

# Health information needs and practices of Chinese & Vietnamese people living in Australia regarding primary liver cancer: A literature review

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# Health information needs and practices of Chinese & Vietnamese people living in Australia regarding primary liver cancer: A literature review



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# Executive Summary

A review of the research literature indicated that Chinese and Vietnamese immigrants to Australia (and the US) have a poor understanding of the risks for viral hepatitis transmission, hepatitis vaccines and treatments, and little knowledge of the relationship between hepatitis infection and risk for the development of primary liver cancer. Among these populations, access to cancer and other health-related information and knowledge of illness are low because of a range of barriers such as:

- poor English proficiency
- a dearth of culturally and linguistically specific resources and programmes
- concerns about Western medicine
- difficulties negotiating Western health systems and medical practitioners
- a preference for treating disease with folk remedies and traditional Chinese medicine, and
- a fundamental philosophical difference in illness representations.

Community-based models were reportedly more successful at engaging ethnic minorities and improving their knowledge of viral hepatitis and cancer than were mainstream models. Some effective community-based models included trained teams of community health promoters, individual health 'navigators', faith-based outreach programmes delivered through churches, culture-based outreach programmes delivered via community events, and health information initiatives that involved family, friends and social networks in their dissemination.

The patterns of access to cancer and other health-related information in Chinese and Vietnamese immigrant communities were mostly quite similar, with both population groups turning to ethnic media and community networks to source information about cancer and viral hepatitis. However, Chinese immigrants tended to look further afield than Vietnamese immigrants and accessed information from mainstream media in Australia and the US.

This literature review highlights a need for the development of culturally relevant health promotion materials that take account of ethnically patterned health beliefs to address chronic viral hepatitis transmission, blood borne virus testing and screening for primary liver cancer in Chinese and Vietnamese-immigrant populations in Australia.

# 1 Introduction

Recent Australian research has indicated that the burden of illness from infection with the hepatitis B virus (HBV) and hepatitis C virus (HCV) among immigrant populations from China and South-East Asia is significant (de Silva et al., 2002; Vu et al, 2012), with men more likely to experience a disproportionate degree of health-effects from chronic viral hepatitis infections (O'Connor et al., 2008). The high prevalence of long-term chronic viral hepatitis infections among Chinese and Vietnamese immigrant populations in Australia means that significant liver disease such as cirrhosis and primary liver cancer (hepatocellular carcinoma) is already common, and will remain a major health burden well into the future.

Over the past decade, there has been a growing interest in measuring community knowledge about viral hepatitis among a variety of population groups including immigrants, people who inject drugs and young people, because a poor knowledge of these infections is associated with an increased risk of transmission (Balfour et al. 2009), a decreased likelihood of vaccination (Soto-Salgado et al. 2011), the under utilisation of health care and less consideration of treatment (Treloar et al. 2011), and a low likelihood of cancer screening (Nguyen & Bellamy, 2006). Recent international studies report that globally the uptake of the HBV vaccine is poor (Van der Veen et al., 2010), and a survey of over seventeen thousand American adolescents found that most perceived their risk for acquiring HBV as low, even though many were engaging in high risk activities without taking precautions (Slonim et al., 2005). Treatment is encouraged for people with HBV or HCV infections however globally treatment uptake remains low (Cohen et al. 2007), partly because people are unaware that efficacious therapies exist (Muñoz Sastre et al., 2002).

Worldwide, approximately 70 to 80 per cent of cirrhosis and liver cancer cases are associated with HBV and HCV infection (World Health Organisation, 2012). However the association between viral hepatitis infection and the development of liver cancer is poorly understood among high risk groups such as immigrants from China and Vietnam (Vu et al, 2009; Yeo et al, 2005). In a review of the literature pertaining to cancer patients' information needs, conducted between 1980 and 2003, the authors reported that "In general, there do not appear to be dramatic differences in information needs or sources based on racial/ethnic differences" (Rutten et al, 2005: 256). Since Rutten et al review was published, further evidence has emerged to suggest otherwise. This current literature review argues that there are indeed crucial dynamics which need to be considered when attempting to increase liver cancer awareness and screening through developing models of cancer information delivery for people from ethnic Asian immigrant populations.

## 2 Background

Migration from China to Australia began well before the gold rush of the 1850s, and Chinese communities have been an integral part of the Australian cultural landscape for many generations (Inglis, 1972). In contrast, Vietnamese immigration to Australia is a relatively recent occurrence. During the late 1970s and the 1980s, around 150,000 people, mainly refugees, from Vietnam, Cambodia and Laos, arrived and re-settled in Australia (Caruana et al., 2005). Today, Vietnamese communities in Australia are mostly located in Sydney and Melbourne and studies have found that Vietnamese people who live in these cities have many markers of low socio-economic status, including poor health (O'Connor et al., 2007). While surveillance data of infectious diseases such as tuberculosis and viral hepatitis were collected from the time South-East Asian refugees first arrived in Australia, screening was not universal and by 1991 the screening clinics were closed (Caruana et al, 2004). During the past two decades there has been little systematic research conducted into the health and wellbeing of Vietnamese refugees and immigrants to Australia, and little understanding of Vietnamese people's knowledge of health risks such as viral hepatitis and cancer (O'Connor et al, 2008). Similarly, understanding of disease such as cancer in Chinese population groups in Australia is reportedly very poor (Yeo et al, 2005).

Of the few studies conducted into Chinese and Vietnamese immigrants' health, most research comprises quantitative cross-sectional epidemiological survey designs describing the prevalence of chronic viral hepatitis infections, and the prevalence of other sexually transmissible infections, with a handful of social-orientated studies of chronic viral hepatitis knowledge. There remain very few Australian studies, especially qualitative studies, of immigrants' health and wellbeing, including studies which explore attitudes and beliefs about long term health risks from chronic viral hepatitis infections. This is in contrast to North America, particularly the United States (US), where researchers have employed a wide variety of study methods, both quantitative and qualitative, to examine Vietnamese and Chinese-American populations' health-related knowledge, information-seeking practices, attitudes and beliefs about viral hepatitis and cancer, and effective health information programmes.

Because of a relative dearth of Australian research into Chinese and Vietnamese immigrant populations, this review draws upon international literature, mostly accessed via PubMed and Medline databases. Grey material and health promotion resources were also reviewed, however published peer-reviewed research literature comprise the majority of sources used to answer the following three research questions: (i) What are the knowledge, attitudes or beliefs of Vietnamese and Chinese people in relation to (primary liver) cancer, its treatment and outcomes?; (ii) What models or programmes have been effective in meeting the information needs of Chinese and Vietnamese people regarding (primary liver) cancer?;

and, (iii) What are the preferred sources of health information for Chinese and Vietnamese people living in Australia?

There were so few Australian and international peer-reviewed studies found which specifically examined primary liver cancer that the literature review broadened its scope to include Chinese and Vietnamese (and occasionally other ethnic) immigrants' health seeking and scanning practices pertaining to all cancers.



### 3 Knowledge and awareness of cancer among Asian immigrants

Vietnamese and Chinese immigrants to Australia often acquire HBV infection in their country of origin because of the high population prevalence of HBV in China and South-East Asian regions. Australians from Chinese and Vietnamese backgrounds most commonly acquire HBV via vertical transmission and the sexual transmission of HBV is also common (O'Connor et al., 2008). The findings of a small number of Australian survey-based studies conducted over the past decade have indicated that people from Indochinese backgrounds have a poor knowledge of the viral hepatitis infections and that low levels of knowledge could be instrumental in the low vaccination rates and the continuing spread of viral hepatitis infections, particularly the household transmission of HBV, within these populations (Caruana et al., 2004). While some international studies have found higher knowledge in population groups affected by viral hepatitis (Balfour et al. 2009) the findings are inconsistent. For example, an Australian study reported that Vietnamese men in Sydney had a poorer knowledge of HBV and HCV when compared with the general population (O'Connor et al., 2008). Similarly, just 52 percent of survey participants from Chinese and Vietnamese communities in Brisbane correctly identified unprotected sex as a risk for HBV transmission (Vu et al., 2012).

The Health Information National Trends Survey (HINTS) is a national periodic, cross-sectional study of cancer-related health information seeking behaviour in the US that recruits a representative sample of Americans. This study examined two constructs, one known as information-scanning, which is how much attention an individual pays to health topics in the media and in personal conversation, and information seeking, which is the active searching for health-related information. The HINTS study found that among Americans who either scan or seek cancer information there is an association with an acquisition of knowledge, the adoption of healthy lifestyle practices and screening for cancer (Shim et al., 2006).

However, the study found that some population groups experience barriers to information scanning and seeking, which places them at a higher risk of poor health outcomes. For example, compared with Caucasian Americans, Asian-Americans had a lower awareness of the National Institute of Health and American Cancer Society, they were less likely to think about the association between smoking and cancer, they considered their personal risk of cancer to be low and Asian-Americans were less knowledgeable about colon cancer screening (Nguyen & Bellamy, 2006). These findings are supported by other US studies of South-East Asian immigrant populations in America. Among Vietnamese-Americans, who have the highest incidence of liver cancer of any ethnic group in the US, knowledge, attitudes and practices relating to HBV screening and vaccination were poor (Butler et al, 2005; Ma et al, 2007). In a study of HBV knowledge, screening, vaccination and liver cancer risks by Ma et al (2007), less than half the sample of 256 participants had heard

of HBV, the primary cause of liver cancer, only around a third knew about the availability of HBV screening or vaccination, and between 6-8 percent had ever been screened and vaccinated against HBV. Indeed, a number of US-based studies over many years lend support to the findings from Ma et al, which show that Vietnamese-Americans are less likely to receive cancer screening than the general population (e.g., Pham et al, 1992).

### 3.1 Cultural values and beliefs about illness including cancer

Research has long indicated that HBV knowledge among Vietnamese immigrants to the US is poor, regardless of age, and that the barriers to seeking and using health-related information among Vietnamese immigrants are multi-dimensional and involve culturally based values and beliefs, and English language proficiency (e.g., Wiecha, 1999). Values and beliefs which may act as a barrier include concerns with the effectiveness of Western medicine to treat disease, concerns about the strong side-effects of Western medicine, a sense of being an outsider on the margins of American society, a cultural constraint that impedes speaking about personal health with outsiders including health professionals, the belief that articulating illness will manifest disease, and a strong desire to use folk remedies or traditional Chinese medicine because of a focus on holistic health (Chen et al, 2010). Similarly, studies have highlighted how cultural beliefs about health shape knowledge and how it is important to identify cultural beliefs which might impede information-seeking and access to health care services (Ma et al, 2007; Nguyen et al, 2010; Nguyen et al, 2008; Davis et al, 2009).

The influence of culture is evident in research into illness explanatory models of cancer among Chinese-Americans. Studies have found that among this population traditional Buddhist, Taoist and Confucian cultural beliefs about cancer, its causes and implications can co-exist alongside Western biomedical understandings of the disease (Yeo et al, 2005). Chinese immigrants often simultaneously believe in biomedical concepts while retaining their belief in traditional Chinese medicine regardless of education level, age, religiosity and English language proficiency (Yeo et al, 2005). Illness is variously understood as an outcome of factors which include karma, retribution, fate, God's will, misfortune or bad luck, as well as Western explanations for disease like environmental toxins, stress and diet (Yeo et al, 2005). While culture is a powerful force in shaping understandings of disease, cultural beliefs also influence individuals' responses to illness. When a health condition is perceived to be inevitable and beyond human control (i.e., a product of fate), as cancer is often understood to be by Chinese immigrants in Australian and US studies, exhortations by health authorities to regularly screen for cancer have limited impact (Butler et al, 2005; Chang et al, 2008; Chen et al, 2010; Kwok & Sullivan, 2006; Yeo et al, 2005). Fatalism is often reported in this literature as a significant driver behind Chinese immigrants' lack of engagement with information seeking, cancer screening and health care services generally.

## 3.2 Linguistically diverse populations and English language proficiency

Language is another significant barrier for Vietnamese and Chinese immigrants to obtaining information about cancer. Studies of health-related knowledge and practices of Chinese immigrants reported that the inability to communicate effectively in English with Western health care professionals is a major barrier to obtaining information (Chen et al, 2010). Data from the 2000 census in the US showed that two-thirds of Vietnamese-Americans do not speak English at home or speak English 'less than very well' (Ma et al, 2007: 63). There is little reason to expect Vietnamese immigrants to Australia are different in English proficiency to those in the US. Without English-speaking skills, it is difficult to access cancer-related information through the mainstream Western media, or via educational pamphlets and interaction with English-speaking health care professionals. English language difficulties are exacerbated by health care systems that are poorly prepared to meet the needs of people from multiethnic and linguistically diverse backgrounds (Nguyen et al, 2008). Poor access to interpreting services, translated educational materials and health education classes discourage Vietnamese immigrants in Australia from seeking health-related information; instead, they seek this information from within their ethnic community via Vietnamese-speaking doctors and ethnic media (O'Connor et al, 2008), and like in the US, from interpersonal sources such as family and friends (Nguyen et al, 2010). However studies have cited problems with cancer-related information obtained via Asian community-based sources in the US and Australia. Nguyen et al (2010) reported that linguistically isolated Vietnamese-Americans may exist within social, political or religious-sub communities that have belief systems which are incompatible with mainstream American health care practices. One reported example is a reticence observed among Vietnamese and Chinese immigrants to screen for diseases such as cancer in the absence of symptoms (Nguyen et al, 2010; Kwok & Sullivan, 2007).

Finally, structural factors that are common to many population groups in the US and Australia are also barriers to cancer-related knowledge and information seeking. In a US study of Chinese immigrants' attitudes toward HBV and liver cancer prevention by Chang et al (2008), structural factors that discouraged people from being tested for HBV included medical costs, lack of health insurance, inconvenience, concerns about the reliability and efficacy of tests, poor patient-doctor communication, and a reliance on professional opinion. These structural barriers were aggravated by personal factors including a fear of side effects, apparent good health, and a personal preference for not testing (Chang et al 2008).

## 3.3 Overview and implications

The literature indicates that the higher prevalence of liver cancer among Chinese and Vietnamese immigrant populations is associated with poor knowledge about HBV transmission, screening and vaccination, the influence of cultural belief systems on conceptualizing illness such as cancer and cancer screening practices, and a range of structural and personal dynamics (de Silva, 2002; Hislop et al, 2007; O'Connor et al,

2008). English language proficiency and Asian cultural and religious factors, like illness representations, are barriers to engaging, understanding and acting on health concerns among Vietnamese and Chinese immigrants. Poor health literacy means that members of these communities are at risk of serious health outcomes (Juon et al, 2008). Studies reported disproportionately higher rates of morbidity and mortality among these two ethnic groups when compared to other population groups, particularly Caucasians (Butow et al, 2011; Chang et al, 2008; Juon et al, 2008; Ma et al, 2007).

The low level of English language proficiency among many immigrants is cited repeatedly as a barrier to improving knowledge about HBV and liver cancer (e.g., Butow et al, 2011; Gulati et al, 2012; Kreps & Sparks, 2008; Thomson & Hoffman-Goetz, 2010; Vanderpool et al, 2009). With migration increasing worldwide, language will continue to impede access and understanding of health-related information. Even the results of studies which aim to determine levels of health literacy skill among English-as-a-second-language population groups do not give accurate measures of health literacy within these populations because the tests require participants to have written English skills (McWhirter et al, 2011). Difficulty in understanding English has been found to exacerbate systemic and socio-cultural barriers to accessing health information (Gulati et al, 2012), and even when health information is presented in an individual's first language, comprehension of Western medical terminology and procedures can still be problematic, particularly when the information is complex (Kreps & Sparks, 2008), and the audience comprise elderly people (Todd & Hoffman-Goetz, 2011a), or those with little education from low socio-economic backgrounds (Leng et al, 2012).

Apart from low levels of English proficiency and difficulty with comprehending Western medical terminology and concepts, other barriers to Chinese and Vietnamese immigrants' access to health-related information cited in the literature included problems with language interpreters and interpretation (Butow et al, 2008), ineffective strategies used to communicate health information (Kreps & Sparks, 2008), a disregard by Western medical practitioners for traditional Chinese cultural beliefs about illness (Kwok & Sullivan, 2006), culturally inappropriate communication styles of Western practitioners (Butow et al, 2011) and immigrants' lack of familiarity with Western health care systems and processes (Leng et al, 2012; Yeo et al, 2005). Finally, studies have found that some people from culturally and linguistically diverse backgrounds feared discrimination and perceived institutionalised racism within health care in Western countries, making it difficult for them to establish trust in medical practitioners (Butow et al, 2011). These reported barriers to accessing health-related information have prompted further research to explore various models or programmes that meet the information needs of immigrant populations. This research indicates that awareness of language and culture must be salient in the development of health promotion materials to address chronic viral hepatitis transmission, blood borne virus testing and screening for primary liver cancer in Asian-immigrant populations.



# 4 Models to meet the health information needs of Chinese and Vietnamese people

## 4.1 Community-based models of information provision and health care

The most commonly recommended approach in the literature to increasing access and use of health-related information among immigrants are community-based outreach programmes which provide hepatitis-related information, testing and cancer screening in ways that acknowledge and respect Asian cultural sensibilities. Such programmes are described as effective in engaging people from ethnic Asian backgrounds. The programmes employ different strategies to attract attention. For example, one study evaluated a community-based outreach model where medical students founded a non-profit clinic in San Jose, California among one of the largest Asian and Pacific Islander communities in the US (Lin et al, 2009). Five hundred and ten patients, 74 per cent of whom were from a Vietnamese-American background, were given free HBV testing and follow-up care including evaluation for liver damage, liver cancer and HBV replication. Nearly all chronically infected people were found to have liver damage despite a lack of symptoms and nine per cent of these people were recommended for liver cancer screening. The authors reported that their findings point to a need for similar and widespread preventive work in this community (Lin et al, 2009). In another study which focused on health literacy, pre and post-test evaluations of a culturally tailored HBV education programme reportedly 'might' have substantially improved prevention knowledge among the Asian communities of Maryland in the US (Hsu et al, 2007: 904). The education programme used community health promoters to provide culturally and linguistically appropriate health education through translated materials to nine different Asian-American populations, including Vietnamese and Chinese communities. The study found that pre and post-test knowledge scores were lowest among middle-aged Vietnamese, Thai and Cambodian participants, indicating a particular need for further education among these population groups (Hsu et al, 2007).

In a mini-review of research about the health literacy needs of immigrant populations in the US, and the programmes recommended to improve health literacy, the authors reported that health communication should be strategic; that is, by involving consumers, their family members, their social networks and community representatives, support and social encouragement for attending to, accepting, and using health education messages can be increased (Kreps & Sparks, 2008). The authors recommended the use of multiple message strategies in order to be most effective in reaching target audiences, and they recommended using vivid imagery and narratives in communication strategies as well as the techniques of redundancy and reinforcement to enhance people's exposure to health messages (Kreps & Sparks, 2008). Finally, the review of the literature by Kreps and Sparks

(2008) highlighted a powerful new approach to designing health messages for people who are computer-literate, known as tailored communication systems. This approach uses relevant background information obtained from an individual that prompts a customised health message (Krebs & Sparks, 2008). It is not difficult to imagine content for a tailored communication regarding liver cancer for computer-savvy people from Chinese and Vietnamese backgrounds.

Another community-based innovative public health model for the prevention of liver cancer among Asian-Americans is described in a study report by Juon et al (2008). These authors cited a US Government funded national hepatitis B taskforce, which established an affiliate programme in Washington DC, to educate, screen and vaccinate the relatively large Asian- American population which resides in the Washington-Baltimore area for HBV. This programme worked closely with Korean and Chinese American churches, and a Pastors' Conference targeting Asian-Americans, to pilot-test a faith-based HBV intervention over three years. The programme saw 1775 people tested for HBV, of whom 1089 were unprotected, and 79 per cent of these people received the full number (i.e., three) of vaccine injections. The authors concluded that this culturally integrated liver cancer prevention programme reduced the disparities found in cancer health among immigrant populations. Similarly, a study by Chao et al (2009) measured the impact of a culturally targeted, community-based outreach programme called the Jade Ribbon Campaign (JRC), which aimed to promote HBV prevention, early detection and management of chronic HBV infection and liver cancer among Asian-Americans from the San Francisco Bay Area. The researchers measured the prevalence of HBV using a convenience sample of people from the campaign, they disseminated culturally targeted information on HBV and they evaluated the impact of the campaign on improving health-seeking behaviours. Their study reported that two-thirds of the JRC participants who were found to have chronic HBV subsequently followed recommendations to visit a physician for liver cancer screening (Chao et al, 2009). A large proportion of JRC participants reported that they had first learned of HBV, had their first HBV test, and began discussing HBV with their doctors as an outcome of their involvement in the JRC outreach programme.

Some research regarding health information seeking referred to the effectiveness of community-based health navigators (CBHNs) for increasing access to breast cancer-related information among low-income immigrants from South-East Asian communities in the US. A qualitative evaluation of CBHN services in California recruited 110 women for 16 focus groups, 15 women for individual interviews, and 10 'navigators' all of whom were asked to identify the essential roles, skills, and interpersonal qualities that characterised successful CBHNs (Nguyen et al, 2011). The most important areas that participants identified were: knowing pertinent medical information and how to navigate resources; understanding the logistics of transportation and interpreter services; understanding the language and cultural beliefs of patients; communicating with providers; and establishing trust (Nguyen et al, 2011). The evaluation concluded that CBHNs serve a crucial role in building trust, and they make cancer screening practices culturally meaningful, accessible, usable and acceptable.

Community participative communication interventions, like those discussed above, are valuable strategies for integrating individual consumers' perspectives into health education

efforts and they can assist to encourage community commitment to health education as well.

## 4.2 Mainstream Western and ethnic media and the Internet

Both mainstream media in the US, and media belonging to specific ethnic groups, have been studied for their effectiveness as models for the delivery of health education around cancer. In a cross-sectional, community-based survey of Korean ethnic media in the US by Oh et al (2011), the researchers found that Korean-Americans' involvement in seeking information about cancer is relatively low, their awareness of cancer information sources was limited and study participants reported negative experiences when previously seeking this information. The researchers reported that Korean ethnic media did not contain information about cancer, despite the media being heavily utilised by Korean-Americans, and that Korean-Americans who viewed the mainstream US media had a better awareness of cancer than those who did not (Oh et al, 2011). However, a study comparing Hispanics with other ethnic groups in the US cautioned that the use of US mainstream media including television, radio, print media and the Internet to obtain cancer-related information is patterned by ethnicity, language and social class (Viswanath & Ackerson, 2011). For example, people with better education tended to pay more attention to health information from newspapers, magazines and the Internet and were less trusting of information from television and radio (Viswanath & Ackerson, 2011). The authors concluded that health media access can be enhanced by taking into account factors associated with social determinants.

Several studies of health information seeking practices discussed the value of the Internet as a model for promoting health literacy around conditions such as cancer and viral hepatitis (e.g., Viswanath & Ackerson, 2011). A US study by Yi & Zahn (2010) used interviews with 72 Chinese-American breast-cancer survivors with limited English skills to review their Internet use for cancer information. Just over half of the participants used the Internet for cancer information and only nine per cent used email or visited a website to communicate with a doctor's surgery or to get online provider advice. The researchers concluded that the Internet is probably not a widely accessed forum for seeking cancer-related information when patients have limited English skills (Yi & Zahn, 2010). Instead, the authors reported that a more effective strategy to increase health literacy is to make health information available in a variety of media in people's first languages.

# 5 Preferred sources of health information for Chinese and Vietnamese immigrants

The literature above highlights that there is a need for cancer-related health information which is culturally and linguistically relevant to immigrant populations from China and Vietnam, as there is a paucity of such materials currently available in Australia. While the above research also suggests that a variety of community-focused models of health education and promotion can be effective among immigrant populations in countries such as the US, ethnic groups in Australia are currently underserved. Given a dearth of culturally relevant health education information pertaining to HBV and liver cancer, and little evidence of existing effective programmes to deliver this information in Australia, some research has explored where Chinese and Vietnamese immigrant populations access this information.

## 5.1 Cancer information scanning and seeking

According to one Australian study, patterns of access to health-related information were different among Chinese and Vietnamese immigrant populations living in Brisbane, (Vu et al, 2009; Vu et al, 2012). In this cross-sectional study of 931 participants of Vietnamese (n=444) and Chinese (n=487) ethnicity in Brisbane, Vietnamese participants reported a distinct preference for HBV-related information to be made available in their own language, compared to Chinese participants who relied much less on ethnic Chinese media, used more English media and accessed the Internet for health information at a higher rate than Vietnamese participants. The study also found that currently there were virtually no culturally and linguistically appropriate information materials written in Vietnamese, which partially explained why Vietnamese participants mostly accessed health-related information from their family doctor, whom they trusted beyond other sources. Similarly, O'Connor et al (2007) reported that the Vietnamese community in Australia relies heavily on Vietnamese family doctors for information about health-related matters, while some Vietnamese in their study also accessed this information through ethnic media channels. However given the short duration of medical consultations with a GP, Vu et al (2009) concluded that Vietnamese family doctors were not always good sources of information.

Similarly, in a large qualitative study of cancer-information seeking and scanning practices from the US (Nguyen et al, 2011), researchers interviewed over 100 Vietnamese-American participants and reported that this population is the most linguistically isolated of all immigrant populations in the US. When compared to access rates for English print media, Vietnamese men in this study were more than twice as likely to use Vietnamese newspapers or magazines to find health information (Nguyen et al, 2011). Similar findings were reported in a study of Hmong youth living in the US. The Hmong people are an ethnic minority from southern China who migrated to the mountainous regions of Vietnam, Thailand and Laos over the last two centuries (Butler et al, 2005). This population were described as possibly



the least acculturated and inaccessible of all immigrant population groups in the US. Hmong people reported greater than expected rates of liver cancer, yet Hmong youth were much less likely to have received education about liver cancer risk factors from health education campaigns about the need for HBV vaccination, which are aimed at the US general population (Butler et al, 2005). These studies are a reminder that broad-based health campaigns are often ineffective at reaching populations that are not part of the mainstream.

In a qualitative study by Nguyen et al (2010) conducted in the US, older Vietnamese immigrants' cancer information seeking and scanning behaviour was reportedly low compared to non-Vietnamese people. The median number of cancer screening sources used by the Vietnamese-Americans was two compared to eight or nine sources accessed by non-Vietnamese people. The older Vietnamese-Americans had limited English language proficiency and this equated to less information seeking, lower recall of information and the information was less relevant to their decision-making around all cancers. The Vietnamese-American participants had a lower use of electronic, print and interpersonal sources for cancer information seeking and scanning, however the separate influences of participants' ethnicity and education level on these findings were unclear in this study (Nguyen et al, 2010).

Returning briefly to the HINTS study conducted in the US which explored differences between ethnicities in regards to their accessing of health information, Nguyen and Bellamy (2006) found that Asian-Americans and Caucasian-Americans similarly trusted health information from doctors and had similar media usage rates and similar rates of preference for cancer information from a range of sources. One difference between these two groups was Asian participants' marked preference for printed materials when compared with Caucasian participants (Nguyen & Bellamy, 2006). From the same HINTS data-base, an analysis by Zhao (2010) found that in general Americans who were born overseas were less likely to rely on other people to find cancer information for them than those born in the US, and they were less trusting of some key health information sources than were US born Americans (Zhao, 2010).

## 5.2 Tradition, acculturation and cancer information-seeking

Several studies from Canada examined the cancer information seeking practices and comprehension of cancer information among Chinese immigrants, as well as other immigrant populations. Todd and Hoffman-Goetz (2011b) found that older Chinese immigrant women reported a strong preference for interpersonal and interactive cancer information from their doctor and other trusted people such as family and friends. However, like the Australian study by Vu et al (2009), the short duration of medical consultations was a barrier to the women receiving detailed information (Todd & Hoffman-Goetz, 2011a; Todd & Hoffman-Goetz, 2011b). In a study by Thomson and Hoffman-Goetz (2011), acculturation was reportedly an important determinant of how well cancer information was comprehended by older Chinese women living in Canada. This finding is not dissimilar to O'Connor et al (2009) study of Vietnamese men in Australia, where it was reported that acculturation conferred some protection, via increased knowledge, against sexually transmissible infections upon study participants. Acculturated Vietnamese men in this study were more able to

comprehend sexual health information from mainstream sources, and this included younger Vietnamese men who had had exposure to school-based education programmes (O'Connor et al, 2009). It appears that acculturation, particularly language acculturation, facilitates engagement with the dominant cultural vehicles used for health education, like commercial television, and mainstream newspapers and magazines. However, other research warns that the picture is likely to be more complex than simply one's level of acculturation, as other factors, like social determinants (Viswanath & Ackerson, 2011) and self-efficacy (Thomson & Hoffman-Goetz, 2009), might influence exposure to and understanding of health information (Thomson & Hoffman-Goetz, 2011).

In a delightfully revealing article from the US that contains somewhat worrying implications regarding Chinese immigrants' health information seeking practices, Chen et al, (2010) described how their sample of 24 Chinese immigrants from two parts of the US routinely used traditional Chinese medicine to treat illness and only used Western medicine when the former was ineffective. The study found that on the whole Chinese-American participants did not benefit from the health information that they had received from American health care practitioners as they had had unsatisfactory past experiences with American health professionals, and they experienced significant language barriers and cultural differences in both health care and health information seeking (Chen et al, 2010). Many of the Chinese immigrants mistrusted Western medicine, and they preferred to source health related information from family, friends and Chinese medical practitioners, even on occasion while resorting to Western medicine. The authors characterised the practice of balancing Western and traditional Chinese medicine, and the preference for obtaining health information through their community sources, as typical of immigrants who feel isolated and marginalised by the dominant culture to which they have migrated. Chinese immigrants were 'grabbing the rice straw' (Chen et al, 2010), which is to say they built an understanding of their health through using eclectic pieces of information they could understand from a wide variety of trusted sources, because they mostly felt helpless when faced with differences in language and cultural sensibilities while trying to find health information via mainstream US channels (Chen et al, 2010). This practice occurred even among people of Chinese ethnicity who had lived in the US for decades.

Not dissimilar to the findings of Chen et al study, Kwok and Sullivan (2007) reported findings from their interview-based study of the health-seeking practices of 20 Chinese-Australian women aged over 50 years. About half of the women reported that the power of Western medicine to cure disease is exaggerated and that they would only seek Western medical help if traditional Chinese medicine did not resolve their symptoms. Reportedly, many of these women would only have a mammogram if they had a discharge, felt pain or discovered a lump in their breast; screening for disease without the presence of symptoms was considered pointless (Kwok & Sullivan, 2007). The idea of screening for the early detection of disease was not a part of their cultural understanding of health, and seeking health-related information from Western sources was inconsistent with their beliefs about the differences in the kinds of illness experienced by Chinese people compared with Westerners. Participants often had dismissive attitudes to Western medicine and health care practitioners (Kwok & Sullivan, 2007).

In many ways, the Chen et al (2010) and Kwok and Sullivan (2007) articles represent a warning to health educators in Australia that a one-size-fits-all model of health education and promotion is unlikely to yield benefits for the peoples of a nation that is increasingly multicultural. Health consumers from outside Western cultures often view Western medicine with a degree of scepticism and they interpret 'evidence-based' biomedical health information through their own set of folk beliefs, cultural, educational and linguistic understandings and limitations. This dynamic can create gross misunderstanding and confusion between the aims and ideals of Western health professionals and members of ethnic communities.

## 6 Conclusion

This review of the literature focused on Chinese and Vietnamese immigrant populations' understandings of viral hepatitis infections and cancer, the models of hepatitis and cancer health-related information and health promotion which resonated within these populations, and the sources of health information that immigrants from China and Vietnam accessed and preferred. There were many similarities in the literature between Chinese and Vietnamese peoples with regard to these foci, however differences were also identified and highlighted.

With regards to knowledge about viral hepatitis and cancer, the research literature indicated that Chinese and Vietnamese immigrants to Australia (and the US) have a poor understanding of the vectors of viral hepatitis transmission, hepatitis vaccines and treatments, and little knowledge of the relationship between hepatitis infection and risk for the development of primary liver cancer. Vietnamese immigrants in particular were described as one of the most socially isolated ethnic groups in the US which potentially exacerbated their poor knowledge and understanding of viral hepatitis and cancer. Among these populations, access to health information and knowledge of illness are low because of a range of barriers such as poor English proficiency, a dearth of culturally and linguistically specific resources and programmes, concerns about Western medicine, difficulties negotiating Western health systems and medical practitioners, a preference for treating disease with folk remedies and traditional Chinese medicine, and a fundamental philosophical difference in illness representations. In addition, structural factors such as the cost of testing, screening and treatments, problems with interpreters and/or interpreter services, and the inconvenience of accessing health information and health care were disincentives to seeking and engaging with Western health information and medical care.

Research has posited a variety of community-based outreach programmes as effective ways of connecting with Chinese and Vietnamese immigrant populations and disseminating health-related information. Community-based models were reportedly more successful at engaging ethnic minorities and improving their knowledge of viral hepatitis and cancer than were mainstream models. Some of these community-based models included health care and information clinics improvised by medical students, trained teams of community health promoters, individual health 'navigators', faith-based outreach programmes delivered through churches, culture-based outreach programmes delivered via community events, and health information initiatives that involved family, friends and social networks in their dissemination. A small amount of research explored the effectiveness of ethnic media and the mainstream (US) media for engaging immigrant populations with health information and finally, the Internet was viewed as a potentially efficient source of information provision to ethnic communities however its impact is possibly limited by social determinants.

The patterns of access to cancer and other health-related information in Chinese and Vietnamese immigrant communities were mostly quite similar, with both groups turning to



ethnic media and community networks, including friends and family, to source information about cancer and viral hepatitis. However, Chinese immigrants tended to look further afield than Vietnamese immigrants and accessed information from mainstream media in Australia and the US, possibly because some networks of Chinese immigrants were more acculturated. However acculturation, while important, was not always a marker of better knowledge and information comprehension. Variables such as self-efficacy, income and education were also important influences. Both Vietnamese and Chinese immigrant communities reported a distrust and dissatisfaction with aspects of Western medicine, the health care system and health care practitioners. This was a barrier to accessing viral hepatitis and cancer-related health information, as well as testing, screening and treatment, among these peoples. The importance of building trust and rapport should inform programmes which aim to increase access to cancer-related health information.

Finally, to reiterate a point made earlier, this literature review highlights a need for an acute awareness of cultural sensibilities and health beliefs, as well as language, to be salient in the development of health promotion materials to address chronic viral hepatitis transmission, blood borne virus testing and screening for primary liver cancer in Chinese and Vietnamese- immigrant populations in Australia.

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