Determining Information Sources For Health Related Issues Utilised By Community Members

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ABSTRACT

Reason for information seeking by consumers and community members has been the subject of previous research to ascertain any unique issues about the personal attributes of the information seeker, the search environment and context or particular issues associated with the goods or services being researched. Several researchers have identified ways to study how information on health related topics is communicated to the community.

While research is limited on the sources, search approaches and conditions associated with obtaining reliable information on health issues and topics, there is extensive literature on the important aspects of communication processes that impact on the unique, and at times complex, environment within which health consumer research occurs.

This research project has enabled a review of the interpersonal and non-interpersonal communication modes to understand a range of issues that impact on the community member as the receiver of messages on health issues and topics. A qualitative and quantitative research approach has been utilised in original research to examine a number of issues associated with where community members in Australia turn to find information on health related topics.

The study involves the comparison of a number of communication and information gathering approaches and expectations with a picture of information source experiences. The study highlights a range of considerations for campaign, individual communication, environment and background communication planning for those involved in engaging with the community to impart health care orientated messages.

Key words: Information seeking; communication; interpersonal communication; mass communication; health; sources of health information.
STATEMENT OF ORIGINAL AUTHORSHIP

The work contained in this thesis has not been previously submitted for a degree or diploma at any other higher education institution. To the best of my knowledge and belief, this thesis contains no material previously published or written by another person except where due reference is made.

Signed: ______________________________

Date: 22nd December 2003
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My family provided wonderful support to undertake this program and so this work is –

For Maree and Chris
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CHAPTER 1 : INTRODUCTION

This research project provides an interesting opportunity to look at where members of the Australian community go for information on health issues and topics. The study provides a snapshot of the needs of health information seekers and the context in which they act to find information. It is a snapshot taken across Australia in 2003, through a representative sample survey.

The health care system engages in the communication process in many ways to inform, to modify behaviour and to test the level of understanding of health care users. Individuals, groups and organisations in the health system use a variety of communication methods to make this important bridge.

While the health care system targets audiences with messages, the perspectives of the audiences are different. Individual health consumers decide what messages to attend to and when. This study focuses on those individuals in the choices they make when gathering information about their health.

A certain tension exists in the methods employed in communication process around health questions. Many of the approaches of mass communication are based on an economic or commercial behavioural motivation base. For example, the techniques and goals of advertising are grounded in the need
and ability to motivate for the question of goods and services. Many parts of these processes have important lessons for communicating health messages. In this study I have had the opportunity to examine the important dynamics of credibility and confidence that information-seekers need from the information gathering. The dichotomy of commercial behavioural modification techniques and honesty and surety are explored in part in this study.

This study has at its centre the identification of the two main factors in the communication process – *sender and receiver*. I have focused this research on looking at how the receiver acts in selecting and using information on health issues and topics that many senders have to offer. This is a different focus to that used in much of the existing health communication literature, which primarily considers health communication from the perspective of the sender.

1.1 Communication in the Health Setting

Communication is a fundamental aspect of human life and endeavour. It is important in the psychological, developmental, interpersonal, social and economic aspects of the lives of people. Communication can be both simple and complex. It is adapted to the particular needs of both time and place.

The sender-receiver dynamic is a useful definition for considering communication in the health setting. Communication processes display a number of elements that have impact in different ways in the health setting. Issues of complex language, environment and topics affect the sender-receiver dynamic.
1.2 The Context For This Study

This research work looks at where people in the Australian community might go for information about health issues or topics. The research program has been framed to look specifically at how individuals collect information on a series of predetermined health topics. I am interested in exploring whether there are clear patterns in the ways that people seek out information on their health. I am also interested in whether the sources mentioned by individuals match those typically chosen by health campaigners.

The motivation for research in this area comes from an interest in contributing to further understanding and possible response development in:

- Understanding the preferred, convenient and trusted sources of information on healthcare issues used by members of the community to enable improved responses to the health needs of the community.

- Providing ideas and agenda points for sustained improvements in the communication dynamic that is a significant part of any healthcare system.

- Providing an opportunity for a contemporary understanding of individual behaviour in communication processes associated with healthcare to enable further and focused research.
This study is relevant to the current health communication context in Australia because many organisations have an interest in promoting health messages. Having a clearer understanding of how individuals access information about health may help those communicating to target their intended audiences more successfully. Organisations, individuals and groups in various aspects and endeavours in society (commerce, government, social and welfare organisations) have an interest in understanding where the communication receiver best obtains information. Individuals and groups that have a particular interest in promoting and facilitating sources of information include:

- Marketing individuals and groups interested in promoting information, messages and advice about products and services;

- Information management organisations looking at the medium, systems and technology through which information can be collected, processed and handled;

- Educational and learning organisations interested in understanding the optimal way to facilitate the exchange of knowledge and understanding;

- Communications specialists interested in models, applications and management of the environment within which communication is undertaken.
The communication process, that can be depicted through various models (Kalbfleisch 2002), relies on a number of aspects of behaviour, structure and environment to produce results and to be useful in communication. The communication process can be characterised by:

- How the communication process, model and dynamic operates;
- Why the communication is necessary and the reasons for its operation;
- Where the communication works best;
- Which communication process is the most effective.

It is in this last area that my research work is concentrated. The information source is an important part of understanding which process, model and application in communication may be better for a health issue or topic application.

The communication environment in the healthcare setting is both a common experience for most people and also a complex environment in which to operate. A number of important issues that effect the sender and receiver of information in this setting can be:

- Complex and difficult to understand issues and concepts;
- Of a personal and intimate nature;
- Undertaken in an unfamiliar environment;
- Involve conflicting, contradictory and changing issues and elements.
It is within this context that this research will look at the issues associated with the application of information for the person in the community.

1.3 Communication Functions

Two broad aspects of communication are at work in the relationship between individuals and groups that give and receive healthcare advice and services. Interpersonal communication is an important part of the care and support of the individual in the healthcare system. Interpersonal communication relates to a personal message or face-to-face delivery. For individuals it can involve a trip to the doctor or obtaining advice from a pharmacist. Mass communication is an essential approach in industry to provide a message consistently to a large number of individuals and groups.

An understanding of communication provides an insight into its complex and unique nature.

Black and Whitney (1988) highlight that “No single definition of communication is agreed upon by all scholars interested in the subject; diversity abounds.” (p. 6). Several authors (Black & Whitney 1988; Miller & Steinberg 1975) offer both that a definition of communication needs to suit the purpose and circumstances of the individual enquiry. They most certainly incorporate elements of the two principal communication factors of sender and receiver as well as the need to have intentional, transactional and symbolic processes at work.

These processes relate to the purpose, operation and the transfer of meaning in the communication paradigm.
This view is useful for this research study. It recognises that for communication to exist there must be a source and receiver and that an operational and complex process environment exists for that exchange and feedback (there can be variation in receivers). This research work looks at the types of sources that a receiver in the community will turn to when confronted with certain questions on health related topics.

1.3.1 Interpersonal Communication

Interpersonal communication is individual, personal and unique to a given situation (Stewart 1977). It takes place between individuals and is focused on the personal needs of the sender and receiver. Standardised content may exist in this individualised context. Within health communication this might be a discussion between a health professional and a patient about a particular illness problem.

Miller and Steinberg (1975) highlight that when people communicate they make predictions about the outcomes of their communication behaviours and when these predictions relate mostly at a psychological level of review, then that communication is undertaken at an interpersonal level. The authors differentiate individual behaviour as:

- An individual’s learning experience;
- The individual’s unique reaction to an issue or circumstance;
- Behavioural differences between those communicating;
- An individual’s characteristics;
- Mutual experience.
There is an ongoing tension between interpersonal and non-interpersonal communication with the former focused on the unique and important nature of the individual. The ramifications between the trade-off in providing a unique and individualised message compared to one for a mass audience are evident in the impact and effectiveness of the message and its acceptance.

1.3.2 Mass Communication

Black and Whitney (1988) define mass communication as “a process whereby a mass-produced message is transmitted to large, anonymous and heterogeneous masses of receivers” (p. 10). In the health environment mass communication is the broadcasting of a message through various mediums to a large audience. It occurs when there is a message to be sent to a large number of people and consistently over a period of time such as a smoking cessation message.

The elements of mass communication involve:

- Audiences that vary in size, and are obviously made up of individual people or receivers of messages. The interaction between individuals in the audience can facilitate a roll-on effect of the message past the number of people that were in the initial audience group.

- Delayed feedback in the form of aggregated elements and issues is provided back to the source in mass communication over time (unlike interpersonal or face-to-face communications).
• Channel noise is the physical or technological interference or failure in the message, and is usually overcome by technical improvement or message repetition.

• Semantic noise is the psychological disruption in the communication process being transmitted in the mass format (this disruption may be caused by elements such as knowledge levels or ability to communicate).

• Gatekeepers are in a position in the mass communication chain or line and determine what and how it gets through the message delivery process.

The mass communication process has a number of functions and responsibilities including informing, persuading, entertaining and motivating audiences through a number of media (electronic, print and performance approaches). It is relevant in this study as it has a big focus for message delivery, impacts on health resources and is a practical way to communicate to a large number of community members.

1.4 Research Question

The fundamental research question directing this study is -

“What are the information sources used by the community in relation to health issues and topics?”
The research has been focused to examine the current situation in the Australian community as to where people go to find out about health matters.

Two research methods were employed to gather this information, and results were analysed and compared to information found in a literature search to demonstrate any similarity or differences in issues and themes.

The research question provides the opportunity to examine responses from individuals invited into the research group to focus on:

- If there is a recognised range or repertoire of information sources used for health topics;

- The extent or depth of the number of information sources available to individuals;

- Whether there is a preferred set of information sources when questions arise about particular health topic issues;

- Whether individuals prefer face-to-face/individualised responses or access through mass communication sources;

- The extent of the influence of demographic variables relating to individuals and their potential effect on information seeking.
The study concludes by highlighting a number of issues that could be considered in designing and undertaking communication initiatives in the health sector. The study also raises areas of further research and clarification that would assist in ongoing investigations on this theme.

1.5 Methodology

In Chapter 3 (Methodology), I outline the justification for the use of both quantitative and qualitative research processes for this project.

Individuals react differently to various forms of stimuli. The reasons and context in which a health related question or issue might present to an individual can vary. The methodology used for this research has been developed in such a way as to frame research questions for those people who will participate in the research, such that it will require participants to draw on general experiences confronting most people to explore how they react and seek information.

The research question for this project seeks to identify where people in the community go to ascertain information on health issues and topics. A fundamental piece of research associated with this question relates to a quantitative analysis by a survey questionnaire delivered through a telephone interview. This approach enables the control of a number of factors such as obtaining an acceptable sample of completed survey questionnaires for analysis, as well as an adequate and even-spread of survey participants by geographical location, age grouping and gender throughout Australia.
In order to have a richer approach to the research question, a qualitative survey study involving a focus group interview session has also been included in the research methodology. The purpose of this focus group interview is to test responses to the basic interview questions used in the telephone interview survey, and also to discuss with focus group participants (after the telephone survey) issues surrounding concepts and approaches associated with the survey questionnaire to fully develop any information and understanding from the survey results and the survey process. The data from the focus group interview is a list of issues and concepts that form the discussion points from that group.

1.6 Themes That Emerged From This Study

A number of important findings and themes were identified and examined in this study. These included:

- Five main information groups were identified as the consistent sources of information used by research survey respondents – these were the family and friends group; health professionals group; organisations and agencies group; reference materials group; and the directories group.

- There was a strong preference for inter-personal communication with health professionals and authoritative sources of information on health issues.
• Age, gender and place of residence are important variables in determining where information-seekers on health topics will seek information.

• Previous experience and exposure to information seeking affects subsequent information finding. The impact of past health information campaigns also affected information finding.

• Trust, confidence and confidentiality are important environmental factors affecting information seeking in the health sector.

Interpersonal communication is a strong element in the health care dialogue. This research demonstrates strong preference by information-seekers to communicate directly, particularly with health professionals. The separation of the provision of information and information interpretation and explanation are critical role delineations. The research outcomes demonstrate this situation well.

1.7 Outline Of This Thesis

The research work undertaken as part of this project is presented in this thesis in six chapters:

• **Chapter 1 – Introduction**: Provides an introduction and background to this study and then presents the research question (and associated research question elements). The broad research problem is outlined and a summary of the research methodology has been provided.
• **Chapter 2 – Literature Review**: Provides an outline of the information obtained through a literature review conducted to support this research project. A number of key concepts including communication techniques, accessibility of information, and theoretical approaches to communication are outlined.

• **Chapter 3 – Methodology**: Provides an outline of the reasons and justifications for the use of quantitative and qualitative research methods to support this study. Both approaches are used in the concept that they each have something to offer along the research continuum.

• **Chapter 4 – Research Data Analysis**: Results of the telephone survey questionnaire and focus group discussion are presented with the appropriate quantitative data analysis for the telephone survey.

• **Chapter 5 – Emerging Themes, Implications and Conclusions**: The main findings from the telephone survey, both in terms of response results from participants as well as analysis of the effects of the demographic variables associated with the survey answers, as well as the major issues stemming from the focus group discussion are presented. Using the research question developed for this project, I bring together the main findings from the original research presented in this thesis and compare and contrast those findings with the significant elements and models derived from the literature review.
This synthesis provides a number of contributory outcomes as well as raising issues and themes for further research.

1.8 Conclusion

In this introductory chapter, I have outlined the background and motivation to the research project; developed and presented a research questionnaire with major elements to be examined as part of the research; and commenced to compare and contrast research findings with important issues found in the literature review.

This project is seeks to develop a picture of a part of the information gathering process relating to people in the community who are attempting to receive information on health issues and topics.
CHAPTER 2 : LITERATURE REVIEW

In this chapter, I present a range of information relevant to communicating with individuals and groups on health issues and topics. The information obtained through this review provides an understanding of and framework for elements of the communication process, specific information relevant to my research, and comparative data and models that will be useful in interpreting and understanding outcomes from this research project.

The information in this chapter is presented through three main perspectives:

- Techniques and approaches used for health campaigns and information;

- An understanding of how people access health information and communication;

- Some relevant theoretical approaches that help to describe health communication.

The primary objective of this chapter is to ascertain what, of relevance, has been said in these areas before.
2.1 Communication Techniques and Approaches Relevant to Health Issues

A number of important techniques and approaches have been used within the health sector to communicate specific and occurring health messages. A number of the important approaches are examined in this section.

2.1.1 Communication Campaigns

Rogers and Storey (1987) developed a definition of a communication campaign as intending to generate specific outcomes or effects for relatively large numbers of individuals within a specified time period and through an organised set of communication activities. The authors demonstrate that communication campaigns should include four key characteristic features:

- The Campaign Has a Purpose: While there can be a number of variables in terms of the campaign outcome and differing effects on the sender or receiver of campaign messages, campaigns need to have specific intent and outcomes.

- The Campaign Audience Will be Large: This differentiates campaign communication from that of interpersonal communication or projects and initiatives that are small in scale.

- An Appropriately Defined Time Limit: The time period from the initiation of the campaign intervention to the finalisation of the evaluation should be predetermined. Some campaigns may have an
ongoing objective, but the introduction of new messages or altered variables in the campaign indicates a new campaign beginning.

- Involve an Organised Set of Communication Activities: Varying communication activities and processes are used in different phases and throughout the campaign.

Communication campaigns reflect an approach of applied research with a balance between theoretical application as well as demonstrating applied theory and practice (Salmon 1989; Schirato & Yell 2000). Public health campaigns can be a mix of the use of both mass and interpersonal media.

Backer, Rogers and Sopory (1992) highlight that issues of public importance in a health related context are usually of such a magnitude that no single solution to the delivery of a health communication campaign is appropriate. Increasingly, multi-media communications across print and electronic means are used to create awareness and seek attitude and behaviour changes. The need for innovation in approach is high as the difficulty in persuading individuals to accept and maintain a behaviour change provides significant challenges.

Flay and Burton (1990) make distinctions between public health campaigns and product marketing campaigns. While there are many similarities between the two, the expectations and conditions of the campaign approaches differ. Three broad areas of variation between the two campaign approaches are noted:
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- Expectation on the type and extent of change as well as the benefit or payback time anticipated;
- The presentation of the product and message as well as the campaign budget;
- Degrees of trustworthiness and the level of evaluation of the campaign (understanding of these elements applied to the two campaigns demonstrates information and marketing approaches).

Parrott (1995) addresses the complex issue of what actually motivates people in their behaviours associated with health interests and highlights a series of variables that need to be considered within communication campaigns to enhance effectiveness, as well as delivery and retention of the health message. These include:

- Novel messages, settings and media;
- Consideration of discrepant and unexpected messages in presenting traditional health messages;
- Instruction to gain audience participation;
- Message construction;
- Utilisation of examples;
- Use of identifiable speech;
- Avoidance of qualifiers in relation to changed behaviour that are replaced with specific outcomes of certain behaviours.

There are a number of approaches to evaluating communication campaigns. Flay and Cook (1990) suggest three evaluation models that may have relevant application to prevention and education campaigns. The choice of
an evaluation model to gauge effectiveness and outcomes from campaigns can involve time, funding resources, particular information requirements and an assessment of development that the campaign has reached. The broad evaluation choices include:

- Advertising-Type Surveys: Are inexpensive; focus on the reasons for the issues which have lower policy relevance; and are in danger of producing inaccurate findings.

- Impact-Monitoring Studies: Are less expensive; concentrate on the concepts at the end of the reasons for the issue which has a high policy relevance impact; but these studies run a risk of inaccurate findings.

- Experimental Studies: Large scale, comprehensive and expensive; likely to produce more valid results than are policy determinant relevant; focused to provide a global causal conclusion. An experimental campaign would be one that has as its outcome results that are well defined. These studies have careful monitoring of the campaign outcomes. An example of such a study might be the use of matching cities where a campaign is run in one and not the other and results compared and contrasted.

Communication campaigns achieve results (Walsh 2002; McCormack & Garfinkel 2002; Newby & Hill 2001, Karlyn 2001; Davis 2001). Correlation of campaign outcomes and achievements to the principal purpose of the campaign shows (Miller & Ware 1999) that these media campaigns are effective when used as one part of an overall strategy to address a problem.
Communication campaigns have limited outcomes when there is a need to rely on unfunded or donated resourcing (e.g. free television community service announcements), a lack of message targeting research and over-identification of the use of commercial advertising in campaigns. Campaigns are effective in raising levels of understanding and improving attitudes (engagement) and should not contain an over-emphasis of expectation in changing individual behaviours or achieving success in ‘one-off’ initiatives.

### 2.1.2 The Media and the Health Message

The media is a major influence in the day-to-day lives of people in the community (Corbett and Mori 1999). “Media” is a commonly used term that encompasses a whole range of communication approaches and systems. There are various sub-groups such as print, electronic and communication management services. There is a correlation between the creation and growth of media with technology. O'Shaughnessy and Stadler (2002) demonstrate a range of social, economic and technical factors that define the media. These include:

- The media’s arrangement of human communication systems.
- Messages are produced through processes and as a result of industrialised technology.
- Typically, the media is scaled towards communicating with large audiences (mass media).
- Time and distance factors are handled in such a way that the sender of messages need not be present at the time of recording and transmitting of messages.
• The media is a connection mechanism with its descriptive language stemming from the Latin (media meaning middle).
• Commercial and economic effects are important in the establishment and growth of the media as highly profitable industries.

The issue of the balance of power in a society has important implications in the structure, use and value of the media in representing and influencing society. In turn, the major issues of understanding and positively affecting health behaviour in the community are also intrinsically linked to the issues of power and perception. Dominick (1999) and O’Shaughnessy and Stadler (2002) describe the critical and cultural study of examining the audience as power that when unequally distributed, affects groups and sub-groups differently in the community. These essential concepts are:

• Ideology of a defined set or collection of ideas and beliefs particularly relevant to the social and political aspects of understanding.

• Hegemony: Describes the situation of power relationships and dominance. Although more flexible than that of dominant ideology, hegemony is a way of understanding how social groups maintain power and control over other groups or sub-groups.

• Discourse: Has been enormously influential in the development of media and cultural studies. It is a process of constructing meaning and enables the description of how communities and societies bring together a range of ideas and beliefs.
Jankowski (2002) demonstrates three major waves of development of the media over the last hundred years. These include the inseparable relationship and development between media and community in the interdependency of technology and understanding to give expression for the media; the varied needs and reasons for messages to be communicated throughout the community; as well as the diversity of choice provided to the community in relation to their involvement in the communication process.

- **First Wave of Development – Community and Media:** Local, community, regional, national and international ties have been accommodated by the media through developments in print media throughout the twentieth century.

- **Second Wave – Electronic Community Media:** The development of radio, television and video throughout the latter part of the twentieth century enhanced the community and society building capability and situations.

- **Third Wave – Era of the Internet:** The rapid development, acceptance and uptake of the Internet (and other technology such as digital applications) capability over the last fifteen years has been profound in community and society and really is only the beginning of this communication wave.

The structure of the media on any culture has important effects on national character (Turner and Cunningham 1997). A well-defined and Australian-owned set of media options exist that are responsive and implicated into the local and national communities within this country. The media is
enormously powerful in respect to health issues and topics (Lowe, Lloyd & O’Shea 2003; Montonen 1996). This impact includes not only the message or topic for communication, but also involves the approach and application of media to the message:

- The media has had significant influence on community health and health promotion.

- Policy debate and formation has been critically evaluated and nurtured in the media.

- Health development and the issues of health status progress has found carriage in the media.

- Public opinion about health and treatment is defined and debated in the media.

- Research and development with ethical evaluation provide marked vehicle development within society.

- News, education, commentary, entertainment and info-tainment are important and unique modes that enable message transfer within the media.

Norris (1998) examines the enormous powers that the media have to influence society. The sustained development of control and guidelines of the media’s treatment on health issues surrounds integral issues of
experience and knowledge of media reporters; maintenance of a balance between positive and negative health stories; action accountability within a strong ethical framework; as well as education and training of those leading and reporting in the media (Farquhar 1984, Friedman et al. 1999).

2.1.3 Opinion Leaders and Gatekeepers

Within the community and the media, the role and influence of the opinion leader and gate keeping control mechanism are significant factors in stimulating, approving and controlling the types of information and ways that information is presented to the community (Brereton 2001, Hamner & Sax 1984, Watson & Hill 2000).

The gate keeping control mechanism utilised within media organisation is a mechanism to determine what information is brought to the public. Throughout the various processes in print, electronic and communication management, there are a series of control mechanisms that act around commercial, legal, quality, market acceptability and community interest criteria that are used by media organisations together with a series of value judgments. The development of gate keeping technique and approach varies, and has developed, along with the media form.

The opinion leader influences attitudes, interests and behaviours with relative frequency through the media environment (Heith 2001, Jacobs 2001). Chan and Misra (1990) examined the characteristics of an opinion leader and found that these involved:
• Public Individualisation: Individuals who are differentiated to some degree from other people and choose to act differently from the group.

• Product Related Characteristics: Has strong knowledge levels about issues and enduring involvement in those issues.

• Predisposition to an Issue or Cause: In order to derive credibility there is usually a commitment or positive association between opinion leaders and the issue or cause.

Opinion leadership and gate keeping are an inherent part of the health message within mass media. The media will seek to align messages to experts or people of credibility. Issues of confidentiality, privacy, breakthrough and developments are examples where the gatekeeper role will be evident. The complexity of issues and the need for interpretive ability strengthens the position of the opinion leader status from within the health professions. Commerciality, complexity of understanding and status of policy debate are indicated for use of both the opinion leader position in respect to sources of information and the media management while the role of the gatekeeper crosses major elements of interest, commerciality, legal and political circumstances.

Rogers (1983) demonstrates the important of diffusion in the role of opinion leader and gatekeeper. The extent to which people or elements in a social system are not equal in a behaviour structure can lower uncertainty. Structure, in turn, provides an effect in which diffusion and adoption of innovation may occur. Diffusion is the process by which an innovation is
communicated through certain channels over time amongst the members of a social system. Diffusion is a special type of communication where messages are concerned with a new idea. Diffusion is a kind of social change where change occurs over a social system.

2.1.4 Interpersonal Communication

Mohan et al (1997) defines interpersonal communication as that which takes place between people where it may be on a one-to-one basis; in small groups; as a speaker to a larger audience; and even in mass communication (in the latter where the speaker can be removed from direct contact with the audience). Interpersonal communication is important. Differentiation between interpersonal and non-interpersonal communication highlight marked issues of intimacy, medium, effect and communication outcomes. Stewart (1977) provides four key differences relevant to the differentiation of interpersonal and non-interpersonal communication:

- Each person is a unique non-interchangeable part of the communication context.
- People are choosers who are free to act and not just react to the conditions they are in.
- People are more than just an amalgamation of observable, measurable elements as they experience feelings or emotions.
- People are of value just because they are people, which means they do not condone or support everything that is done.
Interpersonal communications are a fundamental aspect of relationship and relationship building. Mohan et al (1997) highlights a number of major interpersonal elements or characteristics that include:

- Conversation is the basic communication mode that enables people to explore relationships, issues, thoughts and feelings.
- Self-disclosure leads to a level of understanding of what others might know about a person where an experience in self-disclosure leads to a strengthening relationship in that information and knowledge search.
- The conversational style includes a complex set of issues including rapport, assertiveness, sensitivity and ability to recognise traits and features.
- Communication competence sets, tests and alters the level of ability in the communication process.
- Communicator style affects the ability and effectiveness of the communication process.

Collins (1977) articulates that health professionals must identify with and change their responses to the particular needs of whom they are communicating with. Issues of communication ability within the interpersonal process; and levels of disclosure and understanding of needs and wants are critical to building information sharing and a supportive bridge.

Fritz et al (1984) detail a series of preconditions that are necessary to achieve optimum communication. The shared verbal and non-verbal vocabulary is an important element in respect to the complexity of concepts, health care vocabulary and medical jargon. The achievement of an optimal common
frame of reference works to bring together the viewing and understanding of situation circumstances and messages by the sender and receiver. The development of an appropriate mental set with concurrent listening and response or feedback ability creates the opportunity in the healthcare context for a strong and useful dialogue. The ability for health providers to give information in standard ways and to have mechanisms of inbuilt feedback constantly reinforces messages effectiveness.

Katz and Lazarsfeld (1955) highlighted a number of patterns that hold people together in an interpersonal communications network. These enable communications patterns to take shape under differing social conditions:

- **Structural Connections**: The networks that enable communication flows include elements of the degree of difference in mutual attraction within groups; the degree of interdependence; differences in status and group size affects rate, content and context of communication.

- **Comparative Climates**: The group culture and communications can result in variations in the patterns of communication flow, the volume and content of the communications patterns.

- **Situations**: The communication content and interpersonal relations relate to the ties or bonds that individuals share, affecting the grouping and sub-grouping of people. Similar groups may display different communication networks, depending on the interests and linkages between group members.
Rogers (1998) states that in relation to interpersonal communications and relationships, the identification and understanding of relational communication with its interaction based approach assists in the understanding of comprehensive relationships. The identification of the multiple aspects of the interactive communication process helps to explain the link between communication and social relationships. The concept of ongoing conversations, as a basis in the formative nature of communication, is important both in terms of the gathering and storage of information in the health topic area but also it assists with the understanding of relationship communications when individuals and groups meet in the health context.

Interpersonal communication is a fundamental within the health sector given the unique and individual nature of problems and problem solving. Even in mass communication (where, for instance, there is the separation of the individual communicating a message to a mass audience by virtue of the media in use) the ability to obtain a strong and purposeful dialogue is a fundamental, useful and valued communication. An example of an application where mass communication may appear to be interpersonal in nature is where a health message about a particular illness problem is communicated through mass media in a one-to-one conversation style with the reader, viewer or listener.

2.1.5 Promotional Material

Advertising is a non-personal presentation of both information and persuasion that predisposes the audience to products, services and issues (Black & Whitney 1988). While very much aligned to the mass media who
distribute messages, advertising as a part of general communication and marketing specifically has been with society for hundreds of years.

Sinclair (2002) argues that “advertising is essential to the look and feel of modern society” (p. 200). It is a connection between information senders and prospective information receivers. This connection is not just a question of reaching large audiences but choosing a medium that appropriately communicates between the person advertising the goods, services or issue, and the kind of people who are the most appropriate and predisposed to the advertiser’s message.

Black and Whitney (1988) detail a range of important advertising strategies that assist with the connection between the provider and receiver of communication:

- **Unique Selling Proposition**: Uses techniques to establish a difference between products and information through the exploitation or articulation of the product or service.

- **Brand Image**: Works to place one product or service above its competition, therefore making it more appealing or applicable for selection.

- **Motivational Research**: Enables, through various research techniques, to understand inner motivation and desires to develop a communication response that plays to the weaknesses, or “touch points”, of the person receiving information.
• Subliminal Advertising: Supposedly motivates the individual’s subconscious mind through the subliminal stimulation and placement of suggestion in communication.

• Positioning: Consists of segmenting a market by developing a product or service that meets the needs of a particular group, or developing an advertising approach to stimulate an existing product that meets the needs of a specialised group.

• Institutional Advertising: Is aimed at selling an idea or an institution rather than a product. It utilises skills and abilities in image building to present appeal or face.

Advertising strategies utilise an appropriate medium (print, electronic, sponsorship and public discussion) to promote goods and services as well as individuals and entities to targeted groups within the community.

Leiss et al (1990) state that “The simple point is that advertising today communicates more about the social context in which products are used than about the products themselves” (p. 352). While advertising has a strong development history in the post-industrial era and is most certainly associated with the marketing of products and services, the importance of advertising culture and its position as a mechanism for communication is an essential element in understanding and driving consumption.

The use of complex and simple advertising approaches and strategies within the health system is an important part of promoting specific and general health messages.
Keiser (1991) suggests a series of recommendations in developing the necessary advertising componentary for health education campaigns.

- Development of a clear dominant message that relates to the campaign theme;

- Utilisation of a combination of approaches including media briefings, news conferences and news reports;

- Partnership between opinion leaders and credible sources of information.

2.2 How People Access Health Information and Communication

The ways, means and rules around the ways that people get information are both extensive and complex (Barnum 1975, Brodie et al. 2001, Signorielli 1993). Information seeking is about the activities and endeavours of people collecting data and processing it to become information. Direct and indirect gathering of data as well as testing norms and behaviours is information seeking.

Gwyn (2002) states that the knowledge that a person brings to each encounter with the health system is based on prior experience and exposure to stories from friends and relatives, from the media including television and the internet, and from “folk knowledge of a more general kind” (p.33).
Gywn (2002) argues that a basic or ‘lay’ (differentiates knowledge from that of professionals or experts in health) understanding of illness is derived from several and conflicting, sources of information and mixed with ‘folk models’ (local interpretations and understandings) on causation and cure. Two important issues associated with the ‘lay’ understanding of health issues that have been identified are:

- The representations of illness in the ‘lay’ or unqualified general community provides problems for the health system in communication and understanding. Generally these representations are older, or dated, and more culturally embedded than are contemporary understandings of health and illness. Levels of understanding are driving modes of thought on health related issues and topics.

- An individual’s responsibility for health issues is linked to an individuals understanding of illness causation. Illness is a concept that resides within the individual patient, and is important in determining action they may take in gaining understanding and acting on the problem. This is separate to a more generalised understanding of disease, where a third party (such as a doctor) has a perspective of the problem in a wider context (pathology, population and management strategies).

The study finds correlations between people, messages and context.

Dervin (1976) outlines significant findings in where people would obtain their information needs. Important linkages were identified and developed
between the elements or parts of the information system and the needs of the average citizen:

- **Information Needs of the Citizen:** Examines the issues of the particular information needs of members of the community, particular or divergent needs of sub-groups within the community, as well as defining the environment in which community members undertake information gathering.

- **Information Sources and the Citizen:** Examines the connection between particular sources of information and particular groups or sub-groups within the community: the correlation between characteristics of information sources, what information sources are most helpful to the community member, and the reasons behind the connection or use by citizens to those information sources.

- **Solutions to Information Needs for Citizens:** Relates to the understanding of the complex interrelationship of a particular solution of information seeking citizens find the most helpful.

- **Information Sources and Information Needs:** Addresses the linkage between the success of information sources meeting the particular information needs of individuals.

### 2.2.1 Sense-Making and Asking Questions

Dervin (1989) describes a conceptual framework of a communication dialogue perspective to describe a way of listening to the public. “Sense-
making attempts to provide a systematic approach to listening to the audience – how they see situations, past, present and future – and how they move to construct sense and make meaning of these situations.” (p. 77).

The correlation of particular groups and sub-groups within a community takes into consideration that the audience is no longer a large, singular mass of people. Studies showing the connectivity between groups and sub-groups in the community and their particular problem solving and information needs (Dervin, Harpring & Foreman-Werne 1999, Dervin & Schaefer 1999, Marshall c1977, McKay 2002) can be studied or examined in real circumstances and situations to ascertain the logic of information requirements.

The application of sense-making (Dervin 1989) requires several important approaches:

- A systematic approach to listening to the audience to uncover and understand their situation; past, present and future needs in making sense of situations.

- The sense-making occurs in real moments of time and space, responding to the particular and real needs of the information seeker and not through hypothetical questions.

- People first rely on their own cognitive resources (and perspectives) and if further information is required, they reach out to find sources closest to them or within their own sphere of habits and experience.
• Information seekers judge information gathered not only on criteria of credibility or experience but also in terms of how useful it was for them in their situation.

• Information seeking behaviours are not well predicted based on personality and demographic characteristics.

2.2.2 Interpersonal and Social Motivations for Information Seeking

Moschis (1980) reported on the idea that an individual’s interpersonal or social relations affect their information seeking situations. The understanding that personal characteristics such as age or education, as well as problem solving or uncertainty, were events that drove information seeking.

Moschis (1980) distinguishes four social motives that can affect information seeking by individuals:

• Social utility where information was used to visualize (or articulate) issues or circumstances.

• Interpersonal discussion involving conversation with family and friends.

• Comparative product preference that enables the identification and utilisation of comparative interest in information seeking.

• Opinion leadership and the ability to affect or be affected by others.
Moschis (1980) found that information seeking behaviour is not an isolated event in people’s lives. Information seeking is not only necessary for problem solving but it also fulfils social needs of other members of the community.

2.2.3 Information Seeking Related to Health Issues

In his study into the health problems perceived by 1,871 people surveyed on health complaints, Rijt (2000) examined the extent that interpersonal expert sources, previous experience on health problems, and social interest in subject area caused community members to seek information on health related matters.

The finding in the Rijt (2000) study demonstrated that a personal experience is a major determinant for seeking health information (p. 144). The main issues identified around information seeking in healthcare included:

- Importance of Different Sources: Demonstrates that expert sources of information in the health sector are consulted most in the case of health problems.

- Consulting Different Sources: The selection of an information source is affected by the problem acuity or urgency.

- Reasons for Searching Health Information: Active information seeking for health information is mainly interest or problem guided.
• Consulting Medical Books: Utilisation of these reference materials is interest guided.

The issue of information finding on behalf of others is an important issue for recognition.

In respect to the use of the media for health information and the media’s role to inform people about health issues, Rijt (2002) found that avoidance of health issues appears to be the main determinant of information exposure in the mass media.

Significant issues found by Rijt (2002) in relation to the consumption of health information in the mass media, being interest guided and not problem guided, demonstrated some interesting issues in information seeking. This included:

• Avoidance of health information in the media is a strong predictor of health information. The concept that information to the community is of high threat and low usefulness leads to more avoidance.

• An individual’s preventative orientation to their health has a negative effect on consumption of health information in the media.

• The issue of fatalism in the avoidance of health information appears to be mediated by fear of engaging in obtaining threatening information. The inter-relationship between consumption (actual and desired) and availability are important issues.
The avoidance argument or determination of data needs and availability demonstrated by Rijt (2002) is an important concept in terms of both availability and acceptance of information. It also examines the media’s position and responsibility in providing health information and topics. McQuail (1992) describes typologies of public interest ideas that give rise to the requirements and response needs of the media to address the provision of information and debate on health issues:

- The preponderance theory refers to the situation where the sum of the individual’s interests is held to be paramount. The public interest will be held to lie with the majority choice.

- Common interest theory relates to situations or cases where it is presumed that all participants would be likely to have an interest in the topic.

- Unitary theory relates to some absolute normative principle that would be derived from forms of higher or larger social theory or need. A distillation of an accepted issue or point from a higher order need.

### 2.2.4 The Internet and Health Information

Rice (2001) demonstrates the correlation between the enormity of the health system (in economic terms), the growth in the importance of public health campaigns for health related issues on the public agenda, and the growing use of communication technology (especially the Internet) in modern society. A 1997 Internet use survey in the United States (FIND/SVP 1997 cited in Rice 2001) found that almost half of Internet users reported looking for
health information or support. The use of the Internet continues to grow annually both for general Internet use as it relates to health and specific health issues and problem identification, and Internet site specialisation.

Rice (2001) points out that the rise in the use of the Internet in relation to health issues is one sub-component of the development of medical computing and information systems development that will benefit not only the health system and its operation, but also provides access, support and development to the wider community. Major communication issues associated with this development and its growing impact on society include:

- **Patient-Physician Communication:** The impact of the Internet on the patient-physician relationship (and for that matter any health care professional and client or consumer) will challenge, redefine and increase communication problems.

- **Physician-Physician Communication:** Intra-health professional communications and access to electronic resources and communications will impact on the professional practice of individual professionals. Again, this will be a combination of impact issues both positive and negative. The complexity and growing technological base of the health system provides for strong electronic communication assistance to this enormous information problem.

- **Patient-Patient Support Communication:** One of the growing and strongly debated issues on patient communication is the use of online support groups. The issues of access, patient control, anonymity and social distance are important communication developments and
access issues for the community. The issue of credible, safe and confidential access provides an ongoing problem in this area where the fundamentals of valid, relevant, and applied information is essential.

- Interactive Media and Communications Campaigns: Interactivity (or user control) with both a health information system and other people are important elements of health communication campaign development. Interactive media can improve health promotion because of increased learning, as well as information seeking and processing.

Rice (2001) reported that an analysis of web information raises questions in relation to relevance, coverage and legitimacy of much health information on the Internet. There is a stronger role for health experts through professional organisations and agencies to review, comment, endorse or regulate in this regard.

Mittman and Cain (2001) report on the growing ‘new consumers’ in the health care consumer group that demonstrate characteristics differing from the traditional understanding of consumers. They have more disposable income; higher education with higher analytical abilities; and access to computers. Mittman and Cain (2001) predict that these health consumers will drive development of Internet usage in health along a number of lines:

- Consumer Health Information Services: A response to the growing consumption of health related information through the Internet will enable the development of both more health information sites, and
also the growth and development of a range of trusted information providers that will help reduce the ‘noise’ in communication on health through stronger editorial control.

- **Online Support Groups for Patients and Caregivers:** The problems and concerns about credibility and confidence in the Internet will apply to the support group online. The growth of access through this medium will place support groups in conflict with the professions, conscious of the legal liability issues and a merging of education, compliance and support roles.

- **Health Care Provider Information Services:** It is anticipated that incremental growth in the increased use of the Internet by health professionals will have the benefit of managing the enormous information load problems, but will have an internal problem of increasing and promoting both the number and rate of availability of information issues to the professions.

- **Provider-Patient E-mail:** Issues such as confidentiality, user ability and general acceptance have limited the rate of health professional and consumer direct e-mail contact to date. It is envisaged that a user-demand growth in this area will occur particularly between consumers and health professional that are not the regular health providers at present.

- **Communication Infrastructure and Transaction Services:** The development and expansion of electronic commerce in health is
anticipated, with the development of transactional clearing houses capable of removing the manual and process focused steps of purchases, financial claims for benefits and entitlements, as well as telemedicine applications.

- Electronic Medical Records: This is a slow area of development both within the health system and for the consumer. The enormous capital, standards development and interfacing problems associated with medical records development will not mean a marked growth in this area over the next five years.

The study by Choo, Detlor and Turnbull (1998) suggests that a behavioural framework, which relates motivations and moods, provides a good understanding of Web-based information seeking. Savolainen (1999) demonstrated that the major criteria used by people seeking information on the Internet were:

- Relative ease of accessing large amounts of data;
- Savings in time and money;
- The opportunity to consult a number of experts simultaneously;
- A greater independence of time and place in information seeking.

Savolainen (1999) argued that the Internet was not in a position to supplant other sources and channels of information but rather complement them.

Research work (Eysenbach & Kohler 2002) into how consumers search for and appraise health information through the Internet has demonstrated that:

- **Authority of Source**: Relating to the authorship, reliability and credibility of the information site.

- **Layout and Appearance**: Relating to professional presentation and engagement.

- **Advertising**: The credibility of information is affected by the presence and presentation of advertising.

- **Readability**: Relates to the ability to understand and interpret the information that brings bearing on the use of professional terminology and language.

The Internet is a viable and useful source in information seeking in healthcare. As this information medium grows and expands, and its acceptability in terms of access and usability by the community, the system grows in power as a communication tool.

### 2.3 Theoretical Approaches to Describe Health Communication

There are a number of models or theoretical approaches to describe and consider information seeking. These models are useful in considering the various elements of communication in respect to information seeking in the healthcare sector or on health related issues and topics.
2.3.1 Comprehensive Model of Information Seeking (CMIS)

Johnson and Meischke (1993) developed this model of information seeking from a number of perspectives that related to health behaviours and the use of the mass media. These included:

- The Health Belief Model;
- Uses and gratifications research;
- Model of media exposure and appraisal.

The Johnson and Meischke (1993) model promotes that the demographics, experience, salience and beliefs in relation to health determine that the perceptions of information carrier characteristics and utility create information seeking actions.

In their research, Johnson and Meischke (1993) differentiated between the contributory affect of the health related factor as only minimally affecting information seeking, where the information factors generated a greater explanatory power.

Napoli (2001) in reviewing this model, highlights that its application in research needs a strong background in media exposure and choices made around alternative media technologies by information seekers.

2.3.2 The Synergy Model

Napoli (2001) outlines in the Synergy Model hypothesis that individuals were first introduced to health related issues by the mass media. This
occurred through the creation of awareness in individuals, and enables or promotes them in making initial behaviour modification attempts. To further understanding, and to be more specific, information is needed and derived by interpersonal communication through the consultation of various media outlets. It is understood that these later information-seeking activities are held to be the cause of any subsequent behaviour change.

2.3.3 Sense-Making Approach

The sense-making approach describes the gathering of information to make sense of, or to understand reality. The sense-making approach to researching information needs has been developed over the last 30 years (Dervin et al. 1972, Greenberg & Dervin 1972, Dervin 1976, and 1999) and is a collection of understandings regarding human communication and communication practices.

Dervin (1999) states that, “Sense-making’s mandate has been focused primarily on the development of philosophical guidance for method, including methods of substantive theorising and of conducting research” (p. 729). Sense-making is a tool for metatheoretical critique as a methodology for research, and a theory for communication.

The research framework uses an interrelationship between metatheory (system of theorems), methodology, substantive theory, and method to guide research. This involves two contradictory moves:

- Freeing one’s self from assumptions about the nature of a phenomenon.
• Building the methodology on a host of assumptions that are abstractly and philosophically derived and stated.

Dervin (1999) outlines that the theory and methodology of sense-making require the examination of information design “as a dialogic circling of reality” (p. 54) where the direction is not merely about transferring information, but assisting people with their information design. Sense-making is a combination of assumptions, theoretical perspectives, in individual perspectives and methodological, research and communication approaches. Important aspects of this approach include:

• These approaches were originally developed to assess how patients, audiences, users, clients and citizens made sense or understanding of their intersections with institutions, media, messages and situations. The approach has application in a number of settings including everyday communication, health systems and organisations, telecommunications and mass media. It is used at various analysis levels, including between individuals, groups, organisations, communities and cultures.

• Sense-making relates to a set of assumptions about reality, observing and power where the actor is in their observations that are understood from perspective and horizon (phenomenology). Sense-making accepts order and chaos in the environment and therefore requires bridge building between people, organisations, society and cultures. This element of bridge building is a fundamental to the sense-making approach.
• The fundamental requirements of sense-making understanding in an environment that is in flux and without complete instruction, as well as reaching out to the sense made by others, to obtain and understand the insights of others that might contribute to the present and personal information finding and problem solving.

• Sense-making relates to the connectivity “on how humans make and unmake, develop, maintain, resist, destroy and change order, structure, culture, organisation, relationships and the self” (p. 45). This requires the research of the connectivity between things such as order and chaos, individuals, individuals and organisations and the like.

• The methodological approaches for sense-making are through the understanding that people move through time and space, bridge gaps and then move on. This then requires the theoretical application of time, space and gap with the subject being constant; the person centred or decentred and changes occurring over time and space.

• Sense-making differs from other approaches in that it is setting the individual as a theorist developing ideas to understand personal, collective, historical and special worlds.

• The three essential elements of the sense-making approach are the situation; the concept of gap or bridge; and outcome.
Sense-making develops a concept of the research situation, and involves attempts to place itself as an applied communication approach to understand how others have designed senses of their worlds.

Sense-making has strong application in the health sector. Starting from a personal perspective in trying to understand self sense-making; to the discernment of information from information sheets or other printed materials; or complex situational problem solving there has been application of this theory. Dervin (1999) reports on health applicable or related studies as:

- Organisation surveillance
- Information sheets for patients
- Information presentation at a blood donation centre.

Rijt and Need (1996) propose that a further influence on information seeking might be interpersonal influence or recommendation. This factor appears important in the sense-making process, around the need to persuade individuals to accept concepts and ideas.

2.3.4 Communication Campaigns

McGuire (1981) details how the structure and motivation of a person is used to design public communication campaigns. These campaigns seek to change beliefs, feelings and behaviours through the intersecting and interacting use of communication theory. The most popular theory relates to the input/output matrix, where source variables in persuasive communication highlight characteristics of the perceived communicator to whom the
message is attributed. The channels or media through which persuasive messages are transmitted deliver information into receiver variables such as age, intelligence and demographics.

A series of processes that utilise these theories includes:

- Identification of high priority persuasive goals;
- Ethical considerations given the necessity to manipulate people;
- Instigation and maintenance of the undesirable target behaviour;
- Identification of preferred traits of target behaviour;
- Determination of themes associated with situational and personal variables affecting target behaviour;
- Configuration of the message and channel inputs to construct a communication.

Gregory (2000) developed support for the assumption that social issue campaigns needed to use multiple communication tools to be effective with their audiences. This study demonstrates that participants most frequently select multiple information sources.

Madden (1995) found that there can be a disparity between what information campaigns provide and what information-seekers want. There is a need for information campaign planners to:

- Re-conceptualise the concept of information that relates to the issues of needs and uses
• Monitor the fit between the identified needs of information by the consumer and the information being provided

• Focus on the frame of reference, or topic of choice of the information seeker, to ensure the maximisation of the use of the constructive behaviour of the consumer.

Lazarsfeld, Berelson and Gaudet (1968) outline three main effects of the campaign. While not all constants can be seen as working equally in the campaign, they are important in combination to engender behavioural change:

• The Activation Effect: Is the process that bring a predisposition in people to the level of visibility and expression. It transforms latent interest or tendency into a manifest action or thought. The steps involved in the activation process include arousal of interest; increased interest causing increased exposure; selective attention; and crystallisation of intention.

• The Reinforcement Effect: Brings together the concept of providing reason to be supportive of an idea thought or concept, as well as dealing with doubt or misconceptions about an issue.

• The Conversion Effect: Is differentiated from influence in the media or other communication, and refers to the acceptance of the argument or set of behaviour patterns. There are varying shades of true conversion, as compared to acceptance or tolerance, reflecting the real difficulty of securing complete conversion to the campaign message.
Holtzman (2000) demonstrates the range of variables in race, gender, class and culture that can affect the development and outcomes of a campaign. This diversity is an important element associated with the understanding how individuals and others see themselves, and each other.

### 2.3.5 Agenda Setting Theory

McCombs (2003) reports that agenda setting is a detailed theory about the initial stages of mass communication, originating in 1968. Agenda setting within mass communications seeks to influence the alternative available to the information receiver.

The important elements that combine in the theory include:

- Focus on an object which is usually a public issue or sentiment;
- Determination and promotion of the attributes which are the characteristics and properties that fill out the picture of the object;
- The transmission of object salience and attribute salience.

The objective of the agenda setting process is to instill in the information receiver’s mind a position on how one should view a particular issue or group of themes.

McQuail (2000) states the agenda-setting hypothesis as (p. 457):

- Public debate is represented by a set of salient issues (an agenda for action)
• The agenda originates from public opinion and proposals of political elites
• Competing interests seek to promote the salience of ‘their’ issues
• Mass media news selects issues for more or less attention according to several pressures, especially those from interested elites, public opinion and ‘real-world’ events
• The outcome media (relative degree of prominence of issues) both gives public recognition to the current agenda and has further effects on opinion and the evaluation of the political scene.

McQuail (2000) outlines that in respect to the agenda-setting process; there is correlation between the order of importance of issues shown in the media and a corresponding order of significance with the same issues by members of the public and politicians.

This series of models and approaches to examine communication provides us with an opportunity to focus on particular problems and circumstances, and to derive an understanding of a single or group of issues in a particular communication problem.

2.4 Gaps Identified In The Literature Reviewed and Research Interest

This literature review has provided a basis for understanding the fundamental of communication theory as well as applications and models of research and research methodologies.
A number of gaps or research opportunities have been identified that provide input to the development of my research question, methodology and study including:

- An understanding of the applied information seeking approaches and techniques used by people in relation to health information and topics

- Identification of the preferred information sources in relation to health information gathering

- The balance between interpersonal or mass communication techniques, and approaches in the provision of information in the community - in particular the role of family and friends and health professionals as recognised sources of information and advice

- A snapshot of health information gathering in the Australian community context. There appears to be limited study in the Australian community or context.

2.5 Conclusion

In this Chapter, I have provided a summary of the relevant findings and reporting in the literature that relate to the communications process, models and theories used to explore and understand communication issues and problems as well as appropriate application to health communications.

The information obtained from this literature review provides a context and framework for the original research work that I have undertaken, as well as
providing comparatives for the communication themes in my research project.
CHAPTER 3 : METHODOLOGY

This chapter provides an outline and justification for the research methodologies chosen, the data collected, and the overall ethical and operational framework within which this research has been conducted.

The objective of this chapter is to demonstrate that the research procedures have been carefully considered and selected in line with the original research that contributes to this thesis.

This chapter is presented in five main sections:

- Research Methodology
- Research Design and Procedures
- Consideration of Ethical Issues and Ethics Research Clearance
- Appropriateness and Evaluation of Design Quality
- Conclusions.

3.1 Research Methodology

A quantitative and qualitative research approach has been utilised in this study to examine a number of issues associated with where community members in Australia turn to find information on health related topics. Newman and Benz (1998) argue that qualitative and quantitative research strategies are not mutually exclusive, but rather are two approaches along a methodological continuum that may be utilised to test theories by maximising strengths of both methodologies.
The research question that relates to ascertaining the source of information on health topics by the community members lends itself to both qualitative and quantitative research to ensure that there is a richer examination of the research question.

Newman and Benz (1998) highlight that the “concept of a continuum is a more comprehensive approach” (p. 19). Consideration of a number of approaches along a continuum of options and techniques enables stronger matching of appropriate research study techniques to the research question, and allows alternative methods of interrogation of the problem. The utilisation of the survey of respondents, augmented with the qualitative review process of a focus group to add explanation and dimension to this research work will provide an interactive response to the research question.

3.1.1 Quantitative Research Approaches

Quantitative research is associated with the surveying of respondents and is considered (Hair et al. 2003; Mitchell & Jolley 1988; Sekaran 1992; Zikmund, 2000) an appropriate, reliable and efficient approach in conducting business, marketing, scientific and social science research. Quantitative research has a strong emphasis on the utilisation of standardised questions in surveys as it provides (Hair et al. 2003):

- The use of formalised standard questions;
- Predetermined response options in questionnaires;
- Surveys administered to large numbers of respondents;
- Adaptation of information research problems that are specific and well-defined;
• A focus on precise information needs.

Survey research, with its grounding in scientific, commercial polling and research analysis, provides the opportunity in research inquiry to gather information from respondents that relates to and addresses the research question. Babbie (1990) points out that survey research permits the testing of complex propositions involving variables where:

• Survey research is deterministic, and may go past an initial observation or correlation to understand the affect of variables on observed responses.

• Survey research is general and enables the understanding of a larger population.

• Survey research is parsimonious where the survey approach and format enable the collection and correlation of a number of variables.

• Survey research is specific and enables the focus of understanding of the results derived from the survey.

3.1.2 Research Questionnaire by Telephone Survey

A respondent questionnaire was developed to elicit details on the sources of information that respondents use when confronted with questions and issues surrounding health information topics. I chose to administer this questionnaire through a telephone survey. Frey (1989) has reported on the changes in understanding, acceptance and utilisation of telephone
surveying. The growth, use and acceptance of this technology over recent
decades by the community has seen a corresponding use and acceptance of
the technology in research surveying work. Frey (1989) reports that the
issues of cost, time constraints, compromises in data quality in social context
and the application of large-scale research initiatives has given way to earlier
discouragement of telephone surveying.

Zikmund (2000) and Sekaran (1992) highlight a number of strengths and
weaknesses relating to telephone interviews:

- Respondent Reach – The cost and technological capability of a
telephone system enables high speed and low cost access to potential
survey respondents at local, regional, national and international
levels.

- Eliminates Face-to-Face Contact – Enables the capitalisation of the
more impersonal and anonymous factors associated with telephone
surveys.

- Cost – The reduction in time associated with finding respondents to
consent to participation in surveys, explanation of survey purpose
and approaches. The conduct of actual surveys is reduced.

- Surveyor time, survey time and respondent convenience enable actual
and opportunity cost savings in the delivery of the survey.
• Cooperation and Response Rate – The issues of ease of access, anonymity, safety and security provide improvements in cooperation and participation in surveys. Reduced overall survey and engagement time enable enhanced contact processes that facilitate the achievement of high response rates in surveys.

• Representative samples – The high utilisation rates of telephones, nationally and internationally, coupled with the benefits of access and gaining consent to participate in surveys means that appropriate cross sections and sampling of respondents assists and facilitates surveys conducted by telephone.

• Disadvantages of telephone surveying include the potential for respondents to unilaterally terminate interviews without warning or explanation (although this can be an advantage in terms of ethics and choice associated with hesitation in questionnaire completion); the limited duration available through telephone interviewing that can limit the size and complexity of survey questionnaires; and the lack of a visual medium where visual aids for the recognition of cues are not available.

Quality analysis of data collected by telephone surveying compared to face-to-face surveys has shown there is a high degree of data quality when the telephone survey method is used. De Leeuw and Van der Zouwen (1988) found that only small differences were detected between telephone and face-to-face interviews. These authors point out that their finding that only small differences exist between these two methods of surveying does not imply that methods of data collection are good in themselves. The De Leeuw and
Van der Zouwen (1988) study used a number of data quality indicators in a meta-analysis comparison between telephone and face-to-face surveys. Their study focused on indicators of accuracy, bias, proportionality of no response, amount of information, similarity of response distributions and response rate. Telephone survey designs should incorporate these indicators to provide an enhanced opportunity for delivering an accurate, useful and comprehensive telephone survey.

3.1.3 Qualitative Research Approaches

The opportunity to focus on specific issues as they relate to the research question, with an understanding of the reasoning and context behind responses, is a valuable addition to any research plan.

Maxwell (1996) highlights that there are five particular research purposes where a qualitative approach to a research study is indicated:

- Provides the opportunity to understand the meaning for participants in the study relating to cognition, affect, intentions and other participants’ perspectives;
- An understanding of the context in which respondents react;
- Provides the opportunity for the identification of any unanticipated or hidden problems;
- Provides an insight into the process of events or actions surrounding the study question;
- Enables the development of causal explanations.
3.1.4 Focus Group Interview

To provide qualitative depth and perspective to the research study, I conducted an appropriate focus group interview after the telephone survey to both examine the questions contained in the formal telephone survey questionnaire, as well as to elicit any other explanatory, depth issues or language characteristics for further questioning associated with this research work.

Hair et al (2003) report that focus group research is a popular qualitative research method that enables important and valuable discussion on survey topics. “The overall goal of focus group research is to give researchers, and ultimately decision makers, as much information as possible about how people regard the topic of interest” (p. 221).

Stewart and Shamdasani (1990) highlight that focus group research has been the subject of criticism in that it does not present empirical or hard data; focus group members may not be representative of a larger population due to the group’s size in numbers, and the nature of the conduct and discussion within the group. Stewart and Shamdasani (1990) note that “the key to using focus groups successfully in social science research is assuring that the use is consistent with the objectives and purpose of the research” (p. 12).

The role of an exploratory focus group is to provide an opportunity to gather ideas, thoughts and issues as well as explaining results from quantitative research (Fern 2001). In my study this concept worked well, as issues and discussions at the focus group interview helped to clarify a number of points found in the quantitative survey.
The nature and flexibility of focus group surveying, together with the known strengths and weaknesses of this research method, provide a useful adjunct approach to addressing the research question described in this thesis. Using a focus group for this research work, following the completion of a telephone interview questionnaire with respondents, will provide a comparison of the information gained from the questions asked of both respondent groups’. It will provide an opportunity to clarify and consider issues that could not be raised with the telephone interview group, and provide the opportunity to examine any other issues associated with both the content and approach of delivering the survey questionnaire to respondents.

Only one focus group interview was considered necessary in this study. The responses to the same questions in the telephone survey reinforced the type and pattern of responses. The group provided information about information seeking behaviour as well as gave context to the telephone survey results. This meant that the focus group process was most valuable in looking at issues around the telephone survey results. The focus group fulfilled a need to stimulate any additional issues in this survey (Hair et al 2003).

There is a justification for using both a quantitative and qualitative research approach in regards to the research question of where community members find information on health related topics. The appropriate application and placement of both quantitative and qualitative research methods along a research continuum in seeking answers to the research question has been an appropriate approach in my study. The literature examined has highlighted the application, and strengths and weaknesses, of the telephone survey
method, as well as the application of the focus group interviews. This methodology was selected as it supported important objectives associated with the research question and approach that relate to:

- Age, sex and geographic spread of respondents in relation to the primary (telephone) research questionnaire.

- Cost, access, response rate and timeliness of research.

- The comparison of original research results to models and hypotheses from the research literature in an Australian context.

- A mechanism to provide understanding of the results from the quantitative study.

- A mechanism to identify any potential hidden information or issues.

- A mechanism to generate indicators for any further research questions.

The qualitative approach enhances the quantitative study in this research project. The ability to consult with a group about particular issues of telephone survey design and results obtained from that study, gives the opportunity of bringing to the research a detailed understanding that does not have to rely on assumptions or unanswered analysis questions. The focus group process also provided a dimension where weighting of importance issues were reflected into the research work. This could be
followed up in results analysis as well as in consideration of subsequent research questions.

### 3.2 Research Design and Procedures

A telephone questionnaire was developed to enable the surveying of approximately 200 respondents in a sample group that had an age, sex and national geographic distribution. In addition, a focus group interview questionnaire was also developed to enable the collection of responses to similar questions contained in the telephone survey questionnaire, as well as other qualitative data relevant to the survey questions.

#### 3.2.1 Telephone Survey

**3.2.1.1 Survey Objectives and Scope**

The objective of the telephone survey was to provide potential respondents with a set of questions regarding health care issues, to ascertain from them the likely sources they would use to gather information about the relevant health care topic. Information on the correlation between health care issues and problems with identified sources of information will provide a picture of where the Australian community sources this information, as well as providing a comparison and contrast to identify research and models in the literature.

A second objective for the telephone questionnaire survey was to examine any variations in the survey results in relation to a predetermined set of demographic indicators that were to be collected from each telephone survey respondent.
3.2.1.2 Development of Telephone Survey Questionnaire

The telephone survey questionnaire was developed to address the research question of “Where do community members (in Australia) go to for information on particular health care topics?” Three main design approaches or issues were utilised in the formation and refinement of the questionnaire. These development and design issues were:

- A range of groups of health care issues that could provide a framework of issues with sufficient breadth and specificity to address the research question.
- A concise range of demographics to enable correlation of collected data to ascertain any variations in survey results that may be specific to demographic indicators.
- Development of the questionnaire in line with survey design, implementation and review strengths and weaknesses that have been sourced from the literature.

3.2.1.3 Health Care Issues and Topics

Seven issues were identified from the literature, media reporting and health service delivery practice as a potential range of subject issues in which survey questions could be developed to elicit from survey respondents an associated range of information sources utilised in gathering information and problem solving in health care. The health care information areas are:

- Referrals to health practitioners;
- Information on drug and health products;
- Lifestyle issues;
• Health and ill health conditions and problems;
• Preventative health issues;
• Health policy issues;
• Issues surrounding access to alternative care and treatments to traditional medicine.

These topics were selected as the types of problems that most community members faced at some time in their lives, were current on the media agenda, and had been included in discussion in recent policy and system debates from a political, service delivery and health campaign background.

These groupings were refined through a series of discussions with community members, health practitioners and communication experts to ascertain that the range of issues and topics would provide an adequate information base for the development of specific questions to be incorporated into a telephone questionnaire survey. This consultation included interviews, discussions and testing of approach with individuals and small groups (up to 10 people).

Through this consultation process a list of questions was developed that provided an equal coverage of these 7 topics. The question list focused on the major areas that would generally affect or involve a large cross section of the community in terms of age, common health issues and information sources that are easily understood or well defined.
3.2.1.4 Demographic Descriptors

Four demographic criteria were selected to be gathered from each respondent in the telephone survey questionnaire. These were:

- Age;
- Sex;
- Place of residence;
- Highest educational attainment.

The criteria for each of the demographic indicators that were incorporated into the survey form were:

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>Collection and Analysis Range or Group</th>
<th>Approach Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>18 – 29 years&lt;br&gt;30 – 59 years&lt;br&gt;60 years and over</td>
<td>Variable reported in literature (Rijt 2000 and 2002) reviewed as significant. Provided range of life experience. Limited data processing and analysis to realistic attainable levels.</td>
</tr>
<tr>
<td>Sex</td>
<td>Female&lt;br&gt;Male</td>
<td>Variable reported in literature (Rijt 2000 and 2002) reviewed as significant.</td>
</tr>
</tbody>
</table>
### Place of Residence

- Metropolitan
- Regional

Recognises geographical considerations of Australia. Possible alignment to information source resources. Limited data processing and analysis to realistic attainable levels compared to postcode analysis for survey sample size.

### Highest Educational Attainment

- Year 10 education
- Year 12 education
- Post School Education

Variable reported in literature (Rijt 2000 and 2002) reviewed as possibly significant. Limited data processing and analysis to realistic attainable levels.

The intention of including demographic information in this survey form was to provide the opportunity for appropriate correlations between demographic information and responses to survey questions, to ascertain any variation in the survey data collected affected by demographic variants. These variables were considered important as they are associated with varying stages of health status, can be an indicator associated with access to health services, and differentiate the specific health needs of the community.

#### 3.2.1.5 Questionnaire Design Criteria

The literature provided a series of questionnaire design and administration strengths and weaknesses associated with telephone questionnaire interviewing. This is discussed on page 62. Design and development of the final telephone survey questionnaire was undertaken to maximise the collection of accurate, unbiased and useful information to address the
research question. Questions were presented in an open ended form to enable respondents to offer their particular views; the survey was scripted to ensure consistency; and interview questions were posed in a simple and straightforward way that simply asked respondents where they would go for information.

3.2.1.6 Survey Question Development

Initially, 21 questions were developed across the 7 health topic areas. This initial set of questions was developed to ask respondents as simply as possible where they would go for health information on a particular topic within the seven identified issue areas. In addition, four demographic questions were incorporated into the questionnaire (see page 68). This first development of the questionnaire therefore provided 25 questions for respondents to answer.

The first draft of the telephone questionnaire survey was then subject to detailed reviews and refinements at three levels.

- The first was to ascertain a series of questions and topics that could both test the range, depth, and interrelationships in information and problem solving, to elicit from respondents a good understanding of the specifics and the groups of information sources that they would use in information gathering problem solving. The questions developed at this stage were tested with a response group of health professionals to determine appropriateness of selection. This review group included health policy workers, clinical practitioners and health promotion personnel. Draft questions were reviewed as part of
this discussion. The purpose of this level of review was to ensure that the previously determined seven areas of health information were well represented, and that there was limited ambiguity in the nature of each question, so as to elicit a response from an easily and well-understood question. The question list was distilled to the final survey set (Appendix 1).

- Secondly, the complexity, degree of familiarity and understanding required, as well as the overall familiarity of topics and issues, were tested within an informal representative group of 6 people in a community neighbourhood, as a representative group of the general community. Questions that were developed that might produce skewed results in terms of interpretation and misunderstanding were discarded. Questions deleted included duplicate topics; questions about illegal drug use (because of the overall context of this study and the reality of obtaining valid answers due to the design of this study); and questions that may have been of a highly personal nature that may not have been answered honestly by participants in a study such as this. The conduct of the actual survey did not reveal any difficulties in addressing the final list of questions.

- Thirdly, consideration was given to the number of questions that could be included in the telephone survey, along with the necessary telephone contact, preparation, obtaining of participation consent and any other information. This was also considered in terms of overall questionnaire time and complexity of interview. A total test administration time of ten minutes was set, which was to include the contact and respondent preparation time; administration of the
survey questions; and receipt and recording of the respondents’ answers. This limitation was set following the advice of the experienced telephone survey company undertaking the questionnaire delivery.

Through this three-stage process, the original set of survey questions was reduced to a total of fifteen health topic questions and the four demographic questions. The timing of questions and responses for each questionnaire was undertaken and an estimated total interview time of eight to ten minutes was established. The focus of the questions pursued topics that are common issues that involve a large proportion of the community.

The final 15 questions prepared for the interview were:

- Where might you go for information about finding a general practitioner (Doctor) to treat you?
- Where might you go for information about finding a dentist to treat you?
- Where might you go for information about sunscreen protection products for your skin?
- Where might you go for information about pain relief medications that you could buy without a doctor’s prescription?
- Where might you go for information about antibiotics?
- Where might you go for information about drugs that a doctor has prescribed for you?
- Where might you go for information about gaining or losing weight?
- Where might you go for information about the ways to stop smoking?
• Where might you go for information about heart disease?
• Where might you go for information about asthma?
• Where might you go for information about alternative treatments to traditional medicine?
• Where might you go for information about childhood illnesses such as rashes, chickenpox, measles, fevers, etc?
• Where might you go for information about vaccinations such as flu vaccines, immunisations for children?
• Where might you go for information about a political party’s health policies?
• Where might you go for information about counselling support services in the community?

The questions, incorporated into the interview script, are found at Appendix 1. The questions were pilot tested and timed to ensure the questions and process were appropriate and manageable.

3.2.1.7 Anticipated Responses and Coding for Open Ended Questions

During the development of the questionnaire, and throughout the preparation of questions, a series of possible responses were collated to prepare a preliminary coding format to assist in the recording and subsequent coding of respondent answers. Design was guided by the experience in the literature (De Leeuw and Van der Zouwen 1988 and Frey 1989).

Initial questionnaire development looked at the feasibility of providing multi-choice questions based on possible responses. This methodology was
rejected and replaced with the option of enabling a series of open-ended questions, that enables respondents to provide answers to questions themselves without considering a pre-determined selection of possible responses. An open-ended question style was preferred for a number of reasons:

- It reduced the overall time required for the completion of the telephone interview survey.

- The repetition of potential multiple-choice answers to each question provided a degree of complexity that could not be adequately managed on a telephone interview.

- The open-ended question style provided for a more comprehensive and unbiased response.

Originally a multiple-choice questionnaire was proposed. This was to provide for responses to each of the 15 survey questions over 16 predetermined possible information sources and also to collect information as to whether the respondent would consider that information source for that question. The three parts of the draft survey questionnaire included:

- The 15 health topic or issues questions;

- 16 information source prompts to be considered:
  
  Doctor  Pharmacist
  Other health practitioners  Publications/pamphlets
Family   Gym/Trainer
Professional body  Medication telephone help line
Friends/colleagues  Government department
Advertising   Media reporting
Yellow Pages   Hospital or health service
Internet   Any other sources

- Consideration reaction to proposed information source
  Yes
  No
  Hadn’t considered

This multiple-choice approach was not pursued as it would require a long telephone interview (recommended against by the experienced telephone surveying organisation). Multiple choice potentially added a degree of confusion in asking questions where responses were most probably not sensible (information on antibiotics from telephone directories) and the repetition making the survey tedious for the respondents.

The four demographic questions incorporated in each telephone survey for the collection of the demographic information is found at Appendix 1.

Appendix 2 details the list of anticipated responses and coding structure that was developed for the questionnaire and interview process. This coding structure enabled data collection and coding at time of survey as well as subsequent coding of any specific response that did not immediately fall into a category at time of survey.
3.2.1.8 Interview Procedures

Through this review and distillation process, a completed telephone questionnaire was developed that incorporated fifteen survey questions and four demographic questions for each respondent to be interviewed by telephone.

The 19 interview questions, together with the associated information and consent requirements to participate in the survey, were incorporated into a single interview script for use by the telephone interviewer. The interview script was developed to ensure:

- Ease of use, understanding and acceptability to those being interviewed.

- Consistency throughout the interview process.

- Incorporation of the necessary requirements to indicate informed consent to participate in the survey (this included the minimum participation age; ability to terminate the interview at any time without penalty; clear identification of the researcher, supervisor, organisation and interviewer’s name).

- Discrete sections of the questionnaire (invitation to survey; establishment of eligibility; the questionnaire; demographic data collection; and closure).
The completed questionnaire used in the telephone survey is located at Appendix 1.

Australian telephone directories were used to gather calling lists for prospective interview participants. This enabled the random sampling of households within pre-determined lists by geographic regions throughout Australia. Representation was sought from the majority of states and territories as well as from metropolitan and non-metropolitan telephone directories. The time of day for surveying was varied to ensure a high contact response rate, but also to achieve a balance of age groups who would be present in the households that were to be surveyed.

Preliminary contact questions and the invitation to participate in the survey incorporated a sort methodology at the beginning of the interview to ask age groupings so as to ensure an even spread of participants across age groups. Distribution across geographic areas was predetermined by the use of the telephone directory listing by locality. These predetermination filters ensured an even spread of surveyed participants across Australia and across age groups.

3.2.1.9 Data Capture for Analysis and Review

An independent telephone surveying centre was utilised for the conduct of the study. This enabled access to call centre software to manage both the spread of calls across geographic areas and age groups, as well as providing access to discounted call rates for national surveying. The call centre software utilised enabled response coding at time of survey against the proposed coding structure found at Appendix 2. Surveying across several
time zones in Australia was enabled through the extended hours operation of the call centre. This expedited the collection of approximately 200 completed telephone survey questionnaires.

Confidentiality for surveyed participants was also enhanced as call centre management enabled the separation of telephone numbers from survey data.

The telephone interview script was managed on the basis that the interview script enabled immediate determination of survey participant eligibility as well as immediate coding of responses. Response results were collected on an Excel Spreadsheet that provided coded information to all nineteen survey questions (fifteen health topic questions and four demographic questions).

Survey participants were invited to provide detail on where they would go for information for each of the fifteen questions asked on health topics. Each respondent was prompted three times for information sources on each question. These are identified as the ‘First Response’ to the question; the ‘Second Response’ to the question; and subsequently, the ‘Third Response’ to the question.

As an example, the question was posed as to where the respondent might go for information about finding a doctor to treat them – the first response enabled the collection of the first reaction; the respondent was asked a second time for another source of information; and then asked a third time for any other sources.

Responses were coded against the coding plan list found at Appendix 2.
Responses that were not immediately coded at time of interview were reviewed and coded appropriately.

Statistical testing and correlation studies of data was undertaken using the SPSS software.

### 3.2.2 Focus Group Interviews

The telephone questionnaire survey provided 205 completed surveys for review and analysis. To augment and support the telephone questionnaire survey, a focus group interview opportunity was also planned for this research initiative.

#### 3.2.2.1 Focus Group Interview Objectives and Scope

The primary objective for the focus group interview was to provide an avenue of further inquiry and clarification of the survey questions utilised in the telephone survey, as well as expanding on any understanding of the survey and issues associated with sourcing health care information from the focus group.

The focus group interview process therefore provided the opportunity to:

- Use the predetermined fifteen telephone interview questions to gather response data and to prompt further discussion.
- Expand, clarify and deepen understanding of issues associated with information finding on health topics.
• Through discussion, examine any other issues that might warrant further search questions and inquiry.

3.2.2.2 Focus Group Interview Structure

The fifteen questions from the telephone survey questionnaire were used in the focus group interviews to both elicit information sources for health topics as well as promote discussion on the information gathering processes. I sought further information about:

• Processes and procedures associated with determining sources of information on health topics.

• Participant’s opinions about information gathering affected by any demographic issues such as age and sex.

• Issues associated with the establishment of information and knowledge amongst families and friends.

• Issues associated with dependability and confidentiality of information.

3.2.2.3 Establishment of the Focus Group and Interview Protocols

One focus group interview was conducted with six participants who were residents of the Brisbane Metropolitan Area. Participants were recruited by extending an invitation through a community arts and crafts group for
people interested in participating in a focus group interview discussion of up to one hour’s duration.

An appropriate informed consent information sheet and consent form was circulated to all focus group participants at the beginning of the interview session, and six signed consent forms were collected before the session began.

Interview participants agreed to record keeping and note taking of the session in line with the confidentiality provision contained in the information and consent form that guaranteed that no information would be reported about any particular focus group participant. The session was tape recorded and notes taken from those recordings.

The interview script for the focus group was used to gather information about information sources on health questions, and also to promote wider discussion by the group. The interview format commenced with an explanation of the reasons behind the survey and the types of issues and areas of interest for discussion. Participants were invited to raise any issues and concepts around the research question. The interview questions used as part of the group discussion are found at Appendix 3.

3.2.2.4 Collation, Review and Analysis of Focus Group Interview Results

Issues raised in the focus group, and discussions held with all group participants, were noted and recorded and then summarised to reflect those responses to the primary interview questions as well as a range of other
issues raised during the interview. The discussions at the focus group were transcribed into note form following the interview.

The interview outcomes were summarised in report form for use in the research analysis phase of the study.

3.3 Consideration of Ethical Issues and Ethics Research Clearance

Good research is carried out within the context of appropriate ethical criteria. Good research also ensures that those participating within the research study do so within the context of an informed consent relevant and appropriate to the type, complexity, and nature of the research being undertaken.

Berg and Latin (1994) highlight the importance of informed consent facilitated by the investigator and taken up as a right by respondents involved in research projects. “Consent forms may vary considerably in terms of content, language and length.” (Berg & Latin 1994 p. 17). These authors highlight a number of elements of informed consent that should be addressed and included in an appropriate way for research projects:

- Background and Invitation to Participate – Enables the provision of information to inform subjects about the research work, but also provides the opportunity to encourage interest and participation and the worthwhile nature of the research work.

- Explanation of Procedures – Sufficient detail is given to describe all the procedures in which the subject will be asked to participate.
• Potential Risks and Discomforts – Particularly relevant to research on humans, and relates to any or potential physical, psychological, social and legal ramification that may be inherent in participation in the research.

• Potential Benefits – Associated with the objectives and intent of the research, it may highlight benefits to individuals, groups and society in general.

• Rights of Inquiry and Withdrawal – Provides important initial and ongoing opportunities for potential and established subjects participating in research to ask questions and to have the opportunity to withdraw from the research at any time without penalty or comment.

The University Human Research Ethics Committee at the Queensland University of Technology (QUT) is responsible for the implementation, monitoring and review of the University’s policies and procedures on the conduct of research at the University.

In order to seek approval to conduct this research work, a “Checklist for Researchers” was completed and submitted to the University Human Research Ethics Committee for consideration and potential eligibility for expedited ethical review.

In addition to the completion of the checklist that enables the demonstration of the objectives, scope and operational issues associated with this research
Determining Information Sources for Health Related Issues  

Methodology

project, a number of draft documents and materials were provided to the Committee:

- Research project outline highlighting that two methods of inquiry have been developed as part of an original piece of research that contributes to this Masters Thesis.

- A draft information and informed consent script to be incorporated into the proposed telephone interviews.

- A draft set of the research and demographic questions to be incorporated into the telephone survey interview.

- A draft information and consent form to be completed by prospective participants in the focus group interview survey.

- A draft set of fifteen questions on health information issues to be incorporated into the proposed focus group interviews.

Written advice was received from the Secretary of the University Human Research Ethics Committee indicating that authorisation was given to commence the research project.

On receipt of this clearance, the necessary arrangements were made to conduct the telephone survey interviews and the focus group interview, in accordance with the research outline and draft survey interview questions.
The final telephone survey interviews and focus group interview were conducted in line with the ethical issues considered here. This design and procedural process ensured:

- Survey and interview participants were informed of the nature and intent of the research work and invited to participate in the study.

- Only those people over the age of eighteen years were eligible to participate in the research work.

- Participants were assured of their anonymity and the confidentiality of research material through disassociation of any names to responses and the availability of research data to be held with the researcher only.

- Verbal consent was obtained by the telephone surveyor prior to commencing the telephone interview and written consents were obtained from those participants in the focus group interview before the interviews began.

- Participants in the telephone interviews and focus group interview were advised that they could withdraw from the interview processes at any time without explanation or comment by the surveyor/researcher.
3.4 Appropriateness and Evaluation of Design Quality

The research design for the study was evaluated against a series of five validity criteria as reported by Lincoln and Guba (1985) and Leedy and Ormrod (2001). These internal and external validity assessment criteria assisted in both the assessment of the research project as well as ensuring relevance and context for the research design proposed in this study.

- Credibility: Ensures that the research subject has been identified and described, with the resultant outcome identified, developed and verified. In the two surveys (telephone and focus group) undertaken in this study, information derived has been carefully articulated, and reported against a series of review categories that maintain the integrity of the choices made by respondents as well as accurately reflecting the issues and sentiments reported by those interviewed by telephone and those interviewed in focus group.

- Dependability: Requires that the research responds to changing conditions and research design. This has been achieved in these studies through detailed scripting for telephone surveys and correlation of questions utilised in the telephone survey into the focus group process; by accurate record keeping in computerised and manual formats; as well as constant checking of quantitative and qualitative research data at each step of the research process. Inter-order reliability has been considered with the use of a professional agency to undertake the surveying, the telephone survey has been fully scripted (Appendix 1), fully defined codes were available and the telephone interview process was software controlled.
• Confirmability: Relates to a situation where the data collected confirms the findings of the study and supports the proposals and implications outlined in the study. In this research survey, an established and consistent audit trail of data captured at telephone and focus group interview has been documented to provide the necessary connectivity between data captured and outcome analysis and reporting.

• Verification: Relates to the assurance that interviews are being conducted according to the established sampling plan to provide a consistency and dependability in approach and deliverability of the interviews. In this study, telephone contact lists were predetermined prior to interview with contact registers generated by computer prompts, and validation of the range of contacts ensured by the maintenance of the postcode register and listing attached to each and every respondents’ replies. In the focus group interviews, one group was established in metropolitan Brisbane and participants were enlisted to the study through a third party community group.

• Transferability: Relates to the ability to demonstrate the findings are applicable in other contexts or are able to be generalised into a broader population. In this study, the approach can be transferred to other settings and contexts and replicated with the result able to be generalised to a broader population.
3.5 Conclusion

In this Chapter, I have outlined the research methodology and design approaches that have been incorporated into the telephone questionnaire survey and the focus group interview process. The argument presented in this chapter is that a combined quantitative and qualitative research approach is valid and viable in this application, and that they cooperate and complement each other in this research application. This is demonstrated in the literature and in successfully completing a telephone survey and a focus group interview with complimentary results.

The research procedures for both interview surveys have been outlined, as well as the design quality elements that are identified within the research design.

Ethical clearance was requested, and obtained from the University’s Human Research Ethics Committee, prior to the commencement of both the telephone questionnaire interview and the focus group interviews.

The capabilities and limitations of the research methods have been documented and are understood to support the data collection, analysis and review processes.
CHAPTER 4 : DATA ANALYSIS

4.1 Introduction

In this chapter, I analyse the data and information obtained from the telephone and focus group surveys. The approach used in this analysis was to summarise quantitative and qualitative data, in order to present findings ascertained from the answers to questions, and (in the focus group) discussion points from these surveys.

In a later chapter, I have utilised information from this analysis to demonstrate a series of trends, findings and relationships between outcomes from the surveys.

Information extracted and analysed from the telephone and focus group surveys included:

- Counts and summaries of specific responses made by respondents;
- Percentage comparisons within questions and groups of information;
- Comparison and significance testing for variables relating to age, gender, geographic location and educational status of respondents in telephone survey question answers;
- Chi-Square Test for goodness of fit in relation to the quantitative data from the telephone survey.
4.1.1 Telephone Survey Analysis

The results from the telephone survey have been analysed on a question-by-question basis. A total of fifteen questions were put to each respondent interviewed. A total of 205 completed telephone questionnaires were obtained through this interview approach. Four demographic questions were asked of each telephone survey respondent. These included:

- Age;
- Gender;
- Geographical location – place of residence;
- Highest educational achievement attained.

4.1.2 Focus Group Survey Results

Results from the focus group interview of six people were summarised from the notes and tape recording of the interview session. Only one focus group interview process was undertaken as results were consistent with the outcomes of the telephone survey, as was the explanatory and qualitative information from the group interviewed.

4.1.3 Statistical Technique Selected for Telephone Survey Results Analysis

The Chi-Square Test for goodness of fit was selected as a statistical technique to review each of the fifteen questions from the telephone interview survey results. Zikmund (2000), highlights that there are a number of statistical analysis techniques that may be used for hypothesis testing. “The choice of the method of statistical analysis depends on (1) the type of question to be
answered, (2) the number of variables, and (3) the scale of measurement.” (p. 464).

The design of the telephone survey question provided respondents with the opportunity to simply list two or three (or more) sources as to where they would go for information on the topic posed in the survey question. In the statistical analysis, I have sought to ascertain the degree to which survey responses are consistent between an observed and an expected frequency distribution of answers. A limited number of variables were selected to be gathered as part of the telephone survey. In the analysis, two pairs of variables (age and gender – location and education) were reviewed for each question. The scale of measurement examines the distribution of the scores or answers by respondents around an expected distribution within an assessment scale showing good, fair or poor significance.

Coakes and Steed (1996) and Zikmund (2000) indicate that the use of the Chi-Square Test enables a test for the significance in the analysis of frequency distribution. This calculation demonstrates a difference between the observed and expected frequency distributions for results, and provides an appropriate analysis for the responses obtained from the fifteen open-ended questions utilised in the survey.

### 4.1.4 Quality of the Research Tools and Data

The 205 completed telephone survey interviews provide a reasonable sample, given the range of the responses over a good cross-section of age groups and geographical locations in Australia. The distribution of responses across the five main response group areas, and then across fifteen
to twenty sub-groupings, does make some response groups quite small and therefore not significant in terms of statistical analysis.

The review and analysis of these results did demonstrate consistency and a robustness of the survey questionnaire design, in that there were limited examples of answers demonstrating an ambiguity or lack of understanding of the purpose of the question. This was tested through the noted strong and consistent answering in both surveys. The majority of answers fitted the anticipated result coding structure. The telephone survey results followed consistently with the anticipated result-coding schema. There was a relatively low percentage of respondent answers that needed to be subsequently coded after the telephone survey. These subsequent codings related to variances in descriptors or the use of proper nouns that were legitimately and easily coded.

The differentiation between sources of information for health related questions and sources of care and treatment options were not well treated in the survey design. An example of this would be asking respondents where they would go for information on medications – differentiating this question about seeking information for their immediate and personal care may derive differing search patterns to that of a general interest enquiry about medications. This aspect indicates opportunities for further research questions in this area. The differentiation between potential sources of information as opposed to sources of care and treatment may show variances in the data response.
The software tool “SPSS for Windows” was used to undertake the statistical analysis on the telephone survey results. This software is a sophisticated statistical analysis product used by social scientists.

4.2 Telephone Survey Results - Analysis

A review of the main summary, tabulation, and presentation of results approach is presented here to assist in the review of the data analysis. Greater detail on the approach and technique is described in Chapter 3.

Respondent answers were coded to a series of information source descriptors. These descriptor lines were summarised in five information source groups. These five groups are:

- **Family and Friends Group** – that includes information source descriptors such as family members; friends and colleagues; and other people.

- **Health Professionals Group** – that includes information source descriptors such as a doctor; pharmacist; telephone ‘Help Line’; gym/trainer; or other health professionals.

- **Organisations and Agencies Group** – that includes information source descriptors such as professional bodies; government departments/ agencies; and hospitals and health care agencies.

- **Reference Materials Group** – that includes information source descriptors such as advertising; the Internet; and media reporting.
- Directories Group – that includes information source descriptors such as telephone directories; and other directories.

In each telephone survey question, respondents were asked three times for an information source relating to each question (first response; second response; and any other sources). Consistently throughout the survey, no more than three responses were received from each respondent for each question. In this data analysis, these responses have been labelled as:

- First Response;
- Second Response;
- Third Response.

To demonstrate the recurrence and a weighting of the total number of times a particular response was collected from respondents in each question (both at the information source descriptor and group level), a tally called the “Total from All Responses” has been used.

Response data has been presented in such a way as to demonstrate where respondents had no response, or did not know any source of information at these three response levels.

The four demographic variables (gender, age, place of residence and highest educational attainment) were analysed by using the Chi-Square test through the SPSS software application. A summary of the results of this analysis is reported for each survey question. The effect of the demographic variable was seen to be significant on the way respondents answered each question if
the results were found to be below the 0.05 level. Further examination of the
affect of the variable is highlighted if the adjusted residual, indicating which
cells in the variance analysis are contributing to the significance, were
greater or less than 2.0.

4.2.1 “Where Might You Go for Information About Finding a General
Practitioner (Doctor) to Treat You?”

Table 1 - “Where might you go for information about finding a general practitioner (doctor) to treat
you?”

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Family members</td>
<td>46</td>
<td>22.4</td>
<td>37</td>
<td>18.0</td>
</tr>
<tr>
<td>Friends and colleagues</td>
<td>50</td>
<td>24.4</td>
<td>56</td>
<td>27.3</td>
</tr>
<tr>
<td>Other people</td>
<td>1</td>
<td>0.49</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Family and Friends Group</td>
<td>97</td>
<td>47.3</td>
<td>93</td>
<td>45.4</td>
</tr>
<tr>
<td>Doctor</td>
<td>15</td>
<td>7.32</td>
<td>17</td>
<td>8.3</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>1</td>
<td>0.49</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>Telephone Help Line</td>
<td>1</td>
<td>0.49</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Gym/Trainer</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Other health professionals</td>
<td>1</td>
<td>0.49</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Health Professionals Group</td>
<td>18</td>
<td>8.78</td>
<td>24</td>
<td>11.7</td>
</tr>
<tr>
<td>Professional bodies</td>
<td>1</td>
<td>0.49</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Government departments/agencies</td>
<td>1</td>
<td>0.49</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Hospitals and health care agencies</td>
<td>5</td>
<td>2.44</td>
<td>12</td>
<td>5.9</td>
</tr>
<tr>
<td>Organisations and Agencies Group</td>
<td>7</td>
<td>3.41</td>
<td>16</td>
<td>7.8</td>
</tr>
<tr>
<td>Advertising</td>
<td>1</td>
<td>0.49</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Internet</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Media reporting</td>
<td>1</td>
<td>0.49</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>Reference Materials Group</td>
<td>2</td>
<td>0.98</td>
<td>8</td>
<td>3.9</td>
</tr>
<tr>
<td>Telephone directories</td>
<td>76</td>
<td>37.1</td>
<td>54</td>
<td>26.3</td>
</tr>
<tr>
<td>Other directories</td>
<td>5</td>
<td>2.44</td>
<td>7</td>
<td>3.4</td>
</tr>
<tr>
<td>Directories Group</td>
<td>81</td>
<td>39.5</td>
<td>61</td>
<td>29.8</td>
</tr>
<tr>
<td>No response or did not know any source of information</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>Question Total</td>
<td>205</td>
<td>100.0</td>
<td>205</td>
<td>100.0</td>
</tr>
</tbody>
</table>
4.2.1.1 Responses

The question concerning the sources that people use to make contact with a general practitioner was posed in the survey to not only gauge responses on the source of information, but it was seen as a useful primary health application problem that most people will face at some point. There was a strong or confident response to this question, with the majority of source choices exhausted by the second response to the question. Only 11 per cent of the group had a third nomination of a source of information.

The greatest number of respondents reported relying on family and friends as a source of advice. First response sources accounted for 47 per cent of respondents approaching family and friends for advice, with 45 per cent of respondents naming this information’s source group as their second identified source of assistance. There was a relative spread of both first and second response answers between the sub-groups of family members and friends and colleagues.

The second significant source of information was directories. This accounted for 40 per cent of the first response and 30 per cent of the second response. The majority of Respondents nominated telephone directories as the particular source of information (given as 37 per cent on the first response and 26 per cent on the second response).

The health professionals group (such as doctors or pharmacists) received 9 per cent of the first response, and 12 per cent of the second response. Health organisations and agencies (mainly hospitals and health care agencies)
provided only 3 per cent of the first responses, and 8 per cent of the second responses to this question.

The reference material group responses were quite low to this question, and probably reflected the traditional trend of limited advertising or publication of information about professional practice of medical staff in this country.

The total of all responses demonstrated that primarily respondents obtained information about this question from the family and friends group (46 per cent), followed by the directories group (35 per cent).

4.2.1.2 Variables and Significance

The Chi-Square Test in relation to the age variable was shown to be not significant.

The Chi-Square Test for the gender variable was significant ($\chi^2 (4) = 14.3, p = 0.004$). The variation between male and female responses to the question showed females more likely to select the family and friends group (74.2 per cent), and less likely to select the directories group (51.9 per cent). Males are more likely to select the directories group (48.1 per cent), and less likely to select the family and friends group (32.9 per cent).

The Chi-Square test for Highest Educational attainment was significant ($\chi^2 (8) = 19.9, p = 0.01$). The Year 10 educational group is more likely (71.4 per cent) to use the organisations and agencies group for information. The Post School educational group is less likely (nil use) to use the organisations and agencies group. The Year 12 educational group are more likely (4.7 per cent)
to use the reference materials group and more likely (51.2%) to use the directories group for information.

Differentiation between metropolitan and regional centres provided no particular variable to responses to the question. The Chi-Square Test demonstrated no significant result.

4.2.1.3 Findings

The pattern of information sources presented from the results of this question indicates strong themes. Primarily, respondents rely on members of the family and friends group for information about finding a doctor, with the second most common information source being the telephone directory. The statistical analysis demonstrated the results by age and location groups were similar.

Reference materials and referrals by organisations and agencies were also a significant source for respondents.

The survey demonstrates that people recognise a relatively small number of sources as worthwhile in obtaining information to assist in contacting or selecting a general practitioner for care.
4.2.2 “Where Might You Go for Information About Finding a Dentist to Treat You?”

Table 2 - "Where might you go for information about finding a dentist to treat you?"

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Family members</td>
<td>41</td>
<td>20.0</td>
<td>32</td>
<td>15.6</td>
</tr>
<tr>
<td>Friends and colleagues</td>
<td>53</td>
<td>25.9</td>
<td>66</td>
<td>32.2</td>
</tr>
<tr>
<td>Other people</td>
<td>1</td>
<td>0.5</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Family and Friends Group</strong></td>
<td>95</td>
<td>46.3</td>
<td>100</td>
<td>48.8</td>
</tr>
<tr>
<td>Doctor</td>
<td>4</td>
<td>2.0</td>
<td>10</td>
<td>4.9</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Telephone Help Line</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Other health professionals</td>
<td>3</td>
<td>1.5</td>
<td>7</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>Health Professionals Group</strong></td>
<td>7</td>
<td>3.4</td>
<td>22</td>
<td>10.7</td>
</tr>
<tr>
<td>Professional bodies</td>
<td>1</td>
<td>0.5</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Government departments/agencies</td>
<td>2</td>
<td>1.0</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Hospitals and health care agencies</td>
<td>7</td>
<td>3.4</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>Other organisations and agencies</td>
<td>1</td>
<td>0.5</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td><strong>Organisations and Agencies Group</strong></td>
<td>11</td>
<td>5.4</td>
<td>9</td>
<td>4.4</td>
</tr>
<tr>
<td>Advertising</td>
<td>3</td>
<td>1.5</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Internet</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Media reporting</td>
<td>1</td>
<td>0.5</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Publications/pamphlets</td>
<td>1</td>
<td>0.5</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Other reference materials</td>
<td>1</td>
<td>0.5</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Reference Materials Group</strong></td>
<td>6</td>
<td>2.9</td>
<td>8</td>
<td>3.9</td>
</tr>
<tr>
<td>Telephone directories</td>
<td>80</td>
<td>39.0</td>
<td>53</td>
<td>25.9</td>
</tr>
<tr>
<td>Other directories</td>
<td>6</td>
<td>2.9</td>
<td>9</td>
<td>4.4</td>
</tr>
<tr>
<td><strong>Directories Group</strong></td>
<td>86</td>
<td>42.0</td>
<td>62</td>
<td>30.2</td>
</tr>
<tr>
<td>No response or did not know any source of information</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Question Total</strong></td>
<td>205</td>
<td>100.0</td>
<td>205</td>
<td>100.0</td>
</tr>
</tbody>
</table>
4.2.2.1 Responses

The responses to this question produced similar outcomes to the question on selecting a general practitioner. The majority of respondent choices were demonstrated within their first and second responses.

The greatest number of respondents report relying on the family and friends group as a source of advice in relation to making contact with a dentist. First response sources accounted for 46 per cent approaching members of the family and friends group for advice, with 49 per cent of respondents naming the family and friends group in their second response.

The second significant source of information for respondents is obtained from the directories group. Forty-two per cent of first responses and 30 per cent of second responses indicated they would use directories as the information source to locate a dentist. The majority of respondents nominated telephone directories as the particular source of information. Many of the individual responses relating to the directory group nominated local telephone and business guides as their particular source of information or sub-group response.

The health professionals group received relatively small responses with 3 per cent of respondents highlighting this group in their first response, and 11 per cent highlighting this group as a source of information in their second response.
4.2.2.2 Variables and Significance

No significant results were found for the age variable. The Chi-Square analysis demonstrated no significant results.

The Chi-Square Test analysis demonstrated a significant result for the gender variable ($\chi^2 (4) = 10.4, p = 0.03$). Females are more likely (54.3 per cent) to consult the families and friends group, and less likely (35.7 per cent) to consult the directories group for information about finding a dentist. Males are less likely (32.9 per cent) to consult families and friends, and are more likely (52.6 per cent) to consult the directories group in relation to this question.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the place of residence variable. The Chi-Square analysis demonstrated no significant results.

4.2.2.3 Findings

The results for this survey question demonstrate similar responses on information sources used to locate doctors. Primarily, respondents use people from within the family and friends group as the primary source of information, and then utilise references from the directories group as their second main choice of information.
This is an interesting result in some respects as there is a variation between the number of dentists practising in the private and public sectors compared to general practitioners. There was no significant use of the health professionals group or the organisations and agencies group proportionately to provide information about locating a dentist. There is a consistency with the limited use of reference materials between respondent information for locating a dentist and a doctor, indicating a limited use both by practitioners to advertise services and by respondents seeking information on practitioners.
4.2.3 “Where Might You Go for Information About Sunscreen Protection Products for Your Skin?”

Table 3 - “Where might you go for information about sunscreen protection products for your skin?”

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N %</td>
<td>N %</td>
<td>N %</td>
<td>N %</td>
</tr>
<tr>
<td>Family members</td>
<td>6 2.927</td>
<td>12 5.9</td>
<td>1 0.5</td>
<td>19 3.1</td>
</tr>
<tr>
<td>Friends and colleagues</td>
<td>3 1.463</td>
<td>14 6.8</td>
<td>3 1.5</td>
<td>20 3.3</td>
</tr>
<tr>
<td>Other people</td>
<td>0 0</td>
<td>1 0.5</td>
<td>0 0.0</td>
<td>1 0.2</td>
</tr>
<tr>
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<td>27 13.2</td>
<td>4 2.0</td>
<td>40 6.5</td>
</tr>
<tr>
<td>Doctor</td>
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<td>22 10.7</td>
<td>6 2.9</td>
<td>49 8.0</td>
</tr>
<tr>
<td>Pharmacist</td>
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<td>58 28.3</td>
<td>5 2.4</td>
<td>165 26.8</td>
</tr>
<tr>
<td>Telephone Help Line</td>
<td>1 0.488</td>
<td>3 1.5</td>
<td>0 0.0</td>
<td>4 0.7</td>
</tr>
<tr>
<td>Other health professionals</td>
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<td>0 0.0</td>
<td>8 1.3</td>
</tr>
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<td>Health Professionals Group</td>
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<td>11 5.4</td>
<td>226 36.7</td>
</tr>
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<td>Professional bodies</td>
<td>17 8.293</td>
<td>16 7.8</td>
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<td>34 5.5</td>
</tr>
<tr>
<td>Government departments/agencies</td>
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<td>0 0.0</td>
<td>7 1.1</td>
</tr>
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<td>3 1.5</td>
<td>0 0.0</td>
<td>4 0.7</td>
</tr>
<tr>
<td>Other organisations and agencies</td>
<td>12 5.854</td>
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<td>1 0.5</td>
<td>25 4.1</td>
</tr>
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<td>Organisations and Agencies Group</td>
<td>33 16.1</td>
<td>35 17.1</td>
<td>2 1.0</td>
<td>70 11.4</td>
</tr>
<tr>
<td>Advertising</td>
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<td>10 4.9</td>
<td>0 0.0</td>
<td>15 2.4</td>
</tr>
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<td>2 1.0</td>
<td>35 5.7</td>
</tr>
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<td>6 2.9</td>
<td>0 0.0</td>
<td>8 1.3</td>
</tr>
<tr>
<td>Media reporting</td>
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<td>1 0.5</td>
<td>0 0.0</td>
<td>3 0.5</td>
</tr>
<tr>
<td>Publication/pamphlets</td>
<td>9 4.39</td>
<td>11 5.4</td>
<td>0 0.0</td>
<td>20 3.3</td>
</tr>
<tr>
<td>Other reference materials</td>
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<td>0 0.0</td>
<td>6 1.0</td>
</tr>
<tr>
<td>Reference Materials Group</td>
<td>37 18.05</td>
<td>48 23.4</td>
<td>2 1.0</td>
<td>87 14.1</td>
</tr>
<tr>
<td>Telephone directories</td>
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<td>0 0.0</td>
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</tr>
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<td>0 0.0</td>
</tr>
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<td>Directories Group</td>
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<td>0 0.0</td>
<td>3 0.5</td>
</tr>
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<td>0 0.0</td>
<td>3 1.5</td>
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<td>189 30.7</td>
</tr>
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<td>205 100.0</td>
<td>205 100.0</td>
<td>615 100.0</td>
</tr>
</tbody>
</table>

4.2.3.1 Responses

Respondents were definite and focused on the sources of advice in relation to sunscreen protection products. Only 8 per cent of respondents offered a third response to this question indicating strong focus on the main information sources.
Primarily, respondents used the health professionals group for information. Sixty per cent of people in their first response cited this group as being the most sought after to provide information. The pharmacist accounted for 50 per cent of the responses and the doctor 10 per cent. In the second response, 44 per cent of people said they would refer to this group, again with the majority of the information being resourced from pharmacists (28 per cent), and then doctors (11 per cent).

The second significant information source for this question comes from the reference materials group. In the first response, 18 per cent of people said they would source information from the Internet (7 per cent); from publications and pamphlets (4 per cent); and from advertising (2 per cent). In the second response to this question, 24 per cent of people said they would use this group of reference materials, and again the Internet, publications and pamphlets as well as advertising were the most important source of information.

The organisations and agencies group was the third most important source of information on sunscreen protection. In the first response, 16 per cent of people indicated they would refer to this group and primarily to professional bodies for information. In the second response, 13 per cent of people said they would source information from this group; again, preferably from professional bodies.

The total of responses of each group indicates primarily people seek information from health professionals, and then from reference materials and organisations and agencies.
4.2.3.2 Variables and Significance

No significant results were found for the age variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the gender variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the place of residence variable. The Chi-Square analysis demonstrated no significant results.

4.2.3.3 Findings

Responses to this question indicate a focus on professional, qualified and independent advice on products available on the market for sunscreen protection. Individual answers to the question highlighted the awareness and trust in professional bodies in each State, such as cancer care health promotion and educational bodies.

The Internet and publications and pamphlets were important sources of reference material for respondents. Advertising was the third reference choice within the reference materials group.
4.2.4 “Where Might You Go For Information About Pain Relief Medications that You Could Buy Without a Doctor’s Prescription?”

Table 4 - “Where might you go for information about pain relief medication that you could buy without a doctor’s prescription?”

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
</thead>
<tbody>
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<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Family members</td>
<td>10</td>
<td>4.9</td>
<td>31</td>
<td>15.1</td>
</tr>
<tr>
<td>Friends and colleagues</td>
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<td>2.9</td>
<td>17</td>
<td>8.3</td>
</tr>
<tr>
<td>Other people</td>
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<td>0.0</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Family and Friends Group</strong></td>
<td>16</td>
<td>7.8</td>
<td>49</td>
<td>23.9</td>
</tr>
<tr>
<td>Doctor</td>
<td>17</td>
<td>8.3</td>
<td>54</td>
<td>26.3</td>
</tr>
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<td>1</td>
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</tr>
<tr>
<td>Other health professionals</td>
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<td>2.9</td>
</tr>
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<td>0.5</td>
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<tr>
<td>Government departments/agencies</td>
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<td>0.0</td>
<td>1</td>
<td>0.5</td>
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<tr>
<td>Hospitals and health care agencies</td>
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<td>0.0</td>
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<td>2.4</td>
</tr>
<tr>
<td>Other organisations and agencies</td>
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<td>0.5</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Organisations and Agencies Group</strong></td>
<td>2</td>
<td>1.0</td>
<td>11</td>
<td>5.4</td>
</tr>
<tr>
<td>Advertising</td>
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<td>0.5</td>
<td>7</td>
<td>3.4</td>
</tr>
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<td>Internet</td>
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<td>13</td>
<td>6.3</td>
</tr>
<tr>
<td>Library</td>
<td>2</td>
<td>1.0</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Publications/pamphlets</td>
<td>4</td>
<td>2.0</td>
<td>9</td>
<td>4.4</td>
</tr>
<tr>
<td>Other reference materials</td>
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<td>0.5</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Reference Materials Group</strong></td>
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<td>36</td>
<td>17.6</td>
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<tr>
<td>Directories Group</td>
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<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>No response or did not know any source of information</td>
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<td>0.0</td>
<td>4</td>
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<td>100.0</td>
<td>205</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.4.1 Responses

Primarily, respondents refer to information from the health professionals group for information about pain relief medication. In the first response to the question, 85 per cent utilised this group for information, with 76 per cent of Respondents referring to a pharmacist, and 8 per cent of respondents referring to a doctor. In the second response to the question, 51 per cent of people indicated they would refer to the health professionals group; this
time with 26 per cent of people referring to a doctor and 21 per cent of people referring to a pharmacist.

The second important information group to respondents related to the family and friends group. In the first response to the question, 8 per cent of people said they would refer to this group, primarily (5 per cent) to family members. In the second response to this question, 24 per cent of respondents said they would refer to the family and friends group and in this case, 15 per cent would refer to family members while 8 per cent would refer to friends and colleagues.

The third important information source group for this question related to the reference materials group. In the first response, 6 per cent of those surveyed said they would seek information from the Internet (2 per cent), media reporting (2 per cent), and publications and pamphlets (2 per cent). In the second response to the question, 18 per cent of those surveyed said they would refer to the reference materials group, primarily to the Internet (6 per cent), media reporting (4 per cent), and advertising (3 per cent).

Review of the total of all responses indicates that health professionals are the preferred source of information (pharmacists and doctors), followed by advice from the family and friends group; and then referral to reference materials.

4.2.4.2 Variables and Significance
No significant results were found for the age variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the gender variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

The Chi-Square analysis demonstrated a significant result for the place of residence variable ($\chi^2 (3) = 6.9$, $p = 0.05$). Residents of metropolitan areas are less likely (78.7 per cent) to use the health professionals group for information on pain relief medications. Residents in regional locations are more likely (90.5 per cent) to use the health professionals group for information.

4.2.4.3 Findings

The main trends in these results indicate the proprietary pain relief medication advice is sought from pharmacists in the first instance, with information from the doctor, family and friends, and reference material also being of use to respondents.

Slight variation between metropolitan and regional respondent was noted in terms of accessing the health professionals group, and this could be an issue of accessibility to professional practitioners in the regional areas.
4.2.5 Where Might You Go for Information About Antibiotics?

Table 5 - "Where might you go for information about antibiotics?"

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Family members</td>
<td>1</td>
<td>0.5</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Friends and colleagues</td>
<td>2</td>
<td>1.0</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>Other people</td>
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<td>0.0</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Family and Friends Group</td>
<td>3</td>
<td>1.5</td>
<td>8</td>
<td>3.9</td>
</tr>
<tr>
<td>Doctor</td>
<td>154</td>
<td>75.1</td>
<td>44</td>
<td>21.5</td>
</tr>
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<td>Pharmacist</td>
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<td>56.6</td>
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<td>0.0</td>
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<td>4.4</td>
</tr>
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<td>Library</td>
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<td>1.5</td>
<td>6</td>
<td>2.9</td>
</tr>
<tr>
<td>Publications/pamphlets</td>
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<td>2.4</td>
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<td>Question Total</td>
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<td>205</td>
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</table>

4.2.5.1 Responses

Primarily, respondents indicated that it is from the health professionals group that they would seek information concerning antibiotics. In the first response, 87 per cent of respondents indicated that they would utilise this group. Principally, (75 per cent) information comes from doctors and then a further 11 per cent indicated information would be sought from pharmacists. In the second response, the health professionals group remained high with 80 per cent of respondents indicating they would make contact this time with the pharmacist (57 per cent) as the first contact, and then a doctor (22 per cent) for information.
The other significant source of information was the reference materials group. Eleven per cent of respondents indicated they would find information from publications and pamphlets (5 per cent), advertising (4 per cent), and the Internet (2 per cent). In the second response, 10 per cent of those surveyed indicated that they use reference materials and again, advertising (5 per cent), the Internet (3 per cent), and publications and pamphlets (2 per cent) were the given reference sources.

4.2.5.2 Variables and Significance

No significant results were found for the age variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the gender variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the place of residence variable. The Chi-Square analysis demonstrated no significant results.

4.2.5.3 Findings

Fundamentally, respondents utilise the pharmacist and the doctor for information on antibiotics. Those surveyed indicated that published material in publications and pamphlets, on the Internet, and in advertising was another source of information on antibiotics.
There was no variation on any of the variables, other than a small difference for the two age groups (30-59 years and 60 years and over) having a greater preference for the professionals group or the family and friends group. The specialised nature of this class of drugs, and the controlled environment in which it is provided and managed, indicated a very focused response to the sources of information.
4.2.6 “Where Might You Go For Information About Drugs That a Doctor Has Prescribed for You?”

Table 6 - "Where might you go for information about drugs that a doctor has prescribed for you?"

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td>%</td>
<td>N</td>
<td>%</td>
</tr>
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<td>1.5</td>
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<td>Friends and colleagues</td>
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<td>2.4</td>
</tr>
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<td>Other people</td>
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<td>0.5</td>
<td>3</td>
<td>1.5</td>
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<td>Family and Friends Group</td>
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<td>5.4</td>
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<td>Doctor</td>
<td>107</td>
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<td>19.0</td>
<td>96</td>
<td>46.8</td>
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<td>2.9</td>
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<td>Hospitals and health care agencies</td>
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<td>Other organisations and agencies</td>
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</tbody>
</table>

4.2.6.1 Responses

Similar responses were ascertained for this question as were identified in the question concerning antibiotic usage, except that in this more widely defined question relating to prescription drugs generally, there is stronger use by respondents of the reference materials group to gather information.
In the first response, 73 per cent of respondents indicated they would use the health professionals group with the doctor (52 per cent), and the pharmacist (19 per cent) as the principal source of information. In the second response, 68 per cent of those surveyed again said they would use the health professionals group, this time with the pharmacist (47 per cent) as the preferred source of information, preceding the doctor (18 per cent).

The reference materials group achieved similar results on the first and second responses, with variations between the responses relating to the specific source of information used. In the first response, 21 per cent of those surveyed indicated they would use the reference materials group, with the Internet (9 per cent) as the primary source of information, followed by publications and pamphlets (6 per cent), and then the library (3 per cent) as the information source. In the second response, again 21 per cent of people said they would use this reference material group, but the preferred source of information related to the Internet (13 per cent), the library (4 per cent), and then media reporting (3 per cent).
4.2.6.2 Variables and Significance

No significant results were found for the age variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the gender variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the place of residence variable. The Chi-Square analysis demonstrated no significant results.

4.2.6.3 Findings

High importance is placed on information from the health professionals group for advice on prescription drugs. The broader definition (“prescription drugs”) created a variation to the similar question on antibiotic prescribing and usage in that for the broader group, respondents indicated an increased use of the reference materials group over the health professionals group for advice and information.
4.2.7 “Where Might You Go for Information About Gaining or Losing Weight?”

Table 7 - "Where might you go for information about gaining or losing weight?"

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Family members</td>
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<tr>
<td>Friends and colleagues</td>
<td>15</td>
<td>7.3</td>
<td>14</td>
<td>6.8</td>
</tr>
<tr>
<td>Other people</td>
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<td>0.5</td>
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<tr>
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<td>17.6</td>
</tr>
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<td>Gym/Trainer</td>
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<td>10</td>
<td>4.9</td>
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<td>Other health professionals</td>
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<td>Government departments/agencies</td>
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<tr>
<td>Other organisations and agencies</td>
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<td>4.4</td>
</tr>
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<td>Organisations and Agencies Group</td>
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<tr>
<td>Advertising</td>
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<td>Internet</td>
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<td>4.9</td>
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<tr>
<td>Library</td>
<td>12</td>
<td>5.9</td>
<td>14</td>
<td>6.8</td>
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<tr>
<td>Media reporting</td>
<td>7</td>
<td>3.4</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Publications/pamphlets</td>
<td>7</td>
<td>3.4</td>
<td>12</td>
<td>5.9</td>
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<td>Reference Materials Group</td>
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<td>Other directories</td>
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<td>0.0</td>
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</tr>
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<td>No response or did not know any source of information</td>
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<td>4</td>
<td>2.0</td>
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<td>Question Total</td>
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<td>205</td>
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</tr>
</tbody>
</table>

4.2.7.1 Responses

Respondents surveyed indicated that the majority of people would seek advice regarding weight management from the health professionals group. In the first response, 49 per cent indicated they would make contact with this group. Thirty-seven per cent of people would seek advice from their doctor,
7 per cent would source information from other health professionals and practitioners, while 4 per cent would obtain advice from gym trainers. In the second response, 42 per cent indicated that the health professionals group would be the information provider by contacting doctors (20 per cent), other health professionals (10 per cent), pharmacists (8 per cent), and gym trainers (5 per cent).

The reference materials group is the second most important source of information, with 23 per cent of those surveyed indicating in their first response that they would use a variety of reference materials, including the Internet (7 per cent), the library (6 per cent), and publications and pamphlets or other reference material (3 per cent). In the second response, 21 per cent indicated they would use the reference materials group, with other reference materials (6 per cent), the library (7 per cent), and the Internet (5 per cent) as the source of information.

The family and friends group accounted for 18 per cent of those surveyed in their first and second response as being a source of information on weight management, with similar results on both responses indicating that family members (10 per cent), and friends and colleagues (7 per cent) as the source of information.

The organisations and agencies group accounted for the fourth significant group of information sources that would be utilised by those surveyed. In the first response, 8 per cent of people indicated that they would primarily use professional bodies (6 per cent) for information. In the second response, 18 per cent of those surveyed indicated that they would use this group for
information with professional bodies (10 per cent), and other organisations and agencies (4 per cent) as the source of information.

4.2.7.2 Variables and Significance

No significant results were found for the age variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the gender variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the place of residence variable. The Chi-Square analysis demonstrated no significant results.

4.2.7.3 Findings

Included in the first, second and, to some extent, the third responses by those surveyed for this question is an indication that a relatively diverse range of information sources are used. The primary sources are health professionals, printed or resource reference material and a dependence on families and friends for advice. However, although in smaller response numbers, there is a stronger range and diversity of information sources that would be used by those surveyed. Very few people did not have a first and second response to this question, and almost 18 per cent of respondents had a third suggestion of an information source.
4.2.8 “Where Might You Go For Information About the Ways to Stop Smoking?”

Table 8 - "Where might you go for information about ways to stop smoking?"

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
</thead>
<tbody>
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<td></td>
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<td>N</td>
<td>%</td>
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<tr>
<td>Friends and colleagues</td>
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<td>Other people</td>
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<td>1.5</td>
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<tr>
<td><strong>Family and Friends Group</strong></td>
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<tr>
<td>Doctor</td>
<td>58</td>
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<td>Pharmacist</td>
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<td>Government departments/agencies</td>
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<td>3.9</td>
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<td>Other organisations and agencies</td>
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<td><strong>Organisations and Agencies Group</strong></td>
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<td>Advertising</td>
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<td>Internet</td>
<td>9</td>
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<td>Publications/pamphlets</td>
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<td>Other reference materials</td>
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<td>No response or did not know any source of information</td>
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</tr>
<tr>
<td><strong>Question Total</strong></td>
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<td>100.0</td>
<td>205</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.8.1 Responses

The primary source of information for respondents on the ways to stop smoking comes from the health professionals group. Similar results were
obtained on the first and second responses. In the first response, 63 per cent of those surveyed indicated that they would contact a doctor (28 per cent), a pharmacist (14 per cent), and telephone ‘Help Lines’ (20 per cent). In the second response to the question, 61 per cent of those surveyed indicated that they would contact the health professional group, particularly doctors (22 per cent), pharmacists (30 per cent), and telephone ‘Help Lines’ (9 per cent).

The family and friends group accounted for 12 per cent of respondents on their first response, and in particular, information would be sought from family members (9 per cent) and friends and colleagues (2 per cent). In the second response, the family and friends group would be approached by 20 per cent of respondents; again, in particular, a doctor (11 per cent) and friends and colleagues (7 per cent).

The organisations and agencies group accounted for 11 per cent of first response indications and this related to professional bodies (5 per cent), and government departments and agencies (4 per cent). In the second response, 20 per cent of those surveyed indicated they would use the organisation and agencies group, particularly professional bodies (4 per cent), and government departments and agencies (2 per cent).

Twelve per cent of respondents indicated they would use the reference materials group that included the Internet (4 per cent), publications and pamphlets (4 per cent), and advertising (2 per cent). In the second response, 8 per cent of those surveyed indicated they would use this group with the Internet (3 per cent) as the principal source of information.
4.2.8.2 Variables and Significance

The Chi-Square analysis demonstrated variation of significance for the age variable ($\chi^2_{(10)} = 20.6$, $p = 0.03$). Respondents in the 30-59 years age group are less likely (7.5 per cent) to utilise the family and friends group, but are more likely (67.9 per cent) to utilise the health professionals group for information on smoking cessation. Respondents in the 60 years and over age group are more likely (21.6 per cent) to use the families and friends group for information.

The Chi-Square analysis demonstrated variation of significance for the gender variable ($\chi^2_{(5)} = 12.1$, $p = 0.02$). Females are more likely (69.0 per cent) to use the health professionals group for information on smoking cessation. They are less likely (7.0 per cent) to use the organisations and agencies group. Males were less likely (52.8 per cent) to use the health professionals group for information. Males are more likely (18.4 per cent) to use the organisations and agencies group for information.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the place of residence variable. The Chi-Square analysis demonstrated no significant results.

4.2.8.3 Findings

Responses to this question demonstrated a preference for contact of health professionals by the respondents regarding information relating to being
able to stop smoking. There was a good response to the use of ‘Help Line’ information sources. There was a relatively balanced set of additional information sources accessed including the family and friends group, the reference materials group, and the organisations and agencies group.

4.2.9 “Where Might You Go for Information About Heart Disease?”

Table 9 - "Where might you go for information about heart disease?"

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Family members</td>
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</tr>
<tr>
<td>Friends and colleagues</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Other people</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Family and Friends Group</td>
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</tr>
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<td>Doctor</td>
<td>138</td>
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<td>100.0</td>
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</tbody>
</table>
4.2.9.1 Responses

In the first response to this question, 70 per cent of those surveyed indicated that they would contact the health professionals group for information, and in particular, this related to contact and advice with a doctor (67 per cent). In the second response to the question, 48 per cent of those surveyed said they would contact this group, with advice and information being sought from a doctor (22 per cent), other health professionals and practitioners (13 per cent), and a pharmacist (13 per cent).

The reference materials group was the other significant source of information, with 19 per cent of those surveyed on their first response indicating they would use this group. In particular, the Internet (11 per cent) is the main source of information in this group. In the second response to the question, 26 per cent of those surveyed said they would use the reference materials group, with the Internet (13 per cent), the library (8 per cent), and publications and pamphlets (4 per cent) as the information sources.

4.2.9.2 Variables and Significance

The Chi-Square test demonstrated a significant result in relation to the age variable ($\chi^2 = 12.3$, $p = 0.05$). Respondents in the 30-59 years age group are less likely (63.4 per cent) to use the health professionals group, and more likely (24.8 per cent) to use the reference materials group for information on heart disease. Those surveyed who were in the 60 years and over age group are more likely (35. per cent) to use the health professionals group, and less likely (5.9 per cent) to use the reference materials group.
No significant results were found for the gender variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

The Chi-Square test demonstrated a significant result in relation to the geographical variable ($\chi^2 (3) = 8.0, p = 0.04$). Residents of metropolitan centres are more likely (27.0 per cent) to use the reference materials group for information on heart disease, and the residents of regional centres are less likely (21.5 per cent) to use the reference materials group for information on this topic or issue area.

4.2.9.3 Findings

Responses to this survey question demonstrate a strong range of personal, reference material and organisational contact to assess information on heart disease. These results appear consistent with the sustained development, information sharing and educational campaign in this country, where community members appear clear on access issues. There were very few respondents who could not make two clear nominations of sources of information on heart disease.
4.2.10.1 “Where Might You Go For Information About Asthma?”

Table 10 - “Where might you go for information about asthma?”

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
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<tr>
<td></td>
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<td>%</td>
<td>N</td>
<td>%</td>
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<td>Family members</td>
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<td>Friends and colleagues</td>
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</tr>
<tr>
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<td>Library</td>
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<td>1.0</td>
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<td>Media reporting</td>
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<td>Publications/pamphlets</td>
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</table>

**Question Total** | 205 | 100.0 | 205 | 100.0 | 205 | 100.0 | 615 | 100.0 |

4.2.10.1 Responses

In the first response to this question, 65 per cent of those surveyed indicated that they would use the health professionals group for information, particularly the doctor (62 per cent). In the second response to the question, 55 per cent of those surveyed indicated that they would use this group with the doctor (25 per cent), the pharmacist (23 per cent), and other health professionals and practitioners (6 per cent) as the sources of information.
Organisations and agencies accounted for 18 per cent of the indicated sources of information on the first response, with professional bodies (15 per cent) as the main contact source. In the second response to the question, 6 per cent of those surveyed indicated they would use organisations and agencies, again, with professional bodies (11 per cent) as the main source of information, but also hospitals and health care services (8 per cent).

Reference material accounted for 11 per cent of the first response allocation of information sources with the Internet (9 per cent) as the preferred choice of information. In the second response to the question, 19 per cent of people said they would use the reference material group, with the Internet (11 per cent) and the library (4 per cent) as the information sources.

The family and friends group accounted for 5 per cent of the first response answers to the question, and this mainly related to family members (4 per cent). In the second response to the question, 6 per cent of people indicated they would use the family and friends group which included family members (3 per cent), and friends and colleagues (2 per cent).

4.2.10.2 Variables and Significance

The Chi-Square test demonstrated a degree of significance in relation to the age variable ($\chi^2 (6) = 11.5, p = 0.07$). Respondents in the 30-59 years age group are more likely (59.0 per cent) to use the health professionals group for information on asthma, while the 60 years and over age group are less likely (2.0 per cent) to use the reference materials group for information.
No significant results were found for the gender variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the place of residence variable. The Chi-Square analysis demonstrated no significant results.

4.2.10.3 Findings

There is a strong reference to professional health care workers and professional bodies, augmented by focus reference material (especially the Internet, library services, and publications and pamphlets) as the preferred resources for information on asthma.
4.2.11.1 “Where Might You Go for Information About Alternative Treatments to Traditional Medicine?”

Table 11 - “Where might you go for information about alternative treatments to traditional medicine?”

<table>
<thead>
<tr>
<th>Responses To Question</th>
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<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
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</table>

4.2.11.1 Responses

The health professionals group accounted for 46 per cent of the first response indicators for sources of information, with other health professionals (30 per cent), and a doctor (13 per cent) as people that those surveyed would contact for information. In the second response to the question, 36 per cent of those
surveyed indicated they would use the health professionals group, again with other health professionals (24 per cent), the pharmacist (7 per cent), and the doctor (5 per cent) as the source of information.

The family and friends group accounted for 19 per cent of the first response to the question, with friends and colleagues (10 per cent), and family members (7 per cent) as the source of information. In the second response to the question, 26 per cent of those surveyed said they would use the family and friends group, with friends and colleagues (16 per cent), and family members (9 per cent) as a source of information.

In the first response, 19 per cent of those surveyed said they would use the reference material group, and in particular, the Internet (11 per cent), and the library (5 per cent) as the reference source. In the second response to the question, 21 per cent of those surveyed indicated they would use the reference materials group, with the Internet (13 per cent) and the library (6 per cent) as the information source.

4.2.11.2 Variables and Significance

The Chi-Square test demonstrated a significant result in relation to the age variable ($\chi^2_{(10)} = 24.7$, $p = 0.01$). Respondents in the 30-59 years age group are less likely (39.6 per cent) to use the health professionals group for information on alternative treatments. They are more likely (24.6 per cent) to use the reference materials group for information. In respect to the 60 years and over age group, they are less likely (7.8 per cent) to use the reference materials group for information.
No significant results were found for the gender variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the place of residence variable. The Chi-Square analysis demonstrated no significant results.

4.2.11.3 Findings

Respondents indicated that they would contact other health professionals and their doctors regarding alternative treatments to traditional medicine. The family and friends group as well as the reference material group, were also important sources of information in this regard. The answers to this question indicate that those surveyed will access a range of information, and are comfortable with direct contact of alternate treatment providers for information.
### 4.2.12 “Where Might You Go for Information About Childhood Illnesses Such as Rashes, Chickenpox, Measles, Fevers, etc?”

**Table 12 - “Where might you go for information about childhood illnesses such as rashes, chickenpox, measles, fevers etc?”**

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
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<td></td>
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<td>%</td>
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<td>%</td>
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<td>7.3</td>
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<td>Friends and colleagues</td>
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<td>Government departments/agencies</td>
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</tr>
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</table>

#### 4.2.12.1 Responses

In the first response to this question, 60 per cent of those surveyed indicated they would use the health professionals group for information, and this included the doctor (51 per cent) and the pharmacist (5 per cent). In the second response to the question, 51 per cent indicated they would use the
health professionals group, with the doctor (23 per cent) and the pharmacist (23 per cent) as the main sources of information.

The first response to the question demonstrated that 21 per cent of those surveyed would use the reference materials group, and this related to the use of the library (10 per cent), the Internet (6 per cent), and publications and pamphlets (5 per cent). In the second response to the question, 23 per cent of those surveyed indicated a preference for the reference materials group, with the Internet (11 per cent), publications and pamphlets (8 per cent), and the library (3 per cent) as the source of information.

4.2.12.2 Variables and Significance

The Chi-Square test demonstrated a significant result in relation to the age variable ($\chi^2(6) = 18.9, p = 0.01$). Respondents in the 30-59 years age group are less likely (51.5 per cent) to use the health professionals group for information. They are more likely (28.8 per cent) to use the reference materials group. Those surveyed from the 60 years and over age group were noted as being more likely (80.4 per cent) to use the health professionals group. This age bracket group is less likely (7.8 per cent) to use the reference materials group to locate information on childhood illnesses.

The Chi-Square test demonstrated a significant result in relation to the gender variable ($\chi^2(3) = 7.7, p = 0.05$). Female respondents are less likely (53.5 per cent) to use the health professionals group for information. They are more likely (26.4 per cent) to use the reference materials group for information. Men are more likely (72.4 per cent) to use the health
professionals group. They are less likely (13.2 per cent) to use the reference materials group for information on this health issue.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the place of residence variable. The Chi-Square analysis demonstrated no significant results.

4.2.12.3 Findings

Survey respondents indicated that primarily they use the health professionals group and the reference material group in information gathering about childhood illnesses. The next important source of information are the family and friends group, and the organisations and agencies group. This provides a broad range of information sources that are accessed by those surveyed.

Of particular interest is the relatively low number (7 per cent for the first response and 11 per cent for the second response) of those surveyed who would use the family and friends group for information. It may be that when particular childhood illnesses are identified, there is an importance for specific diagnosis and information about these problems, rather than family and friends based experience.
4.2.13 “Where Might You Go for Information About Vaccinations Such as Flu Vaccines, Immunisations for Children?”

Table 13 - "Where might you go for information about vaccinations such as flu vaccines, immunisations for children?"

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
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<td>%</td>
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</tbody>
</table>

4.2.13.1 Responses

Primarily, those surveyed use the health professionals group for information on this topic. In the first response, 79 per cent of those surveyed indicated they would use the group, and in particular would make contact with a doctor (74 per cent). In the second response, 49 per cent indicated contact with the health professionals group, with the pharmacist (24 per cent), the
doctor (20 per cent) and other health professionals (5 per cent) as the nominated information source.

The organisations and agencies group accounted for 12 per cent of the first response, with hospital and health services (5 per cent), government departments and agencies (4 per cent), and professional bodies (2 per cent) as the nominated information source. In the second response to the question, 8 per cent of those surveyed indicated they would use the organisations and agencies group, with hospitals and health care agencies (11 per cent), and government departments and agencies (4 per cent) as the nominated information source.

The reference material group accounted for 8 per cent of information sources on the first response, relating to the Internet (4 per cent), the library (2 per cent), and publications and pamphlets (2 per cent). In the second response to the question, 21 per cent of those surveyed said they would use the reference materials group with the Internet (10 per cent), and publications and pamphlets (8 per cent) as the main source of information in this group.

4.2.13.2 Variables and Significance

No significant results were found for the age variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the gender variable. The Chi-Square analysis demonstrated no significant results.
No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the place of residence variable. The Chi-Square analysis demonstrated no significant results.

4.2.13.3 Findings

The health professionals group was the primary source of information used by those surveyed to ascertain information on vaccinations. Organisations and agencies, (particularly hospitals and healthcare services as well as government departments and agencies), were the next most likely source of information to be used by respondents. Within the reference materials group, the Internet, library, and publications and pamphlets provided sources of information for respondents.
4.2.14 “Where Might You Go for Information About a Political Party’s Health Policies?”

Table 14 - “Where might you go for information about a political party’s health policies?”

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Family members</td>
<td>8</td>
<td>3.9</td>
<td>18</td>
<td>8.8</td>
</tr>
<tr>
<td>Friends and colleagues</td>
<td>3</td>
<td>1.5</td>
<td>10</td>
<td>4.9</td>
</tr>
<tr>
<td>Other people</td>
<td>2</td>
<td>1.0</td>
<td>6</td>
<td>2.9</td>
</tr>
<tr>
<td>Family and Friends Group</td>
<td>13</td>
<td>6.3</td>
<td>34</td>
<td>16.6</td>
</tr>
<tr>
<td>Doctor</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Telephone Help Line</td>
<td>1</td>
<td>0.5</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Other health professionals</td>
<td>1</td>
<td>0.5</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Health Professionals Group</td>
<td>2</td>
<td>1.0</td>
<td>6</td>
<td>2.9</td>
</tr>
<tr>
<td>Professional bodies</td>
<td>5</td>
<td>2.4</td>
<td>8</td>
<td>3.9</td>
</tr>
<tr>
<td>Government departments/agencies</td>
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<td>41.0</td>
<td>60</td>
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<tr>
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<td>0.0</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>Other organisations and agencies</td>
<td>13</td>
<td>6.3</td>
<td>6</td>
<td>2.9</td>
</tr>
<tr>
<td>Organisations and Agencies Group</td>
<td>102</td>
<td>49.8</td>
<td>78</td>
<td>38.0</td>
</tr>
<tr>
<td>Advertising</td>
<td>1</td>
<td>0.5</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>Internet</td>
<td>56</td>
<td>27.3</td>
<td>21</td>
<td>10.2</td>
</tr>
<tr>
<td>Library</td>
<td>1</td>
<td>0.5</td>
<td>7</td>
<td>3.4</td>
</tr>
<tr>
<td>Media reporting</td>
<td>13</td>
<td>6.3</td>
<td>15</td>
<td>7.3</td>
</tr>
<tr>
<td>Publications/pamphlets</td>
<td>6</td>
<td>2.9</td>
<td>23</td>
<td>11.2</td>
</tr>
<tr>
<td>Other reference materials</td>
<td>3</td>
<td>1.5</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Reference Materials Group</td>
<td>80</td>
<td>39.0</td>
<td>72</td>
<td>35.1</td>
</tr>
<tr>
<td>Telephone directories</td>
<td>4</td>
<td>2.0</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Directories Group</td>
<td>4</td>
<td>2.0</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>No response or did not know any source of information</td>
<td>4</td>
<td>2.0</td>
<td>13</td>
<td>6.3</td>
</tr>
<tr>
<td>Question Total</td>
<td>205</td>
<td>100.0</td>
<td>205</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.14.1 Responses

The organisations and agencies group was the main source of information highlighted by those surveyed. In the first response, 50 per cent of those surveyed indicated they would use this group, and this particularly related to government departments and agencies (41 per cent), and other organisations and agencies (6 per cent). In the second response to the
question, 17 per cent of those surveyed said they would use this group, with
government departments and agencies (29 per cent), and professional bodies
(4 per cent) as the source of information.

The second significant group of choice was the reference material group with
the first response of those surveyed accounting for 39 per cent, and this
particularly referred to the use of the Internet (27 per cent), and media
reporting (6 per cent). In the second response to the question, 35 per cent of
people said they would use the reference material group, with publications
and pamphlets (12 per cent), the Internet (10 per cent), and media reporting
(7 per cent) as the source of information.

4.2.14.2 Variables and Significance

No significant results were found for the age variable. The Chi-Square
analysis demonstrated no significant results.

No significant results were found for the gender variable. The Chi-Square
analysis demonstrated no significant results.

No significant results were found for the highest educational attainment
variable. The Chi-Square analysis demonstrated no significant results.

The Chi-Square test demonstrated a significant result in relation to the place
of residence variable ($\chi^2 (5) = 13.7$, $p = 0.01$). Residents of metropolitan
centres are less likely (32.4 per cent) to use organisations and agencies and
are more likely (56.3 per cent) to use reference materials in relation to find
out about a political party’s health policies. Residents in regional centres are
more likely (67.6 per cent) to use the organisations and agencies group for information and less likely (43.8 per cent) to use the reference materials group for information.

4.2.14.3 Findings

Primarily, those surveyed for this question indicated that they use organisations and agencies as the primary source of information about a political party’s health policies. Secondary to this source is the use of the reference materials group, with a focus on the use of the Internet, media reporting, and publications and pamphlets.

Of particular interest in this survey question, was the importance placed on the use of government departments and agencies as a source of a political party’s health information policies. This could reflect both a particular interest in the government of the day’s policies, as well as a readily accessible source of information and interpretation on health policy.
4.2.15 “Where Might You Go for Information About Counselling Support Services in the Community?”

Table 15 - "Where might you go for information about counselling support services in the community?"

<table>
<thead>
<tr>
<th>Responses To Question</th>
<th>First Response</th>
<th>Second Response</th>
<th>Third Response</th>
<th>Total From All Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Family members</td>
<td>11</td>
<td>5.4</td>
<td>24</td>
<td>11.7</td>
</tr>
<tr>
<td>Friends and colleagues</td>
<td>11</td>
<td>5.4</td>
<td>30</td>
<td>14.6</td>
</tr>
<tr>
<td>Other people</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>Family and Friends Group</td>
<td>22</td>
<td>10.7</td>
<td>57</td>
<td>27.8</td>
</tr>
<tr>
<td>Doctor</td>
<td>29</td>
<td>14.1</td>
<td>46</td>
<td>22.4</td>
</tr>
<tr>
<td>Pharmacist</td>
<td>1</td>
<td>0.5</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Telephone Help Line</td>
<td>13</td>
<td>6.3</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>Other health professionals</td>
<td>8</td>
<td>3.9</td>
<td>6</td>
<td>2.9</td>
</tr>
<tr>
<td>Health Professionals Group</td>
<td>51</td>
<td>24.9</td>
<td>59</td>
<td>28.8</td>
</tr>
<tr>
<td>Professional bodies</td>
<td>10</td>
<td>4.9</td>
<td>7</td>
<td>3.4</td>
</tr>
<tr>
<td>Government departments/agencies</td>
<td>19</td>
<td>9.3</td>
<td>11</td>
<td>5.4</td>
</tr>
<tr>
<td>Hospitals and health care agencies</td>
<td>22</td>
<td>10.7</td>
<td>13</td>
<td>6.3</td>
</tr>
<tr>
<td>Other organisations and agencies</td>
<td>7</td>
<td>3.4</td>
<td>8</td>
<td>3.9</td>
</tr>
<tr>
<td>Organisations and Agencies Group</td>
<td>58</td>
<td>28.3</td>
<td>39</td>
<td>19.0</td>
</tr>
<tr>
<td>Advertising</td>
<td>0</td>
<td>0.0</td>
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<td>1.0</td>
</tr>
<tr>
<td>Internet</td>
<td>2</td>
<td>1.0</td>
<td>15</td>
<td>7.3</td>
</tr>
<tr>
<td>Library</td>
<td>3</td>
<td>1.5</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Media reporting</td>
<td>1</td>
<td>0.5</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Publications/pamphlets</td>
<td>1</td>
<td>0.5</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>Reference Materials Group</td>
<td>7</td>
<td>3.4</td>
<td>24</td>
<td>11.7</td>
</tr>
<tr>
<td>Telephone directories</td>
<td>61</td>
<td>29.8</td>
<td>19</td>
<td>9.3</td>
</tr>
<tr>
<td>Other directories</td>
<td>3</td>
<td>1.5</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Directories Group</td>
<td>64</td>
<td>31.2</td>
<td>21</td>
<td>10.2</td>
</tr>
<tr>
<td>No response or did not know any source of information</td>
<td>3</td>
<td>1.5</td>
<td>5</td>
<td>2.4</td>
</tr>
<tr>
<td>Question Total</td>
<td>205</td>
<td>100.0</td>
<td>205</td>
<td>100.0</td>
</tr>
</tbody>
</table>

4.2.15.1 Responses

In the first response to this question, 31 per cent of those surveyed indicated they would use the directory group, and in particular telephone directories (30 per cent), for information on counselling support services. In the second response to the question, 10 per cent of those surveyed indicated they would
use the directories group, with telephone directories (9 per cent) as the source of information.

In the first response to this question, 28 per cent of those surveyed indicated they would use the organisations and agencies group for information, and in particular, hospitals and healthcare agencies (11 per cent), government departments and agencies (9 per cent), and professional bodies (5 per cent). In the second response to the question, 28 per cent of people nominated this information group, with hospitals and healthcare agencies (6 per cent), government departments and agencies (5 per cent), and professional bodies (3 per cent) as the nominated information sources.

In the first response, 25 per cent of those surveyed indicated they would use the health professionals group for information, and in particular, would make contact with a doctor (14 per cent), telephone ‘Help Lines’ (6 per cent), and other health professionals (4 per cent). In the second response to the question, 29 per cent of respondents indicated the use of this information group, with the majority of people contacting a doctor (22 per cent).

The third influential group in relation to this question is the family and friends group, with 11 per cent of first responses allocated to the family members group (5 per cent), and the friends and colleagues group (5 per cent). In the second response, 28 per cent of those surveyed indicated they would use the family and friends group with friends and colleagues (15 per cent), and family members (12 per cent) as the main source of information.
4.2.15.2 Variables and Significance

No significant results were found for the age variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the gender variable. The Chi-Square analysis demonstrated no significant results.

No significant results were found for the highest educational attainment variable. The Chi-Square analysis demonstrated no significant results.

The Chi-Square test demonstrated a significant result in relation to the place of residence variable ($\chi^2 (5) = 16.9, p = 0.01$). Residents of metropolitan centres are less likely (25.9 per cent) to use the organisations and agencies group for information, and are more likely (57.8 per cent) to utilise the directories group for information on finding counselling services. Residents in regional centres are more likely (74.1 per cent) to use organisations and agencies for information, and are less likely (42.2 per cent) to use the directories information group.

4.2.15.3 Findings

Those surveyed in relation to this question indicate that there are three main sources of information where people will go to find out about counselling support services in the community. Direct contact with these services is ascertained by reference to telephone directories, and advice is also available from the health professionals group and the organisations and agencies group. It is clear that respondents seek information about counselling by
4.3 Information From the Focus Group Interview

The focus group was established to explore both responses to the telephone survey questionnaire and then to discuss issues arising from information gathering approaches.

Participants in the focus group were initially asked to respond to similar questions that were contained in the telephone survey and results were tabulated. The focus group was then asked for ideas on the suggestions and discussion around any pertinent issue associated with information gathering in the health system.

Generally, focus group participant responses to the survey questions were similar to the results of the telephone survey group. What proved most valuable was the identification and examination of trends and issues around those results. This served to place the research survey in context. Several themes and issues emerged from the focus group discussions.

4.3.1 Information and Interpretation

One of the significant issues raised by the group around all of the survey questions was the issue of differentiation between information gathering and interpretation. Information gathering relates to both the processes used and the sources of information. Interpretation relates to the understanding and application of information to the particular problem at hand. There are many circumstances when the research and questioning about health related issues
creates the necessity to switch these roles and functions, to gather an accurate and useful set of information.

The Australian health system provides a significant opportunity to obtain information from qualified health professionals and organisations at minimal or no cost. The group highlighted that with many of the issues raised through the research questions, (such as in the case of vaccinations, childhood illnesses and smoking cessation), that there was an opportunity to both access health professionals on the basis of primary care or treatment, but also to utilise those contacts for information gathering. The health professional has dual role and responsibility – intervention and information. The issue of informed decision-making and having an understanding of treatment options is an intricate part of the quality of health services. The focus group members thought that the high levels of expectation, education and multiple sources (choice) of information created an environment where informed decision-making was an essential part of the community’s information gathering activities.

All group members identified that there were multiple sources of information available to the community. This choice provided for different approaches in information gathering, as well as the opportunity to check and verify information, or to seek second opinions.

4.3.2 Differences Between Marketing and Information Seeking

The group discussed the mechanism and approaches that are used in determining the line between information seeking, and where marketing exists. The group identified the importance between using information about
a health product or service that is provided through commercial or advertising, and that which is provided from credible or authoritative sources. The group felt that they were in a good position to make this differentiation, and to rely on information in different ways from different sources. It was reported that information could be gathered from a commercial promotion and validated for credibility from a separate authoritative source.

In the case of proprietary healthcare products, such as pain relief medication and sunscreen or sun protection products, the group described how it was important to be able to assess the claims of manufacturers about their product, in order to have an objective assessment of the use and value of that source.

This was an important set of differentiations in the case of a political party’s information. Results from the group, and the telephone survey, showed that high value was placed on obtaining information from government departments, the media or the Internet. A distinction was made that interpreted, reviewed and discussed information was more useful in an evaluation, than the claims made about political parties in advertising. This example was also qualified by the fact that political parties may only advertise at certain times, such as around elections. There are more consistent and accessible information sources available continuously to the community – this may account for the high proportion of people in the telephone survey that indicate that they would contact government departments to understand the health policies of a particular political party.
Experience, confidence, education and other opportunities affected the issue of information and interpretation. Access, familiarity and confidence with the Internet was cited as an example of the varying levels and degrees to which useful interpretation and information finding could be achieved. The group exchanged experiences, and future references on various Internet access sites on health information, as well as having access to tools and approaches to utilise the Internet more successfully. These discussions were useful in highlighting and differentiating the issues of time, access, skill and interpretive ability required.

Complex health problems are sometimes best served by accessing professionals for interpretation, while others were best approached through other reference materials. The group discussed the compound effect of gathering specific information from sources (Internet, publications and pamphlets), and then using health professionals to verify data. This approach also provides a further set of advice on particular actions.

### 4.3.3 Family and Friends

In responding to the survey questions, the focus group members articulated a similar profile to Respondents from the telephone survey regarding the utilisation of families and friends as a source of information and support on health related matters.

The group discussed the issue of wisdom and knowledge in the family and friends group that was seen as having been built up over time, because of experience and exposure to similar issues and problems. People in the family and friends group were seen to have had the opportunity of experience with
outcomes of trying various options and approaches in the past, but more importantly were also a source of past experience in relation to effective methods of obtaining information from within the system.

The issue of objectivity and confidentiality was an important differentiation issue amongst focus group participants when they considered referring to a member of the family and friends group. The communication dynamics and application of various issues in relating to the family and friends group was seen as quite complex. Ease of access to the family and friends group was seen as an important issue. “You can always ring Mum or Dad about anything, and they are there when you need them." (Group Member). Some health issues were seen as personal and were best discussed with close family members, while other issues could be categorised as those that might be discussed with friends or colleagues away from the immediate family group. It was felt by all focus group participants that utilising the family and friends group was a most valuable source of information as well as being significant in the issues of trust, access, and experience.

The group discussed the issues where it might have been anticipated that members of the family and friends group would have been the preferred source of information, but the telephone survey group do not necessarily express this result. An example was with the family and friends group demonstrating a low referral rate from respondents in the telephone survey in relation to matters on childhood illnesses. Focus group participants felt that while family and friends might be a good source of reassurance and benchmarking on the onset of illnesses in various children’s age groups, the issue of accessing health professionals to confirm diagnosis was an
important driver as to why respondents may have selected healthcare and information from the health professionals group.

The family and friends group provided a major reference source in information gathering and sense-making. In the majority of questions contained in the questionnaire, the family and friends group were identified as one of the three main groups where information would be sourced. Focus group members discussed that there is an ongoing balance between contacting professionals to obtain interpretive information, compared to reference information from electronic and print sources, as well as the family and friends group. These three groups provided focus group members with a repertoire of information sources. These three groups provided factual information, enabled interpretive information gathering and provided the opportunity to test reasonableness and norming of information.

The focus group discussed the relatively low responses of using any other individuals or groups outside of the two sub-groups in respect to family and friends (i.e. family members as well as friends and colleagues). It was felt that time constraints or availability issues limits the use of asking any other person questions. There were issues about trustworthiness and credibility of information. It seems then that accessibility, credibility and trustworthiness are significant predeterminates in using family members or friends and colleagues for advice.

### 4.3.4 Gender and Information Gathering

The group explored a number of issues that appear relevant to the survey results on the issue of gender in information gathering within healthcare.
Group members felt that women and men would source information differently. In the example of selecting a doctor to consult, the group felt that there were different health needs and different consultative processes that men and women would use.

Health involvement and responsibilities were cited as a gender difference by the focus group. Women are seen as having an earlier and sustained involvement with the healthcare system for their own healthcare status, compared to men in the community. Contacting a doctor was seen as a good example of this differentiation. “Women may have established a more ongoing and preventative association with the medical profession, where men probably have a more episodic relationship.” (Group Member). This observation was used to help qualify the different results found in the focus group as well as the telephone survey to this question. The relationships that women have with many aspects of the health system, for both preventative and ill health episodes would indicate stronger consultative and decision making processes in the selection of a doctor or a dentist for treatment. Men may have a more episodic relationship with the health system, and therefore results from the survey may be demonstrating a stronger use of directories to find a practitioner because of that immediacy or episodic problem-solving situation.

Group members cited differences in the communication and social approach and makeup of women. The group felt that women had a stronger comfort and security to discuss issues around health matters because of the confidence and experience in the subject topic, as well as differing skills in relating and relationships. This, it was felt, attributed to the results of the
discussion where women would consult with family and friends to find practitioners and services as opposed to men, who might use more impersonal sources of information to locate advice.

Differing roles between men and women may account for variation in gender outcome. The group felt that responsibilities for childcare and family health support might attribute to variance in approach and sourcing of information.

4.3.5 Perspectives Around Result Themes

The focus group participants discussed a number of observations and provided perspectives around some of the result themes emerging from their discussions and the telephone surveys:

- Accessibility is an important issue in determining preference for the source of information. Focus group members identified with the use of pharmacists, as an example, where there is evidence of skill and ability of members of this professional group and they are more accessible. The ability to move quickly between information sources, as information gathering was defined and refined during the enquiry process, was also seen as an important aspect. Accessibility is an important driver in why respondents might select family and friends as the immediacy of access and response can be preferential over the need to use research tools to gather information.
• Past experience in information gathering is an important aspect. The group identified that “using tried and tested methods are important” (Group Member) to successfully gather information. This approach may account for the trend of survey results where respondents have exhausted their ideas for information sources generally within two responses to each question. This experience is also important in emerging new or different approaches in the communication process, such as the increase in the use of the Internet where there is a growing awareness and ability of search techniques amongst community members.

• The group identified that knowledge and accession skills were built up over time, and a collaborative way forward to improve their own skills was a most effective and successful long-term strategy. This was identified with both the process of information gathering as well as with knowledge retention.

• Group members stated that they were aware of changes in the type and their dependency on various information sources. The transfer to the Internet from libraries, pamphlets and publications and the telephone directory searches indicated a faster and more accurate approach to information gathering. The Internet provides not only the traditional listing of services that you can find in telephone directories, but also provides enhanced qualitative information that builds on a straight advertising information base. Group members identified that “as your Internet skills increase, along with your confidence in the Internet, then you use it more and more than the traditional written publications” (Group Member).
• “Confidence is an important aspect of searching for health information” (Group Member). The group discussed that having trust in the system was equally as important as having trust in the information found from the system. The group felt that the issue of confidence also indicates the degree to which switching between information sources occurs when there is a different subject or application. This aspect was seen to explain some of the survey results that demonstrate preferred information options from the health professionals group, rather than printed or electronic resources. Trust in both the interpretive ability of health professionals and professional organisations may be more valuable than the independence of gathering information in printed and electronic forms.

• Focus group members differentiated between relatively simple and straightforward issues, and complex health problems. Multifaceted problems with a high degree of uncertainty are issues where contacting a health professional or health organisation was preferred. “I am quite confident with straightforward fact finding, I can easily look that up” (Group Member).

• Almost all group members indicated they had developed a strong alternative range of problem solving or information sources, sites and approaches. In the case of most of the interview questions discussed, three important trends were identified:

  o There is a common research or information gathering approach used by members for common or life problems (health or ill-
health issues indicate professional association or bodies offer information in areas of particular problem expertise, etc.).

- Generally, respondents indicated they had a repertoire of three or four information gathering sources and approaches that they use – these may vary depending on the complexity of the problem.

- There was a strong differentiation between information gathering and interpretation of meaning and results from the information search.

• The group recognised and identified the importance of communication campaigns used in the healthcare sector. For many health issues, such as asthma, heart disease and smoking cessation, the previous connection to respective information and awareness campaigns had a dual role of alerting information seekers to both sources of information, as well as providing them with a series of problem-solving skills. Group members identified with particular health issues or health goal issues, and the link with regional or national bodies or groups to get information. Group members knew of a range of interest groups in the community that they could contact for information and advice. Group members identified with the growing use of ‘Help Lines’, and felt that knowledge of them would change the community’s use of the information source in the future. (Medication Help Lines use was under-reported in the telephone survey, but use was well reported for smoking cessation related to advertising campaigns about their existence and availability).
4.3.6 Credibility and Confidentiality

Credibility and confidentiality were recurring themes throughout the entire discussions of the focus group. These important themes presented themselves in several ways:

- Respondents determine the level of sensitivity and confidentiality over issues as they begin the information gathering. This in turn affects the people and places that they will use to gather information.

- According to group participants, practitioners and health related organisations are ranked in order of credibility - either deliberately or subconsciously. The strong support for pharmacists was given as an example of a trusted, visible, highly accessible, qualified source of health information in the community. Credibility and understanding emerges over time, such as with gathering information from a source then testing its reliability in relation to each information-gathering episode.

- The importance of confidentiality as a standard to be expected when dealing with the health sector was identified by focus group members, and reinforced by members as being particularly important.

- Potential or perceived conflict is an issue that can predetermine an information source. Focus group members felt that if it was possible that conflict may arise in asking practitioner where there has been a long-standing professional relationship, for a second opinion or
alternative advice, then information seekers could establish a new or different information source at the beginning to avoid such conflict.

Focus group discussions demonstrated an important range of information as well as intersecting issues in the communication process that is undertaken in information seeking in the health sector. A recurring theme throughout the discussion included issues on age, skill, opportunity, support structures, and access to technology. The differentiation between simple and complex problem-solving or information gathering is also an important element to group members’ information gathering.

4.4 Conclusion

In this chapter I have brought together the information obtained from the telephone survey and the focus group interview. I have analysed the data, and outlined the significant findings to provide a survey data set that is now available for review and interpretation.

The analysis presented in this chapter has been provided on a framework where:

- The responses and selection of information sources from the telephone survey has been summarised, results extracted and significant findings reported.

- The results of the variable correlations have been analysed through the use of a Chi-Square test and significant variations have been reported.
• Key findings relating to each of the 15 telephone survey questions have been reported.

The main findings from the focus group interview have been summarised and reported.
CHAPTER 5 : EMERGING THEMES, IMPLICATIONS AND CONCLUSIONS

In this chapter, I will outline the major themes or issues that have been identified through an overview of the outcomes from the telephone survey and the focus group interview. I will then return to the original research question for this project to present the main outcomes and findings.

I will look at the findings and theoretical models found in the literature review, and compare and contrast some findings. This study has demonstrated some results that were predicted in the previous literature, some issues that are contrary to previous findings, as well as some issues that were not predicted by a review of previous research.

To support this conclusion approach, this chapter is divided into the following sections:

- Presentation of themes emerging from the survey data;
- The main findings and results from this research;
- How people access health information and communication;
- Contributions towards the theoretical models and approaches;
- Issues and responses in this research not predicted from the literature;
- Implications for future research;
- Conclusion.
5.1 Themes Emerging From The Data

In Chapter 4, I presented the results of the telephone survey and the focus group interview, including the necessary statistical analysis for the quantitative parts of the survey results.

The five main research criteria developed to investigate the research question in this study (Chapter 1) will be used as the presentation framework to examine the main issues and themes from the research.

5.1.1 Range of Information Sources Used

This research identified a definite range of information sources, and a number of important concepts that support and qualify this range. The research focused on where the Respondents in the sample group would go to locate information on a series of health related topics that could be expected to confront community members regularly, as a problem or a general enquiry.

- Information Source Groups: In respect to the survey questions there was a consistency and uniformity in respondent choices that demonstrated five main information source groups were consistently used:
  - The Family and Friends Group
  - The Health Professionals Group
  - The Organisations and Agencies Group
  - The Reference Materials Group
Responses to the main telephone questionnaire consistently related specific choices into these groups. This selection was consistent with the choices indicated by the focus group interviews. While I defined these in advance of the data collection, analysis of the data showed they fitted well. All responses were easy to classify into these groups during the interview, or with data coded subsequent to the interview.

- Alternative Choices Within Group Ranges: The telephone questionnaire provided the option for respondents to give any number of answers to the questions as to where they would gather information. A consistent trend throughout the response data was that on second and subsequent responses to many questions, respondents might change their particular specific source of information but that choice would remain within the information source group. An example of this would be in relation to the question on sources of primary information about antibiotics, where those surveyed provided a first response as a doctor, a second response as a pharmacist, and a third response as a Medication Help Line. All of these choices remain within the Health Professionals Group.

- Experienced or “Tried and Tested” Sources: The focus group interview members articulated that they generally use a set group of information sources and stay with that group of sources over time, when they had received positive support in the past or the cumulative experience told them that these were useful source locations. This
result is about experience and past success rather than the choice of the information group.

- Changes in Information Ranges Over Time: While the telephone survey is a snapshot of results at a point in time, the focus group interview members noted that their emphasis or selection of information groups, could change over time. This could relate to a new awareness, positive experience, or skill level changes that provided an introduction and subsequent positive experience. Members of the focus group exchanged experience and Internet references that will change the interest and usage rate of individuals to that information source.

- Residual Campaign Affect: Specific responses in the telephone questionnaire (by direct statement data that were subsequently coded), as well as in the focus group interview, indicated the use of a range of information sources that related to the residual affect of an information campaign. This means that past information providing has a latent affect on information-seekers, who will recall certain information at the time they need it. An example of this was when the respondents identified a ‘Stop Smoking’ campaign by name to indicate their preferred use of a Help Line within the Health Professionals Group. This example indicates that campaigns may influence the source of information for information-seekers.

Survey respondents demonstrated that they have a range of information sources in seeking information on health related topics, and they vary those
sources over time because of experience and influence from communication campaigns and other influences.

5.1.2 Extent of Information Sources Used

A number of important observations are made about the extent or depth that survey Respondents utilise the information sources available to them.

- Limited Information Choices: A consistent theme, throughout the questionnaire and interview data analysis, was that respondents generally had exhausted their choices of information sources by their second response. For each of the fifteen interview questions, only a small number of third responses are recorded for each question. Generally, about 80 per cent of respondents had no third or subsequent suggested source of information. The survey methodology provided the opportunity to collect any number of responses with the prompt for the third response to the question being framed in such a way that any number of responses would be received and recorded. This indicates that those surveyed have fairly focused ideas on the extent of information sources available to them, and the choices that they will make. It also provided the opportunity to express an initial inquiry site for information, and then provide details of subsequent or differing information sources. It also demonstrated where people might choose a number of sources from within the same information group.
• Differentiation Between Marketing and Information Gathering: An important discussion point from the focus group interview was that respondents are conscious of the separation of information provided by way of a marketing campaign or approach, compared to information gathered from authoritative sources. This distinction is relatively straightforward in terms of commercial products, where respondents are sorting information between that provided through a marketing and advertising campaign, and that provided through an expert or other authoritative source. This has ramification for the way that campaigns are styled when they originate from information and authoritative sources. This is a major field of study and understanding (Leiss et al. 1990) and is outside this scope of my research project.

• Trust and Credibility: The telephone survey results demonstrate a strong reliance on interpersonal and health expert contact. This result was exemplified within the focus group interview, where it was clear that the issues of trust and credibility were fundamental in the choices that respondents would utilise of health information sources. Respondents indicated that they wanted to know that the providers of information were qualified and skilled to provide the information, and that they could depend on the advice in their own thinking and decision-making processes.

• Differentiation of Gathering and Interpreting Information: There is an important distinction between the gathering or obtaining of information, and the utilisation of an information source that provides an interpretive or advice component to that information. Throughout
the survey results, there is a strong favoritism for interpersonal and professional organisations and agencies that enable access to both information and interpretation for the information seeker. The survey results showed that people will contact their doctor about smoking cessation. This provides the opportunity not only to find out about cessation programs and other information, but it also enables the doctor to interpret information and advice, and relate it to the particular and unique needs of the information-seeker.

The information provided through the survey and focus group interview showed that there is a complex discernment occurring in relation to the extent and depth in the information seeking process. These processes peak to the complex range of qualification and reasoning occurring in the information gathering of individuals.
5.1.3 Preferred Information Sources

For the purpose of this thematic review, it is useful to look at the outcomes of the priorities, or weightings, of the preferred information sources in two ways. The first relates to all of the results for all fifteen questions of the telephone questionnaire survey. The second relates to an examination of the survey data across five sub-categories of health issues grouped together from within the fifteen health questions in the survey. This split provides an understanding of the importance and usefulness of the information sources for the complete health topic survey, as well as enabling an examination of particular groups or bundles of health problems, and sees any variations in information seeking behaviour by the respondent group.

- Sources of Information: For this thematic review, I have used the measure of the ‘total of all respondent responses’ as an indication of the weighting and importance placed on particular information source groups. This weighting is a sum of all the times that a particular information source was elected by respondents. It is used to show the overall importance, or usefulness, that the information source provides to those surveyed. These weightings are expressed as percentages within the total of all responses for questions or particular groups.

For all responses, relating to all fifteen questions in the health information survey, respondents demonstrated the following preferred information sources:
These overall preference results varied when each separately defined sub-group type of information contained within the fifteen survey questions is considered.

This list shows that primarily, survey respondents preferred to use the health professionals group (47 per cent) for information. This is a strong preference finding in relation to health information. After this first information source group, there are three groups (reference materials, family and friends and organisations and agencies), that are closely ranked as important information sources. This demonstrates that after the one-to-one preferred access for information, there are a similar range of sources that people will use depending on the issue and demographic variables that affect their choices.

For the next part of the thematic analysis, I have used five sub-groupings. These are collections of health problems or issues found in the 15 survey questions and separate to the information source groups - they are used in this analysis to show how different information sources are used for
different groups of health problems or issues. The types of health problems or issues as follows:

- Practitioners - Includes the questions on finding doctors, dentists and counsellors.

- Medications and Health Products – Includes the questions on sunscreen protection products, pain relief medication, antibiotics and prescription drugs.

- Lifestyle Issues – Includes the questions on weight management and smoking cessation.

- Health Conditions – Includes the questions on heart disease, asthma, alternative treatments, childhood illnesses and vaccinations.

- Policy – Relates to the question on a political party’s health policy.
In relation to the preferred information sources on locating practitioners, preferences indicated were:

<table>
<thead>
<tr>
<th>Information Group</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family and Friends Group</td>
<td>38</td>
</tr>
<tr>
<td>Directories Group</td>
<td>31</td>
</tr>
<tr>
<td>Health Professionals Group</td>
<td>15</td>
</tr>
<tr>
<td>Organisations and Agencies Group</td>
<td>12</td>
</tr>
<tr>
<td>Reference Materials Group</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

In locating information about finding a health practitioner, those surveyed indicated that their family and friends are important sources of advice on where to go to find these professionals. The use of the directory information group shows that respondents will make self selection decisions from well defined (telephone directories) sources about accessing practitioners. These findings have important consequences in sharing information about health practitioners. Word of mouth support and deliberate directory access is important.
In relation to information sources on medications and health products, the preferred information sources were:

<table>
<thead>
<tr>
<th>Information Group</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Professionals Group</td>
<td>68</td>
</tr>
<tr>
<td>Reference Materials Group</td>
<td>18</td>
</tr>
<tr>
<td>Family and Friends Group</td>
<td>8</td>
</tr>
<tr>
<td>Organisations and Agencies Group</td>
<td>6</td>
</tr>
<tr>
<td>Directories Group</td>
<td>&lt;1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Two very important information groups provide the preferred information sources for survey respondents when looking for information on medications and health products. Health professionals (68 per cent) are the preferred source of information, and then those surveyed indicated the next important source (18 per cent of choices) are with the reference materials available.
In relation to the lifestyle issues group of questions, the preferred information sources were:

<table>
<thead>
<tr>
<th>Information Group</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Professionals Group</td>
<td>55</td>
</tr>
<tr>
<td>Family and Friends Group</td>
<td>17</td>
</tr>
<tr>
<td>Reference Materials Group</td>
<td>16</td>
</tr>
<tr>
<td>Organisations and Agencies Group</td>
<td>11</td>
</tr>
<tr>
<td>Directories Group</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

In seeking information on issues of lifestyle, the preferred source of information is from the health professionals group (55 per cent), and then respondents indicated that they would approach the family and friends group and reference materials group of sources for information. Individual information, and advice unique to the information seeker, are important outcomes. These results show a marked separation between the primary source of information in relation to lifestyle issues (Health Professional Group) and a second set of choices with similar distribution (Family and Friends, Reference Materials and Organisations and Agencies).
In relation to the health conditions group of questions within the survey, the following information sources were preferred:

<table>
<thead>
<tr>
<th>Information Group</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Professionals Group</td>
<td>56</td>
</tr>
<tr>
<td>Reference Materials Group</td>
<td>20</td>
</tr>
<tr>
<td>Organisations and Agencies Group</td>
<td>13</td>
</tr>
<tr>
<td>Family and Friends Group</td>
<td>9</td>
</tr>
<tr>
<td>Directories Group</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

When seeking information about particular health or illness conditions, respondents again preferred the health professionals group (56 per cent). Reference materials were the next most important source of information (20 per cent), followed by accessing organisations and agencies (13 per cent). This demonstrates the importance of health professional advice, but also highlights that where there is a defined clinical problem (heart disease or asthma), information seekers will access reference materials to gather information themselves. Three distinct priorities of information emerge. Primarily, in relation to health conditions, advice of Health Professionals is important followed by Reference Materials second, and then approaches to Organisations and Agencies.
In relation to the health policy question, the preferred information sources were:

<table>
<thead>
<tr>
<th>Information Group</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organisations and Agencies Group</td>
<td>45</td>
</tr>
<tr>
<td>Reference Materials Group</td>
<td>38</td>
</tr>
<tr>
<td>Family and Friends Group</td>
<td>14</td>
</tr>
<tr>
<td>Health Professionals Group</td>
<td>2</td>
</tr>
<tr>
<td>Directories Group</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>100</td>
</tr>
</tbody>
</table>

Health policy information seeking has respondents focusing on organisations and agencies for information (45 per cent). The other significant source of information is the reference materials group (38 per cent). This indicates a strong access preference for political health policy from organisations, but also raises the question as whether respondents were only interested in policies of the government of the day or any policies of a number of political groups.

A number of important trends emerge from an overview of these information source themes.
• There is a very strong interest and reliance on health professional experts for issues and problems relating to clinical, treatment, wellness and health conditions.

• Families and friends are quite influential in terms of providing advice on locating practitioners and service delivery.

• Organisations and agencies are an important source of accessing information on political health policy and strategies.

• There is also an important aspect the survey and focus group have indicated, - where there is clarity about particular need (e.g. finding a health practitioner or researching a particular issue), and then the direct information access through telephone directories and reference materials are important.

• Accessibility: A number of issues regarding accessibility to information sources are apparent in the survey results. Information source groups demonstrate a use of information that is relatively readily available to all information users. This seems to relate to two important matters. The first is the preference of the information source by those surveyed. The second relates to the structure and accessibility of the health system that provides a ready source of information. (As is mentioned later, the place of residence variable was not a significant issue in terms of information seeking and therefore accessibility). The other important impact consideration on
accessibility may be the design of the research survey, that brought together health issues and topics that the majority of respondents may be reasonably expected to have to confront on a regular basis, and because of this there is a correlation with a relatively consistent set of information sources with aligned accessibility.

- Simple and Complex Problem Solving: The survey results indicate that complex problems (such as finding information on medication, lifestyle issues and particular health conditions), are met with information seeking action by those surveyed that favoured accessing health professionals and health organisations. There was no approach in the survey methodology to try and gauge what might be a complex problem for one person may be a simple issue to another. The focus group interview developed this understanding further in highlighting the processes where complex health issues may be sourced from reference materials, and then discussed with health professionals to enable improvement in the context of information and application to the individual’s problem or enquiry.

5.1.4 Preferences for Interpersonal Communication or Mass Communication

One of the important overall findings from this research study is the strong preference for access to individual healthcare professionals or authoritative sources indicating a strong preference for interpersonal communication. Mass communication elements are evident in relation to particular issues or problem solving areas, or where there is an opinion leader and residual campaign affect on information seekers.
• Seeking Information from Individuals: In using the ‘total of all respondent responses’ as an indicator of weighting or preference, the results across the complete questionnaire demonstrate a strong access to family and friends, as well as health professionals (a total of 63 per cent). Responses to questionnaires showing the use of health organisations and agencies is not adequately detailed to enable us to understand whether these information sources provide greater interpersonal communication or are authoritative agencies providing mass communication. If it is accepted that there is strong likelihood of contacting organisations to provide interpersonal information, then the sum of all responses in the surveys for the family and friends group, health professionals group and the organisations and agencies group (76 per cent) represents a strong interest and dependency on individualised, problem/enquiry focused information and an interpersonal mode of preferred communication.

• The Influence of Family and Friends: The Family and Friends Group is of particular interest in this research work because of the implications of the family and friends group demonstrated by the earlier studies of Greenberg and Dervin (1972). Family and friends provide a source of readily accessible interpersonal communication, and in this study, they are particularly important in influencing or providing advice on finding health practitioners, around lifestyle issues and understanding political party health policy. The choice of the Family and Friends Group on the first and second responses to these questions indicates that the use of that group for information.
This group could also be consulted in the first instance and then more detailed or specific information sought from other information groups.

- Credibility and Confidentiality: An important theme articulated through the focus group interview was the need for surety and dependency on the overall sources of information, where information seekers work and act in problem solving and enquiry. This trust and expectation of professional performance relates to the use of interpersonal communication as an essential part of information seeking in the health and welfare scene.

5.1.5 Variables Affecting Information Seekers

The impact of four variables (age, gender, place of residence and highest educational attainment) was reviewed in relation to survey respondents in the telephone survey for each of the fifteen information-seeking questions. Telephone questionnaire survey respondents were grouped into defined sub-groups within each of the demographic variables, according to the personal data that each respondent provided at the time of survey.

The sub-groupings used in the variable analysis for each of the demographic elements were:
The demographics that were significant (significant below the 0.05 level) were reviewed to ascertain which particular parts of the response to the interview questions contributed to the significance of the variable (those results with an adjusted residual of <-2.0 and >+2.0).

The variables in the demographic descriptors associated with the responses of those surveyed have been reviewed in three broad ways to determine any particular affect trend in the responses to the survey questions. These three areas are:

- **Age**: - 18-29 years
  - 30-59 years
  - Over 60 years.

- **Gender**: - Male
  - Female

- **Place of Residence**: - Metropolitan (place of residence postcode within a metropolitan area)
  - Regional (place of residence postcode outside of a metropolitan area)

- **Education**: - Year 10 education completed
  - Year 12 education completed
  - Post-school education completed.
• Each of the demographic variables (age, gender, place of residence and highest educational attainment).

• Effect of the Information Source Groups.

• Effect on the Health Issues / Problems Group (the groupings of questions utilised in the telephone survey around similar issues or problems).

5.1.6 Demographic Variables

The statistical analysis demonstrated that, to varying degrees, each of the demographic variables demonstrated significance for the respondent sample.

• Age: Variation of results was demonstrated for five (30 per cent) of the survey questions in relation to age. This related to questions on smoking cessation, heart disease, asthma, alternative medicine, and childhood illnesses. This occurred for the 30-59 years and 60 years+ age groups, demonstrating that age of respondents in the community can have a bearing on where they seek information on health issues and topics. It appears that age affects information seeking on these specific health issues or problems, in that age determines the selection of the health professional and reference material groups as sources. This may have something to do with the differentiation of fact finding and interpretation of issues to be relevant to the information seeker. It can also reflect the preference for technology (such as the Internet) to find information.
• Gender: Variables associated with the gender of respondents to the telephone survey demonstrated an effect relating to four (27 per cent) of the interview questions. The questions on finding a doctor and dentist, as well as information on smoking cessation and childhood illnesses, are handled differently between the sexes. In each of these cases, there was a consistency of gender effect in responses by those surveyed over five of the different information source groups. While only involving four of the telephone survey interview questions, this significance indicates that gender can have an affect on the selection of sources of information on health issues and topics. The longer-term involvement with women and their health indicates a stronger preference to seek advice from family and friends in selecting practitioners. Men seem to be more episodic in nature and are stronger users of directories to locate practitioners. The use of organisations and agencies by men for smoking cessation advice may be linked to the current range of information that comes from those groups, and men can relate to using those sources. Women use health professionals for this information, but favour reference materials for childhood illness issues. These selections may relate to experience in knowing more about a topic (women and childhood illnesses), and having preformed ideas, or experiences, about where to go for information (smoking cessation advice for men).

• Place of Residence: The review of the effect of place of residence, measured by a determination of the metropolitan or regional residency status of those surveyed, demonstrates that in four (27 per
cent) of the survey questions, residency location created a variable in responses. Those questions where this variable had effect included prescribed medication, heart disease, political policies on health, and counseling services. This effect occurred across the way people from metropolitan and regional centres selected, or did not select, four Information Source Groups. Although only affecting four questions, there is significance in the way place of residence affects the selection of information sources on health issues and topics. Reference materials are preferred in metropolitan centres, and organisations and agencies in regional centres. This may be about the availability and identification with information sources seen between the larger and smaller centres.

- Highest Educational Attainment: The analysis indicated that only one (7 per cent) of the telephone survey questions was affected by the educational demographic. This related to the question on gathering information about finding a doctor. The variation occurred for each of the highest educational attainment levels, and two variable effects for the Year 12 educational group. The year 10 groups prefer organisations and agencies; the post school group has a lower use of those groups. The year 12 groups preferred both directory reference material and the health professional groups. These results demonstrate that in most cases the variable does not appear to influence information source selection.
In the context of this research, age, gender and, to some extent, metropolitan or regional place of residence can have a variable demographic effect on Australian survey respondents.

5.1.7 Effect of Demographic Variables on Information Source Groups

An examination of the significant variables affecting the demographic, shows a correlation between significant variance and several of the Information Services Groups (Family and Friends Group; Health Professionals Group; Organisations and Agencies Group; Reference Materials Group; and the Directories Group).

An examination of the trends where demographic variables showed some significant variation effect on Information Source Groups within each question shows that the Health Professionals Group (13 variations), and the Reference Materials Group (14 variations), were the two Information Source Groups where variation occurred most. Each of the other three groups demonstrated about half the extent of variation effect – Organisations and Agencies Group (8 variations); Directories Group (7 variations); and the Family and Friends Group (6 variations). This means that the age, gender and place of residence variables have impact across all of the information source groups. Variables affect the information-seeker in relation to the health topic and this affect is spread across all information groups. No particular groups have been exclusively affected, though some (Health professionals group) more so than others (Family and friends group). This affect is in proportion to the overall importance that respondents placed on these groups.
The Information Source Groups of course are not variables. The purpose of this section of the analysis is to have a look at whether there are any particular information service groups most affected by the variable affect of the demographics of the survey respondents in this research and subsequent analysis.

In this respect, the two Information Service Groups most affected are:

- Reference Materials Group
- The Health Professionals Group

5.1.8 Affect of Demographic Variables on Health Issues

I have taken the opportunity of grouping issues and problems reflected within the fifteen questions contained in the telephone survey into five issues or problem groups. These are issues about:

- Practitioners
- Medications and Health Products
- Lifestyle Issues
- Health Conditions or Illnesses
- Policy Issues.

The purpose of this part of the analysis is to examine whether any particular issue or problem group has a stronger involvement when demographic variables reflect survey respondent choices.
An overview of the number of times that the Health Issues Groups were involved where the demographic variables of the survey respondents affected health information source choice, shows that two issue groups have the strongest involvement. The health conditions questions followed by the Practitioners group stood out as the two information groups (within the fifteen health survey questions) that were affected the most by the demographic variables.

These health issue groups are not variables. The purpose of this part of the analysis review was to look at whether particular health issues or problems were associated with the number of times that the demographic variables influenced changes in survey response choices of Health Information Sources.

In this part of the review of telephone survey results, it can be seen that age, gender and place of residence (metropolitan or regional) are variables that will affect the choice of survey respondents in their answers to the health questions as to where they obtain information on health issues and topics. This analysis shows that demographic variance is most involved around the affect of survey respondents in their support or non-support from the non-professionals group, the Organisations and Agencies Group and the Reference Materials Group. This was particularly so for issues finding health practitioners and investigating issues about health conditions.

I have identified a number of important themes that stem from the data analysis of the research work associated with this project.
This review demonstrates that the examination of the key issues associated with the primary research question for this project has been appropriately covered, and some important and interesting findings have been made that contribute to answering that research question.

The telephone survey questionnaire involved a representational group of the Australian community. This is because the group was selected to cover representatives of age groups, gender groups, a geographic spread across Australia and adults from different backgrounds of their highest educational attainment. This study therefore presents us with a series of answers that detail the sources of information that the community uses to find out about health issues and topics, as well as a number of demographic variables that have influence on survey respondents in making those information source choices. There is a demonstrated context to this information gathering process in respect to the range, extent or depth, as well as preferential issues associated with the choice and use of information sources.

5.2 The Main Findings and Results from This Research

The research question that has provided the primary objective and guided this research is:

“What are the main information sources used by the community in relation to health issues and topics?”
The issues that have been examined as part of this research question have included themes relating to:

- The range of information used by information seekers;
- The extent and depth of information sources available;
- Information source preferences relating to health issues and topics;
- Preference for face-to-face or mass communication approaches;
- The affect of demographic variables on people seeking health information.

In summary, the answers to this question reflect that:

- Overall, the people involved in this study consistently used a number of health sources in the following order or preference:
  - Contacting health professionals (47 per cent);
  - Using reference materials (17 per cent);
  - Talking to family and friends (16 per cent);
  - Consulting organisations and agencies (13 per cent);
  - Consulting directories for information (7 per cent).

Those surveyed preferred getting information from health professionals. Then there is an even use of information from people close to them, organisations and agencies and reference materials.

- Emphasis on, and choice of information sources varied in this research depending on the health information topic. These detailed results reflected:
When searching for information to select a health practitioner, the following sources of information and priorities are:
- Consulting Family and Friends (38 per cent)
- Consulting Directories (31 per cent)
- Consulting Other Health Professionals (15 per cent)
- Consulting Organisations and Agencies (12 per cent)
- Referring to Reference Material (4 per cent).

When searching for information about medications and health products, respondents will seek information from:
- Health Professional Groups (68 per cent)
- Reference Material (18 per cent)
- From Family and Friends (8 per cent)
- From Organisations and Agencies (6 per cent).

When seeking information about lifestyle issues, survey respondents will seek information from:
- Health Professionals (55 per cent)
- Reference Materials (16 per cent)
- Family and Friends (17 per cent)
- Organisations and Agencies (11 per cent)
- From Directories (1 per cent).
When seeking information about particular health conditions, survey respondents will seek information from:

- Health Professionals (56 per cent)
- Reference Materials (20 per cent)
- Organisations and Agencies (13 per cent)
- Family and Friends (9 per cent)
- Directories (2 per cent).

When seeking information about health policy, survey respondents will seek information from:

- Organisations and Agencies (45 per cent)
- Reference Materials (38 per cent)
- Family and Friends (14 per cent)
- Health Professionals (2 per cent)
- Directories (1 per cent).

Respondents varied their choices depending on the issues. They use families and friends to find health professionals. Health professionals and reference materials are important in finding out information on particular conditions and problems. Organisations and agencies provide information on health policy.

- Three demographic variables will affect the way that information seekers in this study select information sources. This effect was noted in this study for the following variables and in an effect rate on the survey questions in the following ways:
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- Age (30 per cent of survey questions)
- Gender (27 per cent of survey questions)
- Place of Residence – Metropolitan/Regional (27 per cent of survey questions).

- Significant proportions of survey respondents indicated that they would use face-to-face or interpersonal sources of information to seek answers to the health questions posed. The information sources used that involve contact with Health Professionals, and Family and Friends accounted for 63 per cent of responses. If Organisations and Agencies responses are included (the questions did not specifically differentiate an opportunity for respondents to determine whether they would be enabled to use face-to-face communication or mass media communication by contacting organisations and agencies) the response to information sources for these three groups (Health Professionals; Family and Friends; Organisations and Agencies) would be 76 per cent.

- Some important qualitative aspects around where and how people obtain information on a health related topic emerge from this result. Inherent in the communication process are a number of choices for information seekers, aside from the specific sources of information available and the differing personal and environmental issues that affect the selection of those sources. Exposure experience, as well as experience over time, are elements that will affect communication choice. Determinants here included positive and negative past experience; demonstrable or ‘tried and tested’ outcomes from
previous information finding experiences and use of information; residual affect of previous campaigns and opinion leader experiences.

• Survey respondents engage in the information seeking process with a number of skills, attributes and requirements. There is a discernment between the roles of gathering and interpreting information. Information seekers differentiate between being the receiver of marketing information, and gathering information on their own behalf, apparently apply different weightings and tolerances in respect to information from these sources. Trust, confidence and confidentiality are important fundamentals, or anchor points, in engaging in information seeking on health topics within the health range or sector.

These findings also demonstrate a high degree of focus or determination in the selection of sources of information by information seekers. For each of the survey questions, respondents generally provided only two possible sources of information they would consult in their information gathering and problem solving activities.

5.2.1 How People Access Health Information and Communication

5.2.1.1 Different Sources of Health Information

In my study, the five information sources were important and consistent in explaining where respondents go for health information.
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The context of the research, and the research questions, clearly create a response from information seekers concerning the different sources of information that they would use. The operationalisation of the Rijt and Need 1996 study was centred around the use of a health reference guide book designed for school practitioners. This focused the research question on interest motivated and problem solving motivation. The Rijt and Need (1996) study developed a correlation between interest driven, and reference or problem solving driven study of material, with operational (problem) needs and personal interest or general understanding.

A similar source and application of interest, or problem focused referencing, has been found in my study. I have been able to demonstrate a movement between information seekers motivated by a general interest or a problem-solving situation. This is seen in the interplay between the particular health topics within the fifteen survey questions of the telephone questionnaire and the response rate for preferred information sources relating to those health topic areas. Differentiation is seen in my study between the use of two health issue groups (finding a practitioner and health conditions) related to the differing sources of information that respondents use. In the seeking of information about finding health practitioners, my study shows the information sources were particularly about advice (Family and Friends Group) or specific location (using the Directories Group for information). This differed compared to finding out information about health conditions.
(as an example). In relation to this latter information seeking process, respondents demonstrated a preference for utilising health professionals and reference material in their information seeking. This combination of general information seeking and problem solving situation is similar between the Rijt and Need 1996 study and my research work.

Rijt (1998) found a support for his hypothesis (p. 263); that the more one is interested in health information, the more one will expose oneself to health information in the media. The question of interest as a driver and stimulator of information seeking is an interesting aspect that presents in my research study. Interest determination was not a variable tested in the research methodology, but two interesting observations can be made that furthers this interest, or problem focus, on the impact of sources of information used in health topic information finding. Using the Health Information Groups in my research two comparisons can be made with the Rijt (1998) study.

- Using the total of responses to the telephone survey questionnaire as a guide, a comparison between the established Health Information Group shows that, on average, there were responses to the questions in this group that had differing numbers of overall selections of potential Health Information Sources. Three tiers of response weighting are noted: the lowest number of responses was attributed to issues on health policy; the second group relate to finding practitioners and medications and health products (problems); and the third group, with the highest response rates, refer to lifestyle and health conditions (interest). This relates to the determination in Rijt
(1998) that interest in a topic will drive stronger exposure in information gathering.

- Similarly, a comparison between the higher response rate to interest type health issues groups in the questions relating to my telephone survey shows that the use of reference materials (mass media) is higher in the lifestyle and health conditions responses (interest).

Rijt (2000) develops findings for his hypothesis (p. 154) that the more serious the health complaint is, the more likely that the information seeker will want to consult with expert sources of information. A similar series of impacts relating to the sources of data in my telephone survey can be found to the Rijt (2000) work. Three of the Health Interest Groups identified as part of the data analysis in my study focus on issues that relate to problem and interest information seeking. Again, the research methodology in my study did not provide the opportunity to differentiate between problem solving or general interest gathering by respondents, but interesting trends can be observed in the outcome data that link to the Rijt (2000) findings. These three interest groups (medications and health products; lifestyle issues; and health conditions) have the strongest response rates for contacting health professionals. Of particular relevance to the use of health professionals for information is the information gathering relating to medications and health products (68 per cent of responses). This gives an indication that the sources of health information within my study are affected by the driving reason behind the information seeking behaviour.
Gregory (2000), in her study about information gathering within social issues, demonstrated the four most popular sources (p. 21) of information as being: brochures/booklets; friends/family; magazines/newspapers; and television/radio programs. In the Gregory (2000) study, these four sources were selected by 91 per cent of the information seeking people surveyed. This study enabled participants to select as many options as they wished from a predetermined list, that included a range of family and friend, trained advice workers; mass media sources, workshop sessions, and the option to identify any other sources of information. The study focused on social issues. There are comparisons and contrasts in respect to the sources of information determined by the respondents in the Gregory (2000) study to my research project:

• All four of the identified information sources (Gregory 2000) were identified by respondents to my telephone interview survey.

• A noted difference between the two surveys is the stronger use or nomination of health professionals by respondents in my study (“trained advice workers” in the Gregory 2000 study), as well as access to organisations and agencies for health information advice.

These comparisons demonstrate important similarities between previous studies in the literature in relation to the actual sources of information, the differentiation between the uses and sources of information (interest seeking and problem solving), and the emergence of a strong preference for health expertise in assisting information seekers on problem solving (acute and non-acute) in relation to health issues and topics.
5.2.1.2 Important Sources of Health Information

The most important source of information that respondents reported in my study was the Health Professionals group. This has been found in previous studies reported in the literature (Rijt 2000; Walsh 2002).

Rijt (2000) and Walsh (2002) in their studies demonstrate sources of information in relation to health related matters as well as the frequency of use of those sources.

Rijt (2000) asked survey participants to indicate the sources they would consult in relation to serious health complaints. The results of this study indicated nominations of a doctor (86 per cent), medical books (33 per cent), people in own environment (29 per cent), a pharmacist (18 per cent) and 12 per cent of respondents nominated that they would do nothing at all in relation to sourcing information or help.

While not directly comparable, there are some important similarities and contrasts to the Rijt (2000) research project and my telephone interview results. Similarities exist between the studies in terms of the general cascade of information source priorities. In my research, Health Professionals (47 per cent) is the most significant Information Source Group, followed by Reference Materials, Family and Friends and then Organisations and Agencies. The Rijt study demonstrated a frequency of information consultation similar for the group of people in the respondent’s own environment (29 per cent) and in consulting medical books (33 per cent).
Result variations between the studies can be seen in terms of the consultation with pharmacists in the Rijt study. In my research, Pharmacists (by the independent selection of the survey respondent) have been highlighted as important and accessible health professionals in relation to those problem solving and information seeking activities. The other interesting variation between the studies relates to the group of responses in the Rijt study that indicated that no action (did nothing 12 per cent) would apply. In my research, the number of ‘nil responses’ or ‘did not know any source of information’ was very small on the first response to each of the fifteen survey questions. This only occurred in just over ten instances (0.4 per cent) on the first response, and just over 70 times (2.4 per cent) in the second response to all fifteen survey questions (where the total sample size was 205).

Walsh (2002) in her study on sources of information where parents and carers get advice on childhood spanking, found that workshops, Paediatricians, newspapers and magazines and books were rated by the parent as at least somewhat important. In contrast in the Walsh study, parents, relatives and friends were rated significantly as not important or only slightly important. Relatively, the main sources of information for the respondents to the Walsh study indicated a similar range of sources of information to those contained in my research. The variance here is the importance of family and friends, which in my study has rated equally as important as reference materials.

There are some consistent comparisons and contrasts to be made between these studies and my research. Overall, it appears the outcomes of my
research in respect to ascertaining what are the important sources of information in health related matters are consistent to the other studies reported here in this literature. Issues for consideration in these comparisons would be:

- The focus of the research in each study is different. Collecting information sources for an individual’s significant health problem (Rijt 2000) and child behavioural management (Walsh 2002) are of a more specific nature to that of information seeking in my study.

- Unknown variables, such as general availability of information sources, structure of research methodology, can vary the results.

- The recruitment of the survey respondent group may have caused variations in results depending on issues such as demographic variables, relationship to research topic, and degree of perception of problem solving and general interest reasons for information gathering.

5.2.1.3 Reference Materials

Eysenbach and Kohler (2002) and Gregory (2000) demonstrated both the importance of the specific information sources such as brochures/booklets, family/friends, magazines/newspapers, television/radio programs and the Internet, as well as the development and acceptance shifts within these information mediums. The Internet has been discussed in these studies in terms of information seekers needing to be able to reassure themselves about...
issues of credibility, confidentiality, and the ability to interpret and evaluate information from the Internet.

Overall, in my research project, reference materials accounted for 17 per cent of the overall responses from survey respondents that they would use this source of information. For all of the Health Issues Groups as subsets of the fifteen telephone survey questions, this was generally around the range of 16 to 20 per cent.

The common element of the Reference Materials Group, listed by respondents to my survey, were for reference to advertising materials, the Internet, media reporting, publications and pamphlets, and to a lesser extent, through library access.

Lack of response selection for electronic (television and radio) information sources in my study was a particular contrast to the survey conducted by Gregory (2000). There are a number of issues that could be considered around this variation. The nature of my research question asked respondents where they would go to obtain information about a particular issue. This promotion of a potential problem-solving situation may have caused respondents to reject electronic media because of its perceived information communicating ability, rather than its immediate reference capability. In addition, although clarified for coding purposes as referring to magazines, newspaper articles, etc, ‘media reporting’ within the Reference Materials Group of my survey may have been perceived by respondents to actually refer to electronic media sources. Finally, the avoidance theory in Rijt (1998) where negatively perceived health messages in electronic media may lead to
these information sources not carrying or detailing health issues in such a way that many research respondents may not readily identify with electronic sources of information as associated with problem solving.

The Internet was cited (Eysenbach & Kohler 2002; Gregory 2000) as an information resource tool (to varying degrees) as a response to every survey question in the telephone survey responses in my research. It was cited as a particularly useful information resource in terms of the question of a political party’s health policies. The responses from the focus group interview discussions in my research demonstrated similar qualitative issues as found in the Eysenbach and Kohler (2002) and Gregory (2000) studies. The issues of access, familiarity, credibility and interpretation of results remain an important aspect surrounding health information searching on the Internet.

In my study Internet use was selected more often than other reference materials (publications/pamphlets) in seeking information. This could be a result of information, such as publications and pamphlets, being distributed by health professionals and organisations and agencies, or it could reflect the growing use of the Internet in Australia.

5.2.1.4 Determinants of the Use of Information Sources

The impact of determinant variables (those that cause choice), is a particularly interesting aspect of this research project. In my research project, we included a review of four demographic variables to ascertain the impact that they have on the information seeking behaviour of respondents to the
telephone survey. These variables were also incorporated into elaborative discussion through the focus group interview.

Two groups of determinant variables are of particular interest to this study:

- The individual and social predictors associated with survey respondents.
- Personal interests and attributes affecting information seeking behaviour are affected by the search for health information.

Rijt (1998) found a number of correlations between personal attributes and the exposure, interest and avoidance of health information as dependent variables. These included:

- Gender is a predictor of approach in seeking health information with women more likely to expose themselves to health information.

- People with lower incomes and lower educations expose themselves more to health information (suggesting that higher social strata seekers benefit less from health information in the media).

- Age demonstrates significant coefficients, with older individuals more inclined to avoid health information.

- A weaker, but significant independent effect, was observed with education, where the lower educational attainment correlated with a higher exposure to health information in the media.
The telephone interview survey from my research indicated that gender was a significant variable with variances for both men and women. Variations occurred of significance with women more likely to consult with the Family and Friends Group and the Health Professionals Group than would men. Other variations were noted in respect to individual questions where gender variation was significant.

Age differences mainly related to the two older age groups (30-59 years, and 60 years and over groups), and, in particular, to the health conditions issues in the survey questions. The 30-59 years group is more likely to consult Reference Materials and the Health Professionals Group for information. The 60 Years and Over Group are more likely to consult Health Professionals and less likely to use the Reference Materials.

Educational attainment was not a significant variable in my research. Only one question (finding a doctor) was affected by the education variable. This was not replicated in finding other health practitioners (a dentist or a counsellor). Rijt (1998) demonstrates the connection between low income and low educational opportunity, and finds a stronger exposure to health information in the media by these low opportunity groups. Similar findings were made by Greenberg and Dervin (1972). It may be that the survey questions in my study were about issues and problems very familiar to respondents. This in turn may affect the way that variables act on respondents.
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It is clear that gender and age are consistent determinant variables affecting men and women and people at various ages and levels of experience and problem solving, in their information seeking approaches to healthcare. These factors have important ramifications for the way that health information and health access is presented and postured into the community.

Moschis (1980), in his research into product information seeking demonstrated that individual and social determinants are also important predictors in the information seeking process.

Individual predictors accounted for significant variances in information that consumers sought on products. Important predictors included:

- Ambiguity or uncertainty leads to additional information seeking in order to understand or comprehend.

- Ambiguity can also affect referral rates to experts for advice.

- Age is an important predictor in the amount of information sought rather than the specific type of information sought.

The issue of ambiguity and complexity affecting information seeking and problem solving is an important aspect in my research project. Two related issues need to be considered in the context of this research. The first is the high Health Professionals Group information source support with almost half of respondents nominating (across all fifteen questions) this group as an
important information provider. The issue of responding to posed problems (various questions on where to gain information) by referring to the Health Professionals Group, and to some extent the Health Organisations and Agencies Group, provides the dual capability of initial information gathering as well as clarification and interpretation from the same information group. Secondly, the referral to the Family and Friends Group may be a primary source of information about a particular health issue, but may also provide further defined reference sources to which information seekers may subsequently seek access.

Age has been established in my study as an important determinant variable, but the research methodology has not been developed in such a way that the variable could be tested to differentiate between the amount of information (Moschis 1980 – demonstrated that age is a determinant of the quantity of information) or the specific types and qualities of information.

Moschis (1980) found that social utility was the strongest predictor of the respondents’ information seeking behaviour (p. 153). Consumer communication behaviour is affected by a number of variables including:

- Information levels sought by consumers are affected by other people’s perceptions of the product.
- Importance placed on information by information seekers is affected by how others evaluate consumption behaviours.
- Interpersonal discussion is a strong predictor of respondents’ interest.
- Comparative product preference is a good predictor of information seeking.
Rijt (2002) found that the less one thinks health information is threatening the more one thinks that that information is useful. The presentation of information in the health sector is more effective in its uptake and acceptance if provided in an informative and supportive way. The interpersonal ability of respondents in my research to make contact with Health Professionals and Organisations and Agencies, indicate that in addition to the issues of expertise and interpretation, the application or tailoring of information unique to the information seeker may reduce the threatening or intimidating factor in the information seeking process. Variable indicators in my research where these issues would have impact, would include the provision of reference material to the 60 years and over group (who indicated that they would be less likely to use reference material) and a stronger connection between male and health professionals would be appropriate.

5.3 Contributions Towards Theoretical Models and Approaches

5.3.1 Sense-Making Methodology

Dervin (1999) raised the issue that sense-making has a purpose as an exemplar of what methodology might best be employed when it provides direction for further research (p. 748). A number of implications relating to the study of information seeking and use are raised in that work. These include:
• Information gathering habits of individuals over time where behaviour strategies in different groups of people are assumed to be consistent across time.

• The prediction of information seeking is affected by the intensity and compounding affect of external forces on the problem, environment and information seeking ability.

• Prediction of behaviour in information seeking beyond idiosyncratic behaviour, such as demography and social attributes, to areas such as perspective and usefulness of information.

The results of my research project provide a number of ideas that have relevance to the use of sense-making methodologies.

A number of findings in my research may contribute to the development of the sense-making model and process over time.

There are a number of indicators, or triggers, that appear to affect the approach and location of information seeking in the health issues areas. These are known to information seekers and are considered as part of their approach to information gathering. In the focus group interview, there was discussion about the need for a “fresh or second opinion”, that would cause information seekers to deliberately bypass the traditional information seeking habits to enable a rigorous or differential treatment of information gathering. In the telephone interview survey, gender and age are demonstrated demographic variables. Predictive and pre-emptive
understanding of these, tempered with varying opportunities to frame problems in the mass media and interpersonal communications, may provide the trigger for variance in information seeking beyond the traditional demographic variable predictors. Engineering the communication environment to provide a greater freedom and different approach choices in information seeking may determine or enable different information seeking habits.

Predicting information seeking will lead to a stronger and more powerfully effective way of delivering health information, that is high in usefulness and high in message impact. Development of stronger understanding of the positioning and placement of health information subsequent to the articulation of the health issue problem, will focus the information seeking tendencies of the population. Development of stronger understanding of the placement of comparative studies in health issues and behaviours, may change the environmental pressures and subsequent engagement of information seekers. The sustained development of the Internet, as determined in this research, along with the major elements of the Reference Materials Group, are areas where research into the placement of health messages and behaviour modification messages may affect the balance of the need for interpersonal (face-to-face contact) and the dependence on health professionals.

Variables may constrain over time and experience and may relate to the focus of the information seeking problem. In the telephone survey questionnaire research, the (idiosyncratic) demographic variable appeared to impact on certain survey questions or survey issue groups. The age variables
particularly were evident around the health conditions issues and the gender variables were effective around the selection of practitioner and, to some extent, lifestyle and health condition variables. This trend could indicate a series of result constraints that may not rely on the traditional demographic, individual or social predictors. Development of a stronger understanding of the impact of the health issue or health problem by virtue of its content, nature and presentation into the communication medium, may derive different understanding of how information seekers relate to those issues and topics.

These observations from the research question and process in this paper may contribute to the methodological development of the sense-making model.

5.3.2 Communication Campaigns

The effects of communication campaigns were evident in a number of facets of my study. Respondents referred to them specifically, and survey choices were reflective of the influence that campaigns had on information seeking.

Determination of behaviour target traits and personal variable themes are important areas of understanding in the development of the communication campaign methodology (McGuire 1981). Rijt (1998), (2000), (2002), has developed an understanding of a series of acceptance and tolerance of independent variables, operating (or not) in conjunction with recognised demographic variables.

In relation to the persuasion sequences developing compelling behaviour change conditions (McGuire 1981), persuasion from within relates to the potential for the activation of information already within target audiences.
Two issues that emerge from my research, that might contribute to the development of methodological development for research in the effects of information campaigns are:

- There was a noted ‘residual’ effect of information campaigns in a number of the answers to the telephone questionnaire in this survey. As an example, respondents were able to name specific interests and advocacy groups throughout the country (recognised by local name or designation), and these were cited as sources of information in relation to information campaigns and noted sources of expert or authoritative advice. Development of a stronger understanding of impact, information retention resilience and recall triggers provide the opportunity to enhance behavioural modification ‘from within’.

- The ‘understanding of experience’ development, in relation to health information and health problem solving provides for a greater impact of change from within over time. The significant results in my research project, in relation to the choice of the Family and Friends Group as an information source (particularly as it related to assistance in finding (as an example, practitioners) further information), provides the opportunity to capitalise on inherent experience in the population. The understanding of the necessary information comprehension and retention strategy, along with identification of the necessary triggers for information sharing, provides for potential and growth and development in behaviour modification in terms of ‘from within’.
The purpose of these observations from the research project is to outline possible development contributors to the research methodology application within these communication models for enhancement of the access and distribution of informational health issues and topics.

5.4 Issues in the Research Project Not Anticipated from the Literature

A number of elements, or issues, emerged through my research study that were not apparent in the literature review, including issues to do with demographic variables, determination of the effect of pre-existing information and knowledge in the survey population separating the influence of previous educational or behavioural affect, and the recurrent use of an information source that proved to be quite an important choice in information seeking.

- Place of Residence – Metropolitan or Regional as a Determinant in Information Seeking: The demographic variable of a person’s residential or geographic location (in this study defined as either in a metropolitan or regional centre within Australia) affected responses in four of the fifteen (27 per cent) questions in the telephone survey. These results indicated a significant variable for the positive use of reference materials and directories as well as less use of organisations and agencies and health professionals in metropolitan areas. Regional centre residents had significant variations in a greater use of health professionals and organisations and agencies, with less reliance on reference materials and the use of directories.
This variable was included in the research methodology given the significant geographic spread in Australia, and the possible assessment of information seeking in terms of availability and accessibility of information resources throughout the country.

The themes from the variables in this study tend to indicate a stronger focus in metropolitan areas on the use of mass media communication, and a reliance in regional centres on access to health professionals and organisations and agencies. This may have implications for the general availability of mass communication access in regional centres as well as a more focused attention to sources of information and support from authoritative sources on an interpersonal basis.

- There is a difference to be made between the residual effect of a past communication campaign and the wisdom and experience that develops in people. Both modify behaviour, but the campaign has effect that may not last, while experience is a consolidation of skills over time. In my survey, the results recorded for a number of questions highlighted that individuals recognised particular sources of information by name, and that indicated the effect of past information or advertising campaigns. An example of this is the different responses received between questions to a particular type of information source. In relation to the use of ‘Telephone Help Lines’, their use in relation to information finding on medication use is less than that of their use for information seeking in relation to smoking cessation programs. A recent national smoking cessation advertising campaign promoting the use of a ‘Telephone Help Line’ as a source of
information and support would have a positive effect on awareness and selection of this option for information.

Clearly all past information and influences affect (to varying degrees) the level of information, understanding and behaviour in any population. The purpose of this research has been to measure and understand an aspect of that degree of understanding and behavioural action. What is interesting is the ability to predict and isolate the degree of residual behaviour modification influence to understand its impact in terms of longevity, retention, and effect on survey results.

• The Use of Directories in Gathering Information: This was an information source option included in the research methodology for this research project mainly to give the option of use of telephone directories. Overall, 7 per cent of survey respondents indicated that they would use directories as a source of information for all fifteen questions in the survey. The use of directories was particularly important in the health issues group related to finding practitioners.

This result raises the question as to whether the use of directories to locate information (particularly in the selection of health practitioners), is a stepping stone or an adjunct decision point in the information and decision making processes, or whether the use relates to specific and concrete decision making.

The use of the Directory Information Group features in association with a number of the determinant demographic variables, particularly the use of this source by men (positive) and, to some extent, by Year
12 education holders (positive), and metropolitan/regional (positive/negative) residents.

5.5 Implications for Further Research

My research project has, through issues associated with the research methodology, research findings, and the overall contribution of the research question, raised a number of issues that would warrant further research in the development of research methodologies.

- Location, Privilege and Access: This study has demonstrated a number of issues around the range, extent and accessibility of information sources in the community. It would be important to ascertain how differences in the societal and healthcare setting affects information seeking behaviour. A number of studies in the literature examine the ability to derive information based on the information seeking capability and behaviours of the person seeking information. Equally as important, and associated with the sense-making methodology, is the degree of understanding of how positioning and support, associated with the focus of the information problem, will effect the opportunity and capability of the information seeker to derive information. One of the major trends in this study and the studies outlined in the literature has been the importance of accessing health professionals for information. Likewise, some of the mass media access (such as the Internet) are demonstrating a sustained growth in maturity and capability as an information providing system. Social, economic and political changes (such as measured between countries or sub-groups within national, regional and local
communities) may demonstrate different behaviours in the community and on information seekers.

- Opinion Leaders Obtaining and Retaining Knowledge on Health Issues: The Family and Friends Group in this research project has been an important source (overall 16 per cent for all survey questions) of information to information seekers. Family and Friends Group would fulfill a number of functions including a source of advice on alternative information sources, reassurance and particular knowledge. The understanding of how these opinion leaders derive knowledge on health issues over time and experience, and the degree of currency and usefulness of that advice would be of particular interest.

- Information Sources that are Problem Definers and Triggers for Further Enquiry: In this study, the use of both the Family and Friends Group and the Directories Group have been nominated as important sources of information by survey respondents. An understanding of the separation of the roles of these type of groups between factual or specifically useful information, compared to a role in way finding or clarification of problems would be of particular interest. An understanding of the degree and extent of this separation would provide information about placement of health messages, as well as problem solving support through both interpersonal and mass communication methodologies, to expedite and focus the information seeking behaviour in the communication model.
• Determinants of Information Seeking on Health Related Issues: This study and those in the literature demonstrate consistently that a number of variables (gender, age and education) effect the determination of selected information sources by information seekers. The understanding behind the drivers for these behaviour variations across these demographics would provide valuable behavioural information to both structure and present information to ensure affective uptake by individuals and groups in the community, where this determinant affect occurs. Secondly, the manipulation of the health message or preferred behavioural action can be undertaken in such a way as to make the delivery efficient and the message uptake useful.

In this study (and in the literature), as an example, gender effects information choice. In my study, males will prefer direct access to information on selecting practitioners (Directories) while females will seek advice (Family and Friends) about these choices. Rijt (1998) found that women prefer to talk about health issues more readily than men. The deeper understanding of the behavioural background to the effect of variables as a determinant of information seeking and health issues would be a valuable contribution to the communication process.

• Trust, Confidence and Confidentiality: Directly and indirectly in my study, the issue of confidence and credibility in the health information process, and specifically in forms of interpersonal and mass communication, has been raised as significant. Specifically, the issue
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of the credibility of information sites on the Internet, and generally the trustworthy and confidential nature of advice from health experts, is seen as important qualifying and acceptability indicators for health information seeking. The measures and indications of trustworthiness, credibility and confidence in a communication system would be an area of important understanding. This dynamic effects not only the attainment of a set of useful and viable health information sources, but it also looks at the behaviour and performance of the information seeker as well. Confidentiality and trust is an important hallmark for the credibility of the health system. A stronger understanding of how these dimensions work and can be enhanced would be a valuable future step in methodology and results in this area.

• Interaction Between Information Source Groups: My study did not provide for the investigation of the interaction between the information groups. My research results have identified some stronger information source groups that are used by community members. An important development of this would be the relationship between these groups and how the information seeker addresses any interaction. In my study there was a strong preference for contacting health professionals for information. What is not known is how those health professionals may have provided information on the requested topic. If they used reference materials (publications and pamphlets) or material developed by others (organisations and agencies) then it would be important to the use of
resources and development of information that these particular sources should be identified.

5.6 Conclusion

In this chapter, I have returned to the original research question for this project. I have been able to demonstrate a contribution to the overall enquiry as well as the attendant research interest themes. The project adds to the level of knowledge of actual sources of health information for information seekers; the affect of determinants on information seekers; and a number of environmental issues inherent in the communication process that are important to information seeking in healthcare.

The information derived from this research has been compared to a number of findings detailed in the literature. I have been able to compare and contrast elements of my study to test for consistency and continuity in findings and understanding.

A number of issues determined and developed in this research project have bearings on research methodology in sense-making and communication campaigns as they relate to healthcare.

Finally, a series of further questions and points of clarification have been identified and raised as a result of this research project.
REFERENCES


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Appendix 1:

Telephone Survey – Health Information Sources Interview

Questions and Script
Telephone Survey – Health Information Sources
Interview Questions and Script

Introduction

“Good afternoon/evening. My name is ___________. I’m calling on behalf of Mark Avery a research student at The Queensland University of Technology who is supervised by Dr Judy Gregory, a member of staff at the University.”

“We are currently undertaking research about where Australians go for information about various issues relating to their health and our health care system.”

“This study will help improve the way information on health services is made available to the community.”

Participate?

“I was wondering whether you had four minutes to spare to go through it with me?”

“Your input would be very valuable.”

“And all information provided will be treated as strictly confidential and no individual responses will be identifiable and you’re free to discontinue the interview at anytime.”

Yes, participate.
No, won’t participate.

Anyone Else?

“Is there anyone else in your household who would be able to assist?”

No, no one else
Yes, can assist
Not Qualified

“You must be 18 years of age or older to complete this survey.”

“Is there anyone else in your household in a different age category to yourself I could speak to?”

No Survey End

“Thanks for your help. Have a good afternoon/evening.”

Qualified Over 18 Years

“Firstly, can I please confirm that you are over 18?”

Yes

No

Age Group

“And just for our statistical purposes, can you please tell me what age range you are in?”

18 to 24 years 25 to 29 years 30 to 34 years
35 to 39 years 40 to 44 years 45 to 49 years
50 to 54 years 55 to 59 years 60 to 64 years
65 to 69 years 70 to 74 years 75 to 79 years
Over 80 years

Sex

Operator: Select the sex of the respondent

“And may I have your first name please …., thanks ______________

Male
Female
Quota Full

“Thanks for that. We’ve actually surveyed our required quota for your age group/gender. To ensure we get a totally balanced survey I need to concentrate on other groups, so I can’t continue with this survey.”

“Is there anyone else in your household in a different age/sex category to yourself who I could speak to?”

Back for other ages
End call

Question 1

“And firstly, if you were trying to find a **general practitioner** (a doctor) to treat you, where would you first go for this information?”

Record

“And where would you go next for information on finding a **general practitioner**?”

Record

“And is there anywhere else you may go for information on finding a **general practitioner**?”

Record

Question 2

“Now, if you were trying to find a **dentist** to treat you, where would you first go for this information?”

Record

“And where would you go next for information on finding a **dentist**?”
“And is there anywhere else you may go for information on finding a dentist?”

Question 3

“And what about if you were trying to find information about sunscreen protection where would you go for this information?”

Record

“And where would you go next for information on finding information on sunscreen products?”

Record

“And is there anywhere else you may go for information on sunscreen protection products?”

Question 4

“Now, if you were trying to find information about pain relief medication that you could buy without a doctors prescription, where would you go first for this information?”

Record

“And where would you go next for information on finding information on over the counter pain relief medications?”

Record

“And is there anywhere else you may go for information about pain relief medication?”

Record
Question 5

“And what about if you were trying to find information about antibiotics, where would you first go for this information?”

Record

“And where would you go next for information on finding information on antibiotics?”

Record

“And is there anywhere else you may go for information on antibiotics?”

Question 6

“And what about if you were trying to find information about drugs that a doctor prescribed for you, where would you first go for information?”

Record

“And where would you go next for information?”

Record

“And is there anywhere else you may go for information on drugs that a doctor prescribed?”

Question 7

“Now, if you were trying to find information about gaining or losing weight, would you go first for information?”

Record

“And where would you go next for information on weight loss or gain?”

Record
“And is there anywhere else you may go for information on **weight loss or gain**?”

Record

**Question 8**

“And what about if you were trying to find information on the ways to **stop smoking**, where would you first go for this information?”

Record

“And where would you go next for information on ways to **stop smoking**?”

Record

“And is there anywhere else you may go for information on ways to **stop smoking**?”

Record

**Question 9**

“Now if you were trying to find information about **heart disease** where might you first go for this information?”

Record

“And where would you go next for information on **heart disease**?”

Record

“And is there anywhere else you may go for information on **heart disease**?”
Question 10

“Now, if you were trying to find information on asthma, where would you first go?”

Record

“And where would you go next for information on asthma?”

Record

“And is there anywhere else you may go for information on asthma?”

Question 11

“And, what about if you were trying to find information on alternative treatments to traditional medicine, where would you first go for this information?”

Record

“And where would you go next for information on alternative treatments to traditional medicine?”

Record

“And is there anywhere else you may go for information on alternative treatments to traditional medicine?”

Record

Question 12

“Now, if you were trying to find information about childhood illnesses such as rashes, chicken pox, measles, fevers etc. Where would you first go for this information?”

Record
“And where would you go next for information on childhood illnesses?”

Record

“And is there anywhere else you may go for information on childhood illnesses?”

Record

**Question 13**

“Now, if you were trying to find information on vaccinations, such as flu vaccinations and immunization for children, where would you go first for this information?”

Record

“And where would you go next for information on vaccinations?”

Record

“And is there anywhere else you may go for information on vaccinations?”

Record

**Question 14**

“Now, if you were trying to find information about a political party’s health policy, where would you first go for this information?”

Record

“And where would you go next for information on a political party’s policy on health?”

Record

“And is there anywhere else you may go for information on a political party’s policies on health?”

Record
Question 15

“And what about if you were trying to find information about counselling support services in the community, where would you first go to find this information?”

Record

“And where would you go next for information on counseling support services in the community?”

Record

“And is there anywhere else you may go for information?”

Educational Achievement

“And finally, for statistical purposes only, can you tell me which of the following best describes your highest educational achievement?”

Completed Grade 10
Completed Grade 12
Incomplete university degree
Completed university degree
Incomplete vocational TAFE course
Completed vocational TAFE course
Completed postgraduate degree

Postcode

“That concludes the survey …. Can I just confirm your postcode there?”

Record
Survey End

“Once again my name is __________. If you have any queries regarding this research you’re welcome to call the Secretary of the University’s Research Ethics Committee and I can give you the telephone number if needed (07) 38642902.”

“Please be assured your responses will remain confidential and that no individual responses will be reported on.”

“Thank you and have a great afternoon/evening.”

End
Appendix 2:

Coding Format – Anticipated Responses To Telephone Survey Questionnaire
**Coding Format – Anticipated Responses To Telephone Survey Questionnaire**

Possible response classifications for telephone survey questions.

<table>
<thead>
<tr>
<th>Class</th>
<th>Sub-Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>Family and Friends</td>
</tr>
<tr>
<td>1.0.1</td>
<td>Family Members</td>
</tr>
<tr>
<td>1.0.2</td>
<td>Friends/colleagues</td>
</tr>
<tr>
<td>1.0.3</td>
<td>Others [e.g. Neighbours etc]</td>
</tr>
<tr>
<td>2.0</td>
<td>Health Professionals</td>
</tr>
<tr>
<td>2.0.1</td>
<td>Doctor</td>
</tr>
<tr>
<td>2.0.2</td>
<td>Chemist/Pharmacist</td>
</tr>
<tr>
<td>2.0.3</td>
<td>Telephone ‘Help Lines’ – e.g. medication etc</td>
</tr>
<tr>
<td>2.0.4</td>
<td>Gym/Trainers</td>
</tr>
<tr>
<td>2.0.5</td>
<td>Other Health Professionals</td>
</tr>
<tr>
<td>3.0</td>
<td>Organisations and Agencies</td>
</tr>
<tr>
<td>3.0.1</td>
<td>Professional Body e.g. Dental Association etc</td>
</tr>
<tr>
<td>3.0.2</td>
<td>Government Departments and Agencies</td>
</tr>
<tr>
<td>3.0.3</td>
<td>Hospitals and Health Care Agencies/Services</td>
</tr>
<tr>
<td>3.0.4</td>
<td>Other</td>
</tr>
<tr>
<td>4.0</td>
<td>Reference Materials</td>
</tr>
<tr>
<td>4.0.1</td>
<td>Advertising</td>
</tr>
<tr>
<td>4.0.2</td>
<td>Internet</td>
</tr>
<tr>
<td>4.0.3</td>
<td>Library</td>
</tr>
<tr>
<td>4.0.4</td>
<td>Media reporting e.g. magazines, newspapers, articles etc</td>
</tr>
<tr>
<td>4.0.5</td>
<td>Publications/pamphlets – printed information and material</td>
</tr>
<tr>
<td>4.0.6</td>
<td>Other</td>
</tr>
<tr>
<td>5.0</td>
<td>Directories</td>
</tr>
<tr>
<td>5.0.1</td>
<td>Telephone directories e.g. Yellow Pages etc</td>
</tr>
<tr>
<td>5.0.2</td>
<td>Other</td>
</tr>
</tbody>
</table>
Appendix 3:

Focus Group Interviews – Questions for Consideration and Response By Group Participants
Focus Group Interviews –
Questions for Consideration and Response
By Group Participants

Introduction: Summary of research project; organization of group interview and confidentiality; request for information about sources of information on health related topics and issues; details of any other sources; information on sources in respect to value, trust, access etc.

Where might you go for information about finding a health practitioner (e.g. doctor, dentist, optometrist etc)?

Where might you go for information about sunscreen and disinfectant products?

Where might you go for information about drugs or medications that you would have obtained with a doctor’s prescription?

Where might you go for information about drugs or medications that can be purchased over the counter (pain relievers, creams, ointments etc)?

Where might you go for information about gaining or losing weight?

Where might you go for information about stop smoking methods?

Where might you go for information about stop vaccinations?

Where might you go for information about health problems such as asthma, heart disease, cancer etc?

Where might you go for information about alternative treatments to traditional medicine?

Where might you go for information about a political party’s health policies?

What sources of information on health matters would you consider the most reliable and trustworthy?
What sources of information on health matters would you consider the easiest to access or get to?

Questions and discussion on:

- Results of the telephone survey questions;
- Issues around focus group and telephone survey answers;
- Any other issues considered important, relevant and useful.