SENDING THE RIGHT MESSAGE:

ICT ACCESS AND USE FOR COMMUNICATING MESSAGES OF HEALTH AND WELLBEING TO CALD COMMUNITIES

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

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EXECUTIVE SUMMARY

Project Summary

'ICT Access and Use for Communicating on Health and Community Wellbeing in Culturally and Linguistically Diverse (CALD) Communities' was a one year project funded by the Victorian Health Promotion Foundation (VicHealth), and also supported by Victoria University. It sought to understand the challenges and opportunities that groups from diverse cultural and linguistic backgrounds, such as refugee and migrant communities, face in utilising information technologies in relation to messages of health and wellbeing. The project researched community patterns and preferences in the use of information and communication technologies (ICT) for health and wellbeing in order to develop strategies to build more effective ways of using ICT for communication by health service providers with these communities. An overarching aim of the project was to provide a basis for reducing health inequities within CALD communities that arise because of barriers that these communities experience in accessing health promotion materials that are culturally and linguistically accessible and appropriate.

This report presents the research findings from the project, and includes:
- a literature review
- outcomes from interviews and focus groups conducted across three communities and with a range of health service providers
- policy and practice options for effective strategies for using ICT to promote health literacy in CALD communities, including options for future use of ICT.

Background

Recent advances in health promotion and health communication using ICT have great potential to enhance access to information and empower people to take a more proactive approach in understanding about and managing their own health and wellbeing. However, the increasing reliance on such platforms to access information also has the potential to exacerbate inequities in health access and support, potentially perpetuating and deepening the impact of the 'digital divide'. This is no more so the case for Australia's CALD communities, particularly those individuals and groups within them that have limited access to economic resources, who have disrupted educational backgrounds and/or who have limited English or literacy skills. Traditionally, ICT have been heavily reliant on sophisticated computer and keyboard-dependent technologies and literacies. However, recent advances in visually and orally-based (as opposed to text) interactive technologies may have the potential to address these forms of technological exclusion.

Public health providers acknowledge that existing models for health promotion are quite limited in relation to addressing the needs of people from culturally and linguistically diverse (CALD) communities (Prasad-Ildes and Ramirez 2006). For example, there is a tendency to focus on one-way transmission and an assumption that being able to 'access' information equates with knowledge and understanding (e.g. the Victorian Government's Better Health Channel). One of the outcomes of this has been that the main approach to communicating with CALD communities focussed on funding the translation of generic information into community languages (e.g. using the Health Translations Directory). While this approach is problematic on a number of levels, the limitations are most apparent for communities that largely

have oral, rather than written language traditions, such as the Sudanese (Borland and Mphande 2006). There is also an increasing reliance on internet communication yet, for many communities, particularly those who arrived as refugees, access to, and use of the internet is particularly limited (Worthington 2001).

Methodology

An extensive literature review was conducted exploring:
- CALD community health and wellbeing in the context of the impact of culture and ethnicity on health
- Debates and experiences around providing health promotion to CALD communities using ICT.

This was followed by fieldwork conducted across three contrasting CALD communities (Vietnamese, Sudanese and Samoan) and with a diverse range of health service providers and other key community and government stakeholders. The approach adopted was qualitative and exploratory, and involved:
- 35 one-on-one interviews with community members (5 per community x 3) and 20 service providers and community stakeholders.
- 12 focus groups (4 per community), including 2 focus groups in regional Victoria (Total community participants=73)

Descriptive and thematic analysis of the qualitative data was then used to highlight key areas for consideration in using ICT with CALD communities to communicate about health and wellbeing, and to recommend policy and practice options for future development.

Findings

This study has provided some valuable insights into how people from three contrasting CALD communities are incorporating ICT into their lives in relation to health and wellbeing communication. The research has found:
- Different age groups and with different levels of educational background and exposure to English CALD do use and access new and emerging technologies, such as the internet and online media platforms, and have the capacity to apply these forms of ICT in ways which are meaningful, positive and useful in their day to day lives.
- Inequalities in access to and use of ICT for CALD communities persist. The research, whilst not quantitatively based, suggests a strong interrelationship between age, level of education and English language proficiency and the use of various kinds of technology.
- 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 have also embraced ICT, but tend to use more basic functionality. In contrast, those with lower levels of English, limited literacy and/or limited formal education, primarily use more traditional media, such as television, DVDs and radio, and rely for their personal communications on the telephone, especially mobile phones.

- Websites are predominantly in English and heavily text-based and still do not cater for the diverse range of languages that exist within Australia
- Smoking, cancer, infectious diseases and heart disease were identified by participants in this study as the major health issues of concern in their respective communities.
- Health messages communicated in English are not well understood by some members of the community.
- Health service providers and other key stakeholders working with CALD communities have identified many of the same concerns shared by community interviewees and focus groups participants.

Conclusions and Recommendations

This research supports the importance of a differentiated approach to the design and development of ICT-supported health and wellbeing communication strategies for CALD communities. This includes the following recommendations for policy and practice:

- Develop ICT-based resources that can be easily distributed and accessed across a range of ICT-based platforms.
- Resource a community-driven health and wellbeing web portal tailored to CALD communities featuring a high use of visual based content.
- Develop capacity to use mobile SMS text messaging services on health and wellbeing.
- Provide specially tailored computer and information literacy training programs for women, the elderly and hard to reach members of CALD communities.
- Consider the capacity to broadcast high profile social marketing advertising using ICT through popular events, programs and media channels.
- Support intergenerational, arts based ICT-initiatives for health and wellbeing communication.
- Work with communities using bilingual educators/facilitators and community organisations to develop culturally and linguistically appropriate ICT-supported health and wellbeing communication campaigns.
- Set up YouTube 'channels' for CALD communities to upload and access online videos featuring health and wellbeing content.
- Focus development of materials in community languages towards the communication needs and preferences of the given language community.
- In the development of ICT-supported health and wellbeing campaigns consider the stronger role of families and community support structures in managing health in many CALD communities.
- Consider the role of 'trust' in relation to CALD communities, the power of word of mouth communication and interpersonal relationships.

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GLOSSARY OF ACRONYMS

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
AMES	Adult Multicultural Education Services
CALD	Culturally and Linguistically Diverse
CD	Compact Disc
DVD	Digital Video Disc
ECCV	Ethnic Community Council of Victoria
FGM	Female Genital Mutilation
GP	General Practitioner
HSP	Health Service Provider
ICT	Information Communication Technology
MCWH	Multicultural Centre for Women's Health
MSN	Microsoft network
SMS	Short Messaging Service

ABOUT ICEPA

The Institute for Community, Ethnicity and Policy Alternatives at Victoria University is a research and development institute that works towards social transformation and social inclusion. ICEPA does this by enhancing the capacity of individuals and social, educational and economic systems in organisations, communities and nations to meet the challenges of social exclusion resulting from social, cultural and economic inequalities.

ICEPA works with partners locally, nationally and globally in the areas of:

- cultural diversity
- international development
- social inclusion/exclusion
- health and wellbeing
- policy alternatives

ICEPA undertakes:

- interdisciplinary applied research
- community development
- capacity building
- consulting
- knowledge sharing
- learning and training

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INTRODUCTION

As clearly identified within the VicHealth Plan for Action, cultural and ethnic background is one major factor that shapes health outcomes. This is a significant consideration in the Victorian public health context where 30.3% of the Victorian population were born overseas, 43.7% were either born overseas or had one or both parents born overseas and 25.6% speak languages other than English at home (ABS 2007). Varied English language ability, cultural histories and practices, and the ability to participate in economic and social life all contribute to health outcomes (Manderson and Reid 1994). For many communities, these outcomes are worse than the Australian average due to a range of factors that are disadvantageous. For example, refugee populations have a much higher incidence of mental illness and psychiatric disorders as an outcome of trauma and resettlement (Tiong, Patel et al. 2006). Whilst there are multiple causes of health inequities, one contributing factor identified in the literature is that generic health promotion programs and campaigns do not effectively engage with diverse communities, suggesting a need for more specific and culturally relevant communication strategies (Kreuter, Lukwago et al. 2003).

Recent advances in health promotion and health communication using ICT carry the potential either to exacerbate health information inequities, or to address them. For example, there is an increasing tendency to rely on the use of sophisticated information technologies for communication despite the well acknowledged 'digital divide' (Muir and Boot 2005) between and within groups. Older members of CALD communities, for example, are particularly disadvantaged in terms of information technology literacy. Those groups with limited access to economic resources, coupled with disrupted educational backgrounds and limited English language literacy skills, have been particularly disadvantaged by computer and keyboard-dependent technologies. In contrast, recent advances in visually and orally-based (as opposed to text) interactive technologies may have the potential to address these forms of technological exclusion.

Public health providers acknowledge that existing models for health promotion are quite limited in relation to addressing the needs of people from culturally and linguistically diverse (CALD) communities (Prasad-Ildes and Ramirez 2006). For example, there is a tendency to focus on one-way transmission and an assumption that being able to 'access' information equates with knowledge and understanding (e.g. the Victorian Government's Better Health Channel). One of the outcomes of this has been that the main approach to communicating with CALD communities focussed on funding the translation of generic information into community languages (e.g. using the Health Translations Directory). This approach is problematic on a number of levels, and the limitations are most apparent for communities that largely have oral, rather than written language traditions, such as the Sudanese (Borland and Mphande 2006). There is also an increasing reliance on internet communication, yet for many communities, particularly those who arrived as refugees, access to and use of the internet is particularly limited (Worthington 2001).

In order to communicate messages of health and wellbeing, many factors need to be considered in relation to how communication is received and understood by the intended audience, including language traditions and preferences, cognitive/thought processing, interactional styles and non-verbal communication techniques. Content also needs to be sensitive to cultural and individual differences that are reflected in

religious and traditional beliefs, explanatory models of health, community identity, isolation, confidentiality and degree of trust in mainstream society.

By investigating how people from three distinctly different CALD communities access and use information technologies and their preferences for engaging with messages about health and wellbeing, including through technologies, this project has been designed to provide a basis for ongoing decision-making about culturally and technologically appropriate ways of employing the increasing capacities of information technologies to enhance health promotion and better empower people from CALD communities to proactively address health issues.

The project has been framed as a comparative study of the Sudanese, Vietnamese and Pacific Island (specifically Samoan) communities in both metropolitan and regional areas of Victoria. The purpose is to consider the relevance of existing health promotion communication campaigns, to identify the barriers to engagement with such campaigns and to identify options for the use of alternative forms of information technology to better promote understanding and engagement by CALD communities. The research starts from an appreciation of the diversity between CALD groups and the sophistication and diversity of culturally-based communication within groups. This requires using cultural knowledge (Babacan 2007) which, in practice, involves having an explicit and tacit understanding of cultural knowledge and explanatory models of health (Kleinman and Benson 2006) when working with people of other cultures.

Aim and Objectives

The main aim of this project is to understand the challenges and opportunities that communities face in utilising information technologies in relation to messages of health and wellbeing, and to research and develop strategies for health service providers to build effective ICT forms of communication with these communities by establishing which ICT they do and do not access and which ICT would and would not work.

Specific objectives include:

- Identifying, researching and exploring issues in the delivery of health promotion messages using information technologies to culturally diverse audiences
- Exploring the suitability of different available technologies for the delivery of information and the development of health literacy within CALD communities
- Identifying effective strategies for promoting health literacy and empowerment of different groups of people within CALD communities through ICT
- Reporting on the research findings including options for the future use of information technologies for communication with diverse ethnic communities.

Background on the Participating CALD Communities

For the purposes of this project, Vietnamese, Samoan and Sudanese communities in Victoria were chosen as a basis for qualitative study. All three communities have significant populations living in Metropolitan Melbourne; in the case of the Sudanese and Vietnamese, there are communities living in regional areas such as Robinvale and Warrnambool. The nomination of these three communities was based on a survey of community demographics together with knowledge gained through

previous research that these communities were likely to reveal informatively contrasting experiences and circumstances in relation to cultural, linguistic and socioeconomic influences on health.

Based on data from the most recent 2006 Census (ABS 2007) Victoria's total Samoan born population is 5,924, of which approximately one fifth (1,155) reside in Melbourne's Western Metropolitan Region. The Sudanese are a comparably-sized community to the Samoan, but are more newly arrived and largely humanitarian and refugee migrants. Of Melbourne's total population of Sudanese born people (6,357), more than a third (2,440) reside in Melbourne's west. In contrast the Vietnamese is a much more established community, many of whom also arrived initially in Australia as refugees. In 2006 Census there were just over 71,000 speakers of Vietnamese in Victoria with more than a third of these (24,817) residing in the Western suburbs of Melbourne.

METHODOLOGY

To understand and establish how CALD communities use and access ICT in relation to the communication of health and wellbeing information, data was collected using a range of qualitative data collection methods, including:

- semi-structured interviews with members of Vietnamese, Sudanese and Samoan communities
- semi-structured interviews with Health Service Providers (HSP) and other key stakeholders working with these CALD communities
- Focus groups with the three target communities (4 groups per community).

This approach was necessarily exploratory given the dearth of existing research to form the basis of the investigation. However, it was also clearly structured around the project aims, and was designed to:

- identify information technologies that are relevant and utilised by the specific communities;
- assess how various information technologies are currently used within and outside the home;
- identify communication preferences and barriers and effective strategies for developing understanding and action about health and wellbeing within the community;
- examine barriers to and opportunities for information technology usage in health communication and health promotion;
- explore processes and methods that will be most effective in working with community groups to gather information about potentially useful health communication strategies; and,
- identify options for alternative information technology-enhanced communication strategies that could be developed usefully to communicate health promotion messages.

The purpose in selecting Vietnamese, Sudanese and Samoan communities was to narrow the research population to a manageable size in order that some in-depth qualitative research could be undertaken within the 12-month time frame of the research, whilst also enabling comparisons between different community groups that are significantly different in terms of stage of settlement, reasons for migration, culture and language, degree of integration within host communities, health characteristics and beliefs, and access to economic resources. While the communities have the shared characteristic of being constituted of migrants from culturally and linguistically diverse backgrounds, there are marked differences across these communities in relation to social determinants of health including freedom from discrimination, social inclusion and their access to economic resources. Understanding three distinctive groups will not generate findings that can be generalised across the full range of CALD groups, however it will provide a focussed basis for the development of alternative information technology enhanced strategies for health communication as well as providing insight into effective methodologies when working with CALD communities more broadly.

Bilingual facilitators skilled in research methods as well as fluent in the relevant languages were engaged to work with the project investigators to help access community members and to facilitate the focus groups in culturally sensitive ways. This was an important factor supporting the implementation of the project and in

building trust, and effectively communicating and working with communities that can be hard to reach.

A Project Advisory Group advised on the research design, implementation, analysis and the development of a strategy plan for the project. Members included community leaders, public health provider networks and public authorities, and individuals with specific expertise in intercultural communication, action research and information technology. The role of the advisory groups was important in relation to identifying strategies to minimise potential barriers to involving CALD community members – such as best ways of working with CALD groups in rural and regional settings.

Interviews with members of CALD communities, Health Service Providers (HSP) and other Key Stakeholders

In-depth interviews were performed with members of CALD communities, community health centres, municipal health authorities and HSP using ICT. A total of 35 interviews were conducted: 5 per community (Total: 15), 10 with HSP and 10 with other relevant stakeholders, identified through the advisory group and literature review.

The 10 community members were identified using ICEPA's existing networks and through the bilingual facilitators. A snowball sampling technique was also used to identify other people from CALD communities, HSPs and other key stakeholders. The 10 health service providers were selected on the following criteria: range of health services (e.g. hospital, community health); location (region, area); density of relevant communities in the area; and, knowledge of innovative work performed. The other 10 stakeholders included a mixture of people from organisations such as migrant resource centres, government, policy makers, not-for-profits and arts based organisations.

Focus Groups

Twelve focus groups, four from each community, were conducted in and around Western Victorian suburbs such as Footscray, Braybrook, St Albans and Melton. Vietnamese, Samoan and Sudanese have significant populations living in the Western region of Metropolitan Melbourne and their circumstances are informatively contrasting in relation to cultural, linguistic and socioeconomic influences on health. Two focus groups were held for those in the communities living in regional areas (Vietnamese in Robinvale and Sudanese in Warrnambool). Sessions were held in community venues, cafes, on campus at Victoria University, and in some cases the homes of community members. Focus groups were held in places where community members felt most comfortable and where it was convenient for participants to attend.

Whilst understandings about the experiences and preferences of these three distinctive groups has not generated findings that can be generalised across the full range of CALD groups, it does provide a focussed basis for the development of alternative information technology enhanced strategies for health communication as well as providing insight into effective methodologies when working with CALD communities, more broadly.

Participants in the focus groups were determined by the following factors: diversity in composition within each group (different age cohorts, gender and periods of migration); different communities (i.e. Vietnamese, Sudanese, Samoan); diverse geographic locations. These community groups were identified by the bilingual facilitators and Project Advisory Group using snowball sampling techniques.

Data analysis

Transcripts and reports for interviews and focus groups were coded according to themes and sub-themes and compared prospectively and retrospectively, using the constant comparison method. Themes were informed by the feedback of Advisory Group members and designed by the researchers who drew on the fields of health promotion, communication, health and wellbeing of CALD communities, and social use and application of ICT.

LITERATURE REVIEW

Introduction

This literature review analyses existing evidence and resources that demonstrate how ICT is used and accessed in relation to the communication of health and wellbeing messages to CALD communities. It explores how factors relating to cultural, linguistic and ethnic background contribute to shaping health outcomes and need to be addressed in developing health promotion programs and campaigns that support the health literacy needs of refugees and other migrants from diverse cultural and linguistic backgrounds in Australia. It discusses the challenges, barriers and preferences relating to how ICT is used and accessed by CALD communities, health communication strategies with these communities, and how ICT is used in the communication of messages of health and community wellbeing.

Culture, Ethnicity and Health

As clearly identified within the VicHealth Plan for Action (2007), cultural and ethnic background shapes health outcomes. The lifestyles and conditions in which people live and work strongly influence their health (Social Determinants of Health). This is manifested through the stresses and pressure of settlement, ideas about the nature and cause of illness and how to manage diseases and other health issues as well as in food habits and the impact of work (Manderson 1990). As Smaje (1995) and Cruickshank and Beevers (1989) have demonstrated in an international context, and Reid and Trompf (1990), in their study of the health of immigrants in Australia, the experiences of CALD communities in relation to the management and understanding of health and wellbeing are complex. Improving the health and wellbeing of people in these communities, and increasing awareness around the effective prevention and management of health and wellbeing issues, requires a tacit and nuanced understanding of cultural and ethnic background. The relationship between CALD communities and a normative and English speaking, Western approach to the management of health and wellbeing issues, is a crucial consideration in developing more effective strategies for improving the health of Australia's diverse and multicultural population.

Immigrants, including refugees, from diverse cultural and linguistic backgrounds, have been instrumental in making Australia the society it is today. Migration in the Australian context has been described as an ongoing and selective process since white settlement in which waves of people have come to the country for a variety reasons (Reid and Trompf 1990) and from differing circumstances in their homelands. New settlers may face particular health and wellbeing challenges both on first arrival and throughout their lives. For example, refugee populations have a much higher incidence of mental illness and psychiatric disorders as an outcome of trauma and resettlement (Tiong 2006). Diabetes has been shown to be more prevalent in certain ethnic groups, such as those from the Pacific Islands and some Asian countries (Colagiuri et al, 1998), and McCarty has argued that ethnic groups migrating to Australia face increased risk of developing diabetes due to the adoption of a Westernised lifestyle. Recently, African refugees have been recommended to require comprehensive health assessments for undiagnosed and untreated health problems. While most of the common diseases identified are non-communicable, if left untreated they will affect the long-term health and productivity of new settlers (Tiong et al 2006).These are significant considerations in the Victorian public health

context where 30.3% of the Victorian population were born overseas, 43.7% were either born overseas or had one or both parents born overseas and 25.6% speak languages other than English at home (ABS 2007).

The Vietnamese, Samoan and Sudanese communities are not the same, and nor can they be considered to represent the wide and diverse range of communities within Victoria and across Australia. However, there are marked differences in relation to social determinants of health, including freedom from discrimination, social inclusion and their access to economic resources, across these communities. The Samoans, for example, are reasonably networked within the community, can readily access education, employment and community services, yet have a high incidence of distinctive health issues, such as mental health issues, obesity, diabetes and incidence of cardiovascular disease, such as stroke. In contrast, the Sudanese community are refugees with disrupted educational backgrounds due to their refugee experience, as well as having a heritage of multilingual oral, rather than written, language traditions (Borland and Mphande 2006), and are less able to access social and economic resources. As such, people from this community, like most refugee communities, face some major issues in terms of settlement and suffer specific health issues. This includes trauma-related mental illness, and rapidly increasing incidence of lifestyle diseases, such as diabetes. The Sudanese community has specific health issues arising from their refugee experiences, issues in settlement due to low levels of English language proficiency and experiences of racism. Key issues for this community arise also from their history of poor nutrition prior to migration, which results in musculoskeletal problems, dental problems, vitamin deficiencies and a growing incidence of diabetes. Mental health, social issues and unwanted pregnancy are also major health issues for African refugees as identified by General Practitioners (Tiong et al. 2006). Vietnamese in Victoria have been settled longer, although sharing aspects of the refugee experience with the Sudanese. In contrast to the other two communities, the Vietnamese are comparatively larger with a broader range of established community infrastructure support. However, the first generation of Vietnamese immigrants are ageing and increasingly dealing with the impact of chronic diseases. Coupled with this, many of the older generation of Vietnamese, who comparatively had quite poor competence in English, and, as occurs in ageing second language speakers, are losing their facility in English and are increasingly preferring to communicate in their first language. The Vietnamese may require quite different, culturally appropriate health and wellbeing information and support in contrast to a recently arrived community such as the Sudanese. The social determinants of health affect CALD communities in a range of ways both within and between groups.

The nature and impact of employment and occupations that CALD communities undertake have a major influence on their health and wellbeing. Working conditions may not be conducive to good health and many migrants work jobs that are uncertain or high risk (Bottomley and Lepervanche 1990; Pearce, Bertone and Stephens 1995). Refugees and migrants vary in professional and educational background, from those who are rich and well qualified to those with little education or work experience. Often, however, occupations do not match the educational qualifications of refugees and migrants. As Minas has noted (1990), low socioeconomic status and lack of employment opportunities in a new country may have an adverse affect on mental health.

Class position and socioeconomic status can also determine the kinds of health care that families from CALD communities can afford (Galanti 2008). This in turn affects the management of diets and food consumption. A recent study of low income people from Vietnamese, Chinese, Italian and Greek backgrounds living in Victoria

(Swerissen et al 2006) found that a chronic disease self management program could produce better health outcomes for CALD communities.

People from CALD communities may experience not being valued, or even being discriminated against in the workplace. Pyke (2007) signals the lack of valued placed on those from CALD communities within organizations, and how these organizations suffer as a result. Additionally, racism and discrimination can occur in the workplace and can have a clearly negative impact on health. Anxiety, stress and depression (Paradies, Harris and Anderson 2008) impact on productivity, wellbeing and self-esteem (VicHealth Plan for Action 2005-2007) as a result of racism and discrimination, and as van Dijk (2001) has argued this generally contributes to racist and discriminatory social discourse that marginalizes and excludes minorities, which, in turn, contributes to health inequalities.

Despite many workplace related issues for the health of CALD communities, there are positive examples of refugee and migrant experiences in relation to employment. These people highlight the capacity and resilience of CALD communities in the workplace, but also the complexity of their working lives, and the problem with stereotyping the experiences of CALD communities. Hawthorne (1996) highlights the success of women from non-English speaking background, how they have confronted and overcome linguistic and labour market barriers.

CALD communities have health and wellbeing needs that change over time. There are significant differences between and among groups on the basis of age. A young, recently arrived Sudanese mother will have different health priorities to that of an ageing Vietnamese man. Howe (2006) and Radermacher et al (2008) note that 21% of Victoria's total aged population speaks a language other than English at home and 43% of that older culturally and linguistically diverse population is not proficient in English. This can be attributed to changing demographics, mainly the immigration intake to Australia after the World War 2, that will see about 22.5% of older Australians being from CALD background by 2011 (Australian Institute of Health and Welfare; 2001). In the Melbourne metropolitan area, 28% of the aged are of culturally diverse backgrounds, yet older people from CALD communities are not accessing the aged care services in equivalent proportion to their other Australian counterparts. As a result older people from CALD background with poor English are considered as a special needs group (Aged Care Act; 1997) and therefore efforts are being made by the Australian Government to increase their chances to access aged care services.

Supporting ageing members of CALD communities requires effective use of language and cultural context, and the consideration of generational differences. Resnick, Vogel and Luisi (2006) found that it was possible to improve the motivation of older adults from minority groups by giving them exercises that had culturally appropriate terms. The Ethnic Communities Council of Victoria (ECCV) discovered that ethnic baby boomers are having trouble working with the aged care system in Australia when supporting their parents. They are often working with the aged care system for the first time, are unprepared for the responsibilities of supporting the elderly, have different values with regards to lifestyle and culture than their parents, and must address the need for providing information to ageing family members in their preferred languages and cultural context (ECCV 2009).

Elderly members of CALD communities face difficulties as they grow older. Pollard (2008) and Galanti (2008) noted that in hospitals some elderly members of CALD communities rely on their children to translate for them, and this must be factored into communication issues with regards to the management of their health and wellbeing.

Galanti also suggests that to improve dietary supplements for people of diverse backgrounds, including older members, food must be used that is more agreeable to a person's taste, which is shaped by their experiences and cultural background (2008). ECCV also found that ageing members of CALD communities can become isolated from younger generations, fear changes in their health and are reverting to language and terms of association from the past, and feel disempowered as their expectations of the ageing process differ from those of young generations (ECCV 2009).

Young people from CALD communities face particular challenges in relation to health and wellbeing. Type 2 Diabetes is steadily escalating throughout the world in a wide range of ethnic groups and is no longer a disease that only afflicts adults (Libman and Arslanina 2003), and can delay the psychosocial development of young people (Boeger and Seiffgekrenke 1994). Renzaho (2007) has highlighted the alarming increase in obesity among African-Australian background children, and the need for parent-focussed and culturally appropriate health literacy interventions has been highlighted (Green et al 2008). Burnet, Plaut, Courtney and Chin (2002) found that a program to targeting children from minority groups must be tailored to the needs and beliefs of the community in order to assist in the management of their health. Blanchard, Metcalf and Burns (2007), Herman et al (2005) and AIHW (2007) have shown that young people who experience social, economic or cultural marginalization are at increased risk of experiencing mental health problems. This becomes compounded when young refugees and migrants first arrive in Australia and experience the pressures of settlement such as learning English, attending school, finding employment, confronting racism and intercultural tension, and sustaining social networks. Blanchard et al (2007) also note the recent increase in psychological distress in young people from a range of backgrounds, and the prevalence of depression, anxiety and substance abuse.

The role of gender is an important consideration in the health of CALD communities. Women face specific challenges in managing their health and wellbeing. As Hawthorne (1996) has noted, refugee and migrant women share the dilemma of many professional Australian women. They often balance the demands of family, childcare, home management, education and training while working at a job. This can cause stress and fatigue. Low paid, repetitive employment, and a lack of employment opportunities, can increase the risk of mental illness for women from CALD communities (Minas 1990). Meisler (2002) has demonstrated the importance of exercise and being physically active in maintaining health, and reducing the risk of chronic disease, and this is an important factor in the lifestyles of women from CALD communities. Managing exercise for women from CALD communities is dependent on cultural factors. Wilson, LeBlanc and Blanchard (2007) explored motivation based theory to address exercise and physical activity issues in diverse ethnic groups and found that self-determined behaviour is linked to exercise motives. The Refugee Health: Service Model Evaluation (2009) report noted the need for a culturally relevant Women's Swimming Project for women from Muslim background as a way of respecting women's religious and cultural practices and encouraging participation in the project to improve their health and wellbeing. Weight management is an important consideration in the health of women from CALD communities. Mishra et al (2007) found that public health initiatives need to target the prevention of weight gain before and during early adulthood. Obese women are particularly susceptible to diabetes, and in turn this creates greater risk of major cancers in women such as postmenopausal breast cancer and endometrial cancer (Hu 2003). In a study of gender differences across racial and ethnic groups in the quality of care for diabetes, Correa-de-Araujo, McDermott and Moy (2006) found that self-management

education should be tailored to the lifestyles and beliefs specific to gender and racial/ethnic groups.

The health system itself can make health problems worse for women. Knowing Her Better: A Research Report and Training Manual about NESB Women's Sexual & Reproductive Health (2000) highlighted not only how existing health problems can become worse for women from CALD communities, but also how new health issues can be created. The African Resettlement in Australia Report (2007) noted the importance of government and government-funded health service providers to show greater flexibility in service delivery to work effectively with African communities. Women from CALD communities are often perceived as being non-compliant in Western style health systems. This lack of understanding of the cultural and lifestyle practices of women can have damaging consequences for health and wellbeing. A Systematic Review of Issues Impacting on Health Care for Culturally Diverse Groups Using Diabetes as a Model (Hoffe, Thomas & Colagiuri 2002) found that incorrect dosage of insulin can occur because a health practitioner does not take into account the role of fasting or other religious or lifestyle rituals. Ignoring culture in relation to women's health, such as the role in the family of disseminating information (i.e. the eldest son), can also lead negative health consequences such as missed opportunities for screening because of lack of familiarity with medical conditions, failure to take into account differing responses to medication, lack of understanding about traditional remedies which leads to harmful drug interactions and diagnostic errors resulting from miscommunication (Branch et al) Additionally, as Manderson and Allotey (2003) found in their study of storytelling and how immigrants position difference in health care settings, women from CALD communities, such as the Horn of Africa, are not passive but rather are critical and engaged community members who actively negotiate cultural difference in services and institutions. This is important to recognize in managing women's health within CALD communities, and indicates the relationship of culture, racism and ethnicity to health for women from CALD groups is complex and benefits from a holistic, nuanced understanding of how these influences work in relation to Western health management systems.

The experiences of refugee and immigrant men are intertwined with the women, families and children of their communities. Racism, ethnicity, and language; income; immigration status; sexual orientation; and other factors can create marginality and make men vulnerable to health and wellbeing issues. Like women, the working lives of men can impact negatively on their health and wellbeing through low paid and unstable employment (Pearce, Bertone and Stephens 1995). Siew-Ean Khoo (2007) found that when refugee and immigrant men who are resettled in Australia on humanitarian grounds their mental health status affects their economic participation. In the case of recently arrived male Indian immigrants in the US, Bhattacharya (2007) identifies a link between feelings of hopelessness and frustration about future work prospects with symptoms of depression and substance abuse. With regards to their awareness of cancer and other health issues, Heyns et al (2005) report that black men living within and outside of Africa still tend to present with locally advanced or metastatic prostate cancer due to lack of early detection programs. Other issues such as effective food preparation and hygiene can also impact negatively on the health of men, an issue which was specifically addressed by the Western Region Health Centre's cooking and food preparation training programs (Western Region Health Centre 2009). Settlement pressures and the process of negotiating their way through cultural differences of life in Australia can leave men vulnerable to mental health issues. As families and CALD communities work with the Australian health, education and employment systems, men may require support to work through changes in expectations related to gender identity, for example the role that education and the workplace play in the lives of women, which may be different to

their experiences in the homeland. This can create tension, feelings of social isolation and in some cases discrimination from the wider population when there is a lack of understanding relating to Australia's rich and diverse range of CALD communities.

The relationship between Western models of health management and service provision and CALD communities is problematic. This can have a negative impact on the health and wellbeing of people from diverse cultural and linguistic backgrounds. Hospitals, health centres, counselling services and other health and wellbeing support services based on English speaking, western ideals and philosophies for managing health tend to prioritise the individual, rest on Anglo-centric values and belief systems (Galanti 2008; Reid and Trompf 1990), such as Christianity and empirical, 'reason' based approaches to health and wellbeing. These settings can become environments in which people from CALD communities experience prejudice and discrimination. The predominating Western, English-speaking model of health service management does not reflect the diverse values and attitudes held by the Australian population. This can create conflict when health service providers work with members of CALD communities and experience difficulties such as: a lack of communication and understanding in relation to how medication is consumed; how 'traditional' and home made remedies impact on prescribed medication (Galanti 2008); how the body is used in medical settings and the importance of burial and religious rites for CALD communities; and, misunderstanding by health service providers as to the nature, type and urgency of medical issues due a lack of effective communication between clients and health service providers. Additionally, the understanding of culture, ethnicity, racism and health is an ongoing and dynamic process. The experiences, attitudes, values and needs of individual people from a CALD community are complex and differ widely on the basis of age, gender and ethnicity. They also change over time, and are not reducible to a stereotypical set of indicators that prescribe best ways of managing their health. Racist, discriminatory or stereotypical understandings of members of CALD communities in service provision can be harmful to clients, as Rothman (2008), Galanti (2008) and others have identified.

The health sector in Australia faces significant resourcing and organisational challenges as it adapts to the changing needs of the Australian population. Creating awareness around the need for culturally sensitive ways of working with diversity in clients from CALD communities and implementing organizational responses is one of many pressures impacting on effective provision of health services. However, as Galanti (2008) and Rothman (2008) have argued, a nuanced and complex understanding of people from a range of different backgrounds, and best ways of working with people from CALD communities, can assist in improving their health outcomes in the short term, and in the long term, which can in turn help to alleviate financial and other resource challenges health organisations face when working with such a diverse range of clients.

Health promotion, information communication technology and CALD communities

An acknowledged issue by public health providers is that existing models for health promotion are quite limited in relation to CALD communities (Prasad-Ildes and Ramirez 2006). Generic health promotion programs and campaigns do not effectively engage diverse communities suggesting a need for more specific and culturally relevant communication strategies (Kreuter, Lukwago et al. 2003). For example,

there is a tendency to focus on one-way transmission and an assumption that being able to 'access' information equates with knowledge and understanding (e.g. the Victorian Government's Better Health Channel). One of the outcomes of this is that the main approach to communication with CALD communities is the translation of generic information into community languages (e.g. using the Health Translations Directory). This approach is problematic on many levels, and the limitations are most apparent for communities that largely have oral, rather than written language traditions such as the Sudanese (Borland and Mphande 2006). There is also an increasing reliance on internet communication yet, for many communities, particularly those who arrived as refugees, access to, and use of the internet is particularly limited (Worthington 2001). In order to communicate messages of health and wellbeing, many factors need to be considered in relation to how communication is received and understood by the intended audience, such as language traditions and preferences, cognitive/thought processing, interactional styles and non-verbal communication techniques. Content is also influenced by religion, traditional beliefs and explanatory models, community identity, isolation, confidentiality and degree of trust in mainstream society.

ICT can and does play an important role in health promotion and in mediating the social determinants of health (Blanchard et al 2007). We live in a world in which there is increasing reliance on the communication of information through ICT such as mobile phones and the internet. The Victorian Government's recent innovation statement (2008) identified health as a priority area of action and the need to address the challenge of preventable illness such as heart and respiratory disease, diabetes and cancer, and innovation in unique ways, such as through new and emerging web platforms or other kinds of technology. The uptake and use of the internet has been the fastest of any innovation in history (Balnchard et al 2007; Bernhardt 2000; Cline & Haynes 2001). Between 1998 and 2007-08, household access to the Internet at home has risen from 16% to 67%, while access to computers has increased by 31 percentage points to 75% (ABS 2008). In the same period, the number of households with a Broadband Internet connection increased by 22% from the previous year, to an estimated 4.3 million households (ABS 2008). This represents over half (52%) of all households in Australia and 78% of households who have Internet access (ABS 2008).

Social networking online has proven highly popular. A recent Nielson report (2009) found that social networks/blogs are the fourth most popular online category (ahead of personal e-mail), account for one in every 11 minutes spent online, and that Facebook has the highest average time per visitor amongst the 75 most popular brands online worldwide. Users are regularly accessing government websites for information relating to employment, health and other services such as weather and local council updates. Hitwise Online (2009) has reported Government website visits were up 10.4% year-on-year in March 2009, and have suggested that social media can be used by government to connect with a broad spectrum of the community. Facebook, MySpace, YouTube and Wikipedia were highly ranked in top websites visited by Australians in March 2009. The Better Health Channel was the fourth most popular government website in March 2009 (HitWise Online 2009). Twitter, one of the most recent incarnations of social media online, was reported to have had a monthly growth rate of 1382% from January to February 2009 (What the F**K is Social Media: One Year Later 2009) . These newer web platforms indicate the potential of higher levels of interactivity on the internet including: the posting of user generated content on blogs and wikipages; video 'mash ups'; instant communication across spatial barriers through messaging on Facebook, MSN And Twitter; and, increased dissemination and interaction with aural and video based resources. The web has become much less static and has grown into a far more dynamic and

resource rich platform in relation to how information is accessed, communicated and generated. This could provide the basis for a strategic way to counter a 'one way', delivery mode of health communication by using far more interactive forms of ICT.

Mobile phones, though relatively well established, continue to evolve and provide a range of useful, versatile and highly portable functions. The Horizon Report (2009) notes that in addition to text messaging, voice telephony, internet access and digital imaging capability for moving and still pictures, newer mobiles have larger screens, location awareness, are able to run third party applications, GPS navigation, be linked to social networking sites, and in the case of devices like iPhones, perform many tasks once limited to laptop computers.

Mobile phones are also being used in innovative ways in an international context. African communities are increasingly conducting banking using their mobiles and engaging with mobile banking initiatives that seek to use mobile phones to service home loans, remittances and other transactions. This is due in part to the success of ICT programs such as Kenyan mobile phone operator Safaricom's M-Pesa money transfer facility which saw a significant increase in subscriptions in 2008 (New York Times 2008). In Uganda, a mobile phone service has been set up to provide weather forecasts, farming advice and health information through text messages. The service, initiated by Google and the Grameen Foundation, is designed to address poverty and assist around 9 million people in Uganda who have mobile phones but no internet access (BBC 2009). In South Africa, the SIMpill project integrated a sensor-equipped medicine bottle with a SIM card, ensuring that healthcare workers were advised if patients were not taking their tuberculosis medicine. The percentages of people continuing to use their medicine increased from 22% to 90%.(BBC News 2009 'Mobile health' campaign launched).

Videogames, once limited to arcade, console and home computer platforms, are now key players in online communities and new media environments. Online games such as World of Warcraft have drawn a considerable amount of participants across the world, while The Horizon Report (2009) highlighted the potential of videogaming for educational purposes and social interaction, particularly in relation to the popularity of massive multiplayer and other online gaming experiences. Researchers have found exercise benefits for children with the use of physically active video games such as Nintendo's Wii Sports (Graf, D et al Pediatrics 2009), while the Serious Games Institute has recently initiated the Games for Health project to develop a community and best practices platform for games being built for health care applications (http://www.gamesforhealth.org/).

Not everyone has access to or familiarity with new and emerging technology, however. The ABS reports that socioeconomic factors have a major impact on how households use computers, the internet and broadband connections. A lack of access to these kinds of technology has the potential to exclude people from information communicated through ICT. Households which are low income, are in remote areas and have no children under 15 years (ABS 2007-2008) are less likely to be connected to a computer, the internet or broadband. Those earning an average weekly income have twice the internet connectivity than those below the poverty line (Infoxchange 2009). Blanchard et al (2007) note that use of the internet is significantly higher amongst households in the top two quintiles of household income and people with higher levels of educational attainment, and these trends are reflected in mobile phone use. Key barriers to the use of broadband internet include literacy, income, a lack of understanding and skepticism of the technology's benefits, income, and a perception that broadband is expensive (DCITA 2007). These factors suggest a 'digital divide' exists within Australia that generates further health,

educational and employment disadvantages. While considerable disparities exist across Australia in relation to the use and access of ICT, and this has the potential to exacerbate a range of inequalities for CALD communities, debate continues about whether the digital divide is narrowing or widening. Servon (2002), Jankowski (2002), Becta (2001) and others have examined the complexity of the use and access of ICT, and argue that there are varying degrees and levels with regards to the way in people engage with ICT. The Australian Communications and Media Authority (ACMA 2008) argues that those who don't have access to technology will be left behind, but that digital divide is closing. Their research suggests that a simple dichotomy of who and who does not have access to ICT does not address the complexity of factors that need to be taken into consideration when addressing issues related to the use and access of ICT. This is an important consideration in the context of ICT-supported health and wellbeing communication with CALD communities where language, quality and frequency of internet use, communication preferences, age, choice of lifestyle, religious beliefs, the settlement process and other factors related to culture and ethnicity all play a role in determining how and why people use and access technology.

Existing literature presents a complex picture of how CALD communities interact with the internet. 2006 Census data reports that 34. 3% of the Vietnamese born population has no internet connection, 42.1% use broadband and 16.9% use Dial-up (Census 2006). In the Samoan community, 50% have no internet, 23.3% use broadband and 13.3% dial up (Census 2006). In the Sudanese community, 55.9% have no internet, 20.3% use broadband and 10.8% use dial-up (Census 2006). This data indicates that while people from these CALD communities access and use the internet, significant numbers do not, including half or more in the Samoan and Sudanese communities. Many people are still limited in whether and how they use the internet, and this can be attributed to specific linguistic, cultural and socioeconomic factors.

The Australian Institute for Social Research conducted a study on barriers to e-learning and identified that those under-represented in terms of Internet connectivity and use of ICT included people of non-English speaking background, people who are aged over 55 years and women (University of Adelaide 2006). People proficient in English have considerably higher connectivity in comparison with people who do not speak the language at all, or do not speak it well (ABS 2006 Patterns of Internet Usage). Rahman (2005) argues that the development of ICT is generally driven by the needs of those who are perceived as most profitable to serve, who live within a technically developed infrastructure, are well-educated, and speak English. He also notes that internet content mainly in English, with little local content, and mainly text based is a limitation in internet based projects involving CALD groups. With regards to the experiences of African youth, Ogbu (2000) argues similarly, noting that the cost of technology in some countries is a major barrier, that high illiteracy levels is a problem, and the human-technology interface is an important consideration. Many people do not know how to use ICT and find the technology intimidating. These challenges are reflected in the Australia. The Community Languages Online Report (VICNET 2007) identified literacy as an important consideration for members of some CALD communities, and that written information may sometimes need to be supplemented in other formats, such as audio. This report found additional challenges identified by community members such as significant barriers to internet training and access because of limited language skills, the prohibitive cost of home internet access, and difficulty accessing public internet services.

Other research, however, suggests that CALD communities are regularly accessing and using the internet. The Internet in Australia report (2008) found that people born

overseas are slightly more likely than those born in Australia to use the internet (76.7% to 71.6%) and notes that the internet is often used to stay in touch with relatives or keep up to date with information from their country of birth (The Internet in Australia 2008 SUT). Ogbu (2000) cites work in Africa in which youth were engaged in ICT projects where there is lack of access to information such as community based health information services. Ogbu found that youth quickly adapted to using ICT and many adults learned ICT skills from younger members of their community. The Bridging the Digital Divide report (2008) argues that the low cost of the internet, compared with telephone or face-to-face contact is important to many young people and is particularly important for newly arrived and migrant young people because the internet is often seen as their only link to their home country and the family and friends they may have left behind. The Community Languages Online report (VICNET 2007), while noting specific challenges to use and access of the internet, also found that for some languages such as Chinese, Spanish and Serbian, uptake was proportionately higher, and that regardless of the language spoken the internet is similar to uptake in the wider population. The report also found that community leaders felt internet use will increase, perceptions of the internet are changing, some CALD seniors demonstrate an interest in the internet and more people are acknowledging its potential as an information source, while some new arrivals have come to Australia with established skills and have expressed a need for public internet access (2006).

Computer and web-based training projects, internet websites, online resources and other initiatives have been set up to support online access to information such as health and wellbeing services for CALD communities. The State Government's Valuing Diversity (2003) report recognized the need for culturally and linguistically appropriate information disseminated online, and the need to encourage participation of CALD communities in social and governmental institutions through the use of appropriate media and promotional channels, and through improved delivery of translated government information. This provided ground work for initiatives such as the CALD Senior Surfers program, a joint project between Community ICT, Office for Senior Victorians, DPCD and Vicnet. It delivered introductory internet training to CALD seniors in their own language. This involved volunteers from 10 community-based organisations who were given 'train-the-trainer' sessions so they could train CALD seniors on internet use, and funding for public internet access for CALD seniors to use the internet in a convenient and comfortable community setting (VICNET 2007). 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. Websites such as the Health Translations Directory, Centre for Culture, Ethnicity and Health, Multicultural Centre for Women's Health, Multicultural Mental Health Australia, NSW Multicultural Health Communication Service provide health related information or referrals to specific services for CALD communities, and translated information where possible. However, it must be noted that many websites are primarily in English and text based and this can become a barrier for CALD communities (VICNET 2007; Borland and Mphande 2006). Additionally, many of these websites reflect a 'mediated' approach to the communication of health information with CALD communities. Health and wellbeing content for CALD communities is often made available in English for people working with CALD communities, such as community leaders and community development workers, rather than being specifically tailored or made accessible for community members.

Other websites aimed at CALD communities are useful references in relation to health and wellbeing communication with these groups. MyLanguage (www.mylanguage.gov.au) provides access to search engines, web directories and

news in over 60 languages. It aims to enhance and facilitate the use of the internet by and for CALD communities and is an important asset to Australian libraries because it assists in the provision of appropriate library services to minority language groups and emerging communities. Since September 2007 it has received more than a million visits (Incite 2009). Consumer Affairs Victoria have made multilingual PDF consumer advice fact sheets available online and information relating to DVDs on 'smart shopping' and renting in Victoria. The Human Rights and Equal Opportunities Commission in Victoria have translated materials related to issues such as human rights, employment and discrimination and made them available online through their website. The Special Broadcasting Service (SBS) has a comprehensive online presence that makes available news, information, sport, entertainment and other items of interest to CALD communities through podcasts, videos, links to television and radio programming, forums and other online activities. SBS also links to its services and other items of interest through its profile on Twitter (http://twitter.com/Sbs).

As media has become more diverse and accessible there is evidence of increasing experimentation with less print-reliant means of communication. Mobile phones, multilingual phone support, community radio stations, CDs and DVDs are often used in communication with CALD communities. This use of ICT reflects a key strategy for health promotion with CALD communities which entails working in partnership with these groups to communicate culturally and linguistically relevant content in a preferred mode of communication and through accessible ICT platforms (CALD Local Diabetes Resource and Service Project 2004; Multicultural Centre for Women's Health 2008).

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 (WIRE 2009). WIRE also feature links on their website to other online resources developed for CALD communities. Mobile phones have become a commonly used form of technology for all Australians. ABS data notes that from 1996 to 2002, the proportion of households who had access to a mobile phone increased from 24% to 72% (ABS 2007) Blanchard et al (2007) note that mobile phones can be used effectively with young people from non-English speaking backgrounds. Text messaging can help young people to feel more confident when English is not their first language or feel anxious about talking over the phone or face-to-face. This technique may have applicability with a range of people from CALD communities, provided issues related to affordability, literacy, language and use and familiarity with mobile phone technology are addressed.

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. They feature people from diverse cultural and linguistic backgrounds performing role plays in the health system and/or other health related situations. The DVDs are screened as part of workshops run by MCWH which are driven by participants, include bilingual educators, are interactive and tailored to suit their specific needs (MCWH Annual Report 2008). 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. The Transmission project's 'You Don't Wanna Mess With Me' DVD (2009) is an innovative creative arts ICT health communication project which features young people from CALD communities and street art hip hop inspired animated short films about Hepatitis C. The films are also available on YouTube online. This DVD was

produced by a range of government and non-profit partners including the Department of Human Services, Multicultural Support Services and the Centre for Culture Ethnicity and Health among others.

With regards to more traditional modes of health education, it is worth noting that researchers have found that using culturally appropriate entertainment have proved more successful than traditional means of education, such as the presentation of basic facts (Brown, 2004; Farr, Witte, Jarato, & Menard, 2005) for HIV/AIDS. Similarly, approaches to health education that draw on traditional modes of storytelling through narratives has been found to be highly effective in diabetes education with CALD groups in Great Britain (Greenhalgh, Collard and Begum 2005). Video based health communication content also helps to transcend literacy and language barriers, and engage with other communication preferences of CALD communities such as the use of hand and eye contact when screened as part of face-to-face health education workshops, and visual signifiers of culture.

Community radio is often used to strengthen links within communities, provide linguistically appropriate audio content and provide an opportunity for CALD communities to participate in the life of the station (Jankowski 2002). Radio is an older form of technology that remains relevant because many communities have largely oral, rather than written language traditions, such as the Sudanese (Borland and Mphande 2006). Older members of CALD communities, for example, are particularly disadvantaged in terms of information technology literacy, but radio taps into the oral/aural nature of communication and is a familiar and easy to access form of technology which is important to CALD communities. Sudanese and other community radio programs appear on 3ZZZ, a well known community ethnic radio station in Australia, and the radio station itself is profiled on Facebook and has its own website (www.3zzz.com.au).

As these ICT-supported health and wellbeing initiatives have demonstrated, CALD communities use and access a broad range of ICT for a number of purposes, from news and entertainment to settlement and health and wellbeing information. New and emerging technology, such as the internet and social networking sites, are used by CALD communities but in particular ways. They are often combined with older forms of technology such as DVDs, CDs, multilingual phone support and radio, to help ensure communities are involved in communication, that content is culturally and linguistically appropriate, and that the ICT platform is easy to use and accessible. This indicates a holistic, 'multipronged' approach to the use and application of ICT taking into consideration human factors and cultural context, which has been identified (Beilows et al 2006) as a successful approach to development and integration of ICT for public health applications.

Conclusion

Existing research and resources related to ICT and health and wellbeing communication with CALD communities suggest that culture, ethnicity and health are interrelated factors that must be taken into consideration and addressed when working with people of diverse cultural and linguistic backgrounds. CALD communities have specific needs relating to the management of health and wellbeing. Age, gender, working life, the role of the family, lifestyle and religious and spiritual beliefs and practices are common themes that exist and need to be addressed through a careful management of the relationship between Western, English speaking health and wellbeing management styles and techniques. ICT plays

an important role in communicating on health and wellbeing during this process. CALD communities engage with new and emerging technology in varying and complex ways. Some have very limited access to more advanced forms of ICT, or only use it in specific ways, due to issues such as affordability, language barriers, literacy, communication preferences, lack of training and familiarity with ICT. Yet the evidence indicates that CALD communities have the capacity to utilize new and emerging ICT, and for those that do, it is often integrated with older forms of technology. CALD communities demonstrate a close relationship with affordable and accessible kinds of ICT, such as DVDs, multilingual phone support, community radio and television. Current research and examples of practice indicate that this form of ICT supported communication can be harnessed and used strategically with new and emerging technology for more effective communication of messages of health and wellbeing to Australia's rich and culturally and linguistically diverse population.

FINDINGS

Interviews with CALD community members

Demographics of interview participants

A broad cross-section of people representing the Vietnamese, Samoan and Sudanese communities were interviewed for the project. Fifteen community members participated (five from each community) and they ranged in ages from 18 to 60+ years. The table below details the spread of participant ages.

Table 1: Age range of community members

AGE RANGE	NUMBER OF PARTICIPANTS	PERCENTAGE
18-29	5	33.33
30-44	5	33.33
45-60	4	26.67
60 years+	1	6.67

The gender balance of the participants was 47% women and 53% men.

The date of arrival in Australia of the community members interviewed varies from 1978 to 2008. Seven participants arrived in Australia in the 2000s; five participants arrived in the 1980s and one participant arrived in 1978.

The majority of participants (approximately 87%) spoke a language other than English at home. All the participants used English at some level; 80% of respondents knew English either very well or well; 20% did not know English well. Over eight different languages were identified other than English.

Sixty percent of community members participating in interviews had higher education beyond high school. Approximately 13% had only primary education and 27% had high school education. Forty seven percent of the community members received higher education in Australia. In this context it is important to note that all the Sudanese interviewed had a tertiary level education in Australia. This is quite different from the average educational backgrounds of adults in the broader Sudanese community, but reflected the community members who were willing to make themselves available for one on one interviews. This imbalance was addressed through ensuring that Sudanese with comparatively low levels of formal education and low literacy were included in the focus groups.
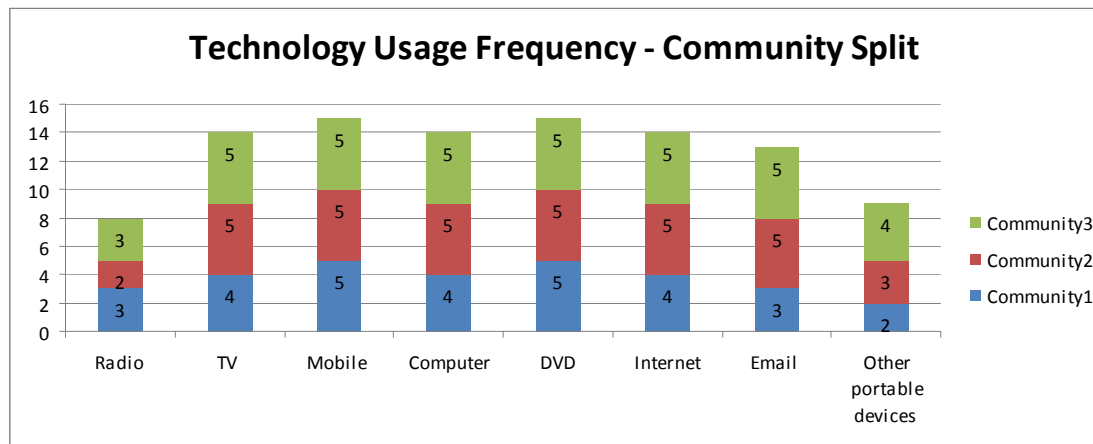
Use and access of ICT

General usage

The people from CALD communities interviewed for the project use and access a range of ICT but use certain types of ICT more than others. The study revealed that mobile phones and DVDs are the two most popular technologies with all the participants having access to these. These were followed closely by television,

computers and the internet with approximately 93% of participants using these forms of ICT. Interestingly, radio was found to be the least frequently used technology in all 3 communities amongst those interviewed.

Figure 1: Technology Usage Frequency – Community Split

Technology Usage Frequency - Community Split

Technology	Community1	Community2	Community3
Radio	3	2	3
TV	4	5	5
Mobile	5	5	5
Computer	4	5	5
DVD	5	5	5
Internet	4	5	5
Email	3	5	5
Other portable devices	2	3	4

Community 1: Vietnamese, Community 2: Sudanese, Community 3: Samoan

All the participants interviewed from the Sudanese and Samoan communities used a range of technologies including TV, DVD, mobile phone, computer, internet and email. Participants from the Vietnamese community used relatively fewer forms of ICT and relatively less of the functions of ICT, such as mobile phones and the internet. This difference between the participants is revealing in relation to the settlement periods of CALD communities in Australia. The Vietnamese participants are from a community that is generally considered to have been settled longer in Australia than a group such as the Sudanese. The earliest arrivals from each community were: 1978 (Vietnamese), 1981 (Sudanese) and 1990 (Samoan). This indicates a marginal difference between the Sudanese and Vietnamese participants groups in relation to period of settlement. However, this difference could be linked to education levels and English language skills as 40% of the participants in the Vietnamese community had only primary school education and did not know English well. Twenty percent of participants had only high school education and did not know English well. Sixty percent of the respondents in the Samoan community had only high school education but they all had good English language skills; the frequency of technology use by participants in this community is slightly greater than participants from the Sudanese community where all the participants have tertiary education and good English language skills.

Digital still and video cameras were the most commonly used portable ICT devices. Again, the Samoan community leads usage with 80% of participants using digital still cameras and 40% using digital video cameras as well. Of all the participants, approximately 67% used digital camera and 33% mentioned video camera. iPods were not very commonly used with approximately 27% mentioning its use.

Radio and television were widely used for news and entertainment. Of the two, television was more popular with 93% using it, including all the participants in the Samoan and Sudanese communities. The use of radio by participants indicates a preference for ICT relating to language. Radio was often used for programs and news in the participant's first language.

Mobile phones were used for a range of functions. All the participants used their mobile for calling friends and family. Approximately 67% of participants used their mobile for text messages. Of the 5 participants who did not use the text function of mobiles 40% had only primary school education, 60% did not know English well and 60% were aged above 45.

All the participants used multilingual DVDs for movies. Forty percent of participants also used DVDs for information. Traditional dances and community matters including church worship were some of the other uses of DVD.

Computers and the internet were technologies used by 93% of participants. Computers were used mainly for internet browsing (93%) and for preparing documents (87%). Common uses of the internet included:

- searching for information 93%
- news 87%
- email 93%
- social networking 47%.

Other uses included:

- music 27%
- movies and videos 27% .

The internet was also used for specific programs and online activities by participants:

- 5/15 participants (approximately 33%) mentioned using Facebook.
- 6/15 participants (40%) mentioned using YouTube
- 8/15 (approximately 53%) of participants mentioned using Google, while 33% mentioned Yahoo.

All participants who used computers used it for emails. Hotmail is the most popular with 5/15 (33%) using it, while 4/15 (27%) mentioned Yahoo mail, 2/15 (13%) used Gmail.

*NB: Percentage used against all the participants ie 15, percentage as against computer users only the denominator was 14

Ease of use of ICT

The mobile phone is one technology most participants consider easy to use. Approximately 73% (11/15) of participants found it easy to use.

The figure below shows percentage share of ICT community members find easy to use.

Figure 2: Ease of Use of Technology

Technology - Ease of Use
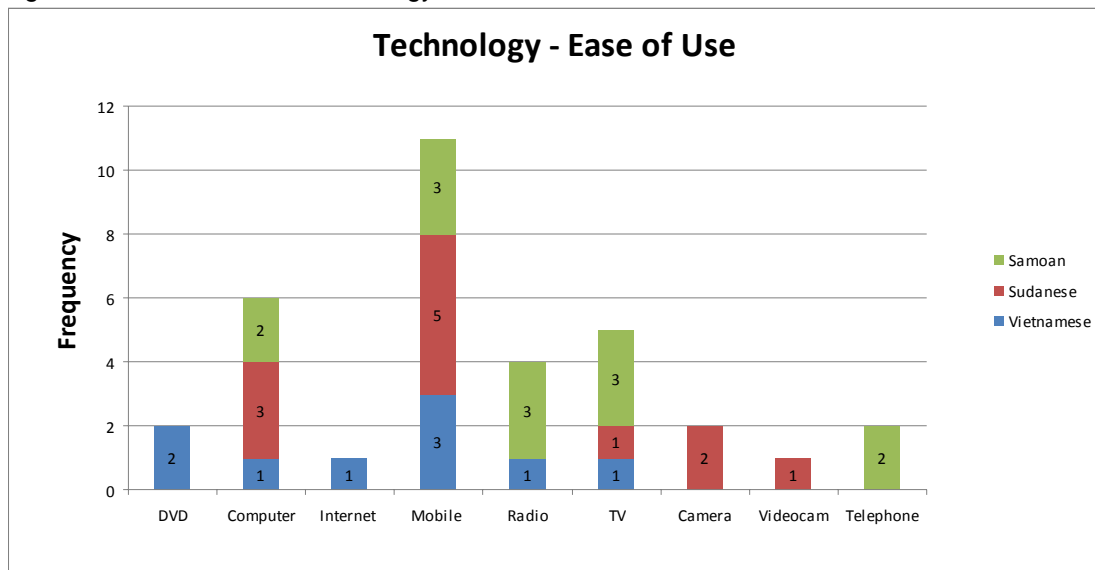
Participants also discussed other easy to use technologies, and those mentioned include:

- Approximately 29% of TV users found it easy to use (4/14)
- Approximately 43% of computer users found mentioned its ease of use (6/14)
- Digital camera 20% of all digital camera users (2/10)
- DVD 13% of DVD users (2/15).

Location of access

All the participants had access in their homes to most of the technologies they access every day.

Figure 3: Technology accessed from home

Technology accessed from home

A bar chart titled "Technology accessed from home" showing values (0–90) for each technology:
- TV: 80
- Radio: 33
- DVD: 53
- Computer & internet: 80
- Mobile phone: 80
- Digital camera: 20
- Telephone: 27
- Stereo: 13
- Videocamera: 7
- Ipod: 7
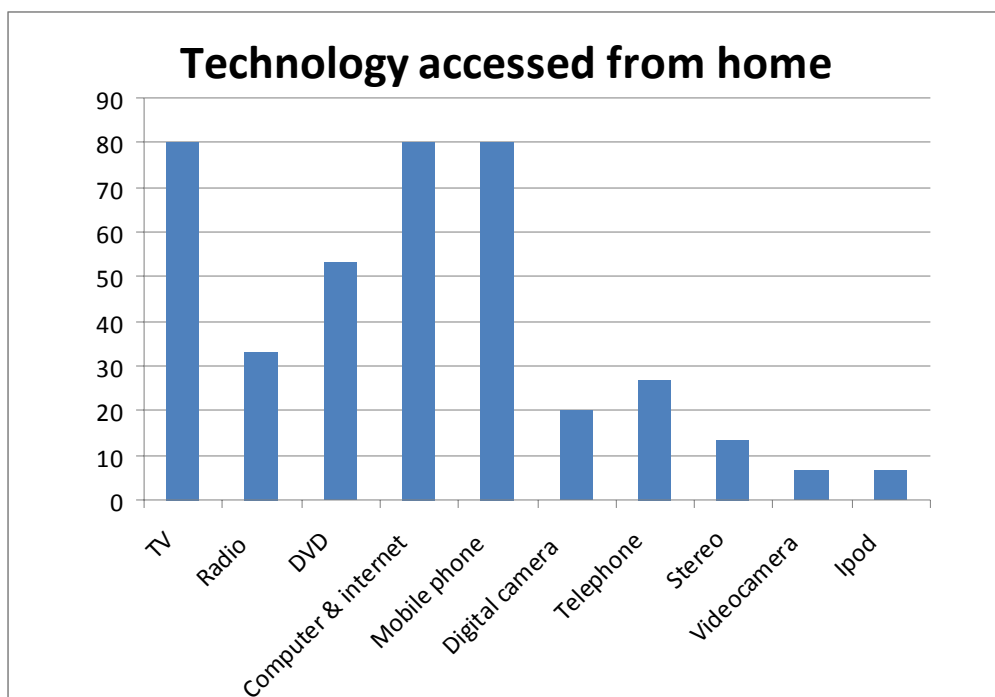
Eighty percent of participants mentioned using TV, computers and mobile phones at home. Fifty-three percent (8/15) had access to technology in their workplace. Internet cafes, libraries and churches were also mentioned as places where the various technologies could be accessed.

Learning to use ICT

The majority of participants (67%) admitted learning use of technology themselves by observation and trial and error. 60% (9/15) participants would seek the help of others, including sales persons, family and friends, to learn the use of new technology. At least 53% (8/15) had some sort of training in the use of computers through a course and 20% have resorted to manuals to learn to use new equipment.

Levels of ICT usage in the family and community

All participants mentioned age-related differences in the use of technology in families and communities. It was generally agreed that younger children show more knowledge and interest in technology than older people.

The majority of participants (60%) felt that the use of technology in their families was typical of the use of technology in their communities. It is to be noted that the majority of participants from the Sudanese community did not think their use was typical of their community's patterns of use.

Health and community wellbeing messages

Awareness of health and community wellbeing messages

Advertisements relating to smoking, drinking, cancer and infectious diseases such as influenza and swine flu were messages most recalled by participants. Fifty-three

percent (8/15) recalled anti-smoking ads while 33% (5/15) recalled messages on drinking, cancer and infectious diseases.

Other advertisements most recalled were on:

- Healthy food/nutrition – 20%
- Heart disease – 27%
- Diabetes – 20%
- Drugs – 13%.

The majority of participants mentioned seeing the messages on TV (60%, 9/15). Other locations of messages included radio, bus and train stations and billboards.

Source and usefulness of health information

The majority of participants (73%, 11/15) mentioned receiving health information from more than one source. Specific sources of information were:

- 9/15 participants (60%) get information from their doctor or the health centre
- 8/15 (53%) participants have received health information from TV
- 6/15 participants (40%) have other community related sources like community groups, newspapers and health newsletters
- 6/15 participants (40%) have used the internet to find health information.

Of this the majority (12/15, 80%) find the information they receive either useful or very useful. Four participants (27%) raised concerns over the comprehensibility of messages to the elderly and to those not proficient in English. Three participants suggested that in order to overcome language barriers messages need to be interpreted and translated into community languages. It should be noted that respondents from all the three communities surveyed raised concerns of health messages reaching the intended because of language and literacy barriers.

Health and community well being issues of importance

The following were the major health and well-being issues identified by participants as of particular relevance to their communities.

- Smoking
- Allergies
- Children's health
- Healthy lifestyle options for the community
- Healthy diet
- Asthma
- Prevention of disease
- Diabetes
- Drugs
- Obesity
- Depression
- Chronic disease management
- Alcohol
- Mental health
- Obesity

- Diabetes
- Heart disease
- Sexual health
- Exercise and diet
- Medication – usage
- Epidemics
- Cancer.

Participants from more than one community raised concerns over the following health issues:

(a) Sudanese and Vietnamese:
- Alcohol
- Mental health
- Obesity
- Diabetes
- Heart disease.

(b) Sudanese and Samoan:
- Healthy food/nutrition and diet

Preferred mode to receive health messages

Television was the most preferred choice for participants to receive health messages (6/15, 40%) followed by the internet and mobile phone each with 5/15 or 33% preference.

Sixty percent of participants from the Sudanese community like to receive information from community newspapers and magazines and through workshops and seminar organised in the community. For Vietnamese community members the preferred choice was television (40%), and for participants from the Samoan community it was television and mobile phone each with 60% of participants' choice.
Sixty percent of participants (9/15) noted that they will verify the health information they receive from various sources with their health centre or doctor.

Problems in using technology to communicate health information

Some of the problems, challenges and limitations in using ICT to communicate health and community wellbeing messages identified by the participants include:

- changes in technology limits access especially for older people and the less literate in the community
- language skills in English limiting understanding of the messages
- personal preference to seeing more TV than radio may limit access to messages
- messages on TV and radio during working hours are often not received
- personal preferences limiting access; for instance the preference for elderly to listen to radio
- affordability of technology may also affect usage
- problems with operation of technology limiting access
- conceptions of health risks associated with use of certain kinds of technology limiting use (e.g. mobile phones).

Key themes concerning the use of ICT for the communication of messages of health and community wellbeing with CALD communities

The data indicates a correlation between age, level of education and English language proficiency and the use of various kinds of technology. The data signals a definite correlation in that younger participants with higher levels of education and with good English language skills (having had tertiary education in Australia) seem to be the more proficient users of various new and emerging ICT more efficiently i.e.

they use more of the functions possible with new technologies such as social networking platforms like Facebook and Youtube and text messages on mobile phones.

Smoking, cancer, infectious diseases and heart disease have been identified by participants as the major health issues of concern in the community. Participants feel the need for more community awareness in tackling the health issues. Most of the participants feel that health messages communicated in English are not well understood by some members of the community. Participants also prefer the distribution of messages in the community's language/s for better comprehensibility for all sections of the community.

Age appears to be a factor affecting technology decision making. All participants credited children and younger people in their families and communities with better knowledge of technologies. People in the community are comfortable using the technologies they already know rather than adopt new technologies – "I tend to stick with what I know because it is easier." (Sudanese community member)

The following are some of the issues in getting health messages across to the community came as suggestions from the participants.

- The messages being in English are not well understood by some in the community.
- There is lack of community awareness on certain health issues. More information should be made available to public ensuring that it reaches even the elderly. Community organisations and bilingual educators can play a significant role in this.
Women in the community may be relatively disadvantaged in accessing health information through the various technologies for several reasons: poor computer literacy limiting access; -lack of basic literacy and numeracy;
women's primary role in child rearing leaving them little time to learn technology .

This data suggests that special computer training programs for women will be helpful. Additionally, cultural issues specific to the community, such as sexuality and issues related to sexual health being a taboo in Sudanese groups, making it hard to seek health information especially, on sensitive issues such as STIs.

Focus groups with CALD community members

This section details demographic data and summarises focus group responses to issues related to the use and access of ICT for communicating messages of health and community wellbeing.

Demographics of interview participants

The table on the following page provides a community by community profile of focus groups on the basis of age, language, year of migration, education and English proficiency.

Community	Focus Groups (No.)	Partici pants (No.)	Age Range (%)	Arrival in Australia (%)	Gender (%)	Highest Education Level (%)	Place of Education (%)	LOTE/s at home (%)	English Proficiency (%)
Samoan	4 Melbourne - 4	23	<30 = 17% 30-44 = 44% 45-59 = 35% >60 = 4%	Pre-1980 = 9% 1980s = 13% 1990s = 39% 2000s = 21% Aust born = 9% Unknown = 9%	Male = 39% Female = 61%	Primary = 9% Secondary = 52% Tertiary = 35% Unknown = 4%	Fully in Australia = 18% Fully in Samoa = 48% > one country = 34%	74% Languages: Samoan (16) Italian (2) Croatian (1) Japanese (1)	None = 0% Poor = 22% Good = 74% Unkn. = 4%
Sudanese	4 Melbourne - 3 Warrnambool – 1	22	<30 = 18% 30-44 = 68% 45-59 = 14% >60 = 0%	Pre-1980 = 0% 1980s = 0% 1990s = 0% 2000s = 91% Unknown = 9%	Male = 64% Female = 36%	Primary = 14% Secondary = 46% Tertiary = 32% Unknown = 7%	Fully in Australia = 23% Fully in Sudan = 55% > one country = 22%	100% Languages: Arabic, (20) Dinka, (12) Chollo (6) Uduk (1)	None = 32% Poor = 23% Good = 45% Unkn. = 0%
Vietnamese	4 Melbourne - 3 Robinvale - 1	28	<30 =11% 30-44 = 18% 45-59 = 29% >60 = 43%	Pre-1980 = 7% 1980s = 46% 1990 = 29% 2000s = 11% Unknown = 7%	Male = 46% Female = 56%	Primary = 14% Secondary = 46% Tertiary = 32% Unknown = 7%	Fully in Australia = 25% Fully in Vietnam = 61% > one country = 14%	75% Languages: Vietnamese (21) Cantonese (1)	None = 22% Poor = 32% Good = 39% Unkn. = 7%

Table 2: Summary of Focus Group Participants, Community by Community

SUMMARY: SAMOAN FOCUS GROUPS

Types of ICT used

Samoan community focus groups reported using the following ICT:

- mobile phones
- television
- radio
- community radio (such as SBS, Samoan programs)
- computers (laptops and desktops)
- internet
- DVDs
- CDs
- landline telephones
- digital video and digital still cameras
- community radio
- 'mainstream' radio
- iPods and videogame systems – Xbox, Playstation
- social media – Facebook.

Samoan focus groups often identified young people as using and accessing newer and emerging forms of technology, and older generations will often turn to them for help and assistance in learning or using unfamiliar ICT. Young people were also seen to be using the range and functionality of ICT more than older generations. This was reflected in the responses of younger Samoan community members at focus groups. Some young Samoan community members also noted that 'technology surrounds them' and they have 'been brought up with it'. They often felt that it was used regularly by them in the workplace and the education system and this influenced their familiarity with ICT, and differentiated them from their parents and older members of Samoan communities.

Mobile phones, television, radio and landline telephones were often identified as easy to use technology, and technology that Samoan participants used everyday. Mobiles were used extensively to speak and text. DVDs were also noted as very easy to use and used regularly by the community. Mobile phones were often referred to as the easiest and most used form of ICT with the Samoan community. Some young focus group members noted the ease of the 'wheel' interface on iPods.

Group members reported accessing ICT at home, work and sometimes at libraries. Television, computers, mobiles, radios, landlines, iPods and videogames systems were used at home regularly.

Access to and Use of ICT

Mobiles
Mobiles are used frequently by focus group members and for a variety of purposes: to talk to people, take photos, go online, access email, and send and receive email messages, to send and receive text messages. As in the other communities in this study, mobiles are used by a broad range and number of people within the Samoan community.

DVDs
DVDs were used for entertainment and information. Some members reported using DVDs to receive information from friends and families in Samoa.

Digital Video and Digital Still Cameras
Digital recording devices were being used by focus group members for specific purposes such as recording community events, and also to assist with rehearsals for performances, and sporting events.

> "When we film our practice, we can take it home, makes our life easier."

Computers
Desktops and laptops were used regularly by focus group members: to write letters/articles, access the internet, send email messages, listen to music, keep photographs, read the news, and play games.

Internet
The internet was used regularly – specific uses included banking, watching videos online and communicating with friends and family overseas and in Samoa. It was also used to listen to music. Bebo was used by some younger members of focus groups. Facebook was also used, but primarily by younger generations of Samoans. Facebook was noted as a cheap way to communicate with friends and family here and in Samoa.

> "Long distance phone calls can be expensive. With Facebook you can leave comments, post photos." (young female)

The internet was also noted as very useful if community members miss the news, and podcasts were regularly downloaded.

Google was often used to find information.

Email
Yahoo, Outlook, hotmail, Google mail were all mentioned, while some focus group members reported using personal emails such as: uca.vic.au

Videogames
Videogames were used regularly by younger members of focus groups and many had Playstaions, Nintendo Wiis or Xboxes.

Television
Television is regularly used to watch news, movies, entertainment and play videogames.

Radio
Radio was noted as important, particularly Samoan radio programs, and also as a resource that transcends literacy barriers. However, the problem of time slots and missing shows were noted by some focus group members.

Health and wellbeing messages

Participants in Samoan focus groups reported being aware of the following health and wellbeing messages:

- smoking
- heart care

- high blood pressure
- diabetes
- swine flu
- depression
- mental health
- ice
- drinking
- sexually transmitted infections

Language was regularly raised as an issue in the focus groups. One group noted that those from the Samoan community who cannot speak English are often disadvantaged. This is due to messages being primarily in English. Focus groups often felt that more information needed to be made available in Samoan.

> *"Translating messages to our languages is very important."* (Samoan focus group member)

Some members noted that anti-smoking messages were effective. However, the importance of language was again highlighted, and also the need to have direct communication with organisations developing and distributing health campaigns.

Focus group participants source information from doctors, Department of Human Servcies, health nurses, hospitals, emergency units, community welfare agencies. Often, Samoans will see messages (mostly in English), and then consult the doctor, or family and friends.

Community participation in health and wellbeing communication

Focus groups raised the following health and wellbeing issues as important for awareness with Samoan communities:

- obesity
- exercise
- diabetes
- high blood pressure
- heart disease
- cancer
- alcohol
- children's health.

Some focus groups noted that due to lifestyle changes from the homeland they felt more susceptible to health issues associated with obesity and diabetes.

Group members frequently indicated they were not consulted about how to best receive health information, but that their doctors did communicate with them if they wanted specific information on certain health issues. Some focus groups noted that health campaigns in New Zealand were often much more effective than Australian ones in targeting Samoan communities.

Some group members expressed a preference for receiving health and wellbeing information from GPs and the internet. Groups also indicated that they trusted information that comes from government.

A translated, monthly health newsletter was noted by one group as a good way to communicate on health and wellbeing with the Samoan community. Another group supported the idea of a newsletter in Samoan, but also noted that a DVD (with video in Samoan) would be useful in family settings. Families could watch the DVD together, or DVDs could be screened at community health information sessions. The strength and effect of word of mouth in the Samoan community was also noted by focus groups.

One focus group member noted that DVDs would work very well, and especially for older members of the Samoan community:

> *"A DVD in Samoan would spread like wildfire within the community."*

Another focus group member noted culturally relevant DVDs may be 'checked out' but not necessarily effective.

One group noted the importance of using appropriate language when using any form of ICT enhanced communication with the Samoan community. Some groups also indicated that there were health and wellbeing resources available online, but some Samoan communities simply weren't aware of them.

The consideration of gender was raised as important and tailoring messages specifically for men or women in relation to cultural and linguistic background was considered to be essential.

Stigma and taboo health and wellbeing issues were regularly highlighted as a problem. Sexual health, contraception, STIs and other sensitive health issues were noted as challenging because there are often generational differences in attitudes relating to these health matters. Dialogues around these health issues were noted as important, particularly how communication between families and communities occurs.

One young female focus group participant noted that an effective health campaign for youth would need to involve an event, such as a music performance, where there are high levels of interactivity, featuring someone they know and respect. She noted a website would be less effective.

SUMMARY: SUDANESE FOCUS GROUPS

Types of ICT used

A range of ICT was used by participants in the Sudanese community focus groups. These were:

- mobile phones
- television
- internet
- DVDs
- CDs
- landline telephones
- digital video and digital still cameras
- community radio (such as SBS in metropolitan areas or 3YB in Warrnambool, SBS)
- 'mainstream' radio

- iPods and videogames.

Groups noted that young people were mainly using iPods and videogames.

Access to and Use of ICT

Mobiles and television were generally reported as being the easiest forms of ICT to use. Most participants carry mobiles around with them all the time and find them easy to use and access. They spoke about watching free to air television, specifically ABC and SBS. The groups also felt that DVDs are easy to use.

ICT is used at home, in the library and in the workplace. Groups reported using mobiles, internet, DVDs and television at home. Members felt they were less likely to use public internet access because they felt it didn't fit with their schedules:

> "We don't get it when we need it." (male Sudanese community member)

Generally, groups felt that other families in the community were similar to their families. They noted that young people used other technology such as: Xbox, PSP, videogames, iPods. They also felt that young people access and use the internet more often, and have more knowledge in general of technology.

Mobiles
Some members of groups had later model mobile phones, but many had older models. It was noted that it cost more to have a newer mobile and therefore they did not want to pay extra money for a later model. Brands used by groups included Nokia, Samsung and Motorola. Some participants, but only a few, had 2 mobiles, and one member owned and used an iPhone. The mobiles are used for both speaking and texting. A female member reported that she rarely texted. All the other members reported using text messages mainly for specific and/or important information, for example sending account information for banking, addresses, phone numbers. One group noted that abbreviations in English can be a problem – some don't know what they mean, but this was seen as a minor problem.

> "The use of texting is very slow. My English has not yet improved. I use that, but not much." (male Sudanese community member)

Groups reported that a mobile phone is the first ICT device they purchase. A mobile is important because it is portable. They also used mobile phones to call friends and family back home in Sudan. Many group members had pre-paid mobiles because contract plans were too expensive.

> "The mobile is very quick to access. In emergency cases, like accidents on the road, you can call up your family, call police, call ambulance for rescue. So that is the goodness of using a mobile." (male Sudanese community member)

> "It connects me to my friends, family and other people. I use the mobile more than the internet, it's easy." (male Sudanese community member)

DVDs

Groups reported using DVDs in English and in multilingual formats. They will often go to organisations (such as settlement services) to obtain these and other information. They also use them for watching movies (in English) and other forms of entertainment. Most members of groups owned a DVD player and had television at home.

Digital Video and Digital Still Cameras
Some groups spoke of using digital video cameras for entertainment and at family celebrations and community events/activities. Others talked about the importance of recording and keeping the family history.

Computers
Groups generally used computers to access the internet and write documents such as essays, job applications and powerpoints. In one group a male student used Photoshop on his computer for image editing. Other group members reported watching video files on desktop computers.

Some female members of focus groups reported using computers, but few were confident or regular users, and relying on a family member for assistance was common.

Internet
Most groups used the internet for a range of reasons: email, weather, immigration information and news from Sudan, newspapers (both community based news sites and other English speaking publications such as The Age and The Standard (local paper). One female from a group said she uses the internet for government information, health information from VicHealth (nursing education), health alerts, health information and data for her job and study. One participant noted learning and using Facebook to send and show photos.

Email
Groups noted they used Google mail, Hotmail and Yahoo. However, in the all female Sudanese focus group, only ¼ of participants used email. Some participants noted using Facebook to send emails to family and friends.

Videogames
Most Sudanese focus groups didn't use videogames. Some members reported that they felt the material was not suitable and refereed to a 'culture of violence and killing' in videogames which made them feel uncomfortable. Some members don't encourage their kids to use them but they recognise that some Sudanese youth play them. Younger focus group members, however, played video games often and found them fun and engaging.

Television
The Sudanese female focus group reported television being the preferred technology for entertainment purposes. Some members had subscriptions to Arabic TV services and preferred this to any of the local channels. One focus group member noted that he uses satellite television to access information relating to Sudan and that this is helpful and educational. In general, the group felt that Australian television is good for news and entertainment and programs for the kids. Some groups noted that they tend to use television more than radio.

Radio
Members of focus groups generally didn't report listening to radio until prompted by the facilitators. Then members reported listening to community radio such as

Sudanese radio, ABC, SBS and commercial stations. Problems with radio were often noted, such as not enough programs or poor time slots, but it was still seen as important and members seemed to identify with a station being broadcast in community languages.

Health and wellbeing messages

Focus group participants advised they were aware of the following health and wellbeing messages and/or information:

- STIs
- swine flu
- diabetes
- healthy eating, dieting - including in relation to chemical additives, food labelling
- swine flu
- diabetes
- hygiene
- cooking
- Mad Cow Disease
- emergency Messages from Police (SMS)
- Women's health – pregnancy/contraception; reproductive health
- Children's health – healthy foods.

Participants were also aware of lifestyle oriented entertainment shows such as 'The Biggest Loser'. Television and mainstream media were often places where focus group members saw health and wellbeing related messages. Health information sessions were also used regularly. Some groups noted that many Sudanese don't speak English well enough and that language is an important consideration when communicating on health with the Sudanese community.

Members of some focus groups felt the information they receive is useful. However, many focus group members agreed that they felt that health and wellbeing information in Sudanese would be good. DVDs were often noted as being useful for newly arrived people.

There were also cultural considerations that groups noted were of importance around health and wellbeing messages. In relation to diabetes, one Sudanese woman noted:

> "Back home our place is hot, child work hard, like hard job, his blood is hot always and no sweet things always. In Australia, everything is sweet, coke, juice, sugar, everything. There everything is health, no juice, just water."

Communication with family members and through them with the health professional is also a factor in health message communication:

> "If you don't like the baby go to the Dr , injection, tablet. The Doctor explains to you and provides the information in writing to your husband"

Community participation in health and wellbeing communication

Focus groups identified the following as some important to them and important health concerns in their community:

- swine flu (more information on symptoms, what to do, protection procedures, outbreak)
- vitamin D deficiency (darker skin, living in a different location to Sudan with less sunlight)
- diet/health eating.

Groups spoke about preferred communication systems for health and wellbeing information such as:

1. GPs, face-to-face communication
2. Health information system through organisation
3. TV, internet and DVDs. They noted DVDs good for newly arrived people but health communicators need to use a range of ICT.

Most members of focus groups felt they would like to be consulted about health through workshops and/or face to face communication. Related to this some group members felt they would prefer to have a health issue discussed and dialogue created around a health issue at a community level and for information to be spoken in their own language by bilingual educators. Then health education courses/workshops could be run which are supported by ICT, for example DVDs and a website.

Members of some focus groups said they trust information from specialists/health service providers. With regards to information in the media, some groups noted that they compare different sources of information to reach an 'informed' opinion relating to a health matter.

Groups noted specific challenges relating to use of ICT in communicating on health:

- If someone doesn't have access to technology then they are not likely to be familiar with it and use it.
- The internet can be misleading and some groups were unsure about trusting it as a source of health information.

SUMMARY: VIETNAMESE FOCUS GROUPS

Types of ICT used

A range of ICT was used by participants in the Vietnamese community focus groups. These were:

- mobile phones
- landline telephones
- DVDs
- CDs
- television
- computers (laptops and desktops)
- internet
- digital video and digital still cameras
- community radio (SBS, 3ZZZ, Vietnamese programs)
- 'mainstream' radio
- iPods and videogames

- social media – Facebook.

Mobiles, landlines, television and DVDs were highlighted by focus groups as easy to use ICT that is used regularly, even if not everyday. The portable nature of mobiles was noted as very important, particularly in emergency situations and needing to contact family and friends urgently. Young people in focus groups reported the internet being easy to use.

Access to and Use of ICT

Mobiles
Mobiles were a well used form of ICT by all focus group members. Texting and speaking were common, but some elderly participants preferred talking and experienced some barriers relating to language and text pads on mobiles. Texting was seen as important in relation to communicating specific information.

Mobiles were of particular importance to the Vietnamese community living and working in Robinvale, northern Victoria. Members reported high incidences of crime and ICT regularly being stolen from their houses. None of the focus group members had computers, even though they expressed a keen interest in using computers to access the internet. However, they prioritised mobile phones above all other ICT. This was mainly to do with them being portable and more secure when they took them to work. Some of the Robinvale group accessed the internet and their emails from their mobile phones. However, they also noted problems with 'drop outs' in rural areas. Some members had two mobiles (with both Telstra and Optus). Optus was noted as cheaper but less reliable, and Telstra more expensive but more reliable. Telstra phones were often saved for emergency situations.

DVDs
DVDs were noted as important by focus groups because they could use the visual imagery much more than text based communication, and could also show Vietnamese community members in video sequences. It was these images that they noted they were more likely to connect and identify with. In one focus group, participants noted that spirituality DVDs, particularly those relating to Buddhism, were of special interest, and they found them valuable.

Computers and Internet
Most focus group members used computers, either desktops or laptops. A seniors focus group, made up mostly of men, had completed a basic computer introduction training courses, but noted they needed to keep practising to remember how to use computers and the internet properly. They all expressed a keen desire to learn and use computers more, and cited being able to access the internet to contact family and friends in Australia and Vietnam as a major motivation. Other seniors also noted that if they had a better knowledge on how to use a computer, they could read news online, contact people, pay bills and enjoy their online experiences more. One participant noted the need for more government support for internet use by seniors:

> *"If government subsidised pensioner the internet free, we would love to use it."*

Focus groups participants also talked about the role of the family in using and accessing ICT. Young generations were noted as using ICT more and having more knowledge of ICT functionality.

Younger people reported using new and emerging technology more often than older members of the Vietnamese community. Facebook was popular with young members of one focus group, but the internet was used for a wider range of purposes including: information, banking and emailing friends and family here and in Vietnam. Downloading music from the internet was a common use of the internet for young members of the Vietnamese focus group.

Television
Television was used regularly by focus group members for news and entertainment. Focus group members were often aware of large scale health promotion campaigns that were communicated through television, but also noted sometimes they were confusing due to cultural shifts in meaning when messages are experienced in a different cultural context.

Radio
Radio messages were cited as important due to the relevance of language and cultural content – morning and afternoon Vietnamese radio shows were important to many elderly focus group participants.

Health and wellbeing messages

Members of the Vietnamese focus groups were aware of the following messages.

- Quit Smoking
- Ageing
- Drink and Drive
- Diabetes
- Drug and Alcohol
- Exercise
- Swine flu
- Smoking
- OHS
- Speeding

- Obesity
- Health eating
- STIs
- HIV/AIDs
- Ice
- Travel guides
- Disability
- Depression
- Mental Health.

Some groups noted that highly visual, 'impact' based health communication strategies worked well – such as the graphic anti-smoking advertisements on television. The visual nature of the communication helped to transcend language barriers, and the 'shock' style of the message helps to create a sense of what may happen when community members don't look after their health. One participant noted these were much more likely to be remembered. Young focus group participants felt that repetitive, visual based imagery that is consistent across ICT platforms, and in places where people go regularly (e.g. train stations), could be an effective way to communicate on health and wellbeing. Young people also indicated that online advertisements for health would probably go unnoticed – many of them felt that they ignore ads and pop ups whenever they go online, and that the internet represents a more 'interactive' experience, and that normally they are seeking something in particular when they go online.

Community participation in health and wellbeing communication

The following issues were identified as needing communication:

- Active lifestyles
- Food
- Diabetes
- Alternative, holistic health management such as acupuncture
- Cholesterol
- Mental health
- Children's health
- Bullying
- Social isolation.

Focus groups reported that they are not consulted in regards to how health and wellbeing communication is developed or distributed. Robinvale participants expressed a desire for regular health information sessions in their area with bilingual health workers to assist with language barriers.

Some focus groups felt that there needed to be more health information on television, but that it needs to come from a reputable organisation, such as a government health department. The importance of maintaining constant communication with GPs was also noted.

Young members of some focus groups felt that it was important for health communication to reflect the diverse communities in Australia, and for campaigns to be less 'anglo-centric'.

Young people noted Facebook as an 'extension' of word of mouth. Rather than advertising ads on Facebook, participants noted it could be used strategically by seeing and understanding it as an extension of word of mouth communication. Awareness could be raised but through community members rather than static ads. This would mean that trust would have to be developed between recipients and distributors of information. Again, the importance of face-to-face communication, and of trust, was highlighted by focus groups.

One focus group noted the need for community leaders in community locations, such as temples, to have health and wellbeing training, so that they can assist with health issues such as:

- Occupational Health and Safety
- Allergies
- Duty of care.

This would help organisations and people to adequately deal with emergency health and wellbeing situations in a preventative way.

Focus group members also highlighted the importance of bilingual educators, culturally and linguistically relevant content, and affordable, easy to use access in relation to ICT- supported health communication.

Interviews with HSPs and other Key Stakeholders

Demographics of interview participants

A total of 20 participants from HSPs and other key stakeholder organisations were interviewed about their experiences working with CALD communities in relation to ICT and health and community wellbeing information. Participants were drawn from different levels within organisations and included community nurses, communication mangers, GPs, policy makers, ICT trainers and health education program managers. These organisations work with CALD communities in different capacities including: health service provision, health and community wellbeing communication, information dissemination with CALD communities, ICT related activities such as computer and internet training, digital storytelling workshops and/or ICT supported health education sessions. These interviews were analysed according to the nature and type of organisation: government (6), not-for-profit (9) and hospital/medial clinics (5).

The age of participants ranged from 26 to 55 years. The table below details participant ages:

Table 3: Age range of HSP and other Key Stakeholders

Age range	Number of participants	Percentage
18-29	2	10
30-44	10	50
45-60	8	40
60 years+	0	

The gender balance of participants was 65% women and 35% men.

Twelve participants could speak a language other than English. Eleven of the participants migrated from other countries and arrival in Australia ranged in years from 1963 to 2005. Eleven languages other than English were identified as being spoken by participants in the community.

All participants had completed tertiary qualifications, all but one at degree level or higher. Seven participants had been awarded higher degrees such as MAs and Doctorates. Other participants identified having completed postgraduate level (7) and Bachelor of Arts (3) degrees. Other qualifications completed included a diploma (1) and 2 participants noted they had completed a university degree but did not specify level or type. Most participants completed their university degrees in Australia, but two participants had completed university degree overseas.

Perceptions of key issues and challenges when working with CALD communities

Government

Participants working in government felt there were a range of general factors, challenges and issues when working with CALD communities in relation to ICT and the communication of health and community wellbeing.

Interviewees noted that CALD communities have particular needs in relation to health and wellbeing and there are issues related to differences in cultural understandings about health issues. Cultural understanding also plays an important part in the management of health issues. New arrivals not attending medical appointments was mentioned often as a problem. Factors such as religious practice and gender were mentioned as affecting access to health services. The need for a charter of patients' rights was raised to help ensure awareness around the right to be treated with respect and dignity, the provision of culturally appropriate services and access to information that's understandable and accessible, including access to an interpreter. Additionally, there are issues of family violence, sexual assault and female genital mutilation (FGM) that need to be addressed sensitively. Family and reproductive health education are important, as is preventive health education for young women.

> *"Then we got issues of Anglo people telling African people that their cultural traditions were barbaric" (Senior Project Officer)*

Language was a constant challenge for government working with CALD communities. Participants reported there is not enough access to interpreters. There are also resources needing to be translated, however getting translation in appropriate language is a challenge too. Multilingual content is important and it was suggested that PDF files lacking in graphic design are not user friendly for CALD groups. Information needs to be made available online, in a portal, in a technically appropriate format for easy dissemination. There are also challenges to put in practice language services and multicultural policies – resource constraints, lack of accredited interpreters, not enough testing material for accreditation.

> *"There's no consideration of the literacy level of the people at who it's aimed, and there's no consideration of their cultural preferences in terms of information provision. Are they from an oral tradition, in which case simply handing them a piece of paper isn't really going to cut it" (Senior Policy Advisor)*

The participants acknowledged that age is an important consideration when working with CALD communities, particularly in relation to technology. Training is often required for seniors in technology use, and there is a generation gap in the uptake of technology – participants noted that younger generations are more proficient with technology.

> *"That's a generation gap in terms of skills development...And younger generations' visual literacy is so significantly finetuned, that that's the strength of their kind of story telling" (ICT Manager)*

Interviewees spoke of the importance of culturally appropriate communication when working with people of diverse backgrounds. Consideration must be given to cultural meaning on content, literacy level of people and cultural preferences in modes of

communication, for example, if the community has a predominantly oral tradition. There is a need for more visual material, such as DVDs/CDs to ensure consistency of information presented in a way that is appropriate for communities with oral traditions, and which overcomes literacy and language barriers to a certain extent. An important consideration in the development of these materials is the need for consistent messages and coherent structure.

Participants discussed technical problems in use of ICT – lack of policy, lack of staff with particular expertise required to create and maintain sites or to adapt DVDs to internet based video, such as YouTube, or to set up and maintain a blog site.

The involvement of community was noted as important and for messages to be driven by community. There is a need to partner with organisations that know communities well enough to support their involvement. Often a mediator is required, such as interpreters and translators to work through linguistic and cultural barriers. Building confidence and trust with communities was noted as an essential part of working effectively with CALD communities.

Participants felt that workshops and training with CALD communities are often required, including for seniors in technology use. Workshops and training with CALD communities can be an effective way of developing the capacity of CALD communities in relation to ICT. An excellent example is the use of 'Digital storytelling' workshops where the scope of creativity and application of creative ideas can be very effective in encouraging the learning new technology for all age groups. One participant noted this can help to demystify technology and make it more accessible.

Hospitals/Medical Clinics

Participants from hospitals and medical clinics reported similar challenges to those working in government with regards to social, cultural and other factors influencing their work with CALD communities.

Problems associated with language barriers and a lack of effective interpretation was raised by participants, and in particular the need to understand the impact of stress and trauma on current level of functioning which is further complicated by language barriers.

The consideration of cultural background, gender, age and family were signalled as important. One participant indicated this was linked to expectations of service and attendance. The impact of family size was noted with refugees having a big growth in numbers and large size of families. Gender conceptions about certain activities like swimming was noted as important, for example separate classes for women from CALD groups. The need to encourage young people in decision making was flagged, and also the issue of a lack of support for young people from elders feeling threatened due to a loss of authority. The building of relationships with elders, parents, seniors was seen as important. It was also noted that there is a significant digital divide in terms of age (young and old), socio-economic backgrounds, access to technology, lack of skills to use technology meaningfully, exclusion through specific issues like homelessness, mental health. Also, projects for young people using computers tend to be resource intensive.

One participant noted the importance of communicating messages across to the breadth of the community and in ways that encourage self-management of chronic illness and general wellbeing. Information can be given in stages so that people from

the communities are not overwhelmed. The internet was signalled as a good resource of medical information for GPs who can then mediate and translate for patients. In addition, the need for health information to young people at schools was noted, as well as the importance of being able to answer questions with anonymity, free public access, in English with lots of graphics. Another participant noted the need for sensitivity in outreach work when communicating with CALD communities:

> *"So yeah we've created a number of resources and presentations and even the way in which we communicate and use interpreters, we're very aware to, we feel get to the most important thing very quickly, concisely". (Coordinator)*

Specific considerations were highlighted by participants in developing and managing relationships with CALD communities in health and medical settings. The longitudinal aspect of care can be used to build continuity and time is a valuable 'tool' in building a relationship of trust with CALD communities. Medical practice software was highlighted as important and having databases of patient details where disease and treatment information on diabetes, heart disease, women patients' special needs, flu injections list can be tracked. Participants indicated the complex needs for people with chronic diseases and challenges around understanding of medical condition and how to best manage them. Participants noted different cultural preferences for food and exercise, hence the need for individualised care planning, and assessment of needs and provision of required services. The family therapy model was raised as a way of working with CALD communities in medical settings. This involves family dialogue supported by a therapist who can cross cultural boundaries. The use of digital story telling was noted as a potential way for clients to talk about their experiences of family therapy.

Not-for-profits

Members of non-profit organisations found a range of issues important particularly in relation to language and literacy, employment and training, cultural sensitivity and understanding, and the communication preferences of CALD communities.

Language and literacy barriers were highlighted by participants. One interviewee noted that in working with CALD communities to empower them through ICT, language was a constant challenge. Another participant felt that there was not enough government support to learn English and felt that the amount of hours provided in English language training from AMES was not enough.

Interviewees reported that employment and training were issues when working with CALD communities. One participant noted that it can be difficult for some people from CALD communities to maintain ongoing employment due to a mismatch of their skills and experience to jobs, and that there tends to be a preference for local graduates in the job market. A lack of knowledge about and access to technology was noted as having an impact on employment opportunities. For example, single mothers and young people from CALD communities who haven't attended school have limited opportunities in the job market. Another participant noted the difficulty in providing effective health information to women from CALD groups when they are constantly moving to different jobs and industries.

Participants indicated a clear need for cultural sensitivity and cultural understanding when working with CALD communities. It was noted that there is often a lack of cultural understanding, including about cultural differences in lifestyle and levels of

education. One participant indicated that children from CALD communities are placed in classes according to age and not according to educational level or level of understanding. Another participant spoke of the problem related to a 'saviour mentality' when organisations work with CALD groups. This reflects a western approach which can be controlling, discriminatory, lacking in awareness of structures of leadership within communities, and lacking respect for people of diverse backgrounds. The participant noted that differences among different CALD communities are often not taken into consideration, and that there is a need to develop an understanding of a communal, holistic way of living in contrast to Western styles of individualistic engagement.

There were a number of considerations in relation to effective communication with CALD communities that were raised by participants. One interviewee spoke of the cultural differences in how people tell stories with regards to citizen journalism. For example, one community has a less direct style and another community may be intimidated by telling stories through their experiences of state driven media in the homeland. The use of the internet can help maintain links with homeland. The value of finding sites in a person's own language, and the support this provides in alleviated social isolation was noted, but it was also acknowledged that older generations from CALD communities have difficulty with technology use. Another participant noted the importance of arts projects in relation to young people in CALD communities in that they can help to unite youth around common goals in positive ways.

Visual based communication was a common theme among interviewees. One participant spoke of the need to develop community language materials. The importance of face to face sessions in community settings was also highlighted. Literacy and hearing barriers were noted and that they can be overcome by video and audio technology. Also, participants spoke of how illiteracy demands use of more visuals, DVD, internet and developing flyers for communities that are primarily visually oriented. Video based presentations were highlighted as effective to transcend literacy and language barriers, and can be helpful for stigmatised health issues. One participant spoke about women's health issues and that 'one-off sessions don't work for women's health issues which are complex; more sessions provide opportunity to reflect, think and speak with family.

> *"The major challenge is to keep things simple and to acknowledge that people on the receiving end of communications may not have a high level of literacy in their own language" (Projects and Communications Manager)*

Perceptions of how CALD communities use and access of ICT

Government

Participants from government indicated that the following ICT is used and accessed by CALD communities.

- Ethnic/community radio, ethnic/community press
- General radio stations
- Internet, email, email through established communication networks
- Bilingual and/or multilingual DVDs
- Telephone (landline)

- Mobiles
- Television and satellite television
- Digital Video cameras, computers, editing software – 'digital story telling'
- Facebook, YouTube, blogs, MSN messenger (more likely to be used by younger generation)
- SMS reminder of appointments.

The importance of using existing communication mechanisms of communities was highlighted. Interviewees also spoke of the importance of face-to-face and word of mouth communication with CALD groups.

Language skills (English) in relation to technology were again raised, as was the impact of literacy level and age on the depth and breadth of technology use. One participant suggested that appropriate messages needed to be based on these factors.

> *"Depending on age, you access technology, you change from DVD to a text message or an email, because it keeps them in daily contact with the technology and it's part of the way of life, they start growing better" (Community Projects Team Leader)*

Ease of use of technology was highlighted by participants as an important consideration. Community radio was reported as easiest to use for older people. It was noted that older people also favour the telephone. One participant noted with regards to radio that it is an easy medium for tailoring messages and rapidly updating information, such as swine flu updates. Also with community radio there is no need to translate thus meaning that the cost of production is comparatively low. One participant noted the internet was easiest for government departments – relative immediacy to upload, agreed process in place, less expensive and no time lag. The participant also reported that community language websites are widely used, but that a digital divide exists, especially with regards to age, and that older generations are not good at new technologies. In addition, due to their period of settlement, newer communities don't have good access to technologies.

Another participant noted that younger generations are likely to use Facebook, YouTube, blogs, MSN messenger, while older generations are more likely to connect with television, radio, newspaper and telephone. Community involvement was also noted as required for the production of culturally relevant content, with different strategies needing to be used for different levels of users. For example, messages designed to reach the younger generation may be best communicated through the education system.

Issues related to training were reported by participants, such as older men from CALD groups being reluctant to undertake training. Training in groups was noted by one participant as a preference of CALD communities, as well as appropriate content that 'speaks to them' in a way they can identify with. Training in the preferred languages of CALD communities was also noted.

> *"And in our own experience with the seniors, they're not likely to go off and do internet training courses because none of the stuff that is on offer speaks to them" (Project Manager)*

One participant flagged the relevance of DVDs in different languages with input from the community through consultations. It was reported that DVDs overcome problems

of illiteracy, are more easily accessible than the internet, they help to ensure consistency of message, and overcome problems of document size and downloading limits. It was also noted that it is important to have a different narrator for each language, someone from that cultural background, visible in the DVD with subtitles for wider access.

> *"But you see, we have the problem of trying to make sure that we're consistent in the messages we give, so it doesn't really work if someone just goes on the show and says their own stuff..." (Senior Project Officer)*

One participant also noted the potential of mobiles with regards to SMS reminders of appointments, and that mobiles are easiest to use, enabling access on the move.

Participants noted that satellite television is often used by CALD communities. This can be beneficial with regards to culturally and linguistically appropriate content, but can mean that CALD communities miss local content.

Hospitals/Medical Clinics

Participants from hospitals and medical/clinics reported that the following ICT is used and accessed by CALD communities.

- Mobiles – SMS to remind of appointments
- Satellite phones
- Multilingual phone support
- Computers
- CDs
- Internet - refugee specific websites
- Email
- Community radio
- Television
- DVDs
- Twitter
- Facebook, online chat rooms (for youth)
- Print media – newsletters
- Bebo (youth)
- MySpace (youth)
- Online games (youth)
- Digital video, digital camera
- Community-based websites.

Interviewees raised similar concerns to government workers in relation to the need for technology that is familiar and easy to use. The following ICT was identified by participants as easy for CALD communities to use.

- Telephone
- Mobile phones
- Internet (where access and use issues addressed)
- Radio
- Television
- Chat rooms for youth
- DVDs.

However, participants also noted specific barriers in relation to ICT such as: the difficulties in fostering adoption of technology for new and emerging communities as it is not a priority for them amid major settlement issues; the difficulty of ensuring access to internet and email; the elderly having less knowledge and skills with relation to using technology; the need for an easy technological platform to transfer

patient data directly from site of collection to medical systems; and the exposure to technology being a determining factor in use and access of ICT.

> *"Yeah, look we've had big big problems with people, elderly where they've got a phone, don't know how to charge their phone, their phone is switched off, you can't reach them, they don't know..." (Refugee health nurse)*

The importance of face-to-face communication was also raised.

> *"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". (Project Manager)*

One participant spoke about the effectiveness of a 'healthy lunchbox campaign.' This communication strategy featured information on packing healthy food for kids lunchboxes. It included a Monday to Friday guide as a fridge magnet, and a booklet to assist people with physical activity.

Not-for-Profits

Participants from not-for-profit organisations identified the following use and access of ICT by CALD communities:

- emails
- internet
- mobiles
- telephone
- ethnic newspapers and websites
- DVDs
- YouTube
- Facebook
- Home country news/websites
- Bebo, Twitter, MySpace
- radio and community radio
- SMS
- Satellite television
- Posters/flyers.

Not-for-profit workers perceived the following ICT as easy to for CALD communities:

- telephone
- internet
- mobiles
- television
- ethnic newspapers
- radio and community radio
- DVDs
- websites in community languages.

Mobiles were often seen as being used regularly by CALD communities and one participant noted that a Sudanese mother would be more likely to use a mobile phone than the internet.

Participants also noted a range of challenges, strategic uses of ICT with CALD communities and communication preferences. These were:

- Email can facilitate relationship with clients, connect them to future employers, and is not bound by time constraints

- Use of technology is determined by level of education
- Illiterate people prefer the phone
- Translated documents often don't get through to CALD communities
- Budgets often restrict modes of communication: DVD production can be expensive
- Facebook works well with younger generations
- Older generations are not skilled, so age is an important factor in the use and access of ICT
- those with English are more likely to use internet sites
- telephone 'follow' ups with CALD community members by not-for-profit workers can be effective
- online information from the home country is often popular with CALD community members
- Radio can be strategically used in communities to overcome literacy and linguistic barriers, to get the message across by developing a familiarity over time with programs.

One participant noted that radio and television don't require highly developed knowledge or commitment to use. This was seen as an important consideration by the participant in relation to new and emerging ICT. The participant noted that communities are aware of various types of ICT, but don't have time to learn or use them as they are busy 'building' lives.

> "It's (mobiles) really easy, you can put them in your pocket, switch them off whenever you want, can be low cost, people use lots of text messages." (Health Education and Promotion Programs Manager)

Face-to-face communication was again highlighted by a number of participants as an important part of communicating with CALD communities.

Health and wellbeing messages

Government

Government participants reported CALD communities being aware of a range of health and wellbeing messages and communication. The following were identified by participants:

- Safe food handling
- healthy eating
- diabetes
- cancer
- flu
- alcohol
- drugs
- smoking
- exercise
- heart disease
- nutrition
- parenting
- domestic violence
- patient charter of rights
- breast cancer
- sexual health
- healthy food
- mental health
- disabilities.

The sources of health and wellbeing messages that CALD communities are aware of as identified by government participants were:

- Face-to-face communication
- Community leaders
- Internet
- Health centres
- Local government
- Migrant resource centres
- Planned group sessions, e.g. ethnic specific seniors groups
- Radio
- Internet
- community television
- mainstream television
- newspaper
- information sessions
- word of mouth from friends
- family
- community members
- HSPs
- Churches
- community organisations
- educational settings
- sporting clubs
- GPs
- community workers.

Participants noted the following 'trusted' sources of information for CALD communities:

- Face to face communication with community leaders
- Doctors
- HSPs
- Older generation - word of mouth from doctor
- Younger generation - online sources
- community leaders
- family members
- radio
- migrant resource centres
- religious leaders
- friends

Interviewees felt the following health and wellbeing issues were needed and/or of particular importance in relation to CALD communities:

- Smoking
- Alcohol
- healthy lifestyle
- mental health/depression
- diabetes
- healthy eating
- encouraging incremental behaviour and life style changes (not overnight)
- smoking
- seat belts
- speeding
- how health system works
- how to access healthcare
- hepatitis
- dental care
- child abuse
- sexuality
- mental health
- disability.

Government interviewees reported the following sections of people within CALD communities as not being reached in the communication of health and wellbeing messages:

- people with disability
- vision impaired
- low level of literacy
- low level of technology access
- isolated people new to CALD communities

- women who may be in patriarchal settings
- older people with less access to technology
- certain language groups without sufficient interpreters e.g. some African languages and isolated groups that are not visible members of the community
- women with low level of education.

One participant noted the need for affordable, speedy and 'multi-pronged' communication strategies with CALD communities:

> *"I think that it's hard to have a one size fits all across any community, and that they are as different between as within. That multi-pronged kind of strategies with consistent messages is what's required, and a diversity of modalities. But somehow we have to make that affordable and fast enough to not miss the boat". (Senior Policy Advisor)*

Another interviewee spoke of the importance of working with communities and having people who know communities well:

> *"So again, it's knowing someone who really knows that community and knows how to get into that community best of all and deal with all the sensitivities that need to be dealt with from a cultural context".*
> *(ICT Manager)*

Hospitals/Medical Clinics

Participants from Hospitals/medical clinics reported CALD communities being aware of a range of health and wellbeing messages and communication. The following were identified by participants:

- healthy diet
- mental health
- dental problems
- chronic back pain
- exercise
- obesity

- swine flu
- mental health
- swine flu
- depression
- anxiety
- psychosis.

The sources of health and wellbeing CALD communities are aware of as identified by hospital/medical participants were:

- medical professionals
- doctors/GPs
- nurses
- health centre
- HSPs
- Churches
- Television
- community members
- internet
- radio
- elderly citizen clubs

- ethno-specific agencies
- migrant resource centres
- schools
- health centres
- sports clubs
- pharmacist
- mass media
- family members
- friends
- sports coaches - for young people.

Participants noted the following 'trusted' sources of information for CALD communities:

- relationships that have built trust over time
- doctor
- neighbour
- radio
- other media
- internet.

Interviewees felt the following health and wellbeing issues were needed and/or of particular importance in relation to CALD communities:

- exercise
- long term wellbeing of children
- child abuse versus discipline
- contraception
- disease prevention
- diabetes
- diet
- chronic back pain
- prostate cancer
- cooking

- healthy food
- nutrition
- smoking
- gambling
- immunisations
- mental health
- messages that they can understand and that relate to their needs.

Participants reported the following sections of people within CALD communities as not being reached in the communication of health and wellbeing messages:

- people with low level technology use, such as single mothers at home
- disabled people
- elderly
- isolated people due to past trauma
- low level English language skills
- those with cognitive impairment
- people with major social, financial and mental health issues, such as those with a history of trauma and stress
- young men with mental health issues
- those with a chronic illness.

One participant felt that there was an unnecessary focus on clinical symptoms of illness rather than overall happiness.

> *"I think a lot of the time we focus on actually alleviating people's clinical symptoms or their illness, or their disorder rather than actually being able to promote feeling health or, and things like feeling like you belong, feeling happy, feeling like your relationships are all going well." (Research Project Manager)*

Not-for-profits

Participants from not-for-profit organisations reported CALD communities being aware of a range of health and wellbeing messages and communication. The following were identified by participants:

- smoking
- alcohol
- diabetes
- exercise
- swine flu
- healthy eating
- drugs
- alcohol
- obesity
- depression
- early intervention
- first aid
- suicide prevention
- OHS
- reproduction
- contraception
- postnatal depression
- pregnancy
- breast health
- pap smear.

The sources of health and wellbeing CALD communities are aware of as identified by not-for-profit participants were:

- ethnic websites on internet
- HSPs
- Internet
- text based posters
- word of mouth
- email networks
- newsletter in print
- government campaigns
- health workers
- community members
- GPs
- television
- mainstream media
- radio
- Western Region Health Centre
- Foundation House
- Trauma and Torture System
- welfare officers at educational institutions
- migrant centres
- Multicultural Centre for Women's Health (MCWH)
- health education sessions
- ethnic specific organisations,
- community gatherings
- festivals
- places of worship
- sporting events.

Participants noted the following 'trusted' sources of information for CALD communities:

- family
- friends
- Doctors
- key community leaders
- community religious leaders
- MCWH.

Interviewees felt the following health and wellbeing issues were needed and/or of particular importance in relation to CALD communities:

- messages on minimising impact of settlement for immigrant women
- empowerment through information

Participants reported the following sections of people within CALD communities as not being reached in the communication of health and wellbeing messages:

- working class men
- elderly women

One participant noted that communities were often unaware of the availability of information in their own language on websites and that a useful approach when working with CALD communities would be to create awareness around existing online resources. Another participant spoke of the need for 'easy' English and to support face-to-face communication with visual resources. Bilingual educators were also noted as important by this participant.

> "If you go to the health service like (Service X), there are massive ethnic, there are massive information that are translated into different languages but how many percent of the ethnic groups are aware that this information is available?" (Project Officer)

Another interviewee spoke of the cultural shift in meaning that occurs when mainstream media communicates messages of health and wellbeing. The participant cited the 'If you drink and drive, you're a bloody idiot' advertisement and how the meaning of this ad changes for CALD communities and may not have the same affect as for the wider Australian audiences. This participant also noted that misinformation can occur through word of mouth communication within CALD groups.

> "In CALD communities, everyone is a doctor." (Project Officer)

One person spoke of the advantage of using outreach work with CALD communities.

> "Because we go and provide them with information in the comfort zone of the place of choice in their area, where they meet for socialising purposes anyway, we go there. We do outreach. If we expect women to come, to pick up information from here, and to keep for all our bilingual educators to be available here 24/7 for the women, women will not come, simple as that. That's why we go where they

are, into their workplace, so we make it convenient for them to access information" (Health Education and Promotion Programs Manager)

Examples of best practice

Government

The following are what government workers feel are examples of best practice when communicating with CALD communities on messages of health and wellbeing.

- Information in own language for seniors – language and content of interest (Eg Better Health channel)
- Mediated information and online resources (e.g. fact sheets in safe food handling
- Training in social groups
- Culturally sensitive messages that are gender specific – e.g. Islamic communities using women presenters and interpreters to deliver messages to women to overcome gender sensitivities.
- Developing a relationship of trust with CALD communities to enable discussion of sensitive issues.
- Continuous dissemination of information rather than flash information sessions or short term research. For example, information on lifestyle health issues consistent and over a long period of time
- Ethnic specific programs on radio.
- Messages in preferred language and use of simple language, with oral and visual content that is tailored to suit specific CALD communities
- Messages distributed through community networks
- Ensure there is face to face communication
- Use messages that people can relate to, that generate emotional connectivity – equating a specific community, social and family context to the broader health messages
- Messages that provide specific examples that have meaning and value relevant to CALD communities - clear and impartial messages
- Presentations at women's groups
- Word of mouth
- Using bilingual communicators
- Government input to stamp authority on messages.

Hospitals/Medical Clinics

Workers from hospitals/medical clinics noted the following examples of best practice when communicating with CALD communities on health and wellbeing:

- DVDs on disease management, heart surgery, diabetes. Footage that features community members narrating experiences.
- Combine face to face and visual aids – e.g. Lunch Box fridge magnet strategy
- Use direct practical experience like shopping for healthy food
- Consulting GPs regarding health issues.
- Hold forums to continually drive home messages.
- Use simple words, more visuals.
- Use interpreters in communication and provide opportunity for feedback and interaction.

- Have care plans and strategies that are gender sensitive – e.g. provision of female nurses for women.
- A functional network of refugee health service providers for useful appropriate resources.
- Financial support services – e.g. gamblers help program.
- Websites geared to specific groups of users
- SMS on mobile phones to remind CALD community members of appointments.
- Website/online forums – e.g. Dr Westie on mental health
- Health awareness campaigns in mass media – e.g. exercise, swine flu.
- Alcohol campaigns – impact determined by cultural, social norms in the community
- Communication that is culturally relevant, delivered in own language by someone from same cultural back ground.
- Web platform like a YouTube campaign with face to face opportunity to disseminate it.
- Community specific messages allowing people to involve and stay connected.

Not-for-profits

Not-for-profit workers gave the following examples of best practice when communicating with CALD communities on health and wellbeing.

- Use of local radio to publicise information available on website
- Use culturally sensitive translations – e.g. post card campaigns supported by workshops conducted in community languages
- Use of family in conveying important messages
- Involve actual members from community in the communication of messages
- GPs to have updated knowledge on health issues facing CALD communities and have the opportunity to develop their understanding and skills about culturally sensitive ways of working with them
- Billboards, television campaigns, radio programs.
- Messages displayed at frequently visited places and use the many different dialects of the community languages.
- Information on cheap forms accessible to all, like DVDs – e.g. Foundation House DVD on care of families.
- Using group approaches to health communication (e.g. community-based health education groups)
- Use of visual communication combined with face-to-face
- Use of messages in which CALD communities can see immediate use and application for – e.g. isolation of refugees in accessing information, foods to prevent diabetes, list of GPs that speak their language, how to access contraceptives free of charge.
- Handy resource/pocket books distributed at seminars.

DISCUSSION

Key findings and implications for using ICT to communicate about health and wellbeing to CALD communities

This study has provided some valuable insights into how people from three contrasting CALD communities incorpote ICT into their lives. In particular, it has highlighted how community members from different age groups and with different levels of educational background and exposure to English are experiencing the use of ICT in their communications around health and community wellbeing. The literature, existing evidence and responses from participants in this project have shown that people in CALD communities do use and access new and emerging technologies, such as the internet and online media platforms, 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 people and well educated community members are active users of computers and the internet for a range of purposes such as information searches, banking, social networking, listening to music and watching videos. Communicating with friends, family and community members both here and in the homeland was a common reason for accessing and using ICT.

Inequalities in access to and use of ICT for CALD communities persist, however. The responses of those interviewed for the project, whilst not quantitatively based, suggest a strong interrelationship between age, level of education and English language proficiency and the use of various kinds of technology. 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. They use more of the functions possible with new technologies, such as those provided by Web 2.0 social networking platforms, like Facebook and YouTube, as well as sophisticated forms of text messaging on mobile phones. Middle-aged and even older tertiary-educated community members with sufficient financial resources to have internet and computer access at home have also embraced ICT, but tend to use more basic functionality, such as email and the internet. In contrast, those with lower levels of English, limited literacy and/or limited formal education, primarily use more traditional media, such as television, DVDs and radio, and rely for their personal communications on the telephone, especially mobile phones. Their access to messages about health and wellbeing is primarily mediated through family members, or through face to face interactions in the community (e.g. school, church/temple/mosque, community gatherings).

There is considerable diversity within and between CALD communities, and this means particular groups, such as the aged, women and those with limited and/or disrupted formal education, are relatively disadvantaged in accessing health information through the various technologies due to their poor computer literacy, limited print literacy and numeracy, and limited time to develop technological literacy (e.g. women engaged in child rearing). Additionally, the majority of websites are predominantly in English and heavily text-based. They still don't cater for the diverse range of languages that exist within Australia, nor do they engage effectively with the communication preferences of CALD communities, such as those for interactive orally-based forms of communication within the Sudanese community.

In a world in which information is increasingly disseminated online or via other ICT-enhanced means, the use and access issues CALD communities face when engaging with technology can negatively impact on their awareness of health and wellbeing issues. Smoking, cancer, infectious diseases and heart disease were identified by participants in this study as the major health issues of concern in their respective communities. CALD community participants feel the need for more

community awareness and culturally sensitive ways of engaging and working with them when health service providers and other key stakeholders tackle health issues. Most of the participants felt that health messages communicated in English are not well understood by some members of the community. Participants have also noted the importance of communicating messages in the community's language/s so that they are easy to comprehend for all sections of the community.

Health service providers and other key stakeholders working with CALD communities have identified many of the same concerns shared by community interviewees and focus groups participants. Their responses indicate that factors such as religious practice, gender, lack of culturally appropriate services and awareness of patient rights, language barriers and other challenges affect access to health services for CALD communities. The settlement process, experiences of refugees and a lack of economic resources place additional pressure on CALD communities working with health service providers. These problems are exacerbated by inequalities relating to the use and access of ICT. At the same time, organisations with remits to provide health services or to promote health and wellbeing face significant resource and institutional hurdles that impact on the nature and extent of their health and wellbeing communication using ICT with CALD communities. To more effectively develop content and provide access to such communication in ways that are more linguistically and culturally accessible will require allocation of additional resources for health promotion and education to CALD communities.

Methodological limitations

The approach adopted in this study was qualitative and exploratory. The focus was on gaining a broad understanding of the range of experiences and barriers in accessing and using ICT to communicate about health and wellbeing. Across the focus groups and semi-structured interviews more than a hundred people across three CALD communities and twenty health service provider and key community support organisations contributed their knowledge and on-the-ground experiences in relation to the areas of investigation. Whilst we feel confident that our approach to working within the communities in question, using bilingual facilitators who were trusted community members, and selecting a range of representative service providers, captured a diverse range of practice and experience, we acknowledge that the interpretation of our data needs to be treated with care. It provides a basis for the proposal of policy and practice options, as presented below, and thereby lays a foundation for further experimentation to address inequities in information access for CALD communities. However, the sample was not one selected with a view to generating generalisable quantitative measures of incidence of technology use and interaction of this with other factors. Additional survey-based research with appropriate population sampling would be required to generate such data, and, whilst valuable for ongoing development and assessment of economic feasibility, this was beyond the scope of our study.

RECOMMENDATIONS FOR POLICY AND PRACTICE

This research supports the importance of a differentiated approach to the design and development of ICT-supported health and wellbeing communication strategies for CALD communities, taking into account the targeted audiences within the community and their likely educational background and language and literacy knowledge. Bearing this general principle in mind, the findings support the following approaches in developing ICT-supported health and wellbeing communication strategies for CALD communities:

- Develop ICT-based resources that can be easily distributed and accessed across a range of ICT-based platforms – e.g. multilingual video messages that can be burned to DVD, stored on community websites, uploaded to YouTube, played at and used as a focus for discussion at health and wellbeing workshops, distributed for free at health centres and other community settings.
- Resource a community-driven health and wellbeing web portal tailored to CALD communities. This needs to be highly visual in its interface, to feature easily accessible video content with people of diverse backgrounds, include options for multiple languages (including voiceover; option of English subtitles), and to have links to existing social networking sites such as Twitter, Facebook, MySpace, Bebo and other emerging platforms, and capacity for CALD communities to generate and upload their own content such as video mash ups, digital stories or citizen journalism.
- Set up YouTube 'channels' for CALD communities to upload and access online videos featuring health and wellbeing content.
- Develop capacity to use mobile SMS text messaging services on health and wellbeing, including the capacity to SMS in community languages for adults in CALD communities that have high levels of first language literacy.
- Provide specially tailored computer and information literacy training programs for women, the elderly and hard to reach members of CALD communities to promote their increased acceptance and use of ICT.
- Consider the capacity to broadcast high profile social marketing advertising (e.g. anti-smoking) in community languages through ethnic community focussed television services (e.g. in conjunction with satellite TV services).
- Support intergenerational, arts based ICT-initiatives for health and wellbeing communication – initiatives that promote creative and narrative-based approaches to developing health literacy and awareness and resources seem to be particularly powerful and engaging.
- Work with communities using bilingual educators/facilitators and community organisations to develop culturally and linguistically appropriate ICT-supported health and wellbeing communication campaigns. The development and tailoring of campaigns needs to consider both design and presentation of content and most effective communication media access platforms taking into account the targeted demographic/s within the community.
- Provide an ICT resources and training program for to equip community organisations with digital video cameras and increase capacity for existing community workers to shoot, edit and upload culturally appropriate video content.
- Focus health and wellbeing communication resources for CALD communities on the issues that are of current concern to the community and approach them in culturally sensitive ways.

- Focus development of materials in community languages towards the communication needs and preferences of the given language community. For many community languages this will mean primarily focussing on visual and oral-based forms of communication in the community language, rather than print-based materials.
- In the development of ICT-supported health and wellbeing campaigns consider how the stronger role of families and community support structures in managing health in many CALD communities may be utilised to partially address inequities in ICT information resource access. For example, community leaders and younger adults may have stronger skills and capacity to access ICT-based health and wellbeing resources and can play an information brokering role in respectfully sharing their knowledge within their families and communities.
- Consider the role of 'trust' in relation to CALD communities, the power of word of mouth communication and interpersonal relationships. These factors continue to be important, so it is valuable to find ways to support ICT-communication through face-to-face contact, such as by presenting new ICT-accessible resources initially through a community forum or workshop.

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APPENDIX A

CONTEXT AND BACKGROUND

Information Communication Technology (ICT) Use and Access in Culturally and Linguistically Diverse (CALD) Communities for Communicating on Health and Community Wellbeing

Introduction

This project is funded by VicHealth. 'Information Communication Technology (ICT) Use and Access in Culturally and Linguistically Diverse (CALD) Communities for Communicating on Health and Community Wellbeing' is a study which will explore how adults from Sudanese, Samoan and Vietnamese communities use and access ICT for the communication of health and community wellbeing information. The researchers will focus on finding out in-depth understandings from the perspective of the communities about the ways in which they use and access ICT, such as the internet, mobiles, social networking sites, Web 2.0 platforms, podcasts and DVDs, in relation to messages of health and community wellbeing.

Aims

The main aim of this project is to understand the challenges and opportunities that communities face in utilising information technologies in relation to messages of health and wellbeing, and research and develop strategies for health service providers to build effective ICT forms of communication with these communities by establishing what ICT they do and do not access and what ICT would and would not work. Specific objectives include to:

- Identify, research and explore issues in the delivery of health promotion messages using information technologies to culturally diverse audiences;
- Explore the suitability of different available technologies for the delivery of information and the development of health literacy within CALD communities;
- Identify effective strategies for promoting health literacy and empowerment of different groups of people within CALD communities through ICT;
- Report on the research findings including options for the future use of information technologies for communication with diverse ethnic communities;
- Contribute to the development of policy and practice options for use of ICT in communication with CALD communities.

Context

Cultural and ethnic background plays an important role in the health of a multicultural Australian society. Varied English language ability, cultural histories and practices, the ability to participate in economic and social life all contribute to health outcomes (Manderson and Reid 1994). For many communities, these outcomes are worse than the Australian average due to a range of factors that are disadvantageous. There are multiple causes of this, but one contributing factor is that generic health promotion programs

and campaigns do not effectively engage with diverse communities suggesting a need for more specific and culturally relevant communication strategies (Kreuter, Lukwago et al. 2003). Effective communication is an important consideration in developing strategies for improving the health and wellbeing of culturally diverse communities in Australia. In the communication of physical and mental wellbeing messages there is an increasing tendency to rely on the use of high tech information technologies of communication despite the well acknowledged 'digital divide' (Muir and Boot 2005) between and within groups. There is little known from a community perspective about what ICT communities do and do not access and what ICT would and would not work in relation to researching and developing strategies for building effective ICT forms of communication with culturally and linguistically diverse communities.

CALD Community Involvement

This project will study Sudanese, Vietnamese and Pacific Island communities in metropolitan and regional communities. There are 1,155 Samoan residents in Western Metropolitan Region which is approximately one-fifth of Victorian's total Samoan population of 5,924 (ABS 2007). There are 2,440 Sudanese people living in the region representing more than one third of the total Metropolitan Melbourne Sudanese population of 6,357. There are 24,817 Vietnamese speakers in Western suburbs of Melbourne. The study will also extend to two regional centres in which Sudanese, Vietnamese and/or Samoan background migrants have settled, Warrnambool and Robinvale, in order to identify regional differences and opportunities for using information technologies in health promotion in regional areas. CALD communities are diverse both within and between groups. Understanding three distinctive groups will not generate findings that can be generalised across the full range of CALD groups however will provide a focussed basis for the development of alternative information technology enhanced strategies for health communication as well as providing insight into effective methodologies when working with CALD communities more broadly.

Research Methodology

Qualitative research methods (Crotty, 1998; Patton, 1990) will be used to: identify information technologies that are relevant and utilised by the specific communities; assess how various information technologies are currently used within and outside the home; identify communication preferences and barriers and effective strategies for developing understanding and action about health and wellbeing within the community; examine barriers to and opportunities for information technology usage in health communication and health promotion; explore processes and methods that will be most effective in working with community groups to gather information about potentially useful health communication strategies; and, identify options for alternative information technology-enhanced communication strategies that could be developed usefully to communicate health promotion messages.

This qualitative study will be conducted over two stages. In the first stage interviews will be undertaken with CALD community leaders, community health centres, municipal health authorities and HSP using ICT. In the second stage a focus group approach will be conducted to explore the issues in more detail and with groups that are representative of the broader CALD community.

The data gathered from interviews and focus groups will be analysed for content, coded and reported thematically in order to identify key insights in understanding the use and access of information communication technology for communicating messages of health and community wellbeing by interview and focus group participants. These themes and experiences will be analysed using a balance of description and interpretation (Denzin and Lincoln, 1998; Patton, 1990). The insights and findings of this research will be used to develop more effective uses of information communication technology to promote health literacy for CALD communities and to assist in addressing general and mental health issues.

Expected Benefits

Communities will benefit from the project due to the development of more effective uses of information technologies to promote health literacy and to assist in addressing general and mental health issues. Such issues are urgent in terms of community health and it is anticipated that the outcomes of this research will benefit research participants and participating communities in the short term. Longer term benefits will accrue more broadly in CALD communities through more targeted and effective strategies supported by knowledge gained from the research and the resulting decision-making model.

Similarly, there is a demand from health providers for communication tools that promote community interaction and engagement with public health services and issues. The dominant approach lacks capacity for interactive engagement that can ensure understanding and lead individuals to incorporate new understandings on how to manage health and to support friends and family members in the same process. Also lacking is sensitivity and capacity for responsiveness to the diversity of client needs, abilities and preferences in terms of communication strategies and modes. It is intended that the benefits of this research will be to develop effective ICT approaches to health communication that encourages active participation and awareness-raising and thereby combat the sense of isolation and powerlessness that, in itself, contributes to ill health.

Research Outcomes

A report will be produced which offers policy and practice options for use of ICT in communicating about health with CALD communities. This will assist health service providers and other relevant agencies trying to make decisions about ICT techniques and strategies to communicate with a particular group/subgroup, to assist them in working through the options they might have and make decisions about what might be most effective. The research will explore which ICT sub-groups have access to, feel comfortable with and prefer. The project will also explore the potential that each technology has to deliver content in a way that will be attractive and meaningful for that group. Health service providers will be able to draw some conclusions and outcomes that can be applied more broadly in making more nuanced decisions about communication with different CALD communities. The research report will also note issues of health literacy in CALD communities requiring further consideration when using ICT by health service providers.

About the Institute for Community, Ethnicity and Policy Alternatives

The Institute for Community Ethnicity and Policy Alternatives (ICEPA) is an interdisciplinary institute at Victoria University (VU) dedicated to research about, training for and engagement with, culturally diverse communities in Australia and internationally, particularly migrant, refugee and diaspora communities. ICEPA's international and development work is focussed on East Timor and the Pacific Islands.

ICEPA undertakes Cultural Diversity research and activities designed to lead to policy change. This includes seminars, conferences and educational programs.

ICEPA's research work is of an applied nature and is informed by theories of social capital, identity, race, migration, community strengthening and community wellbeing.

ICEPA works in partnership with a broad range of staff, students, government, community and industry organisations within and beyond the Western Region of Melbourne. ICEPA aims to build and share knowledge about communities that will increase capacity and enhance community development and wellbeing. WWW.VU.EDU.AU/ICEPA

APPENDIX B

Information Communication Technology (ICT) Use and Access in Culturally and Linguistically Diverse (CALD) Communities for Communicating on Health and Community Wellbeing

Stage 2: Focus Group Discussion Guide

1. 'WARM UP' DISCUSSION – KINDS OF TECHNOLOGY

Distribute visual prompt of various kinds of technology. Encourage participants to reflect on the types of technology they are using.

■ What kinds of technology do you use personally for information, communication and/or entertainment?

2. USE AND ACCESS OF TECHNOLOGY

Once participants have reflected on the kinds of technology they are using, ask them for more detail on the technology they're using and the way it's being used.

(a) Refer to the examples they have described during the warm up discussion and ask them to tease out more about their experiences using specific items with prompts such as:

■ Mobiles – what kinds/brands and is it used for speaking or texting? What purposes do you generally use a mobile for (e.g. keeping in contact with family/friends, obtaining information such as the weather and sporting scores etc, and/or
■ DVDs – in English or multilingual formats? What purposes do you generally use DVDs for (e.g. entertainment/watching movies; obtaining information from government or other organisations such as Department of Immigration and Citizenship)?
■ Computers – laptops, desktops, MACs and/ or PCs? For what purposes (writing documents, watching video footage, downloading photos)?
■ Internet – what kinds of websites: news websites, entertainment, youtube, social networking sites?
■ Email – programs like Outlook or Eudora, or online mail such as google mail, yahoo?
■ Videogame systems – Xbox, Playstation, Nintendo
■ Portable media devices – iPods, Nanos, Digital Still Cameras, Digital video cameras

Move onto discussion of what technology they are at ease with, where it is accessed, and how it's used in a family/community context.

(b) What technology do you find easy to use? What technology do you use everyday?

(c) Where do you access technology? (at home, work, university/TAFE, public venue/s such as library, community house, community centre, church/temple)

(e) What technology do you access at home?

(f) How do you learn about and use technology?

(g) How do other people in your family use technology to get information and for communication? Is it different or the same as you? If different, how is what they do different from you? (such as family members who are older than you; younger than you)

(h) How typical are you and your family of other families in your community that you know in terms of the way they use these technologies?

2. HEALTH AND COMMUNITY WELLBEING MESSAGES

(a) What kinds of health messages do you recall or are aware of from advertising or government information campaigns?

(b) Why did this come to mind? Where did you see these messages?

(c) Where do you normally get health information from?

(d) How useful do you find the health information that you get? Have you got any suggestions for how these health messages can be improved?

(e) What health and community wellbeing issues are important to you?

(f) How would you prefer to access health and community wellbeing messages?

(g) How do you know that the information you are receiving is correct?

3. PARTICIPATION IN THE DEVELOPMENT OF THE COMMUNICATION OF HEALTH AND COMMUNITY WELLBEING MESSAGES

(a) Can you name up to three areas that are important health concerns in your community and explain why you have selected these?

(b) Has anyone consulted you about how you would like to receive health information about any of these areas of concern? If they did, what would your preference/s be for how to get better information and support?

(c) What problems do you see in using technology to communicate health and community wellbeing information?