# Community health information sources — a survey in three disparate communities

# Jared Dart, Cindy Gallois and Peter Yellowlees

### Abstract

**Objective:** To determine the current utilisation, importance, trust and future preference for contemporary sources of health information in three different socioeconomic groups.

**Design:** A pilot study including key informant interviews and direct observation was conducted in a low socioeconomic community. From this work a survey questionnaire was designed and implemented across three different communities.

**Participants and setting:** Semi-structured key informant interviews and focus groups capturing 52 respondents. Paper-based surveys were left in community organisations and local health practices in a low socioeconomic (LSE) community on the outskirts of Ipswich, Queensland, a mid-high socioeconomic (MSE) community in the western suburbs of Brisbane, and at a local university.

**Main outcome measures:** Rank of current and preferred future sources of health information, importance and trustworthiness of health information sources.

**Results:** Across all three communities the local doctor was the most currently used, important, trusted and preferred future source of health information. The most striking difference between the three communities related to the current use and preferred future use of the internet. The internet was a more currently used source of health information and more important source in the university population than the LSE or MSE populations. It was also a less preferred source of future health information in the LSE population than the MSE or university populations. Importantly, currently used sources of health information did not reflect community members' preferred sources of health information.

**Conclusions:** People in different socioeconomic communities obtain health information from various sources. This may reflect access issues, education and awareness of the internet as a source of health information, less health information seeking as well as a reluctance by the e-health community to address the specific needs of this group.

Aust Health Rev 2008: 32(1): 186-196

**THIS PAPER REPORTS** the results of key informant interviews, focus groups, and direct observations of available health resources in a low socioeconomic (LSE) community and a broader community survey of adult respondents in an LSE community in south-eastern Queensland (N = 262), a mid-high socioeconomic (MSE) community in the western suburbs of Brisbane (N = 256) and a local university (N = 200).

Previous contributors to Australian Health *Review* have highlighted both the importance and scarcity of patient-oriented health information available in the wider community and at the point of care. In 2001, the National Health Information Management Advisory Council's document Health online: a health information action plan for Australia identified the disparate sources of health information within the community as paper-based approaches, audio and video presentations, call centres, personal clinical advice and electronic information, and at the same time acknowledged that the 1996 finding of the Taskforce on Quality in Australian Health Care - that "At present, access to health information is clearly inequitable ... [and] depends on the ability and willingness of individual health care providers to give information and on the resources available to consum-

Jared Dart, BSc, BA, MB BS, PhD, Medical Registrar, Greenslopes Private Hospital, Brisbane; and Director iHealth Australia, Brisbane, QLD.

**Cindy Gallois**, BS, MA, PhD, FASSA, MAPsS, Professor, Deputy Executive Dean and Director of Research Faculty of Social and Behavioural Sciences, University of Queensland, Brisbane, QLD.

Peter Yellowlees, MD, BSc, MB BS, FRANZCP, MRC(Psych), MAPsS, MRACMA, Professor of Psychiatry and Director of Academic Information Systems UC Davis, Sacramento, CA, USA.

Correspondence: Dr Jared Dart, iHealth Australia, PO Box 2369 Graceville East, Brisbane, QLD 4075. jareddart@optusnet.com.au

#### What is known about the topic?

Little data exist on the use of community sources of health information across disparate socioeconomic groups in Australia. The uptake of various sources of health information and the preference of various societal groups for particular sources of health information should guide the development of community-oriented health information strategies. Previous research has relied heavily on online surveys which may not be generalisable — in particular these surveys under-represent low socioeconomic (LSE) communities.

#### What does this paper add?

This paper starts with a pilot study of an LSE community which identifies sources of health information used by community members and their attitudes towards them. The pilot case study data inform the development of a survey which identifies the differences between three very different socioeconomic groups — an LSE and mid-high socioeconomic (MSE) community, and university students and staff. This paper demonstrates the differences (and similarities) between these groups — a key difference being the utilisation of the internet as a source of health information.

#### What are the implications for practitioners?

LSE community members have a greater burden of preventable or modifiable health concerns and access to accurate relevant health information is very important for their health care. Yet, facilitating access to such health information in LSE groups is very difficult. Understanding this population's current use of, trust of and preference for sources of health information should aid the development of appropriate health information strategies.

ers and their ability to access these resources" (p. 67) — may still have applied.<sup>1</sup>

Yet little formal research has been done to assess community attitudes to various health information sources — and in particular their attitudes to these sources of health information — and none comparing preferences for and utilisation of these resources across different socioeconomic communities. This paper describes the currently used community health information sources, ascribed importance and trust of these sources and the preferred future sources of health information across three socioeconomic communities.

### Methods

# Phase One — key informant interviews and direct observation

The first phase of research undertaken was a series of semi-structured key informant interviews and focus groups capturing over fifty local representatives that sought to determine current community sources of health information as well as community attitudes to these sources. A list of available health information sources in the local area was constructed from key informant responses and supplemented by sources of health information identified by direct observation. This phase was conducted in the period from 7 June to 12 July, 2003 and informed the development of the survey questionnaire utilised for the second phase of the research.

### Phase Two — survey data

The sources identified by phase one of the research were subsequently presented in the survey as precoded alternatives, and respondents were asked to rank these sources in terms of current utilisation and preferred future sources of health information. In addition, a semantic representation of importance and trust was used to determine community attitudes to these sources. The survey was carried out in August to September 2003.

### **Community selection**

The geographical locations were selected on the basis of Australian Bureau of Statistics census statistics and the investigator's knowledge of the local area. The socioeconomic indices produced by the Australian Bureau of Statistics (Census 2001) demonstrate that the LSE community is in the lowest tenth percentile for all indices and is significantly more disadvantaged in terms of economic resources and education than the MSE comparator community which is in the highest tenth percentile.<sup>2</sup> The university sample was selected to provide a skewed comparator with a large number of highly educated and young respondents.

### **Community placement**

Surveys were placed in thirteen communitybased organisations (CBOs) which were spread throughout the LSE community — two churches, two employment agencies, four community support groups, one medical practice, one physiotherapy practice, one chemist, one community health centre, and the electorate office of the local State MP — and captured a wide range of cultures and age groups. The MSE sample was obtained from non-bulk billing practices in western Brisbane, while the university sample was obtained from a local university health clinic which treats students and staff.

### Survey response analysis

Pre-coded responses from the paper surveys were entered manually into an SPSS version 10.1 database constructed by the investigator for this purpose. Surveys with incomplete categorical data were excluded before data entry. Unclear responses, or responses which did not correspond to the pre-coded alternatives, or multiple responses to the one question were excluded and not entered into the database. Survey responses were analysed with the statistical software package SPSS version 10.1 (SPSS Inc, Chicago, Ill, USA).

### Dealing with non-exhaustive ranking

In the survey, respondents were presented with ten alternative pre-coded sources of health information and asked to rank their top five sources of current and preferred future sources of health information. The non-exhaustive ranking system thus ruled out medians and means as accurate measures of population-wide use of information sources as they may misrepresent the utilisation of health information sources. To overcome this, a statistic which represented the population-wide use of the health information source was developed — the proportional weighted average rank (PWAR).

Rankings were weighted such that a ranking of one (most important) was attributed a value of 5 and a ranking of five was attributed a value of 1, etc. The sum of the weighted ranking would thus combine the number of respondents and the weighted rank. The sum ( $\Sigma$ ) of the weighted rank (X) for each health information source (eg, local doctor) was divided by the number of valid responses for each question (*n*) to give a proportional weighted average rank ( $\Sigma(x)/n$ ). The responses of attitude questions were summarised using medians, means and standard deviations. ANOVA and Scheffe post hoc analysis of means was performed to determine statistical differences.

### Ethical clearance

Ethical clearance was granted by the Human Research Ethics Committee of the University of Queensland. The identity of the communities involved was kept anonymous in line with the wishes of community members.

# Results

### Key informant data

### Local health information sources

The key informant and direct observation phase identified the commonly used sources of health information, principally: health professionals allied health staff (physiotherapists, speech pathologists, occupational therapists, psychologists, nutritionists, audiologists, social workers, and pharmacists), alternative therapy practitioners, and doctors; pamphlets available from the community health centre, three general practice waiting rooms, the physiotherapist, the optometrist, two local chemists and several community groups; the local library; the internet and other media (newspaper, magazines, radio and television); and family and friends. The sources mentioned in this community canvassing phase were subsequently utilised in the community survey where they represented the precoded alternative sources of health information.

The principal categories of health information pamphlets were pharmaceutical or natural remedy sponsored information materials concerning the treatment of common conditions (the vast majority), brochures about government health services, some Queensland Health health promotion documents such as the positive parenting program and child health pamphlets, as well as miscellaneous advertisements for non-government organisations and businesses. (See Dart<sup>3</sup> for complete data.)

Key informants frequently remarked on the low number of general practitioners who served the community and surrounding area. Key issues identified were: difficulties in obtaining appointments; local general practices not seeing new patients; limited after-hours care options; and the use of the Ipswich Base Hospital Accident and Emergency Department in lieu of general practitioners due to the scarcity of bulk billing appointments available in the area. Some respondents mentioned their use of the health pamphlets present in the local doctor's waiting room, although they mentioned that these did not always provide them with suitable answers. Several respondents mentioned a difficulty in understanding health information they received from their doctor and stated that they sometimes felt too intimidated to ask questions. Others considered some questions too frivolous to ask the doctor. The responses of many of the key informants interviewed for this phase of the research indicated dissatisfaction with the health information quantity and quality they were receiving from local general practitioners.

# High local burden of preventable or modifiable diseases

Key informants, many of whom were health care professionals with the local Queensland Health Community Health Centre, identified preventable or modifiable health problems as the most significant health issues affecting local residents. Health professional informants remarked that in many cases their clients had extremely limited knowledge of health issues. Local community leaders acknowledged that understanding of health issues is extremely limited\ in the area. A local political representative had this to say: "What we need is a local education program run from the local shopping centre which can teach local people how to cook healthy meals. Many of them don't know the basics of food preparation. Often their cultural and family background also leads them to value foods which are not very healthy". (For further information see Dart.<sup>3</sup>)

# I Respondent characteristics by studied population

	Ls comn	SE nunity	MSE community		MSE Imunity Universit	
	Ν	%	Ν	%	Ν	%
All	262	100	256	100	200	100
Male	74	28.2	76	29.7	58	29.0
Female	188	71.8	180	70.3	142	71.0
Age (years	5)					
18–25	52	19.8	60	23.4	138	69.0
26–35	38	14.5	44	17.2	36	18.0
36–45	61	23.3	39	15.2	15	7.5
46–55	57	21.8	59	23.0	6	3.0
56-65	37	14.1	40	15.6	5	2.5
66–80	17	6.5	14	5.5	0	
LSE = low s	ocioecon	omic; M	SE = mio	d-high so	ocioeco	nomic.

### Survey data

Respondents were fairly evenly distributed across age groups although there were much fewer old (66–80-year-old) respondents. Seventy percent of the respondents were female (Box 1). Box 2, Box 3, Box 4 and Box 5 depict the aggregated results of all age groups and both sexes, thereby representing a sample of the community as a whole. Although data were obtained relating to individual ages and sex it is beyond the scope of this paper to include these results. Where appropriate, age and sex-related differences are identified in the results and discussion. (For further detail see Dart.<sup>3</sup>)

# Is there a community demand for more health information? (Box 6)

The vast majority of respondents considered it to be "important" or "very important" to have greater access to health information. There was no statistically significant difference between populations and little difference in ascribed importance between age groups or sexes.

# How important is it for individuals to be able to ask questions about their health? (Box 7)

The vast majority of respondents (>73%) in all samples and age sub-categories reported it was

"very important" to be able to ask questions about their health. The university sample, while still considering it to be very important, ascribed less importance to it than did the MSE sample (Scheffe p = 0.018) but did not differ significantly from the LSE sample (Scheffe p = 0.131). However, no significant age effect was observed. Male respondents attributed less importance to being able to ask questions about their health than did female respondents in the LSE sample (p = 0.014), the MSE sample (p = 0.005) and the university sample (p = 0.020).

# There is a diverse range of community health information seeking behaviour (Box 8)

While the largest group of respondents were most likely to seek health information when they were sick, significant numbers of respondents sought health information when others they knew were sick, "now and then" and "all the time", suggesting that there is a diversity of health information seeking habits which may not be met by consultation-based health information seeking. The proportion of respondents seeking health information exclusively when sick was also lower in the LSE population than either of the comparison populations. Respondents in the age groups > 36 years and < 66 years were more likely to seek health information when someone they knew was sick than the younger respondents in both the MSE and LSE samples. This may represent parents seeking information relating to children or information for sick partners/friends and suggests that proxy information gathering may be an important route for health information delivery for some segments of the population.

# The frequency and duration of doctor visits (Box 9 and Box 10)

Interestingly, even though the LSE community is served by predominantly bulk-billing medical clinics, it did not differ from the comparison samples in terms of frequency or duration of visits. Most respondents visited the doctor on average only once every 3 months and spent less than 10 minutes discussing their health problems. Older respondents tended to visit more

### 2 Rank of current sources of health information by studied population

Where do you get most of your health information from now — what are the top five sources of health information
for you at the moment? Please place a 1 beside the source you get the most health information from, 2 beside the
source you get the next most information from and so on.

Ranking	LSE community	PWAR	MSE community	PWAR	University	PWAR
1	Local doctor	3.50	Local doctor	3.46	Local doctor	3.32
2	Television	2.11	Family and friends	2.06	Family and friends	2.55
3	Family and friends	1.77	Television	1.79	Internet	2.06
4	Health pamphlets from doctor's waiting room	1.61	Magazines	1.42	Television	1.7
5	Newspaper	1.15	Health pamphlets from doctor's waiting room	1.31	Magazines	1.34
6	Magazines	1.13	Internet	1.21	Health pamphlets from doctor's waiting room	1.26
7	Allied health practitioner	1.08	Newspaper	1.16	Newspaper	1.17
8	Alternative therapy practitioner	0.90	Allied health practitioner	1.08	Allied health practitioner	0.68
9	Internet	0.76	Alternative therapy practitioner	0.71	Alternative therapy practitioner	0.42
10	Radio	0.43	Radio	0.52	Radio	0.34

LSE = low socioeconomic. MSE = mid-high socioeconomic. PWAR = proportional weighted average rank.

frequently (66–80 years, median and mode = once every month) and for longer (56–80 years, median 11–15 minutes) and women tended to spend longer discussing their health issues with the doctor than did male respondents. (For full results see Dart.<sup>3</sup>)

How satisfied is the community with the doctor as a source of health information? (Box 11 and Box 12) Again there was no difference between the predominantly bulk-billed LSE catchment and the comparison populations. Most respondents were "satisfied" that their questions were answered by

### 3 Community attitudes to importance of sources of health information

	LSE community		MSE community		University	
Source	Mean (SD)	Ν	Mean (SD)	Ν	Mean (SD)	Ν
Local doctor	4.55 (0.93)	250	4.63 (0.78)	250	4.60 (0.75)	191
Health pamphlets from doctor's waiting room	3.84 (1.21)	234	3.79 (1.15)	231	3.78 (1.12)	188
Family and friends	3.79 (1.10)	225	3.80 (1.09)	236	3.97 (0.97)	192
Allied health professionals	3.26 (1.41)	223	3.46 (1.35)	228	3.26 (1.29)	186
Television	3.20 (1.35)	240	3.09 (1.33)	234	3.14 (1.29)	197
Magazines	3.14 (1.20)	228	3.10 (1.22)	228	3.11 (1.21)	184
Newspaper	3.13 (1.23)	231	3.18 (1.17)	232	3.17 (1.16)	187
Internet	3.10 (1.32)	228	3.26 (1.34)	223	3.61 (1.16)	191
Radio	2.91 (1.34)	224	2.80 (1.26)	221	2.52 (1.14)	186
Alternative therapy practitioner	2.89 (1.41)	228	2.74 (1.44)	225	2.72 (1.25)	180

How important are these sources of health information for you? Response options: 1=not at all important; 2=not important; 3=unsure; 4=important; 5=very important

LSE = low socioeconomic; MSE = mid-high socioeconomic.

### 4 Community attitudes to trustworthiness of sources of health information

#### How trustworthy do you believe these sources of health information are? Response options: 1=not at all trustworthy; 2=not trustworthy; 3=unsure; 4=trustworthy; 5=very trustworthy

	LSE comm	nunity	MSE comm	nunity	Univers	ity
Source	Mean (SD)	Ν	Mean (SD)	Ν	Mean (SD)	Ν
Local doctor	4.47 (.90)	243	4.57 (0.67)	243	4.61 (0.70)	192
Health pamphlets from doctor's waiting room	4.11 (1.02)	230	4.27 (0.92)	229	4.46 (0.73)	185
Allied health practitioner	3.58 (1.17)	221	3.80 (1.06)	229	3.82 (1.01)	185
Family and friends	3.51 (1.12)	225	3.51 (1.07)	228	3.57 (0.84)	189
Alternative therapy practitioner	3.35 (1.16)	226	3.21 (1.18)	224	3.27 (1.19)	184
Internet	3.16 (1.16)	223	3.11 (1.03)	223	3.02 (1.04)	189
Television	2.97 (1.20)	235	2.71 (1.06)	234	2.73 (1.07)	192
Newspaper	2.95 (1.14)	228	2.98 (1.05)	231	3.12 (0.97)	187
Radio	2.88 (1.17)	223	2.91 (1.06)	224	2.81 (1.03)	183
Magazines	2.87 (1.10)	227	2.93 (1.09)	230	2.94 (1.02)	185

LSE = low socioeconomic; MSE = mid-high socioeconomic.

### 5 Rank of preferred future sources of health information

Which of these sources would you like to receive more health information from — what are the top five sources you would like to receive more information from? Please rank them in order of your most favoured source of health information e.g. 1 for the source you would most like to receive more health information from and so on

Ranking	LSE community	PWAR	MSE community	PWAR	University	PWAR
1	Local doctor	3.53	Local doctor	3.23	Local doctor	3.02
2	Television	1.91	Internet	2.14	Internet	2.50
3	Health pamphlets from doctor's waiting room	1.51	Health pamphlets from doctor's waiting room	1.72	Television	1.62
4	Allied health practitioner	1.35	Television	1.62	Health pamphlets from doctor's waiting room	1.54
5	Internet	1.29	Allied health practitioner	1.41	Allied health practitioner	1.39
6	Alternative therapy practitioner	1.09	Newspaper	1.30	Newspaper	1.38
7	Newspaper	1.08	Magazines	1.04	Alternative therapy practitioner	1.06
8	Family and friends	0.96	Alternative therapy practitioner	0.90	Magazines	1.04
9	Magazines	0.74	Family and friends	0.68	Family and friends	0.81
10	Radio	0.69	Radio	0.64	Radio	0.52
LSE = low	socioeconomic. MSE = mid-hi	gh socioe	conomic. PWAR = proportional	l weighted	l average rank.	

the doctor, with greater than 68% of all respondents in all categories reporting to be "satisfied" or "very satisfied". Likewise, most respondents were satisfied with the health information they received from their local doctor, with greater than 70% of respondents in all categories reporting to be "satisfied" or "very satisfied". The results suggest that younger respondents were less satisfied that their health questions were answered and with the health information they received than older respondents, particularly those over 55 years. However, these differences only approached statistical significance in the 18-25 years versus the 66-80 years age category in the LSE sample. There were no significant differences according to sex.

# Discussion

The results across the three communities were remarkably consistent with a few exceptions. In all three communities, most respondents received most of their current health information from the local doctor, whom they considered the most important and trustworthy source, and would prefer to receive health information from them in the future. Health pamphlets and allied health practitioners were consistently in the top five sources of future preferred health information, suggesting that the community desires information produced and supported by the medical system which they consider important and trustworthy. However, health pamphlets were less utilised by the MSE and university sample than their preference, suggesting that there is a mismatch between community expectations and provision of information from this resource. Likewise, allied health practitioners (defined in the survey as physiotherapists, speech pathologists, occupational therapists, psychologists, nutritionists, audiologists, social workers, and pharmacists) were infrequently used current sources of health information, although they were a preferred source. These preferences suggest that while community members feel most comfortable obtaining health information from their local doctor they would accept health information from alternate validated sources. While "family and friends" was a frequently used current and important source of health information by all communities it was not a highly trusted or preferred source of future health information in any of the sample populations, suggesting that people utilise family and friends as a source of health information but would prefer to receive most of their health information autonomously, and from qualified sources.

The mass print media was used by many respondents as a current source of health information and represented a mid-range source of health information across the three samples. The radio, however, provided the least current health information. Interestingly, the mass print media were generally a less preferred source of health information than its current use suggests, and mass media in general were not considered particularly important or trustworthy by any of the three populations.

The other two of the top five preferred sources of future health information were the internet and the television. In the MSE and university sample the internet was the next most desired source of future health information to the local doctor. It was also a more currently used source of health information in the MSE than the LSE and in the university than either comparison populations. In the LSE sample, the television remained second to the local doctor as a current and preferred future source of health information, however the internet was a more preferred source of health information (fifth) than its current use would suggest (ninth). Although the internet and television were frequently used current and preferred future sources of health information the three communities did not consider them important or trustworthy, suggesting that the convenience and potential for remote access to these sources of health information is what appeals to them. Of note, the university sample with its large propor-

# 6 Community demand for more health information

How important is it to you to get more information about health issues? Response options: 1=not at all important; 2=not important; 3=unsure; 4=important; 5=very important

Sample	Mean	SD
LSE community ( $n = 239$ )	4.45	0.85
MSE community ( $n = 240$ )	4.28	1.03
University (n = 186)	4.32	0.89

LSE = low socioeconomic; MSE = mid-high socioeconomic.

# 7 Community demand for opportunities to ask health-related questions

How important is it to you to be able to ask questions about your health? Response options: 1=not at all important; 2=not important; 3=unsure; 4=important; 5=very important

Mean	SD
4.83	0.52
4.87	0.42
4.74	0.54
	Mean 4.83 4.87 4.74

LSE = low socioeconomic; MSE = mid-high socioeconomic.

### 8 Health information seeking behaviour

When are	vou most likel	v to look for health	information?	(Please tick Ol	VF answer
when are	you most iikei		mormation:	(FICASE LICK OI	

	LSE community (N [%])	MSE community (N [%])	University (N [%])
When sick	70 (32.7)	95 (42)	93 (50.5)
When someone I know is sick	27 (12.6)	42 (18.6)	18 (9.8)
Now and then	55 (25.7)	33 (14.6)	45 (24.5)
All the time	62 (29.0)	56 (24.8)	28 (15.2)
LSE = low socioeconomic; MSE = mid	-high socioeconomic.		

Australian Health Review February 2008 Vol 32 No 1

### 9 Frequency of doctor visits

On average how often do you visit the doctor? (Please tick one).

Response options: 1=once or more per week; 2= once every two weeks; 3=once every month; 4= once every 3 months; 5=1–3 times per year

Sample	Median	Mode
LSE community ( $n = 244$ )	4.00	5.00
MSE community ( $n = 249$ )	4.00	4.00
University (n = 190)	4.00	5.00

LSE = low socioeconomic; MSE = mid-high socioeconomic.

### 10 Duration of doctor visits

On average how much time does the doctor spend with you talking about your health problems? (Please tick one)

Response options: 1= 1–5 minutes; 2=6–10 minutes; 3=11–15 minutes; 4=15–20 minutes; 5= more than 20 minutes

Mean	Mode
2.00	2.00
2.00	2.00
2.00	2.00
	Mean 2.00 2.00 2.00

LSE = low socioeconomic; MSE = mid-high socioeconomic.

tion of young, educated respondents did consider the internet to be a much more important source of health information than either the MSE (p =0.021) or the LSE (p = 0.001) communities. The differing use of the internet as a source of health information across different socioeconomic communities poses questions as to how useful ehealth in its current form would be for LSE communities. More research needs to be conducted into the requirements of LSE communities regarding potential e-health strategies.

The advent of online health information and the use of other such "new media" to deliver health information has led to renewed interest in delivering community-oriented health information. However, it is important to recognise the current utilisation of health information sources and the community's preference for a delivery medium. This survey demonstrates that actual utilisation of information sources does not necessarily reflect their preference and is likely a product of availability. For example, in this low socioeconomic community family and friends were a frequently used source of health information but not a preferred one, whereas the internet was a more preferred source of health information than its current use would reflect. Community consultation is crucial

#### II Community satisfaction with the doctor as a source of health information

How satisfied are you that your questions are answered by the doctor? Sub samples represent age and sex within each population sample.

Response options: 1=not at all satisfied; 2= not satisfied; 3=unsure; 4=satisfied; 5=very satisfied

	LSE		MSE		University	
	Mean (SD)	Ν	Mean (SD)	N	Mean (SD)	Ν
All	4.00 (1.09)	242	4.06 (0.86)	247	3.95 (0.88)	189
Male	3.95 (1.04)	65	4.04 (0.89)	73	4.09 (0.81)	54
Female	4.02 (1.11)	177	4.07 (0.85)	174	3.89 (0.90)	135
Age (years)						
18–25	3.74 (1.12)	50	3.98 (0.87)	58	3.90 (0.90)	132
26–35	3.88 (1.20)	34	3.90 (0.82)	42	4.12 (0.84)	34
36–45	3.80 (1.18)	60	4.05 (0.79)	39	3.92 (1.04	13
46–55	4.22 (1.03)	55	4.04 (1.02)	57	3.83 (0.41)	6
56–65	4.28 (0.75)	29	4.26 (0.72)	39	4.25 (0.50)	4
66–80	4.71 (0.47)	14	4.50 (0.67)	12	-	0

LSE = low socioeconomic; MSE = mid-high socioeconomic.

### 12 Community satisfaction with the local doctor as a source of health information

How satisfied are you with the information you receive from your local doctor? Sub samples represent age and sex within each population sample.

	LSE		MSE		University	
	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N
All	3.98 (1.09)	234	4.02 (0.93)	246	3.94 (0.90)	191
Male	3.92 (1.09)	66	4.07 (0.94)	72	4.09 (0.84)	55
Female	4.00 (1.09)	177	4.01 (0.92)	174	3.88 (0.92)	136
Age (years)						
18–25	3.64 (1.16)	50	3.84 (1.01)	58	3.90 (0.96)	134
26–35	3.82 (1.19)	34	3.81 (0.97)	42	4.09 (0.71)	34
36–45	3.90 (1.08)	60	4.10 (0.82)	39	3.85 (0.99)	13
46–55	4.11 (1.13)	55	4.07 (0.96)	57	3.83 (0.41)	6
56–65	4.33 (0.71)	30	4.29 (0.80)	38	4.50 (0.58)	4
66–80	4.64 (0.50)	14	4.33 (0.65)	12	-	0

Response options: 1=not at all satisfied; 2=not satisfied; 3=unsure; 4=satisfied; 5=very satisfied

to guide the development of meaningful community health information resources.

In general, these results suggest that there is a diverse range of patterns of health information seeking in the community. Some commentators have suggested that the rapid rise of health information seeking on the internet is a result of its capacity to address the information needs of populations groups who fall outside the traditional health professional-information seeker dyad.

Traditional consultation-based means of resourcing health information seekers may struggle to address the needs of opportunistic or proxy health information seekers. Overtaxed local general practitioners have difficulties fulfilling the health counselling role currently, without addressing the needs of opportunistic and proxy health information seekers. This problem is further compounded in low socioeconomic areas where the community is under-resourced with local doctors.<sup>4</sup> Yet, is this a role general practitioners should be fulfilling? Or does the current transition in health information seeking habits necessitate the development of an alternative system with new professionals similar to community health workers or health counsellors who would address solely the educative component of a health-related consultation?

While the majority of respondents were satisfied with the health information they received from their local doctor these results demonstrate that greater than 25% of respondents are unsure or dissatisfied that their health questions are answered and with the health information they receive from their local doctor. In particular, it is the younger respondents, less than 45 years old, who are most likely to be dissatisfied, suggesting there is a shift in the expectations of the type, quality and extent of health information desired by these individuals.

If indeed there is a shift in the demands for health information it raises certain questions as to: whether the current health system can accommodate these health information demands; whether the current reliance of the community on local doctors is out of necessity due to a scarcity of alternative choices or due to a true preference; what the restrictions to health information delivery within the current medical system are; and, whether the increased health information requirements of the community and the accompanying transition from passive recipients to involved health actors is compatible with a health system which has previously evolved with a passive constituency.

This research was conducted to inform the development of a community e-health model to address the health information needs of a low socioeconomic community as part of a doctoral research program. It is the author's view that an integrative community health strategy, mediated by information and communication technology and adequately linked to treating health care professionals would be a valuable community resource. The local doctor has for long been the most important source of health information for the community and still remains so, however, the evolving health information environment may necessitate a revision of the health education role of the local doctor.

### Acknowledgements

Jared Dart was supported by a National Health and Medical Research Council PhD Scholarship and a Mayne top-up scholarship from the School of Medicine, University of Queensland.

## **Competing interests**

The authors declare that they have no competing interests.

### References

- 1 National Health Information Management Advisory Council. Health online: a health information action plan for Australia. Canberra: Commonwealth of Australia, 2001.
- 2 Australian Bureau of Statistics. Socio-economic indexes for areas [online]. Canberra: ABS, 2001.
- 3 Dart J. An investigation of the means of making eHealth more relevant to low socioeconomic communities [doctoral thesis]. Brisbane; University of Queensland, 2006.
- 4 Access Economics. An analysis of the widening gap between community need and the availability of GP services. Canberra: Australian Medical Association, 2002.

(Received 14/05/07, revised 20/11/07, accepted 28/11/07)