दिन से Vox – pops तथा सूचनाओं को वीडियो में शामिल किया जाता है, जो उसे स्वामित्व की महान भावना देता है। एक युवा सूडानी निर्माता, ऑस्ट्रेलिया के आसपास के दूसरे युवा सूडानियों से वीडियो के बारे में बातें करता रहता है, वह एक वेबसाइट के सृजन तथा वीडियो को यूट्यूब पर अपलोड करने का निर्णय लेते हैं। इस प्रकार दूसरे संप्रदाय इस सूचना तक पहुँच सकते हैं तथा उसे बाँट सकते हैं, जो कि सांस्कृतिक, प्रासंगिक तथा संवेदनशील है।

इंस्टीट्यूट ऑफ कम्यूनिटी द्वारा नवीनतम संशोधन, जातीयता और वैकल्पिक नीति (आई. सी. ई. पीए.) ने पता लगाया है कि CALD समुदाय अनेक कारणों की वजह से डिजिटल प्रौद्योगिकी (/तकनीकियों) का अलग अलग तरीकों से उपयोग करते हैं और वे उससे संलग्न हैं. CALD समदायों के अंतर्गत अलग अलग समूह हैं और उनके आईसीटी (ICT) क्षमता के अपने भिन्न भिन्न स्तर हैं जो CALD समदायों को नई और उभरती हुई प्रौद्योगिकी से और भी संलग्न कराते हैं तथा डिजिटल और सामाजिक समावेश में अपना योगदान देते हैं

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APPENDIX 6.

TÀI LIỆU HUẤN LUYỆN

KỸ THUẬT ĐIỆN TỬ & BỆNH TIỂU ĐƯỜNG: GIÚP TỰ KIỂM SOÁT TRONG CÁC CỘNG ĐỒNG ĐA NGÔN NGỮ VÀ VĂN HOÁ

HỌC VIỆN NGHIÊN CỨU SÁNG KIẾN VỀ CHÍNH SÁCH SẮC TỘC CỘNG ĐỒNG (ICEPA)
ĐẠI HỌC VICTORIA

THÁNG 11 NĂM 2009

Giới thiệu

Đây là tài liệu 'Thông tin và Giáo dục Cho Người Mắc Bệnh Tiểu Đường của Úc' - Một Chiến lược Thực hành Hữu hiệu nhất' (2004) nhận diện yêu cầu của các cộng đồng văn hoá và ngôn ngữ như là một phần trong tiến trình cải thiện thong tin, giáo dục về chứnbg bệnh tiểu đường tại Úc. Phương thức cơ bản xác nhận tính chất đa văn hoá và tính chất phong phú về ngôn ngữ, tôn giáo và xã hội, như là một nét đặc thù của Úc, cần được thấu hiểu và kết hợp trong thực hành.

Tự kiểm soát về bệnh tiểu đường có thể được cải thiện trong các cộng đồng đa ngôn ngữ và đa văn hoá gọi tắt là đa ngữ văn (CALD) qua việc áp dụng chiến lược trong kỹ thuật điện tử với các công đồng đa văn bằng những phương thức tiết kiệm nhạy bén vế văn hoá để đạt các thành quả hữu hiệu về sức khoẻ cho các nhóm cộng đồng nầy.

Nền tảng cơ bản

Trong một cuộc nghiên cứu được thực hiện trong dự án về Hệ thống Kiểm soát bệnh kinh niên tại vùng Barwon của Victoria người ta thấy kỹ thuật thông tin (ICT) có thể được dùng để cải thiện việc chăm sóc bằng những phản ứng của bệnh nhân trong việc kiểm soát chứng bệnh tiểu đường.

Cuộc nghiên cứu mới đây của học viện Nghiên Cứu Sáng Kiến về Chính Sách Sắc Tộc Cộng Đồng (ICEPA) cho thấy rằng các cộng đồng đa ngữ văn áp dụng các kỹ thuật điện tử trong nhiều phương cách với các lý do khác nhau. Trong các cộng đồng đa ngữ văn , nhiều nhóm có nhiều trình độ ICT khác nhau và sự xuất hiện kỹ thuật mới đóng góp hữu hiệu về khía cạnh điện tử trong xã hội.

Đây là một nguồn hướng dẫn hỗ trợ cho các nhân viên một cách hữu hiệu nhất trong việc sử dụng kỹ thuật điện tử áp dụng trong các cộng đồng đa ngữ văn nhằm đạt những kết quả tốt hơn về sức khoẻ và bệnh tiểu đường qua việc tự kiểm soát bệnh trạng nan y (CCSM). Phương cách nầy nâng cao kiến thức hiện có và khả năng kỹ thuật thông tin (ICT) trong các cộng đồng đa ngữ văn .

Tại sao dùng kỹ thuật điện tử trong các cộng đồng đa ngữ văn ?

Chúng ta nên luôn luôn nghĩ tới việc dùng kỹ thuật điện tử trong việc cải thiện sức khoẻ về bệnh tiểu đường, giáo dục và tự kiểm soát bệnh tiểu tiểu đuường trong các cộng đồng đa ngữ văn bởi vì:

- Nó có thể giúp mang lại sự hữu hiệu thích hợp hơn về văn hoá qua các thong tin thính thị.
- Các thông tin có thể được chuyển tải qua nhiều phương tiện khác nhau (radio, mp3 và trên mạng)
- Sản xuất và phân phối rẻ tiền.
- Nó được xây dựng trên cơ sở khả năng kỹ thuật thông tin (ICT) có sẵn trong các cộng đồng đa ngữ văn và giúp phát huy khía cạnh điện tử.
- Nó gia tăng năng lực cho các cộng đồng đa ngữ văn trong việc học và áp dụng khả năng kỹ thuật thông tin (ICT) để cải thiện việc tự kiểm soát bệnh tiểu đường.

- Nó có thể nâng cao mức độ ứng dụng trong xã hội và đem lại sự gắn bó xã hội trong các cộng đồng đa ngữ văn.

Tuy nhiên, khi đưa ra kỹ thuật điện tử chúng ta phải lưu ý các điều sau đây:

- Trình độ chuyên môn về kỹ thuật điện tử của tổ chức.
- Năng lực sức khoẻ hay nhân viên hỗ trợ để sử dụng kỹ thuật một cách có hiệu quả.
- Kỹ thuật thật sự hỗ trợ thành quả như thế nào (không phải tự kỹ thuật).

Kỹ thuật điện tử là gì?

Dùng kỹ thuật điện tử để hỗ trợ việc tự kiểm soát bệnh tiểu đường không đòi hỏi khả năng cao về chương trình vi tính phức tạp. Kỹ thuật điện tử hoạt động qua dĩa DVDs và điện thoại di động. Nó có liên quan tới máy vi tính và mạng thông tin toàn cầu (websites), nhưng hầu hết đó là những phương cách mới cung cấp thông tin và hướng dẫn. Chúng tôi hiểu rằng giáo dục và thông tin về bệnh tiểu đường là điều rất quan trọng trong cộng đồng. Kỹ thuật điện tử còn có thể giúp để chuyển tải các thông tin thính thị phù hợp với văn hoá qua nhiều hình thức khác nhau trong các cộng đồng đa ngữ văn.

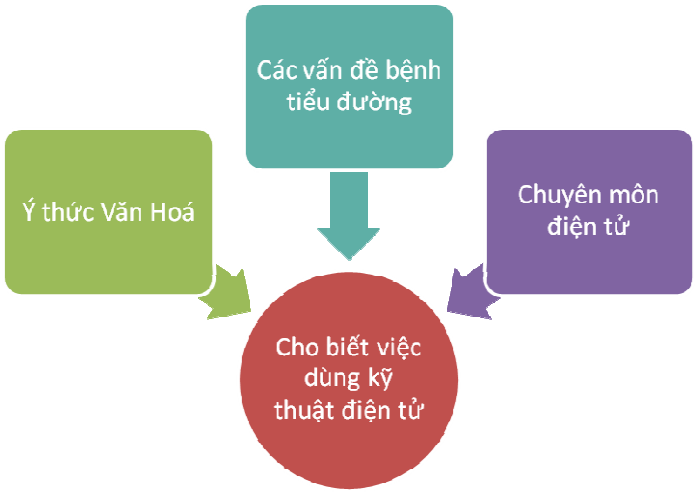
Kỹ thuật điện tử là một dụng cụ, không phải là một giải pháp. Không bao giờ nên dùng nó thay thế cho dịch vụ tư vấn mặt đối mặt, và tự nó không am hiểu được nét đặc thù văn hoá của bạn.

Tôi cần làm gì trong việc sử dụng kỹ thuật điện tử để tự kiểm soát bệnh tiểu đường?

Khi nhận ra dụng cụ điện tử nào thích hợp nhất dùng trong việc tự kiểm soát bệnh tiểu đường đối với các cộng đồng đa ngữ văn thì môi trường xã hội mà bạn đang làm việc cần phải lưu tâm. Bạn cần:

- Tìm hiểu các vấn đề mà thành viên trong các cộng đồng đa ngữ văn phải đương đầu, chẳng hạn như vấn đề cô độc, khó khăn sử dụng dịch vụ và nhận thông tin cùng các lý do tàng ẩn đàng sau.
- Nâng cao khả năng hiểu biết về văn hoá trong các cộng đồng bạn đang làm việc.
- Đánh giá kiến thức chuyên môn về kỹ thuật điện tử của các nhóm khác nhau (như giới trẻ, phụ nữ) trong từng cộng đồng. Với kiến thức nầy, bạn có thể lựa chọn các dụng cụ điện tử thích hợp và chiến lược về kỹ thuật thông tin hữu hiệu.

Biểu đồ: Tình huống giúp sử dụng kỹ thuật điện thích hợp với các vấn đề xã hội.



Nhưng khả năng chuyên môn về điện tử là gì?

Khả năng chuyên môn điện tử là sự kết hợp khả năng dùng kỹ thuật một cách có hiệu quả và sẵn sàng áp dụng kỹ thuật đó.Người có khả năng kỹ thuật cao vẫn cần có sự hỗ trợ trong việc sử dụng kỹ thuật nhiều nơi như điện thoại di động và khả năng căn bản về vi tính.

Dùng kỹ thuật điện tử để thấy hình toàn diện

Nhằm hỗ trợ việc tự kiểm soát, các chuyên gia về sức khoẻ khuyên rằng am hiểu về đời sống hàng ngày của bệnh nhân với bệnh tiểu đường là điều quan trọng. Điều nầy có thể giúp trong việc tự kiểm soát bệnh tiểu đường để cho người mắc chứng bệnh nầy được thoải máy trong cuộc sống hàng ngày của họ hơn. Kỹ thuật điện tử có thể mang đến một "sự thông hiểu toàn diện". Phương pháp hiện tại có thể giúp, nhưng kỹ thuật điện tử là phương tiện thông tin mới, giúp ích hữu hiệu hơn.

Thông tin cần biết	Dụng cụ cần dùng	Dùng như thế nào
Chi tiết về sinh hoạt đời sống hàng ngày	Máy chụp hình điện tử Máy quay phim điện tử	Cho bệnh nhân bệnh tiểu đường chụp hình hay quay phim lưu lại hình ảnh sinh hoạt trong cuộc sống hàng ngày của họ. Máy quay phim có thể được dùng khi phỏng vấn với gia đình và bạn hữu của bệnh nhân để ghi nhận sự hiểu biết của họ về tình hình sức khoẻ để giúp cho nhân viên thấu rõ hơn về hoàn cảnh cuộc sống cá nhân của người bệnh.
Hiểu về chế độ ăn uống	Cụm dữ kiện Điện thoại di động	Khi lưu dữ kiện về sự ăn uống của người mắc bệnh tiểu đường, các dữ kiện nầy có thể được lưu trữ trong một cụm riêng để chuyên gia có thể tìm kiếm, gởi vào một trang web, hay bàn thảo qua điện thoại. Việc nầy giúp cho chuyên gia có đủ thông tin cần thiết trước khi trực tiếp

		gặp mặt bệnh nhân.
Theo dõi thể dục	Điện thoại di động Trang mạng	Điện thoại di động có thể được dùng để gởi SMS hay ghi vào lịch tự động để nhắc nhở giờ tập thể dục. Áp dụng việc lưu trữ dữ kiện qua điện thoại di động hay trang mạng thông tin toàn cầu. Bạn có thể lưu trữ phim ảnh luyện tập riêng của mình vào trang mạng thông tin toàn cầu.

Các khó khăn trong việc dùng kỹ thuật thông tin điện tử trong các cộng đồng đa ngữ văn.

Dùng kỹ thuật thông tin điện tử trong các cộng đồng đa ngữ văn để kiểm soát bệnh tiểu đường có thể có nhiều khó khăn bởi vì có những sự dị biệt bên trong và bên ngoài các cộng đồng nầy về việc sử dụng kỹ thuật nầy. Sau đây là một số khó khăn đó cùng các giải pháp được đề nghị:

Khó khăn	Giải pháp chiến lược
Biết cách sử dụng kỹ thuật/Kém chuyên môn	• Thiết lập cơ sở tụ điểm máy vi tính và internet trong cộng đồng để giúp người sử dụng. • Có những khoá huấn luyện về việc sử dụng điện thoại di động, máy vi tính, hoặc các dụng cụ khác cho các nhóm đối tượng trong cộng đồng đa ngữ văn , như bà mẹ, người lớn tuổi hay nhóm khác.
Nội dung phong phú	• Nội dung huấn luyện khuyến khích các thành viên trong cộng đồng đa ngữ văn có khả năng về phát hoạ mô hình hay làm phim và phối hợp với họ để xây dựng nội dung huấn luyện. • Hỗ trợ khía cạnh điện tử bằng cách xây dựng nội dung huấn luyện với các thành viên cộng đồng, đồng thời huấn luyện và phát triển kiến thức chuyên môn của họ trong việc sử dụng kỹ thuật.
Ngôn ngữ	• Nhìn nhận các vấn đề trong việc chuyển dịch trực tiếp và dùng phim và nội dung âm thanh khi thích hợp và trong phạm vi khả năng có thể. • Không nên thay thế kỹ thuật cho việc gặp mặt và bàn thảo trực tiếp.
Nội dung phù hợp	• Hãy xây dựng nội dung phù hợp cho các đối tượng cộng đồng đa ngữ văn . Tất cả các cộng đồng đa ngữ văn đều có tính cách khác biệt và không đồng nhất cho nên nội dung không luôn luôn được phiên dịch hữu hiệu. • Thử nghiệm nội dung với thành viên cộng đồng đa ngữ văn trước khi in ra để phân phát.

Kể chuyện và hình ảnh

Cuộc nghiên cứu ở Hoa Kỳ cho thấy rằng việc áp dụng các phương pháp thích hợp văn hoá thành công trong việc kiểm soát và giáo dục về bệnh tiểu đường. Điều nầy bao gồm:

- Việc dùng ngôn ngữ và văn hoá quen thuộc.

- Kể chuyện
- Hình ảnh phù hợp văn hoá

Các kỹ thuật điện tử được sử dụng cho các vấn đề nầy: Hoặc kể chuyện qua phim phim video, dùng máy chụp hình điện tử để ghi lại các hình ảnh phù hợp văn hoá dùng trong các học liệu, hoặc viết truyện ngắn và các bài dễ đọc chứa trên các trang mạng thông tin toàn cầu. Xin tham chiếu các phương pháp dưới đây có thể dùng để phát triển các sinh hoạt về tự kiểm soát bệnh tiểu đường.

Các phương pháp xây dựng nội dung thích hợp văn hoá

Hình ảnh	Các hình ảnh và phim thích hợp văn hoá phản ảnh thực tế trong đời sống của các cộng đồng đa ngữ văn rất quan trọng cho việc xây dựng nội dung thích hợp và thực tiễn.
Sự tế nhị về văn hoá và khác biệt văn hoá	Luôn luôn nhớ rằng nội dung và dụng cụ chuyển tải phải đáp ứng nhu cầu cộng đồng. Nó nên phản ảnh phương cách hài hoà và hiểu biết bối cảnh xã hội của cộng đồng đó.
Nói	Phim và dữ liệu âm thanh là các dụng cụ rất tốt cho việc chuyển tải thông tin cho các cá nhân không rành chữ nghĩa hoặc cho các cộng đồng quen với môi trường nói.
Kể chuyện	Phát tán thông tin qua hình thức kể chuyện và nói về kinh nghiệm cá nhân của thành viên trong một cộng đồng đa ngữ văn có thể là một cách giao tiếp hay nhất cho các cộng đồng đa ngữ văn .
Đáng tin cậy	Một điều quan trọng là biết cách tạo ra nội dung đáng tin cậy qua giọng nói và cách trình bày nội dung tư vấn, cùng lúc với sự phân phát tài liệu theo các cung cách đã nêu trước đây.

Giá trị thực sự của nội dụng cụ điện tử là vật liệu có thể được dùng lại qua các hình thức khác. .

Loại tài liệu	Cách sử dụng
Hình điện tử	Qua email, dùng trên website, chen vào tài liệu vi tính, hoặc in và dán trên tường.
Phim điện tử	Dĩa DVD, màn hình trình chiếu trong các buổi thuyết trình, rút xuống được từ mạng thông tin toàn cầu, đưa vào các lập trình YouTube hay cung cấp cho các đài truyền hình cộng đồng.
Trữ liệu âm thanh điện tử	Qua các hình thức dĩa CD, mp3, rút xuống được từ mạng thông tin toàn cầu, phát thanh.
Văn tự điện tử	Qua hình thức trang mạng thông tin, ấn bản, email, diễn đàn qua mạng thông tin toàn cầu, các loại bản tin.

Dùng dụng cụ nào?

Một khi bạn có một hình ảnh tốt của đời sống cá nhân người mắc bệnh tiểu đường và có được sự am hiểu về một cộng đồng đa ngữ văn, những vấn đề riêng biệt như tuổi, phái tính và các vấn đề thích hợp văn hoá cũng như khả năng chuyên môn về kỹ thuật điện tử của các cá nhân, bạn có thể quyết định loại dụng cụ nào hữu ích nhất.

Dụng cụ điện tử	Nó có thể giúp cho việc tự kiểm soát bệnh tiểu đường

	như thế nào
Điện thoại di động	Dùng lịch và SMS để gởi đi các điện văn báo động và nhắc nhở về sự tự kiểm soát, giờ hẹn và thông tin mới.
Dĩa DVD	Để phát tán thông tin trong dạng thích hợp văn hoá, chứa cả âm thanh lẫn hình ảnh.
Phương tiện xã hội (Facebook)	Nối kết các cá nhân với chứng bệnh tiểu đường trong hoàn cảnh cô lập của cộng đa ngữ văn với các thành viên khác. Được dùng như một phương tiện vận động quảng cáo cho việc tổ chức các lễ hội. Đây cũng là một phương cách trao đổi thông tin với bệnh nhân qua hệ thống điện tử.
Máy quay phim điện tử	Dùng để tạo ra những đoạn phim giáo dục ngắn trình chiếu trên màn hình cho các nhóm trong cộng đồng, hoặc cho một mục đích thông tin riêng, chẳng hạn như cho việc điều hướng bồi dưỡng và tịnh tâm (thiền định).
Máy chụp hình điện tử	Dùng để tạo ra nhữbng hình ảnh thích hợp văn hoá để dùng như tài liệu giáo dục.
Dĩa CD/mp3/Radio	Các bệnh nhân bệnh tiểu đường có thể tự ghi âm bằng ngôn ngữ riêng của họ để cho người khác nghe qua dĩa CD, hay qua dạng âm thanh có thể chuyển tải được từ trên mạng thông tin toàn cầu, hoặc hình thức thông tin giáo dục qua hệ thống truyền thanh (radio) cộng đồng nhắm vào một cộng đồng đa ngữ văn nào đó.

Các cộng đồng đa ngữ văn tạo ra nội dung riêng của họ.
Việc giúp các cộng đồng đa ngữ văn và cá nhân với chứng bệnh tiểu đường tạo ra nội dung riêng bằng cách cung cấp cho họ một máy chụp hình, quay phim điện tử, hay hỗ trợ cho người ta dùng các dụng cụ trên mạng (web) có nhiều cái lợi đích thực trong việc sản xuất các học liệu về sức khoẻ. Nghĩa là:

- Bạn giúp tạo ra nội dung thích hợp văn hoá mà một cá nhân hay cộng đồng đa ngữ văn rất có thể nhận diện ra vì họ có thể kiểm soát được các khía cạnh trong việc sản xuất.
- Bạn có cách tiết kiệm trong việc khuyến khích cộng đồng tham gia - chẳng những bạn tạo ra được nội dung thích hợp văn hoá mà đồng thời còn đưa kỹ thuật điện tử vào lãnh vực nầy.

Phát triển chuyên nghiệp cho tổ chức.
Nếu bạn dùng các kỹ thuật điện tử để hỗ trợ cá nhân trong các cộng đồng đa ngữ văn và giáo dục các cộng đồng đa ngữ văn về chứng bệnh tiểu đường thì tổ chức của bạn cũng có khả năng dùng kỹ thuật điện tử nữa. Điều nầu không có nghĩa rằng chỉ có một trang mạnh thông tin toàn cầu, mà có nghĩa là dùng các hệ thống điện tử ghi âm, ghi hình và vi tính trong những cung cách hỗ trợ và phát triển các mục tiêu và thành quả của tổ chức. Một tổ chức có thể cải thiện trình độ chuyên môn về điện tử bằng cách:

- Hỗ trợ nhân viên trong huấn luyện về cách dùng các dụng cụ kỹ thuật điện tử.
- Phát triển các kế hoạch thông tin điện tử của tổ chức trong việc đầu tư và sử dụng kỹ thuật.
- Thiết lập hệ thống thông tin toàn cầu (internet) có sẵn tại nơi làm việc.
- Quan sát xem dụng cụ kỹ thuật mới có thể giúp cải thiện các hệ thống hoạt động và thông tin trong tổ chức như thế nào.

- Dùng hệ thống thông tin toàn cầu (internet) không dây (wireless), cung cấp máy vi tính xách tay hay điện thoại di động tân kỳ (smartphones) cho nhân viên làm việc bên ngoài và phát huy cung cách làm việc uyển chuyển và sang kiến.

Vậy bây giờ tôi có thể làm gì?

9. Tiếp tục tự trao dồi và huấn luyện nhân viên trong tổ chức của bạn về các kỹ thuật mới.
    - Bạn có đang dùng hết mọi chức năng trong điện thoại di động của bạn không?
    - Bạn có thể hạn chế được con số thư điện tử (emails) gởi đến cho bạn không?
    - Tổ chức của bạn có thể dùng hệ thống xã hội để truyền đạt thông tin một cách hữu hiệu hơn không?
10. Đánh giá công việc hiện tại của bạn với các cộng đồng đa ngữ văn và bắt đầu suy nghĩ tới làm sao các dụng cụ kỹ thuật điện tử có thể giúp cải thiện việc tham gia và thành quả cho các bệnh nhân bệnh tiểu đường. .
11. Nói chuyện với các cộng đồng đa ngữ văn về sở thích và khả năng của họ trong việc dùng và áp dụng các dụng cụ kỹ thuật điện tử như là một phương cách giáo dục và hỗ trợ cho thành quả về sức khoẻ trong cộng đồng họ.
12. Nghĩ tới việc phát triển một kế hoạch thông tin điện tử cho tổ chức của bạn, hoặc kết hợp kỹ thuật điện tử vào kế hoạch truyền thông để liên kết với các công đồng đa ngữ văn.

Các ý hữu ích...

Hiệp hội Chuyên gia Giáo dục Bệnh Tiểu đường Hoa Kỳ phát triển một khuôn mẫu kiểm soát bệnh tiểu tiểu đường gồm 7 bước. Nó bao gồm 7 lãnh vực tự chăm sóc được phát hiện như sau: (1) ăn uống khoẻ mạnh, (2) năng động, (3) theo dõi (lượng đường), (4) uống thuốc, (5) giải quyết khó khăn, (6) giảm bớt sự nguy hiểm, và (7) chịu đựng khoẻ mạnh. Hãy tưởng tượng xem một phương cách kết hợp kỹ thuật điện tử có thể hỗ trợ khuôn mẫu áp dụng nầy như thế nào. Hãy nghĩ tới:

- Các hình ảnh trong các tài liệu và trang mạng thông tin toàn cầu về thức ăn và các hướng dẫn thích hợp.
- Các dĩa DVD nhạy ứng văn hoá về việc theo dõi và dùng thuốc.
- Các đoạn phát âm ngắn chứa trong hộp điện tử rời (USB) thích hợp ngữ văn về việc giải quyết vắn đề và giảm thiểu nguy hiểm.
- Sự nhắc nhở qua điện thoại di động khi thể dục và theo dõi lượng đường trong máu.
- Kể chuyện về kinh nghiệm bệnh tiểu đường qua các nhóm trong cộng đồng đa ngữ văn được thu lại trong phim, dĩa và dùng lại như các học liệu.

Một trường hợp rút kinh nghiệm

Hỗ trợ việc tự kiểm soát bệnh tiểu đường và giáo dục sức khoẻ trong một cộng đồng đa ngữ văn.

Một Cơ quan Sức khoẻ Cộng đồng trong miền thôn quê Victoria đã phát hiện một số di dân gốc Sudan trong cộng đồng có nhiều dấu hiệu nguy hiểm cao với chứng bệnh tiểu đường loại 2.

Cơ quan quyết định mở ra một chiến dịch quảng bá thông tin nhằm phát huy sức khoẻ lien quan với bệnh tiểu đường và giáo dục về điều kiện tự kiểm soát (nhắm

vào các đối tượng bệnh nhân bệnh tiểu đường loại 2), với nhận định rằng chiến dịch nầy cần thiết cho cộng đồng đa ngữ văn nầy.

Một vài nhân viên dùng các dịch vụ sức khoẻ cộng đồng hiện tại trong hệ thống mạng thông tin toàn cầu để phát hiện ra rằng vấn đề nầy cũng đang được nghiên cứu trong một vùng nội ô Melbourne. Qua email và thông tin trên mạng (facebook) họ chia xẻ các ý kiến và nhận được một số tài liệu trên văn bản và qua nguồn âm thanh từ một trung tâm di dân làm việc với cộng đồng Sudan trong thành phố.

Một phiên họp với các lãnh tụ cộng đồng được tổ chức và trong phiên họp nầy người ta nhận ra rằng hiện nay vẫn còn một số cộng đồng đang học Anh Văn. Họ cũng nhấn mạnh rằng họ không nghĩ các hình thức thông tin ấn loát sẽ giúp ích gì lắm. Vì vậy họ muốn tổ chức một ngày thông tin cho cộng đồng nầy.

Các lãnh tụ cộng đồng hỗ trợ cho các thành viên trẻ của cộng đồng làm việc với một chuyên gia truyền thông trong tiến trình sản xuất cuốn phim giáo dục, nhưng cũng muốn các chuyên gia sức khoẻ trình bày trong cuốn phim nầy để nó có thêm giá trị. Cuốn phim được thành hình và ngày thông tin được tổ chức. Cuốn phim bao gồm hoạt cảnh văn nghệ sống động cùng các thông tin liên hệ gắn bó với cộng đồng.

Một trong những diễn viên trẻ người Sudan đã nói về cuốn phim nầy với giới trẻ Sudan trên khắp nước Úc. Họ quyết định thành lập một trang web và đưa lên nội dung cuốn phim cho lập trình YouTube. Bằng cách nầy các cộng đồng khác có thể vào chia xẻ thông tin phù hợp và nhạy ứng văn hoá.

APPENDIX 7.

FESOASOANI MO A'OA'OGA

O FAIGA FOU O UAEALESI & MA'I SUKA

LAGOLAGOINA O MEA E FAIA E OE I TOTONU O MAFUTAGA E ESE'ESE TU MA AGANU'U FA'APEA GAGANA E TAUTALA AI

FA'ALAPOTOPOTOGA MA MAFUTAGA A ATUNU'U ESE'ESE MA FUAFUAGA E MAFAI ONA FESUIA'I (ICEPA)

UNIVESETE O VITORIA
NOVEMA, 2009

O fa'amatalaga e fa'atatau i le Fa'alapotopotoga o le Ma'i Suka i Ausetalia, ma le Aoa'oina o tagata i le togafitia o le Ma'i Suka: O le 'Best Practice Strategy (2004)' po'o le *[Fuafuaina o le auala e sili ona lelei (2004)]* ua ia fa'ailoa mai le tatau ona va'ai toto'a i aganu'u ma gagana ese'ese, e ao ona fuafua i ai le fa'amatalaina o auala e ona fa'aleleia ai le togafitia o le Ma'i Suka, atoa ma le a'oa'oina o i latou e fa'ataunu'uina ia tulaga i Ausetalia atoa. O le 'autu o nei mea uma, ia aloa'ia le tele o aganu'u ese'ese i totonu o Ausetalia, fa'apea gagana, tapuaiga ma tu e fa'apitoa ia Ausetalia, i totonu o ia fuafua'aga uma.

O le puipuia o le Ma'i Suka e mafai ona fa'aleleia atili i totonu o aganu'u ma gagana a atunu'u ese'ese, i le fa'aaogāina lea o le poto ua ta'ua o *digital technology*. I le fa'aaogāina o lenei poto *(digital technology),* o le a va'ava'ai toto'a i auala lelei e mafai ona e fa'aaogāina ai lenei poto *(digital technology)* i so'o se atunu'u*,* i se tau e mafai ona 'ausia, fa'apea le āmanai'a e aganu'u ta'itasi o fuafuaga ua faia, mo le fa'aleleia o le soifua maloloina o atunu'u ta'itasi.

Mo lou silafia

I se su'esu'ega sa faia fa'atasi ma le *Chronic Disease Management Network* i le pitonu'u o Barwon i Vitoria, sa fa'aalia ai i fa'amatalaga fa'amaumauina, o feso'otaiga i uaealesi (ICT) e mafai ona fa'aaogaina e fa'aleleia atili ai le va'aia o tagata mama'i, i le fa'aleleia lea o feso'otaiga ma le 'au-tausi-ma'i i nofoaga ua togafitia ai le Ma'i Suka.

O ni su'esu'ega lata mai nei a le *Institute of Community, Ethnicity & Policy Alternatives (ICEPA)* ua fa'ailoa mai ai, o fa'alapotopotoga a atunu'u ese'ese *(CALD communities)* latou te fa'aaogaina ma feso'ota'i ma faiga fou fa'a-uaealesi i auala ese'ese. I totonu o ia fa'alapotopotoga a atunu'u ese'ese [CALD], o i ai ni vaega e le tutusa lo latou iloa o feso'otaiga ma faiga fou fa'a-uaealesi [ICT] ma lagolagoina fa'alapotopotoga ese'ese [CALD] ina ia mafai ona malamalama i le aga'i i luma o faiaga fou fa'a-uaealesi ma iloa lelei lo latou fa'aaogaina.

O lenei fesoasoani o se ta'iala e lagolago i e galulue ina ia mafai ona latou fa'aaogaina faiga-fou fa'a-uaealesi fa'atasi ma fa'alapotopotoga a atunu'u ese'ese, mo le fa'aleleia atili o togafitiga o le Ma'i Suka, i le galulue fa'atasi lea ma le *Chronic Condition Self Management (CCSM).* O lenei auala ua fa'amoemoe e atia'e ai lo tatou silafia ma malamalama i feso'otaiga ma faiga fou fa'a-uaealesi i totonu o fa'alapotopotoga a atunu'u ese'ese {CALD}.

Aiseā e fa'aaoga ai faiga fou fa'a-uaealesi e fa'alapotopotoga a atunu'u ese'ese [CALD]?

O le mea tatau lo tatou taumafai e fa'aaoga faiga fou fa'a-uaealesi e fa'ailoa atu ai le aga'i i luma o le togafitiga, o le a'oa'oina o mea e tatau ona fai, ma le puipuia o le Ma'i Suka i fa'alapotopotoga a atunu'u ese'ese auā:

- E mafai ona fesoasoani lea i le tu'uina atu o mea e talafeagai ma le aganu'u i le fa'aalia lea o ata ma fa'alogo i leo ua uma ona pu'e.
- O feau ua mafai ona tufaina atu i so'o se vaega o auala-fa'asalalau (leitio, mp3, online)
- O le pu'eina o se polokalame ma lona tufaina atu ua tele ina faigofie ona fai
- E fa'avae lea i feso'otaiga fa'a-uaealesi (ICT) lea ua mafai ona maua e fa'alapotopotoga ese'ese (CALD) ma fa'avae ai lo latou faitauina.

- E fa'amalosia ai fa'alapotopotoga a atunu'u ese'ese (CALD) e fa'aauau le a'oa'oina o i latou i le fa'aaogaina o le malosi fou fa'a-uaealesi e fa'aleleia atili ai le puipuia o le Ma'i Suka.
- E fa'aleleia atili ai le feso'ota'i ma le feutaga'i i totonu o fa'alapotopotoga a atunu'u ese'ese (CALD) atoa ma isi mafutaga.

Ae, i le fa'ailoa teleina o feso'otaiga fou fa'a-uaealesi, e tatau ona tatou āmanaiaina

- Le silafia e le fa'alapotopotoga tulaga o faiga fou fa'a-uaealesi
- Le tulaga o le soifua maloloina po'o le lagolago a tagata faigaluega i le fa'aaogaina o tulaga fou fa'a-uaealesi
- Pe fa'apefea ona lagolagoina e faiga fou fa'a-uaealesi mea e ono tutupu mai ai (ia le faia faiga fou fa'a-uaealesi mo sona lava lelei)

O le ā lenei mea ua ta'ua o faiga fou fa'a-uaealesi (digital technology)?

O le fa'aaogaina o le poto fou fa'a-uaealesi e lagolagoina le togafitia o le Ma'i Suka e lē mana'omia ai se atamai po'o ni polokalame komipiuta se tele. Ua fa'aaogaina nei faiga fou i DVDs ma telefoni feavea'I, o komipiuta ma websites, o ni auala fou ia ua mafai ona tufatufaina atu ai fa'amatalaga e fesoasoani mo tagata. Matou te iloa o a'oa'oga ma fa'amatalaga e fa'atatau i le Ma'i Suka, e tāua tele mo i latou e mama'i ai, fa'apea le lautele o tagata. E mafai fo'i e faiga fou fa'a-uaealesi ma fa'asalalauga o ata i le ea ona fesoasoani i le molimoli'ina atu o le feau i tagata, ini auala faigofie ma talafeagai ma le soifua o fa'alapotopotoga ta'itasi.

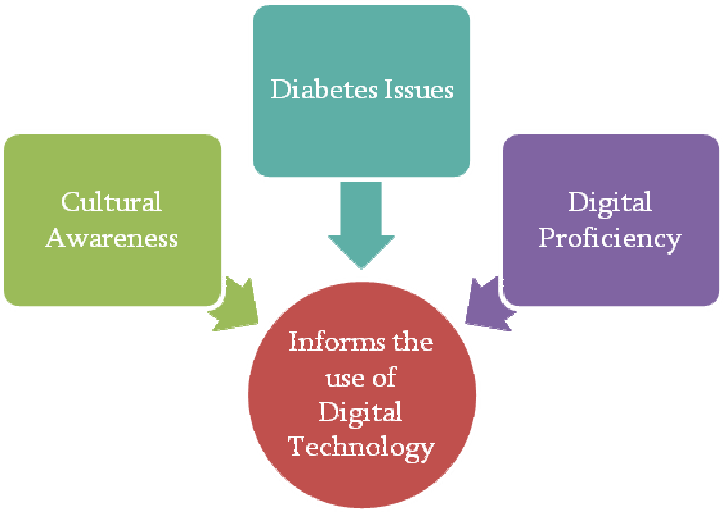
O faiga fou fa'a-uaealesi (digital technology) ua na o se mea-faigaluega, o le ā lē mafai ona fa'aleleia ai mea uma ua leaga. E le o se mea tatau ona manatu mamā i le feiloa'i ma talatalanoa mo le fa'amautuina o se tonu lelei, ma ia manatua, e le mafai e faiga fou fa'a-ualesi nei ona fa'amalamalama mo oe le tele o isi vaega o le aganu'u e ao ona e silafia.

O le ā la'u mea e tatau ona fai e fa'aaoga ai faiga fou fa'a-uaealesi mo le va'ava'aia o le Ma'i Suka?

A'o saili'ili po'o ā mea e lelei ona fa'aaoga e tagata ma'i suka mo le puipuia o i latou fa'apea isi fa'alapotopotoga ese'ese, e tatau ona e malamalama i le soifua o tagata o lo'o e galue ai. E tatau ona e:

- Talatalanoa ma malamalama i mataupu o lo'o tauivi ma fa'alapotopotoga ese'ese e pei o le leai o se feso'ota'iga vāvālalāta ma outou, fa'atasi ai ma le faigata ona maua ni fesoasoani atoa ma ni fa'amatalaga o mea o le ā tutupu, ma mafua'aga e pogai ai.
- Atia'e le silafia e i latou uma o fa'alapotopotoga ta'itasi o lo'o outou galulue fa'atasi.
- Va'ava'ai ma fuafua le poto masani o fa'alapotopotoga ta'itasi (e pei o le 'Au Talavou, Tamaita'i) i totonu o mafutaga ta'itasi. O lou silafia lelei o fa'alapotopotga ta'itasi, o le ā maua ai sou manatu i mea-faigaluega ma mea fou fa'a-uaealesi e tatau ona tu'ufa'atasi.

O Ata: E fa'ailoa mai e mea o tutupu le tulaga e fa'aaogaina ai faiga fou fa'a-uaealesi (digital technology) i so'o se mataupu e tula'i mai.



Diabetes Issues

O tulaga e āliāli mai i le Ma'i Suka

Digital Proficiency

O le atamai i faiga fou fa'a-uaealesi

Informs the use of Digital Technology

Fa'amatala le aoga o Faiga fou Fa'a-uaealesi

Cultural Awareness

Āmanaia tulaga tau i le aganu'u

Ae, o le ā le atamai o i ai l faiga fou fa'a-uaealesi?

O le poto masani i faiga fou fa'a-uaealesi, o le tu'ufa'atasia lea o le iloa ona fa'aaoga ia faiga fou, ma le mafai ona maua feso'otaiga ma ia faiga fou i so'o se taimi. O se tasi ua maua le poto masani i nei faiga fou fa'a-uaealesi, e mafai ona ia fa'aaogaina nei faiga fou mo isi mea e mana'omia, ma a'oa'o lona fa'aaogaina i isi latou te mana'omia. O se tasi e vaivai lona malamalama i nei faiga fou fa'a-uaealesi, e mana'omia e ia ni fesoasoani mo lona fa'aaogaina o nei faiga fou, e pei o telefoni-feavea'i atoa ma le fa'aaogaina o komipiuta.

Fa'aaogaina o faiga fou fa'a-uaealesi e sāilia ai se ata atoa

O lo tatou lagolagoina o le taumafai ia mafai e le tagata lava ia ona malamalama ma va'ai le tulaga o lona Ma'i Suka, o se mea taua lava lea. E mafai e lenei tulaga ona fesoasoani i tagata ta'ito'atasi mo le va'aia o i latou, ma soifua ise soifuaga manuia. E mafai ona maua mai i faiga fou fa'a-uaealesi se malamalama'aga atoa o le tulaga o i ai le ma'i suka. O nei fa'amatalaga e mafai ona fa'apotopotoina i le fa'aaogaina lea o auala ua ta'atele nei, ae fa'aopo'opo i ai ma isi mea ua mafai ona maua mai i faiga fou fa'a-uaealesi

O fa'amatalaga e mana'omia	Mea faigaluega e fa'aaoga	E fa'apefea ona fa'aaoga
Fa'amatalaga o le soifua i le aiga ma mea e fai i aso ta'itasi	Mea Pu'eata Mea Pu'eata (video)	Fai i tagata ma'i suka e pu'e ni o latou āta po'o se *video* o ō latou olaga. O le *video* e tatau ona pu'e, o se talanoaga lea i le va o tagata o le aiga ma i latou e masani, i tulaga o i ai lo latou malamalama i le Ma'i Suka, ina ia maua e le tagata tausi ma'i sona malamalama i le tulaga o lē ua maua i le gasegase
Malamalama i le fuafuaina o mea'ai	Poloka Telefonipoto Telefoni-feavea'i	Afai e va'ava'ai mea taumafa a i latou e maua i le Ma'i Suka, e mafai ona tusitusia ia mea i se Poloka i le komipiuta, ina ia mafai e foma'i ona va'ai i ai i so'o se taimi; a le o lea, e mafai ona fa'aaoga le uepesaita, po'o le SMS, po'o le twitter i se telefonipoto. E faia nei mea uma ina ia mafai e foma'i ona va'ai i fa'amatalaga o le gasegase a'o le'i faia se fa'ai'uga, ma maua ai e le foma'i sona malamalama'aga i lē ua ma'i, ae le'i feiloa'i i laua.
Va'ava'ai ma fuafua le faia o fa'amalosi tino	Telefoni feavea'i Telefonipoto Uepesaita	Fa'aaoga telefoni-feavea'i e ave ai se feau *[SMS po'o se kalena]* e fa'amanatu ia te ia le taimi e tatau ona o'o mai ai mo ana fa'amalosi tino. E mafai ona maua i telefonipoto po'o le komipiuta fa'amatalaga o fa'amalosi tino e tatau ona fai. E mafai fo'i ona e tu'uina au polokalame i le uepesaita pe afai e te mana'o i ai.

O mea e ono tutupu mai i le fa'aaogaina o ICT i totonu o fa'alapotopotoga a atunu'u ese'ese (CALD)

E ono tula'i mai ni fa'afitauli i le fa'aaogaina o faiga fou e feavea'i ai fa'amatalaga ma feso'ota'i ai ma isi mo le fa'aleleia atili o le atina'e o le va'aiga o le Ma'i Suka i totonu o fa'alapotopotoga a atunu'u ese'ese, ona e le tutusa le malamalama atoa ma le fa'aaogaina e atunu'u ese'ese o nei faiga fou fa'a-uaealesi. O nisi nei o fa'afitauli ma auala e mafai ona va'ai i ai.

Lu'itau	Auala e fai ai
Mafai ona maua Auala-e–fai-ai/Maualalo le poto masani	• Sauni lelei se mea e mafai e tagata ona o atu i ai mo le fa'aaogaina o komipiuta ma le internet, ma ia iai nisi e mafai ona fa'atonuina i latou. • Ia a'oa'o le fa'aaogaina o telefoni-feavea'i, komipiuta ma isi mea-faigaluega i tagata o fa'alapotopotoga ta'itasi – e pei o Tamā, Tinā, ma isi o lea lava atunu'u.
Fa'alauteleina o mea ua fa'atonuina	• I le fa'alauteleina o mea ua fa'atonuina, fa'aaoga tagata o le fa'alapotopotoga e i ai lo latou atamai i *graphic design* po'o le pu'eina o video, talatalanoa ia i latou i le galuega o lo'o fai. • Lagolago le silafia lelei e tagata ona fa'aaoga nei faiga fou, i le taumafai ia faia lava e i latou mea uma e ala i le fa'atonuga, atoa ma le a'oa'oina o i latou i le taulimaina o lenei poto fou.
Gagana	• Ia malamalama i mea ua ta'ua i le fa'aliliu i lau lava gagana

	mea ua tusia, ma fa'aaoga video ma nisi fa'asalalauga pe afai e talafeagai ma maua gofie • Aua nei fa'aaogaina faiga fou fa'a-uaealesi e sui ai le feiloa'i ma tagata ma talatalanoa i mea e tatau ona fai.
O Mea e Talafeagai	• Sauni lelei mea e tatau ona tu'uina atu i fa'alapotopotoga a atunu'u ese'ese. E le tutusa uma fa'alapotopotoga, e ese'ese fo'i ona latou fa'aliliuina mea ua tu'uina atu ia i latou. • Siaki muamua ma tagata o se fa'alapotpotoga mea ua fa'aliliuina ae le'i lolomia ma tufatufaina.

Fa'amatalaina o tala ma ata e va'aia

O su'esu'ega i Amerika (US) ua fa'ailoa ai, o le fa'aaogaina o feso'otaiga ma atunu'u ese'ese ua aoga tele lea i le fuafuaina o polokalame e puipuia ai le Ma'i Suka atoa ma lona a'oa'oina i tagata. O mea nei e aofia ai:

- Fa'aaogaina o le gagana faigofie, ma le gagana o aso uma.
- Fa'amatalaina o tala.
- O le maua o mea e va'ava'ai i ai e talafeagai ma le aganu'u

O nei faiga fou fa'a-uaealesi ua aoga tele mo nei taumafaiga; auā pe fa'amatala se tala-tu'u na pu'e i se video, pe pu'e ni āta i se mea-pu'e-āta e talafeagai ma tu fa'aaloalo e fa'aaoga i a'oa'oga, po'o le fa'aaogaina o ni tala pupu'u e tusia mo le uepesaita. Taga'i i mea na ua tusia atu i lalo e fuafua i ai le sauinia o ni auala e mafai ona fesoasoani i tagata mo le puipuia o le Ma'i Suka, ma fa'aleleia atili ai le soifua maloloina.

O auala e mafai ona tupu mai ai tulaga e talafeagai ma le aganu'u

Va'ai	O āta ma video e pu'e ua talia e se fa'alapotopotoga ua tala feagai ma ana aga-i-fanua, o le a fa'aaoga o se fa'asino ala lea mo lea fa'alapotopotoga, ma e tatau ona fuafua i ai mea e fai.
Fa'aete'ete ma Fa'aaloalo i le Aganu'u	Ia mautinoa o āta ma tala o le a pu'eina ia talafeagai ma le soifua o tagata o lea fa'alapotopotoga. Ia mafai ona ta'u mai e mea o le a pu'eina le olaga ma mea e fai a lea fa'alapotopotoga.
O mea e tautala ai	O leo ma āta e pu'e o mea faigaluega aogā lea mo le tufatufaina o feau i e latou te le iloa faitau Tusi, po'o fa'alapotopotoga e malosi tele i latou i le tau logologo.
O Tala	O le tufatufaina o fa'amatalaga i le fa'amatalaina lea o se tala fa'atasi ma le malamalama o tagata o se fa'alapotopotoga a se atunu'u e tasi, o se auala lelei lea e tufatufa ai fa'amatalaga i fa'alapotopotoga a atunu'u ese'ese.
Malamalama ma talitonu	E tāua lou mafaufau pe fa'apefea ona e ta'u atu i tagata e moni mea ua e tautala i ai, i lou fa'ailoa atu lea o le leo ma fautuaga fa'a-porofesa a le PHC, a'o e fa'ailoa atu i lau tautalaga ia mea uma i auala masani.

O le aogā sili o faiga fou fa'a-uaealesi o le mafai ona toe fa'aaoga mea sa fa'aaoga muamua i nisi auala.

O mea e fa'aaoga	O le fa'aaogaina
Ata e pu'e	Ave se Email, fa'aaoga le uepesaita, tu'u i totonu o se tusitusiga ua faia i le komipiuta, pe lolomi ma fa'apipi'i i se laupapa
Ata o le video	DVD, fa'aali i se potopotoga o tagata su'esu'e, pu'e se podcast, tu'u i le

	YouTube po'o le ave se kopi i le fale-fa'asalalau TV
Fa'alogo i le leo	CD, mp3, pu'e se podcast, fa'asalalau I le leitiō
Faitau i mea tusitusia	Uepesaita, pepa ua saunia lelei, tusi e ave i le Email, o se poloka, mea ua tusitusia i ni pepa ua saunia lelei,

O ā mea faigaluega ou te fa'aaogaina?

E maua loa sou malamalama i le tagata ua maua i le Ma'i Suka ma lona tulaga i totonu o le fa'alapotopotoga a lona atunu'u, o lona matua, pe o ia o se tama po'o se teine, pe maua e ia le poto masani pe leai, ona tatau loa lea ona faia lau filifiliga i mea-faigaluega e tatau ona aoga.

Mea Faigaluega ICT	Pe fa'afefea ona fesoasoani i le va'aia o le ma'i suka
Telefoni Feavea'i	Fa'aaogā kalena ma SMS e fa'amanatu ai i tagata mama'i taimi e va'aia ai i latou e Foma'I, po'o fa'amatalaga fou.
DVD	Tufatufa fa'amatalaga i tulaga e aloāia ma fa'aaloalo e ala i āta (video) po'o fa'amatalaga e pu'e.
Komipiuta (Facebook)	Fa'afeso'ota'i tagata ma'i suka o se fa'alapotopotoga e seāseā feiloa'i ma nisi. O le auala lea e mafai ona feso'ota'i ai ma isi ma fa'ailoa atu ai mea ua fuafuaina. O se auala o feso'otaiga ma se tasi e atamai ae ua maua i le ma'i suka.
Mea Pu'eata (Video)	Pu'e ni āta (video) pupu'u e fa'aali i fa'alapotopotoga ese'ese, po'o le saunia lelei mo le tufatufaina fa'amatalaga tāua e pei o le aogā o mea'ai ese'ese i musele o le tino, po'o le va'aia lelei o vaila'au mo togafitiga.
Mea Pu'eata	Pu'e ata o mea e talafeagai ma fa'asino tonu i le Ma'i Suka mo le fa'aaogaina i a'oa'oga.
CD/mp3/Leitio	O tautalaga ua uma ona pu'e [i le CD] mai i tagata ma'i suka, pe pu'e i le mp3, po'o tautalaga e fa'asalalau i le leitiō mo tagata o fa'alapotopotoga ese'ese, e tatau ona tufatufa atu e fa'alogologo i ai tagata fou ua maua i le ma'i suka

O fa'alapotopotoga a atunu'u ese'ese ua galulue e atia'e mea e tāua mo i latou

O le lagolagoina o tagata ina ia malamalama i le Ma'i Suka ma una'iina ai i latou e mata'ala mo lona puipuiga, i le tu'uina atu lea ia te i latou o Mea-Pu'eāta, o Mea-Pu'eāta Video po'o le lagolagoina o tagata i le fa'aaogaina o le poto e galue ai i le komipiuta, o le a aoga tele lea i le galueaina o mea mo le soifua maloloina. O lona uiga:

- E te galue e amata ona tu'ufa'atasia tulaga e talafeagai ma talia lelei e fa'alapotopotoga ese'ese po'o tagata ta'ito'atasi, a'o latou taumafai e fuafua le tulaga o le puipuiga.
- Ua ia te oe le tau e talafeagai lelei ma lou galue ai i le fa'alapotopotoga – e le gata ina e maua mea e talafeagai ma tu ma le aganu'u, ae e fa'apea fo'i ona talafeagai ma galuega e faia i le komipiuta.

O le atina'e o le poto fou fa'a-uaealesi i totonu o fa'alapotopotoga

Afai e te fa'aaogaina faiga fou fa'a-uaealesi e te lagolagoina ai Fa'alapotopotoga a atunu'u ese'ese ma a'oa'o tagata ta'ito'atasi i le puipuia o le Ma'i Suka, e tatau ona maua e lau fa'alapotopotoga le atamai e

galueaina lelei ai faiga fou ua i ai nei. Ia le na o le uepesaita lelei ua maua a lau fa'alapotopotoga. O lona uiga, ia mafai ona outou fa'aaogaina La'au fa'alogologo, video, ma komipiuta e mafai ona lagolago ma fa'aleleia fuafuaga ma mea e fai. E mafai e so'o se fa'alapotopotoga ona fa'aleleia atili le iloa e ōna tagata le galueaina o nei mea uma i le:

- Fesoasoani i tagata faigaluega i le fa'aaogaina o mea uma e faia i le komipiuta
- Fa'alelei fuafuaga o Fa'amatalaga ma Feso'otaiga e fa'ailoa aim mea atia'e atoa ma le aogā o fuafuaga fai
- Fa'amautuina o lo'o avanoa le *internet* ma o lo'o mafai ona fa'aaoga mo galuega e fai.
- Va'ai i le fa'aaogaina o mea-faigaluega fou ma saili auala e mafai ona fa'aleleia ai le faia o pisinisi ma feso'otaiga i totonu o la outou fa'alapotopotoga.
- Feso'ota'i e ala i le *wireless internet,* ia maua ni komipiuta laiti po'o ni telefoni-poto mo tagata o lo'o galulue i tua, ma fa'amasani le 'aufaigaluega i tu ma aga-i-fanua e mafai ona fa'aleleia ai galuega, ma atia'e ai fuafuaga mo le lumana'i.

O le ā la'u mea o le ā fai nei?

1. Toaga e su'esu'e ma faitau tusi i mea e tatau ona e iloa, fa'atonu lau 'aufaigaluega i mea fou e tutupu mai.
    - O e fa'aaogaina uma auala e tatau ona fa'aaoga i ai lau telefoni-feavea'i?
    - E mafai ona fa'aiti'itia au Email e maua mai?
    - E mafai e le Fa'alapotopotoga o lo'o e galue ai ona fa'aaoga se auala e feso'ota'i ai tagata i luga o le komipiuta e fetufa'ai ai fa'amatalaga?

1. Va'ai i lau galuega ua faia mo Fa'alapotopotoga a atunu'u ese'ese, ma amata ona e mafaufau pe fa'apefea e faiga fou ua i ai nei ona fa'aleleia le feso'otaiga ma tagata ua maua i le ma'i suka i le taimi nei.
2. Talatalanoa ma Fa'alapotopotoga ese'ese ma fesili i ai i ni mea e manana'o i ai, atoa ma le fa'aaogaina o faiga fou ua i ai nei, e a'oa'o ai tagata i le ma'i suka, ma lagolagoina ai tapenaga uma mo le fa'alelei o le soifua maloloina o tagata uma.
3.. Mafauafau pe tatau ona sauni se Fuafuaga [ICT Plan] mo lau Fa'alapotopotoga, po'o le fa'aaogā faiga fou fa'a-uaealesi ua i ai nei e feso'ota'i ai ma Fa'alapotopotoga a atunu'u ese'ese ua i ai.

O mea e fesoasoani . . .

Ua tala'i e le *American Association of Diabetes Educators* ni sitepu se fitu (7) o auala e va'ai ai lava e le tagata ua maua i le Ma'i Suka ōna ia togafitiga. O ia sitepu e fitu (7) ua fa'avasegaina fa'apenei: (1) tausami ina ia maua le ola, (2) ia soifua manuia pea lava pea, (3) tui lou toto ma saili le maualuga o le *glucose* i lou toto, (4) inu fuala'au ua tu'uina atu e le Foma'i mo Oe, (5) va'ai ma togafitia fa'alavelave e tutupu mai, (6) fa'aete'ete i tulaga faigatā e ōno aliali mai, (7) Tauivi ma onosa'i ma ia soifua lelei. Se'i manatunatu pe fa'apefea ona lagolagoina e faiga fou ua fa'aaogaina nei lenei taumafaiga mo tagata ma'i suka. Silasila fo'i:

- O āta ua tusia i pepa ma va'aia i uepesaita o mea'ai ma lo latou gaosiaina.
- O DVD ua pu'eina i auala e talafeagai ma tu ma aga-i-fanua, mo le fa'asinoina o le inuina o fuala'au o le ma'i suka.
- O fa'asalalauga pupu'u ua tufatufaina i *podcasts on flash drives* i gagana e malamalama i ai tagata uma o se atunu'u, i le fō'ia o fa'afitauli ma le fa'aiti'itia o mea sesē e ōno tutupu mai.
- Fa'amanatu atu e lau telefoni-feavea'i le taimi o au fa'amalosi tino ma le taimi e tatau ona su'e ai lou tōtō.
- Fa'amatalaina o tala a tagata e maua i le Ma'i Suka mai fa'alapotopotoga a atunu'u ese'ese lea ua pu'eina i le *video* ma toe pu'e i se la'au-pu'e-leo, ma toe fa'aaoga mo le a'oa'oina o tagata.

O se Tala e Manatunatu i ai.
Lagolagoina o le va'aia lava e le tagata ia lona ma'i suka, ma a'oa'oga tau i le soifua maloloina i totonu o Fa'alapotopotoga a atunu'u ese'ese.

O se tasi o lo'o galue mo le va'aia o le soifua maloloina i nu'u i tua i Vitoria, ua ia fa'ailoa mai le to'atele o tagata Sudanese na malaga mai i Ausetalia nei e ōno maua i le Ma'i Suka vaega 2 *(type 2 diabetes)*

Ua manatu le fa'alapotopotoga, o le galuega e faia mo le puipuia o le soifua maloloina o tagata ua maua i le ma'i suka, atoa ma le a'oa'oina o tagata i le togafitia o tulaga faigatā e ono aliali mai (fuafua i tagata ua maua i le Ma'i Suka vaega 2) e mana'omia fa'apitoa mo lenei fa'alapotopotoga a atunu'u ese'ese.

O ni tagata faigaluega se to'alua sa la fa'aaogaina se uepesaita mo galuega tau i le soifua maloloina mo tagata uma e fa'ailoa atu ai, o lenei mataupu o lo'o faia i ai galuega i totonu o le taulaga o Melepone. I lo la fa'aaogaina o *Email* ma le *facebook* ua la tufatufaina atu ai nisi o fuafuaga a i latou lava, ma maua mai ai e i laua ni tusitusiga atoa ma leo sa pu'eina mai nofoaga mo tagata fāi mai i Ausetalia mai Sudan i totonu o le taulaga.

O se fonotaga sa faia ma ta'ita'i o le mafutaga ma ua fa'ailoa mai ai e to'atele nisi o mafutaga ta'itasi o lo'o a'oa'oina pea le faitau ma tusitusi i le Gagana Peretania. Ua fa'amanino mai fo'i e i latou, o pepa ua tusitusia e tala'i atu ai togafitiga o le ma'i suka, e le aogā. Latou te mana'omia se aso e mafai ona potopoto ai i latou, ma fa'alogo i se tasi e tautala i la latou gagana, e fa'atonu ma fa'asino mea uma mo i latou.

O ta'ita'i o le mafutaga e lagolago tele i nisi o le 'Au Talavaou o lo'o galulue ma ni tagata porofesa i tusitusiga ma fa'asalalauga i se *video* sa pu'eina mo a'oa'oga, ae e mana'omia fo'i ni tagata porofesa i le puipuia o le soifua maloloina i le video, ina ia mafai ona talitonuina la latou feau. Sa pu'eina ma saunia lelei le *video* ma sa faia se aso e mafuta ai tagata uma mo se talatalaga. O lo'o i ai fa'atasi i le *video* ia *Vox pops* atoa ma fa'amatalaga o le aso, ma ose maopo'opoga lelei ua i ai nei i le fa'alapotopotoga.

O se tasi o tagata talavou mai Sudan sa ia pu'eina le video, sa talatalanoa ma isi o le 'Au Talavou mai Sudan i totonu o Ausetalia. Sa manatu i latou o le ā fai sa latou uepesaita, ma tu'u le video i le *You Tube*. Afai latou te faia lenei fa'atatau, o le a maua le avanoa a isi mafutaga a Sudan e va'ai ai i mea ua iloa e i latou, o mea e talafeagai ma ā latou tu ma aga-i-fanua.

APPENDIX 8.

http://diversitycdsmict.wordpress.com/

ICT, CHRONIC DISEASE SELF-MANAGEMENT AND CULTURALLY AND LINGUISTICALLY DIVERSE (CALD) COMMUNITIES

A demonstration project using digital technology for improved health and wellbeing communication and management with refugee and migrant communities in Australia.



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Introduction

Posted on October 1, 2009 by icepa

Welcome to 'Promoting using ICT for Chronic Disease Self-Management by Culturally and
Linguistically Diverse (CALD) Communities'. This is a demonstration project that will look at innovative ways of using information communication technology (ICT) in chronic disease management within different cohorts of culturally diverse groups in the Western suburbs of Melbourne.

This website was created by the Institute for Community, Ethnicity and Policy Alternatives (ICEPA) at Victoria University.

This project is supported by the collaborative wiki UsingITBetter, an online forum set up as part of a training program developed by ICEPA to support Heath Professionals and CALD communities manage chronic disease using ICT strategies. The UsingITBetter wiki was built using Coactivate, a web platform designed to foster online communities and promote real-world change.

Posted in Introduction | Tagged chronic condition self management, community informatics, cultural diversity, diabetes, digital technology, ethnicity, health, health informatics, health promotion, information communication technology, refugee and migrant communities | Leave a comment

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ICT, Chronic Disease Self-Management and Culturally and Linguistically Diverse (CALD) Communities

Blog at WordPress.com.

APPENDIX 9.

TRAINING STRATEGY FOR COMMUNITY ORGANISATIONS

This brief outlines a strategic approach when contacting community organisations for training sessions on the DOHA Chronic Disease Self Management for CALD Communities project.

1. Recruitment of Participants

Some people in the community organisations we will be contacting have been involved in interviews for VicHealth research and consultations for the DOHA project. To help ensure good attendance at training sessions it is important that potential participants **do not feel 'over researched'**. Therefore, please make it clear when contacting organisations that these training sessions are free and **a practical outcome from their previous involvement** in the Institute for Community, Ethnicity and Policy Alternatives (ICEPA) work.

Generally, participation in these training sessions will help to improve the capacity of community organisations to support diabetes self management using Information Communication Technology (ICT) for CALD communities. Specifically, participants can benefit from:

- Increased awareness and skills in using ICT to support chronic disease self management through the introduction a new ICT Framework developed by ICEPA in Victoria University
- Introduction to available, free and open source technology such as Wordpress, Blogger, Tumblr, YouTube, Vimeo, Wet Paint and others
- Increased understanding of how to establish the digital proficiency of clients and communities in driving the use of ICT in the provision of health and wellbeing services.
- Creation of online wikis, digital video and/or other content during sessions that can be used beyond the duration of the project
- Increased understanding of the needs of community organisations and members of CALD communities from their involvement in training sessions
- Participation in a relaxed and friendly training atmosphere within professional multimedia and technology spaces at Victoria University.

An aim of these training sessions is to build capacity to improve health service provision and chronic disease self management with CALD communities in sustainable ways. To achieve this aim, we are seeking to create awareness of this project throughout community organisations working in Melbourne's west and beyond. If participants know of others who would be interested in participating, please encourage them to forward on the **flyer for these training sessions** or to contact Ben O'Mara directly on 9919 4455 or ben.omara@vu.edu.au

2. Training Sessions for Community Organisations

Purpose: To develop participants understanding and skills in using ICT to support chronic disease self management through introducing a new ICT Framework developed by ICEPA in Victoria University. The focus will be on using available technology, free and open source technology and understanding the digital proficiency of clients and communities in driving the use of ICT in the provision of health and wellbeing services.

Content:

The training will be divided into 2 sections:

1. Developing an Understanding of ICT in a Health and CALD Framework

Using stories, case studies, videos and online environments participants will be introduced to a framework that supports them to assess the digital proficiency of individuals, consider health issues within a culturally appropriate setting and how ICT can be used to support better outcomes for health and wellbeing of those with diabetes.

2. Practical Skills Development

In a computer lab setting participants will be shown a range of free tools available online, taught how to engage with a wiki that will support further learning and look at how the ICT framework can be practically applied to the work they do.

Time: The sessions will be between 10-4pm

Lunch will be included.

APPENDIX 10.

COMMUNICATION STRATEGY FOR HEALTH SERVICE PROVIDERS

This brief outlines a strategic approach for contacting health agencies for training sessions on the DoHA Chronic Disease Self Management for CALD Communities project.

1. Recruitment of Participants

Many of the people in the health agencies we will be contacting have been involved in interviews for VicHealth research and consultations for the DoHA project. To help ensure good attendance at training sessions it is important that potential participants **do not feel 'over researched'**. Therefore, please make it clear when contacting participants that these training sessions are free and **a practical outcome from their previous involvement** in the Institute for Community, Ethnicity and Policy Alternatives (ICEPA) work at Victoria University.

Generally, participation in these training sessions will help to improve health service provision through Information Communication Technology (ICT) supported diabetes self management for CALD communities developed in culturally sensitive ways. Specifically, participants can benefit from:

- Increased awareness and skills in using ICT to support chronic disease self management through the introduction a new ICT Framework developed by Victoria University
- Introduction to available, free and open source technology such as Wordpress, Blogger, Tumblr, YouTube, Vimeo, Wet Paint and others
- Increased understanding of how to establish the digital proficiency of clients and communities in driving the use of ICT in the provision of health and wellbeing services.
- Creation of online wikis, digital video and/or other content during sessions that can be used beyond the duration of the project
- Increased understanding of the needs of community organisations and members of CALD communities from their involvement in training sessions
- Participation in a relaxed and friendly training atmosphere within professional multimedia and technology spaces at Victoria University.

An aim of these training sessions is to build capacity to improve health service provision and chronic disease self management with CALD communities in sustainable ways. To achieve this aim, we are seeking to create awareness of this project throughout health agencies working in Melbourne's west and beyond. If participants know of others who would be interested in participating, please encourage them to forward on the **flyer for these training sessions** or to contact Ben O'Mara directly on 9919 4455 or ben.omara@vu.edu.au

2. Training Sessions for Health Service Providers

Purpose: To develop participants understanding and skills in using ICT to support chronic disease self management through introducing a new ICT Framework developed by Victoria University. The focus will be on using available technology, free and open source technology and understanding the digital proficiency of clients and communities in driving the use of ICT in the provision of health and wellbeing services.

Content:

The training will be divided into 2 sections:

1. Developing an Understanding of ICT in a Health and CALD Framework.

Using stories, case studies, videos and online environments participants will be introduced to a framework that supports them to assess the digital proficiency of individuals, consider health issues within a culturally appropriate setting and how ICT can be used to support better outcomes for health and wellbeing of those with diabetes.

2. Practical Skills Development

In a computer lab setting participants will be shown a range of free tools available online, taught how to engage with a wiki that will support further learning and look at how the ICT framework can be practically applied to the work they do.

Time: The sessions will be between 10-4pm

Lunch will be included.

APPENDIX 11.

Digital Technology & Diabetes:
Supporting Self Management with CALD communities

Diabetes prevention and management is a key health challenge for people from culturally and linguistically diverse (CALD) backgrounds in Melbourne's West and beyond. The self management of diabetes can be improved with CALD communities through the strategic use of digital technology. People from CALD communities use and engage with a range of technology including new and emerging digital media in different ways for a variety of reasons.

The Institute for Community, Ethnicity and Policy Alternatives (ICEPA) at Victoria University is holding a series of **free training sessions** to help improve the capacity of health service providers and community organisations to support diabetes self management using ICT for CALD communities. The focus of these sessions will be on using available technology, free and open source technology and understanding the digital proficiency of clients and communities in driving the use of ICT in the provision of health and wellbeing services. Participants can benefit from these sessions in the following ways:

- Increased awareness and skills in using ICT to support chronic disease self management through the introduction a new ICT Framework developed by Victoria University
- Introduction to available, free and open source technology such as Wordpress, Blogger, Tumblr, YouTube, Vimeo, Wet Paint and others
- Increased understanding of how to establish the digital proficiency of clients and communities in driving the use of ICT in the provision of health and wellbeing services
- Creation of online wikis, digital video and/or other content during sessions that can be used beyond the duration of the project
- Increased understanding of the needs of community organisations and members of CALD communities from their involvement in training sessions
- Participation in a relaxed and friendly training atmosphere within professional multimedia and technology spaces at Victoria University.

The sessions will be highly interactive. Participants will have the opportunity to speak about key issues they face when working with CALD C'ties and these will be addressed during the training sessions. Training will be divided into 2 sections:

1. Developing an understanding of ICT in a health and CALD framework
Using stories, case studies, videos and online environments participants will be introduced to a framework that supports them to assess the digital proficiency of individuals, consider health issues within a culturally appropriate setting and how ICT can be used to support better outcomes for health and wellbeing of those with diabetes.

2. Practical Skills development
In a computer lab setting participants will be shown a range of free tools available online, taught how to engage with a wiki that will support further learning and look at how the ICT framework can be practically applied to the work they do.

When
The first training session is scheduled for Wednesday 16th December 2009 (TBC). The majority of sessions will be held during January and February 2010. Please see the following page for a full training schedule.

The sessions will be between 10-4pm and lunch will be included.

Where
Sessions will be held on campus in multimedia spaces at Victoria University and participants will be advised of exact campus and room location in due course.

Contact
If you or others within your organisation would like to be involved, or for further information, please contact Ben O'Mara directly on 9919 4455 or 0402 677 227 or ben.omara@vu.edu.au **Please advise asap** if you would like to participate for catering and venue purposes.

Training Schedule

Session	**Date**
1	Wednesday 20th January
2	Monday 1st February
3	Wednesday 3rd February
4	Wednesday 10th February
5	Wednesday 17th February
6	Wednesday 24th February
7	Wednesday 3rd March *before Labour Day Public Holiday

APPENDIX 12. Training package Item 1.

This is a simple assessment tool to identify the level of capacity an individual has with different forms of information and technology. It can be used to help develop a program of support using digital tools in conjunction with the *Empowering Chronic Condition Self-Management with ICT: Digital Framework.*

Assessment of ICT Capacity

Details

Name:	
Contact Details:	
Phone:	
Languages:	

Media Access & Use

Media Type	Access (Y or N)	Use (0 to 4)	Confidence (0 to 4)
Television			
Radio			
Telephone			
Mobile Phone			
Smart Phone (like iPhone)			
Computer			
Internet			
MP3 Player			
DVD Player			
CD Player			
Newspapers (English)			
Newspapers (Other)			

I am confident using technology in the following ways (tick):

- I can send and receive text messages on a mobile phone ☐
- I can search the internet and find websites ☐
- I use the computer to create documents ☐
- I talk to relatives overseas using the computer ☐
- I can upload songs to my mp3 player ☐
- I get information from the television and radio ☐
- I can operate a DVD player and watch DVDs ☐
- I use social media like facebook, bebo and twitter ☐

I would be interested in learning how to use the following technology (list):

Assessment of ICT Capacity – Worker's Guide

This tool is a qualitative analysis of how a patient or client uses technology to support you to identify any digital tools or ICT programs you may be able to use to assist in their support or self-management.

The tool helps you to make these decisions by looking at three areas:

1. Media Access
2. Media Use
3. Media Confidence

Media Access

This is recorded in the table as a simple "Yes or No" question. An individual will require access to the tool if you want them to use it. If they don't have access to a tool then it is advised you don't use it. The point where you could introduce a new tool would be if the benefit of funding a new tool and training the individual in its use is of significant benefit. For example, you may have funding to equip a client with a iPhone to use a particular application designed to support improved health outcomes.

Media Use

This is rated on a scale of 0 to 4, where 0 means never used and 4 means used daily. This section helps to identify the tools that people are most likely to use and help guide any decisions about what tools you introduce.

Media Confidence

Again rated from 0 to 4 (see rating scale below) media confidence is about getting an idea about how proficient an individual is at using the different types of media tools. Someone might not be confident using a DVD or CD, but if they use it with someone else it can still be a useful tool. And, if individuals are confident or experts at tools like computers or the internet you know you have a much broader scope when deciding what digital strategy to use in supporting them.

Rating Scale

Rating	Media Use	Media Confidence
0	Never Used	Not at all confident
1	Used Once or Twice	Use if with someone else
2	Used Occasionally	Confident with basics
3	Used Frequently	Confident User
4	Used Daily	Expert User

This tool is a guide *and should be useful in making good decisions about how to help individuals manage their own health through the use of the wide variety of tools available to them.*

APPENDIX 12. Training package Item 2.

Information Sheet

This information sheet gives you simple explanations of different digital tools. It does not describe more common tools like television or DVD players, but focuses on explaining new tools. Many of these new tools are related to the internet and smart phones. By understanding what these tools are you can consider the many ways you may be able to use them in your practice and work.

Definitions of New Digital Tools

The Internet

The internet is not the world wide web (WWW) where you search for information in Google. The internet is a global system of interconnected computers often described as a "network of networks" because it doesn't exist in one place or rely on a single network to keep functioning. The internet allows for the transfer of information across all of these computers.

Smartphones (iPhone, Blackberry)

Smartphones are mobile phones that offer advanced capability like the ability to send email, surf the web or access social networking sites like Facebook and Twitter. The power of the smart phone is that it allows you to undertake many activities you usually do on your computer anywhere.

MP3 Players & MP3s (iPod, iRiver)

These are audio players designed to play a particular music format known as mp3s. Mp3s are audio files that compress music files to a small size. The files are digital so can be played across multiple devices and platforms like on the internet, from a computer desktop, on an mp3 player or burnt onto a CD.

Social Media (or Web 2.0)

Social media is the term used to describe new digital tools that allow for the easy access and dissemination of information by a large number of people. These tools have evolved from the capacity of the internet to link millions of computers (and by proxy people at the end of those computers) to each other. Social media allows for user generated content (UGC) and many believe it is revolutionising the way information is transferred and empowering the audience to not be just consumers, but producers of media. Different types of social media are described below.

Blogs (Wordpress, Blogger, Tumblr)

A blog is a type of website that can be easily maintained by an individual where they can put up their own entries on any information they desire. People maintain blogs to provide political commentary, as a personal journal, for organisations to share information. They can include text, video, images and even interactive aspects like polls and comment boxes.

Microblogs (e.g. Twitter, 12seconds)

Microblogs are blogging tools that limit how much information you can enter at any given time. Twitter, the most popular, allows 140 characters. 12seconds.tv is a video microblogging service that allows people to upload 12 second grabs from their smartphone or webcam. As microblogs have evolved they are becoming less about telling people what you had for lunch, and more about sharing links and information online. New and different applications for their use are being explored constantly.

Photo sharing (Flickr)

Photosharing sites are where people can upload photos to share either privately with only selected other users or publicly. Creative Commons licensing rights on sites like Flickr can grant permissions for others to use the photos by simply embedding the codes in their blogs. This allows others to use those images without having to pay for them.

Social Video (YouTube, Vimeo)

This is very similar to photosharing. Users upload video content to a site for sharing either privately or public. Many communities have developed around this form of social media and the capacity of video as a form of communication is also being pushed constantly.

Wikis (Wikipedia, Wetpaint)

A wiki refers to content created online as a result of multiple users working on the same content, but at different times and from different places. It is a form of collaborative brainstorming, document creation and planning.

Social Bookmarking (Digg, Delicious)

Social bookmarking applications allow users to share their favourite online content with one another while also creating online bookmarks that the user can refer to in the same way he would a bookmark created offline in his web browser

Social Networks (Facebook, MySpace, LinkedIn)

Social networking sites allow users to add friends, send messages and share content. People on social networking sites often group in communities of like-minded interest. They allow for fast and effective connection of people in a digital space. Social media are not just being used by young people. LinkedIn is a well-regarded professional social networking site with over 50 million users, over half of which are outside the USA.

APPENDIX 12. Training package Item 3.

Information Sheet
FAQs about Digital Proficiency

What is digital proficiency?

It is a combination of the capacity to effectively use technology and have ready access to that technology. A highly digitally proficient individual will have the ability to adapt and learn new technologies through self-directed learning. An individual with low digital proficiency will still require support to effectively use ubiquitous technology like mobile phones and basic computing.

What is Digital Technology?

Digital technology is general term for electronic tools that generate, store and distribute information in a particular form. They include cameras, video, computers, the internet, mobile phones are predominantly digital and both television and radio are moving to digital formats.

How should I use digital technologies?

A Health Service Project Manager said, on the importance of face to face communication, in the *Sending the Right Message* Report:

"I suppose that ICT can only ever reflect our use itself as communicators anyway. So ICT is not going to fix something that we are not doing well on a face to face basis"

Digital technology is not a solution in itself. It is a tool to support any worker to provide better support and improved health outcomes for CALD patients undertaking CCSM. It is essential to build a strong awareness and respect for a patient's cultural and develop a self-management plan with goals and objectives that support CALD patients with self-management of their chronic condition, or communicating broader issues related to CCSM to a specific community.

Do CALD communities use digital technologies?

Many people from overseas use internet technology to keep in touch with families and news from their country of birth. They may not be proficient users, but they have skills that effectively meet their need. This idea of adaptability is important, in assessing the value of using a digital technology tool or strategy to support an individual's health a worker should consider the capacity and interest a patient has in using the proposed tool. A high desire to engage is much more likely to provide a positive outcome in regards to the effectiveness of the tool as part of a health care plan.

APPENDIX 12. Training package Item 4.

Information Sheet

This information sheet lists a number of links and websites that you may find useful, informative or just entertaining. Use them to inspire you to use technology in ways that are relevant and purposeful for the communities and people you work with.

Links to inspire you to improve your Digital Proficiency

Common Craft (http://www.commoncraft.com)
Common Craft helps you understand a wide range of technology topics using short, entertaining videos. The creators say, "our product is explaining" and they provide simple, visual explanations of everything like blogs, wikis, the Internet, web 2.0 and twitter. Highly Recommended.

YouTube (http://www.youtube.com)
More video content is uploaded to YouTube everyday than an individual could watch in a lifetime. But, unlike TV it isn't meant for a mass audience. How might you use it to communicate to your audience? There is great capacity to use video for story-telling and idea sharing. How could you be using it to communicate to share the stories of your organisation and allow those you work for tell their stories?

Wetpaint Wikis (http://www.wetpaint.com)
Wikis allow many users to share and collaborate on projects from anywhere they have a computer (or even a smart phone). Wetpaint is one of the easiest wiki tools available and has excellent sections on how to set up and use a wiki for your organisation. You can use wikis for training and induction, as a knowledge bank, a project management tool or quality system. What will a wiki work best for in your organisation?

Slideshare (http://www.slideshare.com)
Slideshare allows users to share powerpoint presentations. Imagine every conference in the world uploaded all the slide presentations they had, and a community that ranked them in order of significance by keywords and a rating system that made it easy for you to search and find great presentations. This is what slideshare is – a great place to do initial research on just about any topic.

Prezi (http://www.prezi.com)
This is an online presentation tool that will make your presentations different and engaging and helps us to re-arrange ideas in a way slides from programs like PowerPoint never could. It can take a bit to get use to, but this is a social media tool that everyone should learn.

Michael Wesch (http://www.youtube.com/user/mwesch)
An anthropologist from Kansas University has taken the world by storm through his entertaining way of looking at the internet, digital communications, history and education. On his YouTube channel he has key note addresses through to engaging short videos that will help you begin to think differently about what digital tools have to offer.

We feel fine (http://www.wefeelfine.org)

This is a project that opens up a range of new ideas about how we think about the world wide web. It demonstrates how information collected from thousands of sites can be used to build a profile of how the world is feeling at any given moment in what sort of weather and at what time of day. This is how many marketers are using computers now. How could community and health organisations use it to improve the well-being of communities?

TED (http://www.ted.com)
A clearinghouse of great speakers, with great ideas communicating them in video or audio and available for download – all for free. TED is a great site to keep across new ideas and to gain inspiration at anytime.

APPENDIX 12. Training package Item 5.

DoHA MODEL OF INNOVATIVE PRACITCE: DIGITAL MEDIA AND DIABETES

Nature and scope of project

This pilot project will use the ICEPA Digital Media and Diabetes framework in partnership with the Quang Minh Buddhist Temple (QBT) to create affordable, culturally sensitive 'video vignettes' about diabetes self management for members of the Vietnamese community. These short videos, produced by members of the temple in partnership with ICEPA staff, will be filmed using HD Digital Video, and will include stories about their experience of diabetes from a community perspective, introductory information about the prevention and management of diabetes, 'trusted' sources of diabetes information online and offline, and ways in which technology can be used to support this health and wellbeing issue. During workshop sessions participants will be trained in basic filmmaking techniques using a new HD digital camera which will be purchased using funds from ICEPA and the temple. This will help to build ICT capacity and sustainability using the ICEPA Digital Media and Diabetes framework. The HD digital camera will remain with the temple after the project. A key aspect of this project will be the production of 'manageable' multimedia resource that still contains reputable health information and a relatively professional standard of video product made achievable through affordable digital technology and the involvement of community leaders and ICEPA staff with experience in video production.

Learning from Framework Piloting/Testing

During piloting of the framework with the Vietnamese community representative, feedback indicated that members of the Vietnamese community from this area of Melbourne had high levels of understanding relating to new and emerging technology such as Youtube, blogs and wikis. Therefore, investment in a computer at the temple and training geared towards raising awareness of digital media was identified as less strategic for the project. However, the purchase of a high quality digital video camera and training in its use and then how this can be linked to existing new and emerging technology such as online social media, was identified as highly strategic, delivering not only on the goals of the project (innovative use of ICT in culturally sensitive ways), but also meeting the needs of the temple and the Vietnamese community. The framework was thus enhanced from piloting/testing with the Vietnamese community leader.

Specific outcomes

- Application DOHA objective 5: Pilot, demonstrate and evaluate a model of innovative ICT practice for the flexible, multimodal delivery of CDSM communication with the diverse range of people from the selected communities in the Western suburbs of Melbourne
- Creation of audio/visual culturally appropriate health information resources for diabetes self management that can be disseminated and accessed via a range of ICT (DVDs, temple website, YouTube)
- Community capacity and sustainability
- Involvement of key stakeholders in video production – health service providers and a selected CALD community

APPENDIX 12. Training package Item 6.

Thank you for participating in today's training session. We value your feedback and to help improve the work that we are doing we would appreciate it if you could complete this evaluation form.

Training Evaluation Form

Training Course:				
Trainer(s):				
Administration	**Excellent**	**Good**	**Fair**	**Poor**
Received information in timely manner				
Venue and facilities				
Any issues were resolved quickly				
Trainer	**Excellent**	**Good**	**Fair**	**Poor**
Knowledge of the subject matter				
Presentation skill/delivery				
Engagement with participants				
Content	**Excellent**	**Good**	**Fair**	**Poor**
Relevant and appropriate				
Well explained and easy to understand				
Materials provided for the session				

Further comments appreciated:

APPENDIX 12. Training package Item 7.

Using IT Better
Improving engagement between the Health Sector and CALD communities using digital technology

This would be a rough session outline. I tend to move flexibly depending on the skill, interest and direction the participants take it. I would use this to develop both a Training Manual and the foundation of the Project Wiki that would include key points, slides, actual activities and templates.

First 3 hour session – Inspiration and Engagement

1. **General Introduction into ICT (30min)**
   - Introduction Video
   - Why use ICT and what is it?
   - What is the internet? What is this all about?
   - Activity – write down changes you have seen in technology since 1999/2000
   - Discussion – how can these changes support the work you do?(aim to get people on board and see potential)

2. **Introduction to ICT/Health/CALD (1.5 hours)**
   - Context will always inform our use – The Model (Appendix 1)
   - Presentation on the differences "within & between CALD communities" – research.
   - Introduce Case Study we will work on today. (Appendix 2)
   - Key concepts for using digital technology with CALD communities (Appendix 3)
   - Digital proficiency assessment (each do it for themselves)
   - Discussion about what the assessment can tell us (if in computer lab, could use survey monkey?)

3. **What tools can you use (be great in a computer lab) (1 hour)**
   - Ubiquitous Technology – Mobile Phones, CD, DVD
   - New technology – Internet & applications
   - Activity: get class to log onto the "training series" wiki, set up a twitter account, explore some interesting online applications like Prezi, wefeelfine.org (all about getting people excited and aware of the possibilities before beginning the afternoon session)

Second 3 hour session - Guidelines for using Digital Technology

1. **Supporting health and well-being in CALD communities using ICT (45 min)**
   - Introduction to the Individual Process
     - Develop Cultural Awareness
     - Develop Self-management Care Plan
     - Assess Digital Proficiency
     - Identify Digital Technology tools/strategies
   - Introduction of Community/General process
     - Identification and understanding of chronic condition issues

    - Develop cultural awareness of identified community
    - Develop health promotion plan
    - Identify Digital Technologies to support health promotion plan goals
- Run a key activity around this, depending on what participants are interested in more.

2. Content Development & Distribution (1 hour +)

- Accessing and reading digital content
- Types of Content – valuing the visual
- Development of Content – Who and How and Culturally Relevent.
- Distribution of Digital Content in CALD/Health Context
- Activity focussed on developing some content (this would also occur across the session with small video and audio recording devices distributed at the start of the session.

3. Applying Digital Technology to your organisation, work and communities (1 hour +)

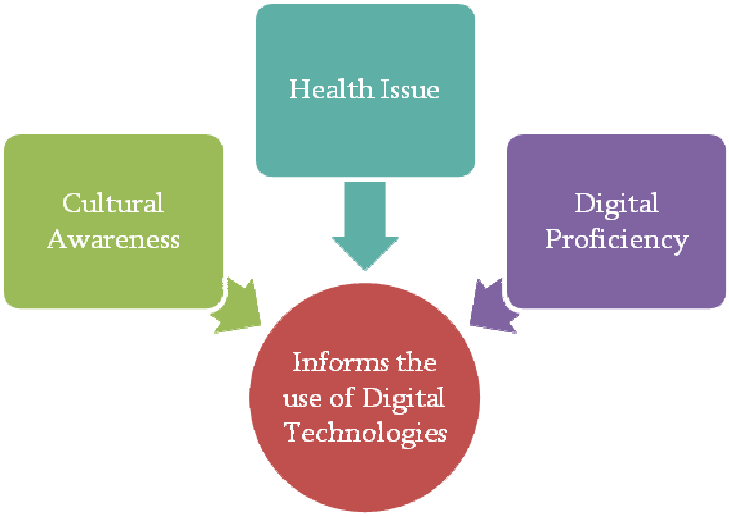
- Do a Skype link up with Gary Paramanathan - http://ice.org.au/
- Look at MIT Project and use of Video Assessment Tools.
- Discuss Examples in Framework and have groups brainstorm about how they might develop solutions for their own practice.
- Activity: Have a list of issues and get participants to do a Project Design...a simple idea...about what they could do, if everyone knew how to use the technology.

Attachment 1.

Using digital technologies in this space requires a strong understanding of the context of both the CALD background and the health background or issues of an individual or community. Digital technologies can be employed to help gather information and used to support well-being, but they can't replace an understanding and appreciation of the context. This means using digital technologies relies on an initial understanding of both the cultural and health contexts of the CALD individual or community and an assessment of their digital proficiency before making decisions about how to use technology as part of a treatment or health education plan.

What is digital proficiency?

It is a combination of the capacity to effectively use technology and have ready access to that technology. A highly digitally proficient individual will have the ability to adapt and learn new technologies through self-directed learning. An individual with low digital proficiency will still require support to effectively use ubiquitous technology like mobile phones and basic computing.



Attachment 2.
Use Case Study Across the Day
A Case Study: Supporting self-management and CCSM education in a CALD community

A Community Health Service working in rural Victoria has identified a significant number of Sudanese migrants in the community are demonstrating high risk factors of type 2 diabetes. Several members of the community are already presenting with the condition. Dieticians have identified the impact the change to western diet is having on the children in the community and key risk factors have been identified.

The organisation decides that a campaign requiring both a preventative health promotion message about diabetes and education in chronic condition self-management (targeted at those already with type 2 diabetes) is required for this specific CALD community.

A couple of workers also use an existing online network of community health services to identify that this issue is also being worked on in an inner city suburb of Melbourne. Through email and facebook they share ideas and obtain some text-based and audio resources from a migrant centre working with the Sudanese community in the city.

A meeting with community leaders is held and it is identified that there is still a significant number of the community who are developing their English literacy. They also emphasis that they do not think written brochures will be much help. They want an information day for the community. But, also realise they need some materials that will help into the future.

They are supportive of some younger members of the community working with a media professional on an educational video, but also want healthcare professionals represented on the video to give it credibility. The video is developed, and an information day held. Vox pops and information from the day is included in the video and gives it a great sense of community ownership.

One of the young Sudanese producers has been talking about the video with other young Sudanese around Australia. They decide to create a website and upload the video to YouTube. This way, other communities can access and share the information which is cultural relevant and sensitive.

The workers share links to the video and planning for the event on their online network and others also begin to use the video resource as a tool for helping educate and inform communities in the city.

Attachment 3.

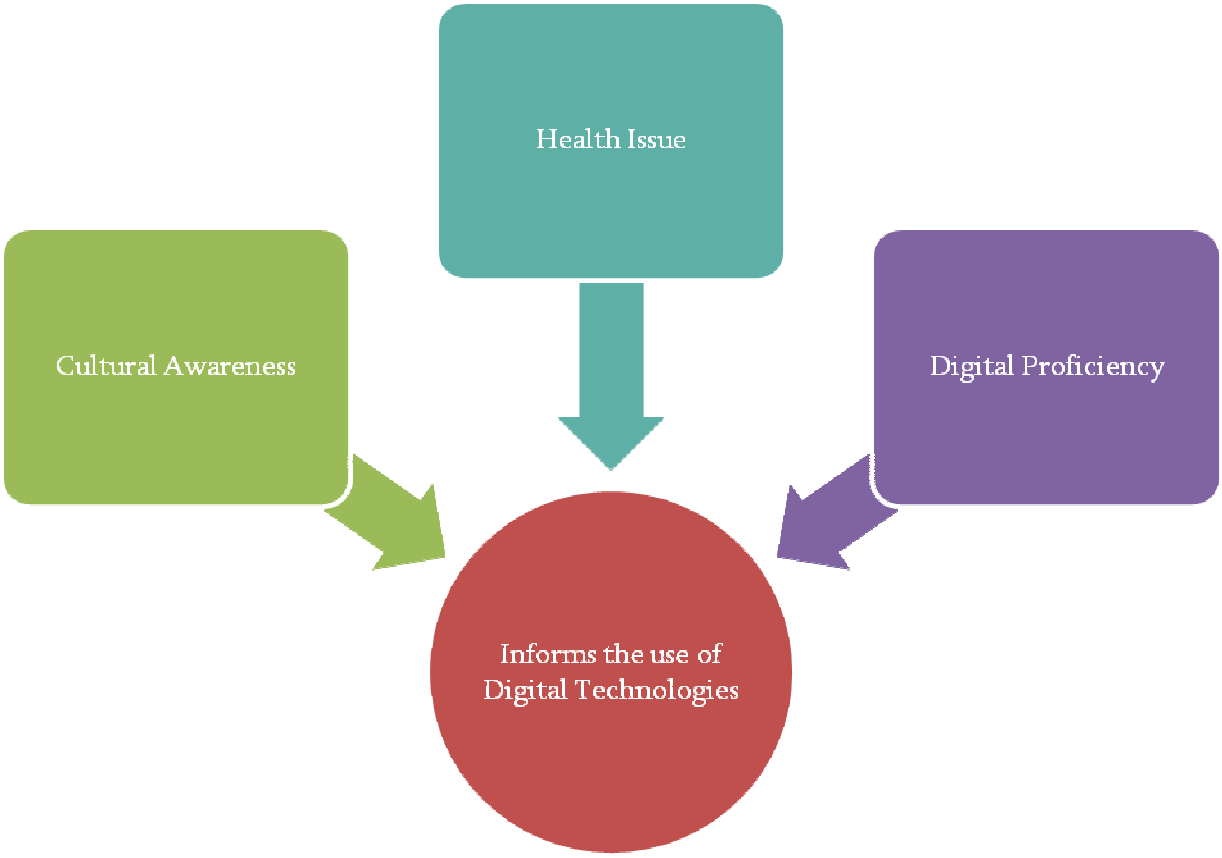
Key Concepts for using Digital Technology with CALD communities

1. Digital technology is a tool. It does not replace the need to operate in a culturally sensitive and appropriate way.
2. Digital technology should enhance face-to-face consultation and word of mouth communication in CALD communities.
3. Digital technology is something that people in CALD communities can use.
4. Digital technology has the capacity to be cost effective. Ensure the cost of using digital technologies and distributing them meets your desired aims.
5. Digital technology can be taught. Don't abandon the use of technology because of lack of knowledge. It may be beneficial to support them to learn to improve health outcomes.

APPENDIX 12. Training package Item 8.

Using IT Better
Improving engagement between the Health Sector and CALD communities using digital technology

An Introductory Training Program
http://www.coactivate.org/projects/usingitbetter/introduction



A DoHA-funded project delivered by the Institute for Ethnicity, Culture and Policy Alternatives

Session 1
Empowering Chronic Condition Self-Management with ICT
A Digital CCSM Framework for improving communication and outcomes for CALD health consumers

Why bother with technology?

> "Connecting people to ICT skills can connect them to new or better jobs, to new forms of communication and social interaction, to community infrastructures and government services, to information to help with homework, to consumer power and convenience. Digital inequality matters because those without the right combination of access, skill, motivation or knowledge to make digital decisions are missing out in all areas of life. And that doesn't just impact on individual lives but on families, communities, on political processes, democracy, public services and the economic and social health of the nation as a whole."
>
> - *Understanding Digital Inclusion*, A Research Summary, Fresh Minds

Activity 1
To begin thinking about how technological change has impacted on us and will impact on us into the future in Australia consider how people managed life in the 1950s, current day and might be managing it in another 40-50 years. Find/Imagine one example for each.

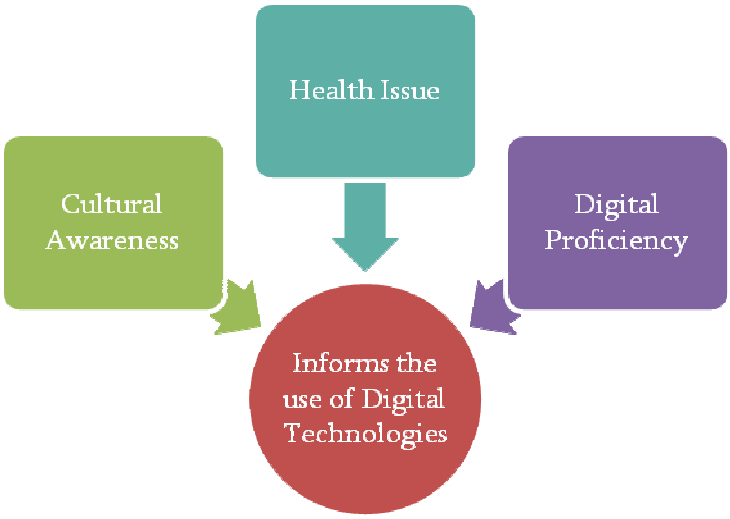
	1950s	2000s	2050s
Communication			
Health			
Office Life			
Transport			

The *"Empowering Chronic Condition Self-Management with ICT – A Digital CCSM Framework"*

The Digital Chronic Conditional Self-Management (CCSM) Framework is a tool to support health providers and CALD community leaders to develop practices that incorporate appropriate information and communication technology (ICT) in supporting people with diabetes.

It takes into account three key areas to consider when making decisions about using technology in supporting the health management of people from culturally and linguistically diverse communities.

Diagram: Context informs the use of digital technology in CALD health issues



What does this mean?

Cultural Awareness: Understand the specific needs and cultural practice of the community you are working with.
Health Issue: Have a clear evidence-base and understanding of what health issue you wish to address
Digital Proficiency: Understand the technological capacity of the individual or community you are working with.

Key Concepts for using Digital Technology with CALD communities

6. Digital technology is a tool. It does not replace the need to operate in a culturally sensitive and appropriate way.
7. Digital technology should enhance face-to-face consultation and word of mouth communication in CALD communities. It is something CALD communities can use.
8. Digital technology has the capacity to be cost effective. Ensure the cost of using digital technologies and distributing them meets your desired aims.

Key Points

- Technological change is occurring exponentially
- Community and health services are all responsible for digital inclusion
- Do not use technology for technology's sake (it must align with your goals)

9. Digital technology can be taught. Don't abandon the use of technology because of lack of knowledge. It may be beneficial to support them to learn to improve health outcomes.

This case study will be used through the session to give us all a story we can use to discuss the use of ICT in diabetes self-management, community management and prevention. It is based on an award winning program that was implemented in the western suburbs of Melbourne.

Case Study
Applying ICT to Diabetes Issues in CALD community

Over 10 organisations were represented on a steering committee for the project from CALD community and health organisations. Expertise was not seen as being held solely by the health agencies involved. The project engaged ethnic community members and ethno-specific agency workers and involved them in the research and pilot project phases where their input was held in the highest regard. The project had three phases.

The project aims were:

- to improve the delivery of diabetes prevention and management services to CALD communities in the local government area
- to enhance self-management of diabetes among people from CALD communities in the LGA
- To engage the CALD communities in increasing understanding and access to diabetes prevention and management strategies and services in the primary care sector.

Phase 1
Phase one looked at identifying the particular needs for each community group, in relation to diabetes prevention and management, as well as general issues with diabetes health care access and provision. Needs assessment was undertaken by CALD community organisations.

Phase 2
Analysed the results from the needs assessment. This was done through a prioritization and strategic planning exercise. The community and health service representatives discussed ways in which they could be responsive to the identified needs by creating culturally relevant initiatives through service reorientation or program development.

Key Points

- Be aware of **the differences within and between** CALD communities
- Do not use technology that is not suitable for your audience.
- Use the Framework as a guide to develop your own ideas and improve your own practice

Phase 3

Involved the piloting of at least one intervention for each of the targeted ethnic communities. These were drawn from the needs assessment and prioritisation phases of the project.
Pilot projects included

- a five-week education program with a focus on exercise and using pedometers for the Maltese community;
- a dietary resource developed and launched for the Filipino community
- a state-wide Vietnamese radio campaign using a CD produced by the project containing culturally and linguistically appropriate diabetes messages in the form of short narratives/stories in Vietnamese.

Digital Proficiency Assessments
(a Practical Tool from framework)

What is digital proficiency?
It is a combination of the capacity to effectively use technology and have ready access to that technology. A highly digitally proficient individual will have the ability to adapt and learn new technologies through self-directed learning. An individual with low digital proficiency will still require support to effectively use ubiquitous technology like mobile phones and basic computing.

Digitally Proficient **vs** **Digital Learner**

ncy, you are makin

Activity

Use the Assessment of IT Capacity to assess your own level of digital proficiency.

And then consider the following questions:

- *What technology do I like to use?*
- *How could that technology be used in the work I do?*
- *What would I do to improve my work?*
- *What technology could be used to improve work in the ways I would like?*

This is a simple assessment tool to identify the level of capacity an individual has with different forms of information and technology. It can be used to help develop a program of support using digital tools in conjunction with the *Empowering Chronic Condition Self-Management with ICT: Digital Framework.*

Assessment of ICT Capacity (Template)

Details

Name:	
Contact Details:	
Phone:	
Lanaguages:	

Media Access & Use

Media Type	Access (Y or N)	Use (0 to 4)	Confidence (0 to 4)
Television			
Radio			
Telephone			
Mobile Phone			
Smart Phone (like iPhone)			
Computer			
Internet			
MP3 Player			
DVD Player			
CD Player			
Newspapers (English)			
Newspapers (Other)			

I am confident using technology in the following ways (tick):

- I can send and receive text messages on a mobile phone ☐
- I can search the internet and find websites ☐
- I use the computer to create documents ☐
- I talk to relatives overseas using the computer ☐
- I can upload songs to my mp3 player ☐
- I get information from the television and radio ☐
- I can operate a DVD player and watch DVDs ☐
- I use social media like facebook, bebo and twitter ☐

I would be interested in learning how to use the following technology (list):

Reasons to Use ICT

> "Communications tools don't get socially interesting until they get technologically boring."
>
> - Clay Shirky (Here Comes Everybody)

How could technology have been used in Phase 1 of the Case Study to identify needs and better understand community understanding?

How could technology have been used in Phase 1 to improve outcomes?

How could you make sure you were using the right technology, in this instance?

Key Points

- Use ICT because it helps to document, record and support future resources
- Use ICT if it makes this more efficient, not is it makes them more difficult
- Use ICT because it improves outcomes and engagement with communities

Challenges using ICT

> "Society is not just the product of its individual members; it is also the product of its constituent groups."
>
> Clay Shirky (Here Comes Everybody)

Do CALD communities use digital technology?

Findings from the VicHealth and Victoria University's *Sending the Right Message: Use and Access of ICT for Communicating Messages of Health and Well-being to CALD Communities (2009)* gives us some ideas about who in CALD communities may be using digital technology.

- Different age groups and with different levels of education and exposure to English do use and access digital technologies, like the internet, and have the capacity to apply these forms of ICT in ways which are meaningful, positive and useful in their day to day lives.
- Younger participants with higher levels of education and with good English language skills seem to be the most proficient and enthusiastic users of various new and emerging ICT.
- Middle-aged and even older tertiary-educated community members with sufficient financial resources to have internet and computer access at home, but tend to use more basic functionality. Those with lower levels of English, limited literacy and/or limited formal education, primarily use TV, DVDs and radio and use the telephone or mobile phones.

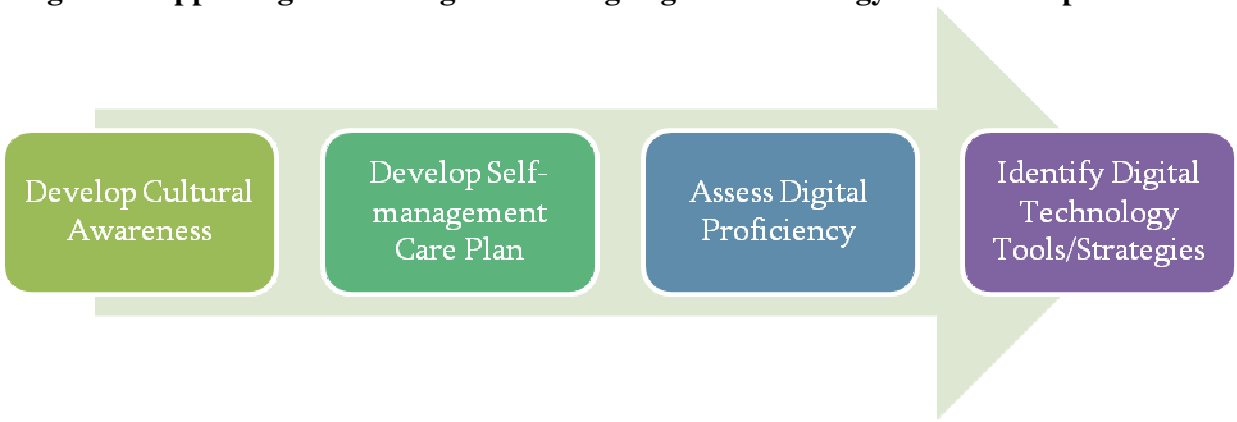
Activity: Meeting the challenges of technology in CALD communities

Challenge	Strategies
Access to Technology/Low Digital Proficiency	
Inclusive Development of Content	
Language	
Relevant Content	

The Four Step Process
When considering the use of digital technologies to support individuals with CCSM there are four steps to consider:

- Develop Cultural Awareness
- Develop Self-management Care Plan
- Assess Digital Proficiency
- Identify Digital Technology tools/strategies

Diagram: Supporting Self-management using Digital Technology with CALD patients



Activity
In the case study how were these things achieved, and how could technology have been used or was it used to help achieve them?

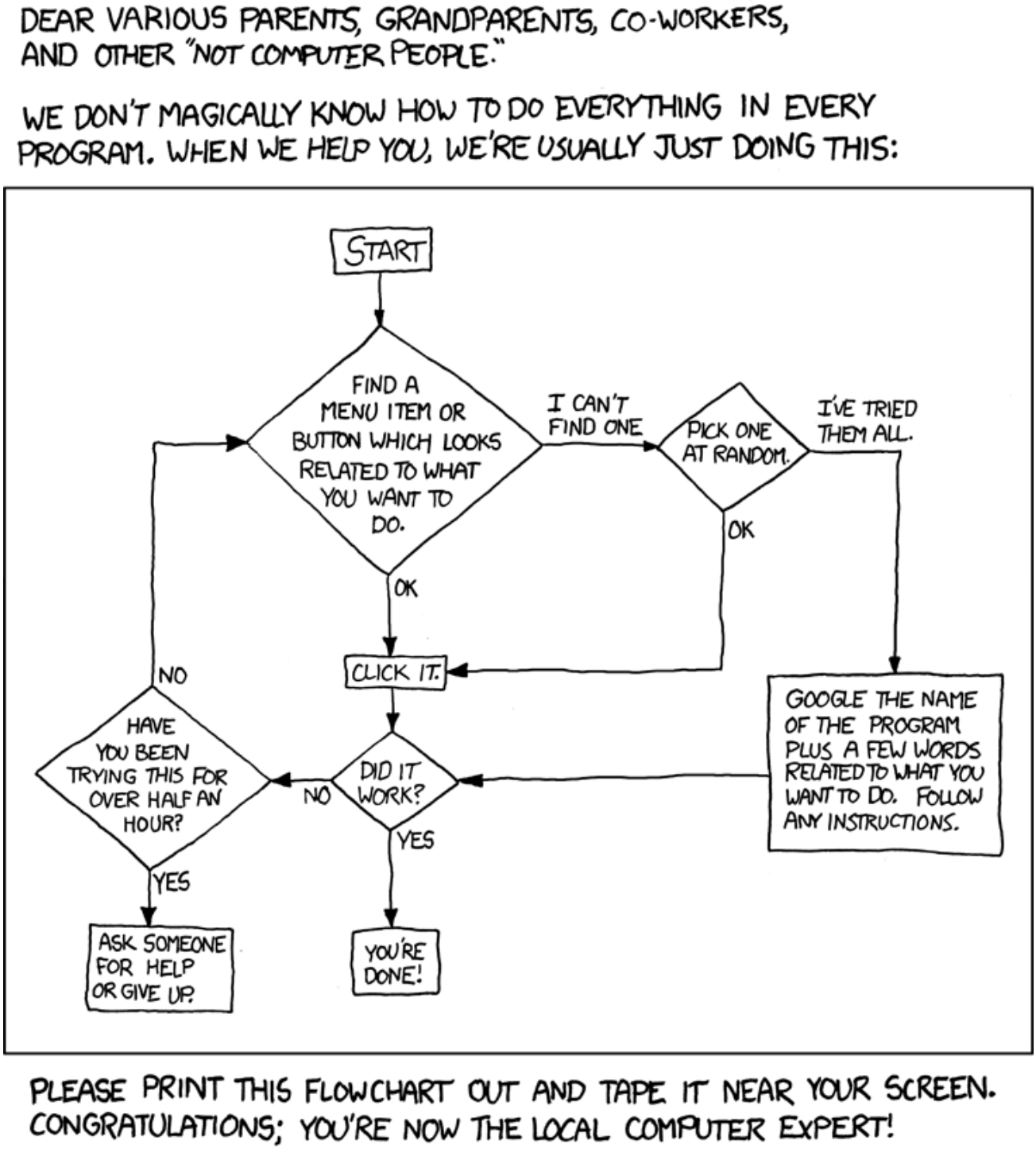
Develop Cultural Awareness	
Develop Management Plan	
Assess Digital Proficiency	
Identify Digital Tools/Strategies	

Key Points

- Digital technology is a great tool, in the right circumstance.
- Consider the cost/benefits of teaching individuals and communities new tools
- ICT is a tool, not a solution in itself.

Session 2
Computers, the Internet and Community Sector
The digital technologies available to you.

The Tech Support Cheat Sheet
http://xkcd.com/627



Are we living in the future?

Visual Representation: Digital Technology Landscape

Digital technology is like traversing cities and forests. It is a complex system of different devices, tools and applications. But, if you choose the right tools to get the job done it can be navigated comfortably.

The Internet and Technology by Stats

- Number of Australians approx. 21 million
- Number of Internet Users approximately 16.5 million (One of largest penetration of users in the world)
- 60 years ago USA had 3 TV networks. That is - 3 networks x 60 years x 365 days a year x 24 hours = 1.5 million hours of programming
- YouTube uploaded 1.5 million hours of content in last 6 months
- Over 10,000 hours of video uploaded to YouTube everyday
- Almost 400 always-on TV channels (but more like 220,000 three minute videos)
- Not mass media – niche content for niche markets/audiences (90% original content)
- Internet Usage - In 1990 3 million; 2000 360 million, in 2010 est. 1.7 billion
- The Internet is only 20 years old in Australia
- Google founded 1998, publicly listed in 2004
- Wikipedia launched 2001, YouTube launched in 2005, Twitter launched in 2007

Change in Mobile Technology

1999	2009
 Mobile Telephone Sends SMS Stores contact numbers	 Mobile Computer (and a camera, recording device, radio, television, calendar, news service, alarm) Sends SMS, MMS and Email Stores multiple contact numbers, address, photos, email, birthday.

Key points to remember about digital technology

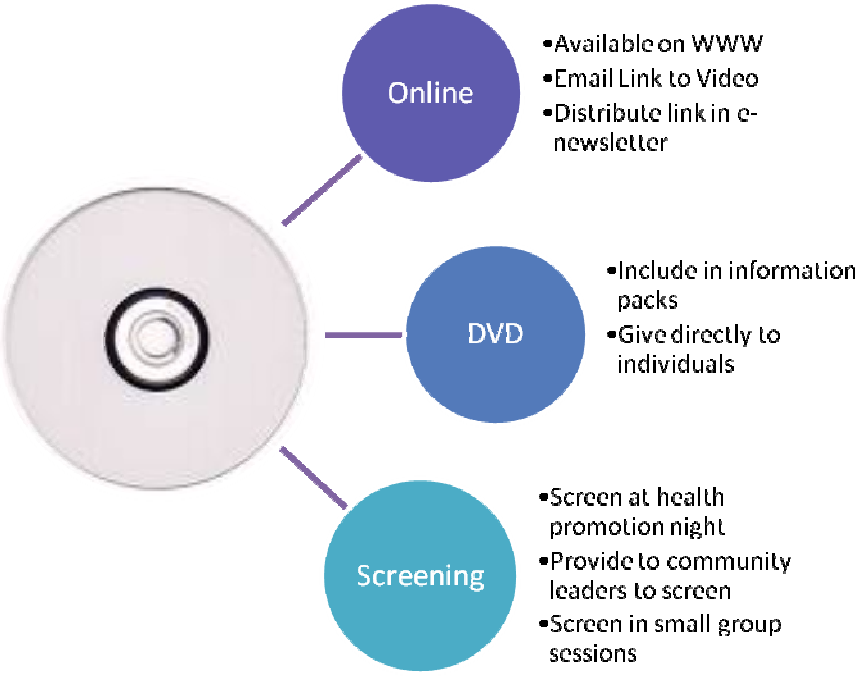
1. **How to use digital technologies?**

   A Health Service Project Manager said, on the importance of face to face communication, in the *Sending the Right Message* Report:

   "I suppose that ICT can only ever reflect our use itself as communicators anyway. So ICT is not going to fix something that we are not doing well on a face to face basis"

   Digital technology is not a solution in itself. It is a tool to support any worker to provide better support and improved health outcomes for CALD patients undertaking CCSM. It is essential to build a strong awareness and respect for a patient's cultural and develop a self-management plan with goals and objectives that support CALD patients with self-management of their chronic condition, or communicating broader issues related to CCSM to a specific community.

2. **Digital technology can be used across different mediums**



3. **Digital technology will change the way we think about privacy, intellectual property, law and even culture**
   http://www.youtube.com/user/mwesch

Social Media & Community Sector – Common Language & Purpose

What is Social Media?
(http://www.commoncraft.com/socialmedia)

Social media is the future of digital technology. It refers to new and emerging digital technology that exists on mobile phones and the internet that connects people. Internet tools Twitter, websites like Facebook and the ability to send "mass" text messages are all examples of social media. So are video and photo sharing websites like YouTube and Flickr. Social media is also called Web 2.0.

> *Social media is about social interaction, connection and bringing communities together*

Technology and community

Technology has evolved to a point where the tools are sophisticated enough to do more than basic word processing and email. The ongoing evolution of the internet has turned people away from desktops and hard drives, to smart phones and web-based tools. Along with the technological change, has come a change in language.

Those leading the technological revolution talk about "sharing", "connection" and "change".

This is a language that is common to the community and health sectors.

This movement from technological as a technical tool, to a social tool means that at this time the work of community organisations and the tools available through new technology and media are a perfect fit. As people in the sector increase engagement with ICT and social media they will increase the capacity of these tools by bringing their experience and knowledge to the space and find new ways of using these tools that support their work and goals.

As was identified in Accenture's Report *Web 2.0 and the Public Service:*

Web 2.0: A broad set of potential benefits to public service organizations. Web 2.0 technologies have multiple kinds of value propositions. Here are several ways that Web 2.0 can deliver value to public service organizations:

- Enabling more effective social networking, citizen engagement and collaboration with the community.
- Enabling effective collaboration and teamwork—especially among disparate teams and across agencies.
- Providing a presentation development tool for internal staff that offers higher productivity than the Web alone can provide.

What is open source?

Open source is about sharing information.

In technology terms it refers to computer programs that are provided free of charge to anyone who wants to use them. It also refers to the fact that the way the software is made is also available and anyone who wishes to change or improve the software and distribute the new, improved version for free is allowed.

Free Open source software packages

Web-browser – Mozilla Firefox: http://www.mozilla.org

Email Client – Mozilla Thunderbird: http://www.mozilla.org

Antivirus software – ClamWIN: http://www.clamwin.com/

Audio Recording & Editing – Audacity: http://audacity.sourceforge.net/

Microsoft Office – Open Office: http://www.openoffice.org/

Photo and image editing – GIMP: http://www.gimp.org/

Video editing – AviSynth - http://www.avisynth.org/

Free, easy-to-use web-based communication tools

Storybird (www.storybird.com) – an online storytelling program linking your text to images

Prezi (www.prezi.com) – an online presentation tool that supports a wide range of digital media

Facebook (www.facebook.com) – the most prevalent social media site.

Wetpaint Wikis (www.wetpaint.com) – a free wiki site which allows collaborative content generation, sharing and communication.

Survey Monkey (www.surveymonkey.com) – free online survey and polling tool

Wordpress (www.wordpress) – easy-to-use free blog site.

Twitter (www.twitter.com) – popular micro-blogging tool that can be used to generate content in 140 characters of less.

LoudTwitter (www.loudtwitter.com) – a tool that collects daily twitter post and places them on your blog. Excellent for collecting information submitted to twitter.

MyLanguage (www.mylanguage.gov.au) - provides access to search engines, web directories and news in over sixty languages

Why use web-based email?

You might consider using a web-based email account because:

- Web-based email is free
- Web-based email can be accessed from any computer with the internet connected
- Many web-based emails will also collect your other emails
- A web-based email account is good to use for online forms
- Web-based email providers have excellent spam and junk mail filters

Where can you get web-based email?
www.gmail.com
www.hotmail.com
www.fastmail.fm

The course Wiki
http://www.coactivate.org/projects/usingitbetter/introduction

What is a wiki?

http://www.commoncraft.com/video-wikis-plain-english

WIKI is an acronym that stands for "What I Know Is"

A wiki is a collaborative website that allows many people to contribute information and content on the one site. Good wikis are easy to use and people can create new pages, add text, images and video.

What are wikis used for?

People use wikis for organisational brainstorming, project planning, knowledge and quality management and as a way of collaboratively taking notes. The most well-known wiki is used as a worldwide encyclopaedia – Wikipedia (www.wikipedia.org)

Why a wiki for this training course?

Everyone who uses computers is always learning. The wiki for this course will allow people to share ideas that they have implemented in their workplace, allow people to ask questions and all the material presented at this training (including templates and videos) will be made available on the course wiki.

The most successful wikis are those that have many people uploading content and commenting and sharing on the site.

APPENDIX 13.

PARTICIPANT FEEDBACK ON DIGITAL TECHNOLOGY AND DIABETES WORKSHOPS

WORKSHOP 1

1. Recommend contact with participants as a follow up 3 months after training to see if any evidence of applied knowledge as a result of this training – also to get ideas of applications.
2. The content was very interesting, relevant (we'll be going back to our workplace, feeding back + hopefully making changes!)
3. Could possibly be condensed to shorter training…maybe optional last 2 hours for trying out websites / apps (as can do this in own time). Would probably re-label training to ICT – using in Health Promotion, Health Mgmt & community engagement – didn't see specificity to CALD & SIM. * Excellent visual way to train.
4. This training has been very valuable and I can take this new skill to my workplace and make a better use in digital tech community awareness in health promotion. I really enjoyed myself very much. Thank you.
5. A really interesting day! Has really started me thinking about different ways of communicating with CALD communities. Thank-you!
6. It would be good if a case history can be acted out ie. Using technology resources. An active interactive approach.
7. More health specific examples might have been useful but all the skills + tools taught are clearly transferable.
8. I'm now inspired to learn to use the tools I've learnt today. Thank you very much ☺

There were 4 blank comment boxes.

Administration	**Excellent**	**Good**	**Fair**	**Poor**	**N/A**
Received information in timely manner	✓✓✓✓✓✓	✓✓✓✓✓✓			
Venue and facilities	✓✓✓✓✓✓✓✓	✓✓✓✓	✓		
Any issues were resolved quickly	✓✓✓✓✓✓	✓✓✓✓			✓✓
Trainer					
Knowledge of the subject matter	✓✓✓✓✓✓✓✓✓	✓✓✓			
Presentation skill/delivery	✓✓✓✓✓✓✓	✓✓✓✓✓			
Engagement with participants	✓✓✓✓✓✓✓	✓✓✓✓✓			
Content					
Relevant and appropriate	✓✓✓✓✓	✓✓✓✓✓✓✓			
Well explained and easy to understand	✓✓✓✓✓✓✓	✓✓✓✓✓			
Materials provided for the session	✓✓✓✓✓✓✓✓	✓✓✓	✓		

WORKSHOP 2

1. Well presented, lively, interesting and informative.
2. It was good and enthusiastic; it took us to another world.
3. Got some good ideas. Will discuss with team and have a think about how to use it.

There were three blank comment boxes.

Administration	**Excellent**	**Good**	**Fair**	**Poor**	**N/A**
Received information in timely manner	✓✓✓✓✓	✓			
Venue and facilities	✓✓✓	✓✓✓			
Any issues were resolved quickly	✓✓✓	✓✓✓			
Trainer					
Knowledge of the subject matter	✓✓✓✓✓	✓			
Presentation skill/delivery	✓✓✓✓✓✓				
Engagement with participants	✓✓✓✓✓✓				
Content					
Relevant and appropriate	✓✓✓✓	✓✓			
Well explained and easy to understand	✓✓✓✓✓	✓			
Materials provided for the session	✓✓✓✓	✓✓			

WORKSHOP 3

1. Makes sense for health to continue to stay abreast; needs to stay in touch/updated with technology. Health needs more streamlining of services/information. Need to ensure access to appropriate legitimate health information sites.
2. Really liked the "try-out" format of the day and lots of examples. Prezi was great too!
3. Daniel was a terrific teacher but would have been useful to have more examples or case studies of how ICT has been successfully used in practice. We had a brief look at lots of things so my knowledge is shallow at this stage and will require me spending lots of time exploring these things later.
4. Great ideas, however, difficult to apply to people/patients with limited digital proficiency.
5. Well presented as allowed for interaction and not just to sit behind a computer screen. Look forward to using some of the free web-based tools and applications for work/uni.
6. Very interesting resources and web links – not so relevant to our chronic management work but useful for other work.
7. Generally very good. A large number of our clients do not have access to digital technology. I like the way this made me think about things differently – video stories. Also, useful tips re management skills – i.e., wiki, presi web sites.
8. Great session as an opportunity to become more aware of IT options available and their application to health self-management.

There was one blank comment box.

Administration	Excellent	Good	Fair	Poor	N/A
Received information in timely manner	✓✓✓	✓✓✓✓✓✓			
Venue and facilities	✓✓✓	✓✓✓✓✓✓			
Any issues were resolved quickly	✓✓	✓✓✓✓✓			
Trainer					
Knowledge of the subject matter	✓✓✓✓✓✓	✓✓✓			
Presentation skill/delivery	✓✓✓✓✓✓✓✓✓	✓			
Engagement with participants	✓✓✓✓✓✓✓✓✓	✓			
Content					
Relevant and appropriate	✓✓✓	✓✓✓✓	✓✓		
Well explained and easy to understand	✓✓✓	✓✓✓✓✓✓			
Materials provided for the session	✓✓✓✓	✓✓✓✓✓			

WORKSHOP 4

1. Today was not necessarily as I expected, but very valuable, and has sparked my imagination and filled my head with ideas … now, just to work out how to encourage the 'powers that be' to let me try putting them into practice!
2. Thank you Daniel – relaxed yet professional style, fantastic workshop .. very informative.
3. This session has given me new tools for my arsenal to working with CALD and low literacy individuals.
4. This was extremely helpful in stretching my thoughts in medical chronic disease self-management and networking with course participants. Thank you!
5. Really enjoyed – learnt heaps!
6. Excellent presentation. Learnt a lot today. .. thanks!
7. Can we have a 'hands-on' session included for those who have basic development skills?

There were two blank comment boxes.

Administration	Excellent	Good	Fair	Poor	N/A
Received information in timely manner	✓✓✓✓✓✓✓	✓✓			
Venue and facilities	✓✓✓✓✓✓✓	✓✓			
Any issues were resolved quickly	✓✓✓✓✓✓	✓✓✓			
Trainer					
Knowledge of the subject matter	✓✓✓✓✓✓✓✓	✓			
Presentation skill/delivery	✓✓✓✓✓✓✓	✓✓			
Engagement with participants	✓✓✓✓✓✓✓✓	✓			
Content					
Relevant and appropriate	✓✓✓✓✓✓✓	✓✓			
Well explained and easy to understand	✓✓✓✓✓✓✓✓	✓			

Materials provided for the session	✓✓✓✓✓✓✓✓	✓			

WORKSHOP 5

1. Mind expanding information that I hope to put into practice in my work as health promotion worker. I see relevance in empowering individuals and giving a voice to a marginalized community, by way of participation, recognition and documentation. Thanks!
2. Thank you for this information; it was excellent and very informative.
3. Good resources provided and the session was interactive.
4. Very informative and will be helpful in assisting the way I deliver information.

There was one blank comment box.

Administration	**Excellent**	**Good**	**Fair**	**Poor**	**N/A**
Received information in timely manner	✓✓✓✓✓				
Venue and facilities	✓✓	✓✓	✓		
Any issues were resolved quickly	✓✓✓	✓✓			
Trainer					
Knowledge of the subject matter	✓✓✓✓✓				
Presentation skill/delivery	✓✓✓✓✓				
Engagement with participants	✓✓✓✓✓				
Content					
Relevant and appropriate	✓✓✓✓	✓			
Well explained and easy to understand	✓✓✓✓✓				
Materials provided for the session	✓✓✓✓✓				

WORKSHOP 6

1. Thanks very much for the very useful training. I've learned many different skills which will help both personally and professionally!
2. Session was much better than I expected. I am glad that I attended. Thank you.
3. Interesting and thought provoking.
4. Enjoyed the day; thank you very much. Parking was an issue.
5. Parking was tricky.
6. No clear parking direction!
7. Very enthusiastic presenter, explaining new information clearly.
8. It is informative information. Well equipped trainer introduced me to lots of useful web sites which makes easy to access resource.
9. Excellent and inspirational. Interested in using assessment tool to open up conversation. Also to assess comfort level of staff with digital proficiency. Would like to explore opportunities further for DGCHS. Thanks.
10. Parking was a real issue. Presentation was really clear, useful but also entertaining. I enjoyed the training.

There were two blank comment boxes.

Administration	Excellent	Good	Fair	Poor	N/A
Received information in timely manner	✓✓✓✓✓✓✓✓✓	✓✓✓			
Venue and facilities	✓✓✓✓✓	✓✓✓✓	✓✓		
Any issues were resolved quickly	✓✓✓✓✓✓✓	✓✓✓✓			
Trainer					
Knowledge of the subject matter	✓✓✓✓✓✓✓✓✓✓✓✓				
Presentation skill/delivery	✓✓✓✓✓✓✓✓✓✓	✓✓			
Engagement with participants	✓✓✓✓✓✓✓✓✓✓✓✓				
Content					
Relevant and appropriate	✓✓✓✓✓✓✓✓✓✓✓	✓			
Well explained and easy to understand	✓✓✓✓✓✓✓✓✓✓✓✓				
Materials provided for the session	✓✓✓✓✓✓✓✓✓✓✓✓				

APPENDIX 14.

REPORT: CONSULTATION WITH HEALTH SERVICE PROVIDERS IN RELATION TO CHRONIC CONDITIONS AND COMMUNICATION WITH CALD COMMUNITIES

1. Background

The purpose of these consultations was to discuss ICT, health and wellbeing communication and CALD communities.

2. Key Issues, Restraints and Potential in ICT and chronic condition self management

Participants discussed the pros and cons of using ICT in supporting chronic condition self management with CALD Communities. Major issues were identified around the 'affordability' of ICT, its limitation 'on the ground' with health service providers and the potential of mobile phones due to their ubiquitous nature and cost in relation to broadband internet. Aged care was highlighted as a significant area to be addressed. Mobile phones were often flagged as an effective use of ICT in health care settings. The basic social determinants of health were discussed in general, as well as the need to note existing chronic condition self management programs, such as peer support education.

Specific points in response to the ICT training and framework were:

(a) ICT is 'perceived' as expensive

(b) There is a lack of quality health information online and a clearinghouse of quality information is desirable

(c) Roles and responsibilities need to be clarified

(d) Use of ICT quite limited on a worker level

(e) Duplication of information or lack of consistency and/or quality can be a problem that is repeated through new and emerging technology

(f) Consideration of a 'typical' client needs to be considered in ICT use – e.g. lower socio-economic, refugee or middle class etc.

(g) Public funded services tend to have lower socio-economic clients – needs to be taken into consideration

(h) Older age groups can miss out on use of ICT

(i) Mobile phone appointment reminder service – excellent initiative

(j) People who are better informed can better prevent ill health – ICT can play a role in this.

(k) Community advocates can be a way of creating awareness around ICT and health and wellbeing initiatives

(l) Peer support groups/education a powerful way of creating awareness around issues. Useful for consideration in relation to how ICT is used and existing chronic condition self management initiatives already in operation.
(m) Electronic Referral program – many workers do not have these skills

(n) Positive approach to aged care in general could be an effective way to work in this area – aged care highlighted as an area of health requiring major attention. Need for 'active service model' also noted.

(o) Service Navigation System – there is room for an ICT project that addresses effective navigation of the wide number and range of service systems. Visual based interface highlighted as a way of addressing this. But also noted as difficult to accomplish due to the size and difficulty of the task.

(p) Basic social determinants of health need to be addressed – by a wide range of organisations – needs to be at least recognised, and then CALD communities 'built up' to address this. Community capacity building – go broad and 'get back to basics'.

(q) Try to use the word 'affordable' in front of technology initiatives to help increase stakeholder perception and investment in projects, and distinguish from specific 'health technology.

3. Priority Chronic Conditions
Participants agreed that the following chronic conditions were priorities in relation to CALD communities (in order):

- Type 2 Diabetes
- Cardiovascular disease (linked to type 2 diabetes)
- Anxiety/depression

The participants confirmed that the key issues, restraints and potential in relation to ICT, chronic condition self management and CALD communities listed in Item 2 were the same when applying to these priority conditions.

4. Other Relevant Discussion
Potential ICT projects involving health and wellbeing with CALD Communities were discussed including the use of mobile phones as a priority, and also a navigation system around the myriad of support services available. Also, limitations around translator software such as Babel were raised, as well as difficulty in implementing eHealth initiatives in relation to the National Broadband Network Initiative. Effective translation software that is cheap and easy to use was perceived as being a long way from being a reality. The potential of GPS on mobile phones was raised as well as more use of SMS and reminder services.

APPENDIX 15.

Using IT Better: Usefulness of the Framework

Key themes identified and discussed:

1. Digital inclusion and proficiency: the need for organisational change

   Digital technology is proliferating at a fast pace in all societies. Technology is taking over every day activities like banking and shopping and job hunting through easily and widely accessible technologies like the mobile phone. Different communities have varying levels of access to technology; not having access further marginalises communities.

   Community service organisations have a level of responsibility for digital inclusion and digital proficiency.

   Digitally proficient organisations have not just access to digital technology tools, but will have a valid reason for including the technology and accessibility to it as matters of policy in their organisational structure.

2. Some ways to be digitally proficient:
   a) Provide access to updated knowledge through relevant technology tools including websites
   b) Have trained staff to ensure support for all staff to access the technologies
   c) Set up networking websites like delicious.com, slide share, techsoup, wikis, mass emailing services, to enable knowledge sharing both within the organisation, within communities and globally.

3. Issues with privacy:

   This is to be negotiated with the organisational management. Sites like wikis can be set up both on the internet (web-based) and intranet (server-based) and security enhanced through restricting levels of access to different groups.

4. Organisation budgeting and digital technology:

   Digital proficiency needs to be part of the budgeting process. Allocation of funds for technology is to be dictated by how the technology will be used in the organisation.

Participants' comments

1. How do we ascertain reliability of websites?

   Ideally, the organisation must have IT department, or staff, with knowledge of the sources of websites – where from and how valid the source is. A professional-looking website, with links to other agencies or departments and with downloadable documents, is likely to be reliable.
2. Using technologies like the wiki could save money for organisations, as they serve the same purpose as developing a SharePoint site with an expense of $20K.)
3. Face book can be put to work-related use in organisations
4. Issues of privacy are big in using face book in sensitive issues like depression and working with children – there is the possibility of negative use through inappropriate

comments. So these will have to be set up with relatively high privacy settings Aboriginal communities use face book to keep in touch, it is a great tool for communicating with the bigger family.

5. It is good provide information to parents about what their children could do on the internet to alleviate unnecessary anxieties

APPENDIX 16.

REPORT

ICT, DIABETES AND CALD COMMUNITIES:
A digital technology demonstration project with members of the Vietnamese community

1. Summary

This demonstration project was conducted in partnership with the Quang Minh Buddhist Temple (QBT) which is a centre for the Vietnamese Buddhist community in Victoria and other Buddhist communities across the state, as well as the office of the United Vietnamese Buddhist Congregation of Victoria. It consisted of two major phases:

- Phase 1: application and testing of the ICEPA Digital Media and Diabetes Framework to the Temple's existing programs and projects, particularly in relation to improved health communication with elderly members of Vietnamese and Chinese communities in Melbourne's west through new and emerging technology.
- Phase 2: increase Temple ICT capacity for health communication with the Vietnamese community through: provision of high quality video production support; and, training and development assistance for elderly members of the Vietnamese community

QBT is situated about twelve kilometres west of Melbourne's CBD, overlooking the Maribyrnong River. It aims to the offer services that reflect the needs of the community, works regularly with Vietnamese and Chinese community members, including the elderly, through its various community programs and projects.

2. Application and testing of framework with QBT (Phase 1)

A series of meetings were held with QBT to workshop and identify key issues, challenges and potential in using the framework to support diabetes self management with members of the Vietnamese community through Temple activities. Feedback indicated that the Temple and its members had high levels of understanding and ICT capacity relating to new and emerging technology such as YouTube, blogs, wikis and other forms of online communication. Therefore, investment in ICT such as a computer, website development and/or training at the Temple was identified as less strategic for the project.

The purchase of a high quality digital video camera, training in its use and integration of content with online social media platforms, was identified as important in boosting the capacity of the temple to support chronic condition self management using digital technology. This supported key strategies from the framework such as: identifying digital proficiency of community organisations; the use of culturally appropriate audio visual resources for health communication; and, the integration of older forms of technology (audio video) with new and emerging technology such as YouTube, video blogs and other social media. The framework was enhanced by learning related to the need for 'high quality' culturally appropriate and affordable health information. The internet is often perceived as a 'sea' of information with varying degrees of quality, while research has found that online information is primarily in English. Community organisations can be positioned strategically to create high quality video content for online environments that is in the preferred language

of community members, engages with relevant cultural and or community values, and is accessible and professional looking to attract a range of key stakeholders and to indicate it's value as 'reputable' health information.

3. Increasing QBT Capacity to Communicate about Diabetes using Digital Technology (Phase 2)

Development of ICT and Diabetes Plan for the Temple
The second phase of this demonstration project was designed and implemented based on learning from framework application and testing, and the ICEPA communication strategy. During this process QBT, in consultation with ICEPA, developed a plan for creating affordable, culturally sensitive 'video vignettes' about diabetes self management for members of the Vietnamese community. The plan outlined the following key training, production and communication steps:

- Short videos to be produced by members of the temple in partnership with ICEPA staff
- High quality video footage was to be filmed using HD Digital Video
- Video footage to include stories about their experience of diabetes from a community perspective, introductory information about the prevention and management of diabetes, 'trusted' sources of diabetes information online and offline, and ways in which technology can be used to support this health and wellbeing issue
- Participants from the community were to be trained in basic filmmaking techniques using a new HD digital camera purchased using funds from ICEPA and the temple (to help to build ICT capacity and sustainability using the ICEPA Digital Media and Diabetes framework)
- The HD digital camera to remain with the temple after the project.
- Production of 'manageable' multimedia resources that still contains reputable health information and a relatively professional standard of video product made achievable through affordable digital technology and the involvement of community leaders and ICEPA staff with experience in video production.

Implementation
QBT consulted community members within the temple and at Australian Vietnamese Women's Association (AVWA) to determine participants who would be interested in participating in the diabetes and digital technology workshops for this project, and preferred nature/scope of such an event. A group of elderly women from the Vietnamese community involved in an existing community development program were flagged as available for participation by a community worker from AVWA. QBT, in consultation with ICEPA, and based on research suggesting that elderly members from CALD communities are at risk of exclusion from health information due to increased reliance on ICT in generating awareness around health and wellbeing issues, decided to work with these community members to increase awareness of diabetes information and digital technology. This was in line with its mission to work with 'hard to reach' groups within the Vietnamese community. The elderly women's group agreed to participate but at a set time that was convenient for them as part of their existing program of activities.

The plan was modified to accommodate for potential low digital proficiency in the group of elderly Vietnamese women, and also a lack of funds to adequately resource a series of digital video training sessions with these community members. Therefore, an 'information session' about diabetes, YouTube and digital video cameras, was selected by the Temple as a more

strategic initiative, a kind of 'first step' to using ICT for diabetes more effectively, and to help address a gap in understanding around this topic. A dietician from the Western Region Health Centre was also invited to attend the session to allow an opportunity for participants to ask questions and interact with a health professional about issues related to food and diabetes. The aim of this work was to provide participants with increased awareness of the importance of diet in relation to diabetes, and introduce participants to the benefits of using digital technology for accessing diabetes information.

The two hour information session was held at Footscray Baptist Church on Wednesday 27th March. Thirty-eight community members participated. The session was led by QBT Community Development Coordinator and performed in Vietnamese. A laptop, data projector, screen, speakers and mobile internet access (dongle) were used to screen videos and access the internet. The program for the session included:

- An introduction to why diabetes and food is important
- A quick scan of health information resources available online
- A focus on how YouTube works
- An introduction to the Temple's new digital camera and how this can be used to create health messages and uploaded to YouTube

A lunch was held after the session during which participants spoke informally to a dietician who offered advice about how food impacts on diabetes. A mixture of foods, including fruit and vegetables, restaurant meals and fast food, were selected to represent the different kinds of food community members are likely to eat on a regular basis. This was based on consultations QBT made with Vietnamese community members. Participants had the opportunity to:

- Ask specific questions about what they eat every day and how this affects their health and wellbeing
- Reflect on ways they can change their diet
- Play with a digital video camera made available at the session to film parts of the lunch
- Use the digital video camera to record their observations about food, diabetes and their lifestyle

The information session was supported by ICEPA and AVWA staff members. ICEPA performed participant observation as well as event support. Permission was obtained by QBT to film and take images of community members at the session. A few elderly women used the mini DV camera available on the day to film interviews with each other about the food they were eating and their experiences with diabetes during the lunch break. This footage is included as part of a short 'video diary' filmed by the HD Digital Video camera purchased as part of the project and edited by the QBT Community Development Coordinator. While not intended as a professional, high quality video product, the idea behind filming the session (with participant permission) was to provide a record of the workshop, and capture interaction of the group with technology in relation to diabetes and food. This would help to design next steps strategically when using digital technology with the group.

Feedback and Evaluation

Thirty-eight women participated in the session. Anecdotal responses indicated it was generally well received and a 'fun' event. Feedback forms were in English but translated by the facilitator as the group completed the questions. Terms used to rate responses were

explained by the facilitator. On the day, some members of the group indicated that using 'numbers' to rate their feedback rather than 'words' could be a more effective support for evaluation. Twenty-seven feedback forms were submitted at the end of the session. The following table summarises responses to feedback questions:

Table 1: Participant feedback for information session

	Not Well	**Average**	**Well**	**Very Well**	**Not Sure**
1. How well did this increase your awareness of diabetes information?		19	6	2	
2 How well did this increase your awareness of the relationship between food and diabetes?	3	7	13	4	
3. How well did this increase your awareness of how to use technology for diabetes information? * (1 form incomplete)	3	6	4	4	9
	Yes	**No**	**Maybe**	**Don't Know**	
4. Would you recommend this session to other people?	21		3	2	

5. What is the best idea you heard in this session that you plan to use?

Five participants responded to this question with the following answers:

"I will be on a diet of less sugar."
"I will plan to use this for other sickness information."
"How to use technology for diabetes information."
"Don't eat or drink food which has many sugar."
"Using technology for diabetes information."

6. Other comments

Three participants wrote comments in English:

"Please organise a course to use technology."
"Good session, useful and fun."

"Overall, thanks for providing such a useful session. Recommend: provide the foods that are suitable for diabetic people only so the participants have more knowledge about the relationship between food and diabetes. The lunch provided in the session was delicious but one that was not suitable for diabetics."

Six comments were written in Vietnamese and/or Chinese and were not translated due to budget and resource limitations.

At the beginning of the session the facilitator asked the group whether they had used YouTube before. Only one member of the group had while the rest of the participants indicated they had not used the online video sharing platform.

Analysis of Feedback

While a relatively high number of participants attended the information session (38), 27 participants submitted feedback forms. Therefore the following analysis does not represent the entire group. However, it does indicate significant patterns of feedback in relation to the use and application of digital technology and diabetes for the session.

1. How well did this increase your awareness of diabetes information?

A large number of participants (19) gave this question an 'average' score. A small number reported 'well' (6) and a few very well (2). This indicates that the majority of the group felt there was an average increase in the level of awareness of diabetes information. A smaller portion of participants responded more favourably.

The DoHA literature review found that prevention education strategies need to be improved, and that patient education or training programs have been found to be effective in enhancing patient skills and confidence in self-management. This feedback suggests that the training session increased awareness of diabetes in a largely average way, but in some instances was very effective. This indicates that the training session was able to improve education around diabetes information, and reinforces this approach as a viable diabetes information strategy, but with scope for further improvement and enhancement.

The DoHa consultations noted that face to face, interactive group sessions are widely acknowledged as most effective in communicating with CALD communities. In such sessions use of ethnic language overcomes linguistic barriers; use of graphics and other visual aids through variety of media cater to different levels of literacy and different cultural patterns of knowledge acquisition; an informal setting and opportunity for interaction helps to overcome culturally ingrained inhibitions. Also, using the services of people from the same racial, cultural and linguistic background – often the widely respected members of the community - is found to be most effective as comprehension will cease to be an issue and establishing relationships of trust will become easier. The feedback from the group suggests that diabetes information awareness was increased and the factors relating to language, use of videos screened in a group session, and facilitation by a respected member of the community from the same racial, cultural and linguistic background, were important parts of the training and significant in achieving this outcome. However, group participant feedback, due to its largely 'average' response rating, suggests that further improvement to this kind of training can be made to enhance awareness of diabetes for participants.

2. How well did this increase your awareness of the relationship between food and diabetes?

Around one third of participants (13) rated the session as performing 'well' in increasing awareness of the relationship between food and diabetes. A small amount reported 'very well' (4). Others (7) gave this question an 'average' rating. These results suggest that the majority of participants felt the session increased the level of awareness of the relationship between diabetes and food in an average, well, and/or very well way. However, a small number (3) felt it did not do this well.

The DoHA literature review found that culturally specific health care models driven by technology may be the most effective option overcoming many of the present barriers in health promotion – models incorporating cultural attitudes to health and nutrition, and concepts of management and prevention lead to better awareness, interaction and responsibility for self-management. Feedback from participants at this training session indicate that the majority of participants increased their level of awareness of the relationship between food and diabetes. The training session, tailored specifically for elderly members of the Vietnamese community, and featuring an opportunity for participants to interact with a dietician, and each other, has been moderately successful in achieving its aim. However the mixture of average, very well and well responses, and small number of negative responses, indicates that the training did help to overcome barriers in health promotion by being culturally sensitive, but again with room for enhancement due to the small number of negative responses, and 'average' scores.

The DoHA consultations noted the lack of knowledge in the communities about diseases and the health services available often hinder access to appropriate treatment and care options. The report also found that improvements can be made through compulsory cultural awareness training for health and other service providers, and that the current medical system is inadequate to meet the health needs of the migrant and refugee communities coming from different cultures and speaking different languages. The feedback suggests that the majority of participants improved awareness of diabetes in relation to food through a training session that addressed a lack of knowledge in elderly members of the Vietnamese community and delivering training in a culturally sensitive ways including preferred language – a gap that often exists in health care service provision for refugee and migrant communities. However, this needs to be further refined and enhanced in order to create higher quality awareness of this diabetes information for a bigger range of participants during the session.

3. How well did this increase your awareness of how to use technology for diabetes information? * (1 form incomplete)

A small number of participants rated the increase of awareness of how to use technology for diabetes as 'well' (4) and 'very well' (4). Another (6) reported an average increase. This means that just under ¼ of total participants responded average, well and/or very well to this question. However, a small number (3) people noted 'not well'. A further (9) were unsure. This indicates a mixed range of responses – while a number of participants benefited from the technology aspect of the session, a significant amount were unsure, and very small number responded less positively.

The DoHA literature review suggests that technology makes possible the close partnership required between providers, the community and the patient for effective models of long term care. Internet and ICTs have the potential to be a powerful everyday link between the patient and others in the network – through web portals, networking sites, telecare, customized care, electronic monitoring and integrated medical practice. Technological innovation from an organisational perspective will also be effective in improving health service provision with CALD Communities.

This session built on these findings and brought a relatively large number of elderly Vietnamese participants in contact with a community facilitator, a dietician and a university based researcher. Using YouTube, including English based diabetes videos, and Vietnamese video content, and also the Quang Minh Buddhist Temple website, the training session demonstrated how visual based information could be sourced online and played in a communal setting to raise awareness around food and diabetes, and to encourage participants to seek out information using technology, and be proactive about obtaining health information. Importantly, the training session was 'multi-modal' in the sense that used a data projector, screen, laptop and mobile internet connection – a key aspect of the framework, and also finding from the DoHA consultations relating to older and preferred methods of communication, and the use of visual aids. DoHA consultations also found that acquiring information through various communication technologies is often preferred by the younger and middle aged people while the elderly prefer traditional methods like radio and ethnic newspapers. Disadvantage to the elderly caused by this preference can be overcome by utilising their preferred media to disseminate health information and through engaging the services of the younger generation in the community to educate and inform the older generation.

The training 'integrated' newer forms of technology (internet, Youtube) with older forms of technology (audio, video, screen projection) to engage participants. It also aimed to be a 'fun' event, featuring a mixture of food, a chance to play with technology, and interact in person with a health professional. Research has found that a 'specialist' is regularly perceived by elderly members of CALD communities to be a trusted source of information, and having a dietician at the ICT workshop was a key approach to building awareness to the potential of online health information. Many participants had not accessed YouTube or considered interacting with health information in this way. Talking to participants in Vietnamese, and using a community based, was also flagged as essential to boosting ICT capacity with this group, and was utilized during the session.

The mixed nature of responses to training for this question is important in relation to how effective the session was to raise awareness of using technology for diabetes. This suggests technology can be effective with members of this community, and the session improved capacity of the group to a limited degree, however significant confusion persists and must be addressed in future training sessions. As identified by the DoHA consultations, there is a preference for older ICT by older members of CALD communities. Additionally, the literature review supports a proactive approach to health and wellbeing information which includes interacting productively with the providers, the community and others in the network. Affordability and quality of access and frequency to digital technology, in this case broadband internet and YouTube, is another factor that may have resulted in the mixed responses, and suggests a low digital proficiency for the group. With regards to health information online, patients must evolve in self efficacy through health literacy, and patient empowerment to effectively participate in the decision making is vital. Peer-led self

empowerment training programs help to mitigate cultural barriers. Addressing and implementing these factors in a more dedicated way, such as by involving leaders from the group and not just the overall community in the design, implementation and evaluation of the training, may improve future ICT workshops with this community group.

The supporting mechanisms such as face-to-face contact, language and an interactive group session involving a respect member of the community from the same racial, cultural and linguistic background were used to increase awareness and engagement with technology from this group. The technology was also made affordable through mobile internet access (provided by the university) and projected onto a communal screen at a face-to-face event. However, the feedback indicates a mixed response to the effectiveness of technology, and suggests closer attention to specific parts of the training relating to digital proficiency, ICT preference and integrated, peer-led self empowerment will help to facilitate better engagement with technology for diabetes information with members of this CALD community group.

4. Would you recommend this session to other people?

A large number of people (21) reported they would recommend the session to others. A small number (3) noted 'maybe' while another didn't know (2).

A significant number of participants indicated they would recommend this session to others. This is an important and positive outcome in relation to ICT supported health information, which signals the usefulness of the training session, and reinforces the potential of peer led techniques with CALD communities on diabetes and technology. Additionally, it contrasts with the mixed responses from the previous question, and reinforces the generally positive feedback from the first two questions. Overall, feedback to alll questions indicates that a holistic approach to using ICT – communal, culturally and linguistically appropriate, in the preferred language, and with affordable and preferred digital technology – can increase engagement by members of this group for improved awareness and engagement with digital technology for diabetes information.

Summary of Feedback

Generally, the information session achieved its goal of raising awareness of ways to use and access diabetes information using digital technology. However, feedback from participants indicated areas for enhancement and improvement when conducting training, including more focused and targeted engagement with peer-led techniques, the digital proficiency of participants, and ICT preferences based on age and cultural background. These suggestions for improvement must be taken in context as the session was generally successful and many participants indicated informally and via feedback forms that the session was 'fun' and engaging. Key themes arising from this analysis of the feedback include:

- The training session was able to improve education around diabetes information, and reinforces this approach as a viable diabetes information strategy, but with scope for further improvement and enhancement.
- Feedback from participants at this training session indicate that the majority of participants increased their level of awareness of the relationship between food and diabetes.

- Digital technology for diabetes information can be effective with members of this community, and the session improved capacity of the group to a limited degree, however significant confusion persists and must be addressed in future training sessions.
- Importantly, the training session was 'multi-modal' in the sense that used a data projector, screen, laptop and mobile internet connection – a key aspect of the framework, and also finding from the DoHA consultations relating to older and preferred methods of communication, and the use of visual aids.
- The supporting mechanisms such as face-to-face contact, language and an interactive group session involving a respect member of the community from the same racial, cultural and linguistic background were used to increase awareness and engagement with technology from this group.
- Peer led techniques with CALD communities on diabetes and technology offer signicant potential.
- A holistic approach to using ICT – communal, culturally and linguistically appropriate, in the preferred language, and with affordable and preferred digital technology – can increase engagement by members of this group for improved awareness and engagement with digital technology for diabetes information.

4. Conclusion - Demonstration Project Outcomes, Outputs and Learning

The aim of this demonstration project was to complement, build on and integrate activity and materials with a suite of DoHA project activities. The overall goal of these activities was to pilot, demonstrate and evaluate a model of innovative ICT practice for the flexible, multimodal delivery of CDSM communication with the diverse range of people from the selected communities in the Western suburbs of Melbourne. To achieve these aims the project worked closely with QBT and members of the Vietnamese community and completed two key phases of activity:

- Phase 1: application and testing of the ICEPA Digital Media and Diabetes Framework to the Temple's existing programs and projects, particularly in relation to improved health communication with elderly members of Vietnamese and Chinese communities in Melbourne's west through new and emerging technology.
- Phase 2: increase Temple ICT capacity for health communication with the Vietnamese community through: provision of high quality video production support; and, training and development assistance for elderly members of the Vietnamese community

Phase 1 featured a series of meetings held with QBT to workshop and identify key issues, challenges and potential in using the framework to support diabetes self management with members of the Vietnamese community through Temple activities. The framework was enhanced by learning related to the need for 'high quality' culturally appropriate and affordable health information, and that community organisations can be positioned strategically to create high quality video content for online environments. The framework was used to build a plan for creating an ICT supported diabetes information session with elderly members of the Vietnamese community. Additionally, the framework was used to identify strategic ways of boosting QBT ICT capacity for health communication. This resulted in the purchase of a high quality HD digital video camera, training in its use and integration of Vietnamese video content with online social media platforms.

Phase 2 resulted in the implementation of the plan developed during Phase 1 of the project. The information session for diabetes, food and ICT was held in Vietnamese with thirty seven participants, demonstrated ways of using YouTube to access diabetes information, provided an opportunity to speak with an accredited dietician, and provided a friendly and 'fun' atmosphere to talk about issues related to diabetes. While the feedback demonstrates participant interest in using ICT for diabetes information, and the large size of the group demonstrates a clear willingness to learn more about new and emerging technology such as YouTube, digital video and the internet, challenges remain in this approach to effectively use ICT for communicating on diabetes. Feedback from participants indicated more focused and targeted engagement with peer-led techniques, the digital proficiency of participants and ICT preferences based on age and cultural background could help to address issues of confusion or lack of engagement with technology by participants. The session was generally successful, however, with responses that clearly show an increase in awareness of information relating to diabetes and technology. A video diary was created which recorded events during the session, including the ways in which some members interacted with digital video technology, and the overall size and makeup of the group. This video was uploaded and viewed as part of training for health service providers and community organisation members.

Key outputs from this work include:

- QBT plan for small scale ICT and diabetes project that complements existing temple activities (based on application and testing of framework and communication strategy)
- Event support documents for running of an 'ICT and Diabetes Information Session for Elderly Members of the Vietnamese Community' (Project Brief, Facilitator Notes, Invitation to community groups)
- A two minute digital 'video diary' in Vietnamese, featuring content filmed by elderly women from the group, and footage filmed by the facilitator and ICEPA worker to capture key moments during the day. The film was edited and given narrative shape by the facilitator, however it is only intended for viewing by project members and key stakeholders in the DoHA project and not for public dissemination due to the 'low-fi' quality of the video.
- DVD and MP4 versions of the video diary created for playback on affordable ICT such as television and DVD players, and also for distribution online through social media platforms such as
- MP4 version of video diary uploaded to Coactivate Wiki as part of training and development work with HSPs and community organisations.
- Short report with key issues, challenges and opportunities for running an information session supported by ICT for diabetes with CALD C'ties.

This project successfully tested and applied the framework to the activities of a community organisation working with the Vietnamese community in Melbourne's west. Key learning relating to digital proficiency and organisational capacity enhanced the framework. It led to the development and implementation of a practical, ICT and diabetes information project with elderly members of the Vietnamese community. The information session, while innovative in approach and increasing awareness of the ways in which digital technology can be used for diabetes information with the Vietnamese community, revealed continuing challenges in using technology to support chronic condition self management. These challenges indicate the need for projects that adopt a holistic and culturally sensitive approach to the use and application of ICT with the elderly members of the Vietnamese community in Melbourne's west.

APPENDIX 17.

Project Evaluation Report

Promoting
Chronic Disease Self-Management by Culturally and Linguistically Diverse (CALD) Communities using ICT

Introduction

> This project aimed to expand the reach of quality chronic disease self-management (CDSM) interventions and supports using information and communication technologies (ICT) with culturally and linguistically diverse (CALD) communities in the western suburbs of Melbourne.

The evaluation of *Promoting Chronic Disease Self-Management by Culturally and Linguistically Diverse (CALD) Communities using ICT* will consider how effectively the project has achieved its vision presented in the above statement. It will do this by evaluating the three key outcomes, which are:

- The development of a Digital CDSM Framework
- The development of resources and delivery of training related to the Framework
- The development and delivery of a pilot based on the Framework

These three outcomes will be evaluated in terms of what was learnt from their development, implementation and by what was regarded as the most relevant achievements of all three outcomes.

The project covers three specific domain areas, which all come with their own theories, policies and social and political agendas and through synthesising provide benefits and improved capacity for the self management of chronic disease. Those three domains are:

Digital Technology	Focussed on the use of computers, web-based tools and digital tools that are easily accessible within the context of community health and well being.
Chronic Disease Self Management	Focussing on diabetes primarily, but also exploring the breadth of chronic disease and conditions.
CALD Communities	Focussing on culturally appropriate and relevant practice when aware of the differences within and between CALD communities.

This evaluation will discuss the challenges in balancing the development and implementation of the three outcomes across these domains. It will look at what domains were more significant in terms of the project outcomes and how that impacts on the recommendations and conclusions. The final recommendations and conclusions will provide concepts and seed ideas for how the project can be expanded based on the findings of the project evaluation.

The Digital CDSM Framework

Overview

The development of the Digital CDSM Framework involved three steps.

1. Literature Review
2. Stakeholder Consultation
3. Development of Digital Framework

The Literature Review and Stakeholder Consultation informed the development of the Digital CDSM Framework.

The Literature Review helped to develop core themes that indicated greater levels of success with both managing chronic disease and working with CALD communities. These were:

- Empowerment - It is important for the individual to feel empowered and capable
- Support – It is important to have a team of people supporting self-managing chronic disease patients in culturally appropriate ways
- Relationships – Good CDSM and improved CALD engagement come from building trusting and strong relationships between frontline health professionals and clients/patients.

The consultation with key stakeholders identified clearly the challenges of health providers delivering services to CALD individuals and communities. The inadequacy of the system highlights how difficult it can be for culturally and linguistically diverse communities to manage chronic conditions and disease. Issues include:

- Language and translation
- Cultural awareness
- Challenges of communication through different technologies

These issues from the first two steps were taken into consideration while developing the models of engagement and content presented in the final Digital CDSM Framework.

> *Has really started me thinking about different ways of communicating with CALD communities.*
> *– Participant Feedback*

The value of the framework

Empowerment of CALD communities

The final Digital CDSM Framework demonstrates how the use of digital tools and ICT, when considered and included in planning, can actually empower of CALD clients, giving a greater quality and level of support and creating more time for building provider-patient relationships.

The framework presents a model that provides workers with a balanced methodology for bringing together culturally appropriate practice, chronic disease issues and an understanding of a client's level of ICT capacity to provide better self management strategies.

Correct approach with frontline staff

The framework, especially as it evolved into the training program, was able to address any unrealistic expectations about the capacity of technology to provide solutions to the problems

identified in during the consultation with key stakeholders. The framework and training promoted and taught the importance of understanding a CALD individual or community's *digital proficiency*. Digital proficiency is the capacity someone has to not just use, but access technology for any purpose. The assessment tools created and included in the framework and training provide good direction to health workers about what might be the best technology to use – if to use any at all.

Key learnings from the development of the framework

The framework demonstrates that:

- Digital video and audio tools, when used by clients, can empower them and improve their approach to the self management of their condition while providing information and cultural awareness to the health worker which supports the building of relationships.
- The different formats of digital tools allow for resources to be shared in ways that best suit the different requirements of the support group or CALD community. For example, digital video can be screened at a health night that is translated for a particular community, presented as a DVD with subtitles or uploaded to YouTube for access by those with broadband connections.
- Digital tools and frameworks can supplement, but are not a replacement for improved cultural awareness and culturally appropriate practice.

Overall, the framework provides more details regarding the use of digital tools and the importance of using them to operate in culturally appropriate ways, rather than providing detailed information about diabetes and other chronic disease. This cannot be seen as a negative, as it is these two domains where the literature review and stakeholder consultation identified greater gaps in skills and knowledge.

How to distribute and use the framework

The framework is a valuable tool in giving health professionals who work with CALD communities new ideas and methods of engagement to improve the health and well being of CALD communities and support the self management of chronic disease.

It should be distributed to frontline health professionals, whom the content is targeted at, to support their practice and integration of ICT into working with CALD clients with chronic disease.

This could be achieved by:

- Distribution through health networks (via email) or linked to a website (networks like Victoria's Primary Care Partnerships).
- Establishment of a public wiki to deal with these issues, with the framework and the findings from it the core content.
- Present the framework and findings at conferences or meetings of health workers and community health sector organisations.

> *Makes sense for health to continue to stay abreast; needs to stay in touch/updated with technology. Health needs more streamlining of services/information. Need to ensure access to appropriate legitimate health information sites.*
> *--Participant feedback*

Overview

After the development of the framework, further work was undertaken to develop a training program that would provide community health and CALD community workers with the skills and knowledge to use the framework in their organisations and as part of their daily work.

Resources were developed in both traditional and digital format. These were provided to participants in both formats so that some of the tools could be used back in their workplace and manipulated as they felt was required to meet their needs.

Resources developed in word, as PDFs and hardcopy formats included:

- Using IT Better Training Manual
- Information Sheets
- Template – Assessment of ICT Capacity
- Innovative practice – project pilot brief
- Training Program and Evaluation

Further to this, a wiki for the training was developed, with the title "Using IT Better" to provide all the above resources, and further videos, links and online information to training participants. The wiki was also a way to teach participants concepts around the use of wikis and web 2.0 tools and concepts.

The training program was aimed at developing the skills and knowledge across health and CALD community organisations in Melbourne's west to contribute to making the framework and the ideas within it part of sustainable practice in the region.

The value of the training and resources

Meeting professional development needs

The feedback and training evaluation forms (see Final Report, Appendix 13) indicates that the content of the training sessions, the resources provided and the skills and knowledge gained were of significant value to the participants and met a training need that is not currently filled in the sector.

The introduction of tools that could be accessed digitally and manipulated for use by an individual or organisation was regarded by participants as highly valuable. And, the fact these were made available on the wiki supported participants to engage with web 2.0 tools and some of the concepts they had learnt after attending the training.

Improving practical skills and capacity

Overall, the training provided a large number of frontline health workers in Melbourne's west to develop an understanding of how to use digital technology to support CALD clients to better manage their chronic disease. The training delivery style was important. The technology and ideas were presented in a manner that didn't not overwhelming participants, but gave them permission to introduce their new knowledge and ideas slowly and in a way

that would achieve change and bring their organisations, colleagues and clients along with them.

Improved understanding of the system

The training sessions allowed for a lot of discussion of scenarios and possible challenges with using digital technology with both CALD communities, but also within the confines of organisational structures and systems. This allowed for the project to identify areas where there would be resistance or challenges for workers who had completed the training. These areas, gathered through discussions during the training sessions included:

- Budget and financing of new digital tools and initiatives
- Lack of support for organisational IT Departments
- Poor ICT Planning
- Restricted access to technology and the internet
- Many web 2.0 websites banned.
- Policies and procedures limiting the capacity to engage with CALD clients in empowering ways.

Key learnings from the resource development and training

The training sessions identified that:

- Participants respond to information and strategies that are realistic and understand their situation. They responded and received great value out of the strategies as these were not complex and dealt with tools they and their clients had access to – like mobile phones. This is also due to the fact the greater levels of funding or permission required to introduce a new program or idea is less likely to succeed due to systemic restraints.
- The delivery of resources that can be used in a "creative commons" or "open source" manner is valued by participants. It increases the likelihood they will use the tools in their workplace and creates less of a barrier to implementing the skills and knowledge they have developed.
- When delivering this training to frontline health and CALD professionals, a concurrent session should be run with management and IT professionals to help address procedural or systemic issues that impact on frontline workers capacity to introduce digital technology into their practice.

How to adapt the training to other areas

The training itself is general enough to be adaptable across geographic locations. It may even be adaptable across sectors, by changing the "health issue" or "chronic disease" with "education issue" or "business issue" you could achieve similar results in supporting people to use technology to build cultural awareness and operate in more culturally appropriate ways.

In delivering these resources and training in other locations, the key would be to deliver it to both frontline workers and an adapted version to management. Already, the project has developed some preliminary handouts and a framework for how to deliver the training to coordinators and managers. This could be built upon and a framework for "Digitally Proficient Community Health Organisations" be developed as a way of supporting engrained change to the sector in relation to how it uses technology to support digital inclusion and improve the health and well-being of marginalised communities.

Pilot Project

Overview

The pilot, a demonstration project, was conducted in partnership with the Quang Minh Buddhist Temple (QBT) which is a centre for the Vietnamese Buddhist community in Victoria and other Buddhist communities across the state, as well as the office of the United Vietnamese Buddhist Congregation of Victoria. The objectives of the pilot were to test the developed framework and simultaneously increase the QBT's digital capacity and ability to capture and upload video to better communicate and inform its community.

The project produced a range of excellent resources including

- ICT and Diabetes Plan for the community
- Short videos and educational videos
- Documented communication resources and processes

A session was also run in conjunction with QBT and Australian Vietnamese Women's Association (AVWA) to educate older and elderly Vietnamese women about diabetes, digital technology, YouTube and give them a chance to use digital technology.

The value of the pilot

Capturing the process

The pilot has its own report, but from the perspective of this evaluation the most significant benefit of this project has been the learning and knowledge that has gathered by practically applying the framework and the resources that have been developed out of this process.

One "unofficial" resource is a short video of the training day itself, to show how it ran and demonstrate the engagement that the elderly Vietnamese participants had with the technology. The participants ended up getting video cameras during breaks and doing video interviews of each other, such was the enthusiasm and interest.

Providing information to the sector

The pilot was also able to demonstrate that there is a definite interest in technology and health related matters: "the feedback demonstrates participant interest in using ICT for diabetes information, and the large size of the group demonstrates a clear willingness to learn more about new and emerging technology such as YouTube, digital video and the internet, challenges remain in this approach to effectively use ICT for communicating on diabetes."

Key learnings from the pilot

The key learnings from the pilot showed that:

- Feedback identified that larger groups are not necessarily the best for conveying a lot of more detailed information. The large groups are good for setting a scene of generating interest, but to consolidate learning about self management and chronic disease with digital technology follow up sessions with smaller groups or one-on-one coaching would be preferable.
- The value of video footage and other recourse that demonstrate a "project in action". The pilot actually produced a two minute digital 'video diary' in Vietnamese, featuring content filmed by elderly women from the group, and footage filmed by the facilitator and ICEPA staff to capture key moments during the day. The film was edited and given narrative shape by the facilitator, however, it is only intended for

viewing by project members and key stakeholders in the DoHA project and not for public dissemination due to the 'low-fi' quality of the video.

- Video and audio are effective ways of engaging people in discussions about health and self management. And, have the added benefit of supporting the development of skills and knowledge related to technology which supports digital inclusion. Further use of video and audio to support engagement with CALD communities about health related issues is important to facilitate.

How to adapt the pilot to other areas

Rather than adapting this one pilot, the materials that have been developed for the project and which describe the process are the most useful tools for other interested in establishing projects where digital technology is used as a way of supporting health promotion and communication projects with CALD communities.

This project indicates how it can be done relatively cheaply and without the need for large investment.

The best way to adapt the pilot would be to have professional development sessions and the sharing of skills and knowledge from those who were the key stakeholders in the project. Identifying other similar projects, and running a small conference about it may be another way to further share the learnings of the framework and other projects like this pilot.

Further Benefits

> *Mind expanding information that I hope to put into practise in my work as health promotion worker. I see relevance in empowering individuals and giving a voice to a marginalized community, by way of participation, recognition and documentation.*
>
> - *Feedback from participant*

Beyond delivering on the outcomes identified in the project plan, there were further benefits linked to key policy areas being driven by Federal and State government. This section of the evaluation stresses that while the outcomes were specific the Framework contributes to much broader social outcomes.

Digital Inclusion & Social Inclusion

The current interest in social inclusion is demonstrated by the development of a Social Inclusion Ministerial portfolio and initiatives at both a federal and state level to develop a more inclusive society and social systems. This is exampled by the interest and investment in social entrepreneurial activity, the development of a National Compact and the development of a social inclusion agenda including principles and priority areas at a federal level.

The Federal government outlines their social inclusion policy as:

> "The Australian Government's vision of a socially inclusive society is one in which all Australians feel valued and have the opportunity to participate fully in the life of our society. Achieving this vision means that all Australians will have the resources, opportunities and capability to:

- Learn, by participating in education and training
- Work, by participating in employment or voluntary work, including family and carer responsibilities
- Engage, by connecting with people, using local services and participating in local civic, cultural and recreational activities and
- Have a voice, in influencing decisions that affect them."

(www.socialinclusion.gov.au)

Digital inclusion fits strongly within the social inclusion agenda. Indeed, bridging the digital divide and connecting individuals and communities with technology will help to address the four key points outlined in government policy in the above quote.

As a key report that has helped drive digital inclusion initiatives in the UK states:

> "Connecting people to ICT skills can connect them to new or better jobs, to new forms of communication and social interaction, to community infrastructures and government services, to information to help with homework, to consumer power and convenience. Digital inequality matters because those without the right combination of access, skill, motivation or knowledge to make digital decisions are missing out in all areas of life. And that doesn't just impact on individual lives but on families, communities, on political processes, democracy, public services and the economic and social health of the nation as a whole."
>
> - *Understanding Digital Inclusion*, A Research Summary, Fresh Minds

The *Promoting Chronic Disease Self-Management by Culturally and Linguistically Diverse (CALD) Communities using ICT* project offers an excellent example of how digital inclusion is the responsibility of any organisation, agency or individual whose aim is to support the health and well being of marginalised communities. By upskilling frontline health workers in how to use digital technology and more importantly how to transfer their knowledge and skills to CALD clients and patients with chronic disease they are not simply improving the management of the chronic disease, but potentially exposing individuals and in turn communities to new technologies, new sources of information and a capacity to engage further with a society that is increasingly digital.

This is a health promotion exercise in itself, as it can support individuals to develop skills that may lead to employment opportunities, connection with family overseas or information that helps them deal with a housing or financial issue. It is difficult to quantify the impact this has on people's mental health and general wellbeing, but clearly for some people, some of the time it will play a role and that is a positive outcome.

The significance of projects such as this one is in the role these play in further developing and promoting digital inclusion which facilities improved social inclusion by bridging the digital divide.

Social Determinants of Health

"In this sense a digital divide is marked not by physical access to computers and connectivity, but also by access to the additional resources that allow people to use technology well."

Technology and social inclusion: rethinking the digital divide by Warschauer, M.

By acknowledging the role of the project in supporting digital inclusion, the next step is to look at how improving access to technology and an understanding of digital tools actually supports people to improve their health and wellbeing. In this way, the *Promoting Chronic Disease Self-Management by Culturally and Linguistically Diverse (CALD) Communities using ICT* project serves as an example as to how access to technology, as one social determinant, can improve health and wellbeing outcomes.

Of course, the project has no quantitative data to demonstrate this. But, anecdotally and in terms of the interest from the community health sector in the role of technology as a preventative tool through health promotion and health awareness it is worth further consideration and investment given the growing interest and links between equality, social inclusion and improved health outcomes as is demonstrated in Richard Wilkinson and Kate Pickett's well received book, *The Spirit Level: why greater equality makes societies stronger.*

In the UK, Vodaphone have partnered with a range of community organisations to try and improve health outcomes through technology. There was an acknowledgement that one of the social determinants of health was access to technology that allowed people to manage their appointments and health related activities. Vodaphone support the implementation of phone related reminders, health appointments and information access. As an Article 13 report on digital inclusion and health indicates:

> "ICT has also been employed to improve the health of the community more broadly. SMS reminders for young diabetes sufferers have helped them manage the disease more effectively. Similarly patient reminders have led to a 30-50% decline in missed hospital and doctors' appointments. Teenagers (especially girls) prefer to use their mobile phones to seek advice on health issues for privacy and confidentiality reasons."

This project has further consolidated the value of this simple use of technology to improve health and wellbeing through the social determinant of technology. The promotion of the value of open source and free software to community health providers and organisations as part of the training is an approach directly promoted by Wilkinson and Pickett in *The Spirit Level*. They say:

> "So, low are marginal costs of digital products that there is a growing 'free' sector…the internet has already provided access to almost unlimited information, not only books, encyclopaedias, dictionaries, newspapers but increasingly to online journals…Phone calls can cost only a fraction of what they used to." (p.258)

They go on to argue that government has a responsibility to make sure society has access to the quality free products, and this requires them providing organisations and individuals with the skills and knowledge to be aware of the value of open source and 'free' digital services. As Wilkinson and Pickett explain:

> "In this situation it is important that governments use their powers to aid the development of new institutional structures, not to prop up and defend the restrictions of old ones." (p.258-9)

This was also highlighted during the training session discussions of the project, where participants presented case studies that included questions about how to deal with the systemic or institutionalised procedures that would make the implementation of simple digital solutions to improve clients and patients wellbeing difficult.

There is scope from this project to invest in further programs and research that build on the training undertaken by health and CALD providers in the west and look at how to further build into practice the use of digital technology, to support chronic disease management, but

also to promote digital inclusion and assess its impacts on the health and wellbeing of communities more broadly as it relates to other social determinants like increased access to information and education, improved likelihood of employment and engagement and connection with community and social services.

Key Recommendations

This project identified that there is a definite need to provide frontline health workers with the skills and knowledge to use basic digital tools to improve CDSM. However, there are key organisational issues to address in terms of procedures and attitudes within organisations if frontline health workers are going to use technology to support and empower CALD communities manage health and well being related to chronic disease.

Below are four recommendations to further explore the issues identified in this evaluation.

1. **Adapt and expand the framework to other communities and marginalised groups**

   The framework could be adapted or expanded on to build into it further research that deals with localised CALD communities or with other marginalised groups that are not necessarily CALD communities. For example:

Community	Adaptation
Rural and Regional CALD communities	Include content on the specific issues faced in regional communities related to ICT access and associated geographic issues.
Low literacy communities	Remove CALD related material and include background and data on low levels of literacy and expand the sections on audio and video engagement.
CALD community specific	Use existing content, but incorporate for working with a specific CALD community and include case studies and specific information to build cultural awareness
Chronic Disease specific	Use existing content, but use language, case studies and further information on a specific chronic disease or condition.

2. **Delivering the framework and training through national and state health networks (i.e. in Victoria through Primary Care Partnerships)**

   The project has produced a series of excellent resources.

   Further investment to support the distribution of those resources would be valuable. This could include investment in further training for health and CALD workers. This could be achieved by linking the project with existing health networks. All health networks in Australia will have an interest in programs and projects that deal with chronic disease. In Victoria, the State funded Primary Care Partnerships would be the best avenue in other states similar networks could be approached.

   The networks may be interested in building in a train-the-trainer model, so that health professionals can share the knowledge in that manner, while accessing the resources online.

3. Build organisational capacity to support digital initiatives through creating "Digitally Proficient Organisations"

This evaluation has identified that health workers were inspired and engaged with the framework and the potential of implementing new ideas based on digital technology. But, had concerns about their capacity to do that within their organisations who did not have the systems, procedures or knowledge to see the value of using digital technology in this way.

If the sector is going to embrace the capacity of technology, as a frontline tool for workers, not just as large databases and tracking tools then there needs to be research and investment in creating health organisations that are dynamic, innovative and recognise the value of emerging technologies to practice in very practical ways.

The government could strategically invest in a project that looks at the learnings from this project and others to establish a series of attributes, assessment models and benchmarking tools for what makes a "Digitally Proficient Health Organisation". The education sector is in the process of doing this with schools as part of their "Digital Strategy for Teachers". A similar project could be undertaken for community health. The assessment tools and concepts outlined in the training materials and framework could form the basis of the project brief.

4. Expand understanding through Action Learning and Research Projects

The importance of learning further from the framework and continue the work of exploring using digital technology at the frontline in new and innovative ways means that project which use the framework as a model should have investment in Action Learning or Research projects which allow for the gathering of more content that can support better application of digital technology to health practice with CALD communities.

This would allow for the development of qualitative and quantitative answers to questions like:

- Which technology is best to use in which situation?
- How effective is video as a tool with older members of CALD communities?
- What are the most effective techniques for supporting people to use their mobile phone is self management of their condition
- What is the cost benefit of investing in five pocket video recorders for an organisation?

There is the capacity for these projects to be financially supported by technology companies like Microsoft, Vodaphone or others who have a history of supporting education and other similar projects with software or hardware. This would allow for government to run projects using the Demos think tank model of government, research and corporate partner.

Conclusion

Improved self management of chronic disease in CALD communities is an issue that needs to be addressed in many different ways if the diversity audiences who are effected by chronic disease are to be effectively communicated to.

This project has identified a willingness from frontline workers to develop the skills and a desire from CALD communities and CALD community workers to be engaged, but it has not seen the health sector organisations engage in the same way. This is likely due the factors that pervade the sector regarding overworked and tired systems, overworked and tired employees and management and the issue of facing change with a positive and optimistic view.

For this work to be valued in an ongoing capacity, investment does not just need to take place in providing workers with the skills and CALD communities with the opportunities to better self manage chronic disease through ICT. It also requires organisations to develop the right attributes and capacity to support their workforce and in turn the communities they work with to engage with technology in new and innovative ways.

This is important for reasons outlined in the sections on digital inclusion and social determinants of health. If organisations do not begin to work more closely with the ubiquitous technology, and invest in technology training related to mobile phones and web-based applications they will be left behind. There is a lot of work being undertaken in e-Health, but not enough attention in the areas explored in this project; the areas relating to frontline users and the ubiquitous technology of mobile phones and simple desktop computer applications

Below is a first cut of what attributes might be needed by a community health organisation if it was to embrace the technology framework offered by this project.

The health sector could consider investing in a program that linked these types of attributes to ICT Planning that helps inform strategic planning.

It is through this type of activity that those who have the framework and completed the training will be able to return to their organisations with the confidence that they can implement their new ideas and programs to support the health and well being of CALD communities.

Attributes of a Digitally Proficient Community Health Organisation

Attribute	Evidence of proficiency
1. Invest in Ideas and New Thinking	• Support staff to undertake effective and efficient web-based research. • Encourage the use of technology to make contact and share ideas and knowledge with all stakeholders. • Incorporate technological learning into employee training and development plans. • Supporting the development and opportunities for clients to use and learn about digital technology.
2. Invest in Business Systems	• Invest intelligently into technological or web-based business systems that align and support organisational outcomes (not for the sake of a new system). • Develop quality systems using collaborative options to build staff engagement in continuous improvement

	• Develop systems to support client engagement through digital technology to facilitate improved face-to-face communications.
3. Committed to Continuous Improvement	• Use ICT to effectively capture and analyse data in a simple and engaging way. • Use digital technology to continue to value-add to the organisations operating capacity. • Invest in ICT systems that improve citizen engagement. This means easy-to-use interfaces and systems that empower client voices.
4. Open & Engaged Knowledge Systems	• Use web-based collaborative tools to allow a horizontal approach to organisational knowledge • Operate effective online knowledge banks and internal document and client relationship management systems. • Empower clients through providing spaces for online engagement over issues like service provision, organisational direction and feedback loops.
5. Flexible Workplace	• Offer staff capacity for online access from home or through mobile technology through provision of smart phones and USB modems. • Operate web-based communications and document management systems • Use ICT to improve responsiveness to clients and off-site operations and staff.

APPENDIX 18.
ACRONYMS

The following acronyms were used in the report.

DoHA: Department of Health and Ageing

CDSM: Chronic Disease Self Management

CALD: Culturally and Linguistically Diverse

ICEPA: Institute for Community, Ethnicity and Policy Alternatives

IT: Information Technology

QBT: Quang Minh Buddhist Temple

CCSM – Chronic Condition Self-Management

ICT – Information and Communication Technology

PHC – Primary Health Care

H&CS – Health & Community Sector

6 CERTIFICATION

I certify that:

- This report is an accurate representation of the progress to date of the funded project; and
- Relevant approvals and requirements have been maintained in accordance with the funding agreement

Report prepared by: Signature: Date:	……Dr. Gurjeet Gill……. ……. ……20/05/2010…….
Name of witness: Signature: Date:	……Dr. Ben O'Mara……. ……. ……20/05/2010…….