Better health through better information: what works the best?

JIRI DAVIDSON-RADA*

Introduction

Cutting budgets and eliminating services are not the only ways to lower health costs. Teaching patients how to handle some of their own medical problems and educating individuals and groups about health and health services has been shown to lower medical costs and improve health.

We can effectively change health attitudes and behaviours by the provision of appropriate information. There are many media available for the transmission of information and their relative effectiveness will depend on the situation and type of message being communicated. Research has clearly identified several 'ingredients for success' in the provision of information to change attitudes. While mass communication may be very useful, its effectiveness is greatly enhanced if it is combined with other methods of communication.

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It is not possible to guarantee success in changing health attitudes and behaviours because of the many barriers or factors resisting change. According to Downie, Fyfe and Tanahill[1] "deep seated attitudes tend to be part of an integrated pattern of associated beliefs, and so it is extremely difficult to change them item by item". Additionally, attitudes are generally a function of society or group membership, rather than of the isolated individual.

Successful attempts have been made to teach basic health care - what ailments and injuries can be easily treated at home and when to see the doctor - and programmes have also been established to help patients research their own health problems, take part in medical decisions and question health care providers on the need for tests, medicines, surgery and treatment.

Making information accessible to Maori and Pacific people is a major area of concern in New Zealand. Traditional health promotion programmes have been effective for non-Maori , but have had relatively little impact upon Maori and Pacific populations. A good example of this is the SIDS campaign, which aimed to reduce the prevalence of three modifiable risk factors and was very successful in reducing non-Maori rates but did not impact upon Maori and Pacific rates. Maori are an important group within New Zealand who face significant health disparities and barriers to accessing good quality health information. There are similarities here for the Pacific population - though the messengers and messages may not be the same.

The problem

Many important health care decisions are made far from the doctor's office. Every time people try a new low-fat recipe, bike instead of drive to work, or clip an article on testicular cancer, they're making decisions about their health.

Adams claims that cutting budgets and paring services are not the only avenues to cutting costs. Teaching consumers how to handle some of their own medical problems is fast becoming the most important piece in the cost-cutting puzzle[2]. Cuts and restructuring are only one part of reform; getting people to take more accountability for their own health care is another.

United States studies show 70 to 80% of visits to family doctors are for self-limiting diseases or minor injuries - conditions that mostly can be treated at home. A 5% increase in self care means a 25% decline in the demand for professional care, according to Kaiser Permanente research in California[2]. The act of just sending out self-care books by mail has been shown to decrease visits to doctors for minor illnesses by 35%.

* *Senior Lecturer in Public Health. Department of Public Health, Wellington School of Medicine, University of Otago, New Zealand, E-mail: <jirirada@wnmeds.ac.nz>*

A novel way of improving health is not only by teaching basic health care - what ailments and injuries can be easily treated at home and when to see the doctor - but also by helping patients to research their own health problems, take part in medical decisions and question health care providers on the need for tests, medicines, surgery and treatment[3].

People want accurate health information to be able to participate in decision making. Participants in a Canada-wide health survey believe that people would be healthier if they took more personal responsibility for their own health. Having a balanced lifestyle, eating nutritious food, exercising, not smoking and immunisation were specifically mentioned. The importance of having "good information" about health was also noted by many participants[4].

For new immigrants, the major barrier is usually the lack of knowledge about the system as well as language and cultural impediments. The importance of understanding various cultures could help prevent misdiagnosis and improve disease prevention among newcomers. However, even if strategies and tools are developed which greatly improve the accessibility and relevance of information, available information does not guarantee adoption. Barriers to the adoption of evidence exist for all decision-makers and include such factors as the poor quality of evidence, lack of user support and threats to income[5].

Continual improvements in the dissemination of relevant information must be supported with further emphasis in developing and incorporating incentives and methods which encourage transfer of best evidence. However, the current health information infrastructure is built on separate health sectors and jurisdictions, as well as fragmented information systems. Data collected in various parts of the health system (health facilities, community-based facilities) are often not standardised or easily integrated.

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According to National Forum on Health[5], minorities and different ethnic groups also need their own methods and tools to get evidence for the professionals and decision makers in their communities. Given that 'their' health services are organised somewhat differently, the development of such methods and tools should be based on an understanding of what approaches have been successful. The methods would need to be rigorous and allow comparisons. To get to where we will be able to use better evidence for better decisions, we will need to work on both the information technology (infrastructure) and on information systems. We will need to develop communications pathways and compatible linkages. We will also need to standardise ways to collect, analyse and disseminate data.

International evidence shows that the public wants to be more involved in making decisions about the direction of health care reforms, as well as their personal health. Information is vital to allowing the public to participate actively. Yet, information on health and health care is often complex and inaccessible to the public.

Some consumers want to be at the centre of the health system because the current set-up had left them feeling disempowered. One person described it as "always feeling one appointment behind in her ability to question the doctor." Another added that "health care providers spend years developing their knowledge and skills, while patients generally only think about treatment issues after they've been diagnosed. This can be a particularly stressful time, and often a difficult situation in which to make good decisions." It was strongly emphasised that providers must be sensitive to the uneven distribution of information and, as a consequence, present information to patients in an understandable manner[7].

Putting patients at the centre of the system, however, does not necessarily mean putting them in charge. Most patients want to be informed about their treatment and care, but not all want to be involved in decision making. People's desire to be involved often depends on who they are (eg, young, well-educated females are more likely to want greater involvement); and the types of decisions. For example, a recent study found that "women newly diagnosed with cancer often want their physicians to make treatment decisions, while post-menopausal women want more control over their decision to use hormone replacement therapy (HRT)". For some, this trend to consumerism in health care is a move from consent to informed consent; for others, it is a move from informed consent to informed choice. Different individuals want to be involved at different levels in the decision making process. Health professionals need to clarify explicitly the level of involvement which each patient chooses[7].

A potential risk of a well informed public is the placement of competing demands on physicians. They want them to be almost superhuman in their knowledge and ability, while at the same time, they want them to be approachable and have the time to listen and talk to them. When physicians do not find the perfect balance, they risk characterisation as either arrogant or unprofessional[7].

On the issue of informing consumers, there is general agreement that what is most important is not the quantity of information, but "getting the right message to the right

people at the right time". Social marketing strategies can be effective in customising information for specific audiences. Information that is not appropriately targeted can result in inappropriate health care decisions. For example, following recent advertising campaigns for breast cancer, some very young Pacific women (who are in an extremely low risk group) were asking for mammograms. Right message but wrong audience.

Multifaceted social marketing campaigns that use market segmentation have a better chance of success. But it is difficult to measure their effectiveness because many external factors affect the success of social marketing campaigns. For example, in the case of alcohol consumption, millions of dollars are spent to advertise alcohol and its consumption, while a much smaller amount is spent to encourage people to drink moderately.

At the provider level, the challenge is to make better use of information and the tools available for disseminating existing information. We have the potential today to use tools such as the Internet to bring the most sophisticated and most up-to-date medical knowledge directly to the bedside and the physician/patient interaction. There are a number of new technologies that make treatment information more accessible to physicians and patients. The use of these tools should be more actively promoted within the health care system to facilitate communication and understanding around health and treatment decisions[6].

Another aspect of the relationship between consumers and the health care system is the growing consumer interest in indigenous healing practices and alternative medicine. A culture of evidence must be created so that patients can find information on effective treatment options, whether they are conventional or alternative. Unfortunately, the issue is often presented as alternative versus traditional medicine, rather than as what is effective versus what is ineffective in treating a particular condition.

The former Public Health Commission (PHC) identified health information as one of the major problems faced by Pacific people in New Zealand. Availability, access, and use of health information were seen as major deficiencies. Health education and health promotion are the major vehicles that can be used by both government and non-government agencies in an effort to improve these problems. The problem is further compacted by the fact that there is an increasing demand for culturally acceptable information, but fewer Pacific Islands health professionals to deliver it. Efforts are being made to reduce this problem, especially in Auckland and Wellington.

The South Pacific Commission (SPC) based in Noumea has established the Healthy Islands concept as part of the application of the health promotion principles of the Ottawa Charter. In its Health Promotion Strategic Plan, the following objectives have been stated

- Empowerment of health educators in the region through the provision of accessible health promotion information, training and technical support.
- Development of new health promotion resources/materials and evaluation of existing materials.
- Development of a cost-effective distribution model for health promotion materials.
- Development of new initiatives through collaborative efforts with other SPC programme areas, for example, Pacific Women's health and non-communicable diseases programmes.

Health information intervention attempts

Increasingly, people are becoming more informed of their treatment and what it involves and many want to be involved in decision making. They want to have choices and to exercise their own judgements. Increased involvement in treatment depends on age, sex, education and the type of treatment required. Evidence also shows that people want having information in an understandable format at a time when they need it, namely, when they are diagnosed with an illness. Effective health information can help describe alternatives, risks, benefits and treatments, and create realistic expectations for patients.

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Even though much health information has been used to educate the public and to reduce health costs, there is no consistently documented research evidence that this exercise is effective. The following examples are accounts of dissemination of health information for the consumer.

Do we really need this resource?

In 1995, the Public Health Commission in Wellington (under the supervision of this writer) sponsored the production of the manual for health educators and health promoters, to assist in the planning, development and production of more effective health education resources. Its purpose was to improve the quality, co-ordination, appropriateness and distribution of health education resources. It deals with such issues as 'when do we need a resource?' and 'what types of approaches are most suitable'. Among other topics, the manual discusses the needs of different groups, including men and women, and Maori and Pacific people.[8].

Pacific health information issues

The PHC had strongly encouraged the health professionals of the Pacific communities to programme sound health information into their planning and programme delivery. This concept has been successfully applied in interventions, such as the Pacific Islands Heartbeat, and promoted by such highly visible organisations as Oasis Resources Ltd, Pacific Islands AIDS Trust (PIAT) and Hutt Valley Health Pacific Islands Unit. The programmes developed by the PHC and the correct Pacific health providers (eg, Oasis, Hutt Valley Health) have as their overall aims:

- The improvement of acceptable health information resources.
- An increase in the number of trained health educators and promoters.
- An increase in health knowledge and understanding among the Pacific Island population.
- Voluntary behaviour change.

Maori health information issues

The need for effective health information was clearly stated in Te Ara Tohu - Strategic Management Plan for Maori Health, 1994-1999. Under Core Values, Te Kete Hauora (Maori Health Group in the Ministry of Health) has stated that in order to promote health and maintain cultural and professional integrity, they will provide "accurate, reliable and timely quality advice." They are also committed to giving advice which is "open and transparent to Maori"[10]

The effectiveness of health messages for Maori has been well documented. According to Ropiha, the "creation of messages needs to originate and utilise the images, the language and protocol of Maori to ensure that the meaning of the message gets through to the receiver, Maori people". How Maori people come into contact with and/or are contacted by a message depends largely on how relevant the message is to them for the message to get through. It means that the vehicle used to carry a message needs to be identified as a Maori vehicle; whether the message is relevant to the person receiving the message will depend on what the message is[10].

Ropiha states further that it is easier for the intended Maori audience to understand a message that is conveyed in a manner familiar to them. The delivery needs to be acceptable to them and the images presented in the message need to take into account the receivers' understanding of reality. An effective message works with the receiver rather than at the receiver. Therefore, the message needs to be accessible, available, agreeable and acceptable. The most easily identifiable effective message is one created by Maori, for Maori within a Maori context[10]. There is also a strong need to educate the educators - a need to develop training courses that highlight culturally appropriate Maori practices and procedures.

Another source that highlights the need for effective delivery of health promotion messages is He Tatai i te Ara - Guidelines for developing Maori health education resources[11].

Health information: the communicator, the message, the audience and the medium

Downie, Fyfe and Tanahill[1] argue that attitudes can be changed in two main ways:

1. By the provision of information which is inconsistent with current beliefs. Information may be presented:
2. by books, newspapers, magazines, and leaflets by the spoken word through tapes or the radio in a visual manner by film, TV, or lecture.

All these vehicles may provide information which conflicts with a person's beliefs by making people behave in a manner which is inconsistent with their current beliefs. This can be done either by:

- direct exposure to the attitude object, for example by role-play or directed observation; or
- by changing the rewards and costs of different courses of behaviour, by legislation for example.

This section will highlight the conditions for providing effective information as well as the roles of the communicator, the message, the medium and the audience.

Providing information

Attitudes can be changed by the provision of information which is inconsistent with a person's current beliefs[1]. The mere repeated exposure of an individual to a stimulus has been shown to be sufficient to enhance his or her attitude towards it[12]. Nevertheless, people are bombarded daily with a mass of information and only a small proportion of it ever 'sticks'. The information may be ignored; it may be acknowledged, but may not be retained; it may be remembered for a short time and then be forgotten; or, indeed, it may stick and remain but be disbelieved or redefined. The aim, then, is to present information in a way that will be attractive and have immediate appeal to people, and cause it to be accepted and retained.

The communicator

The more the people like the communicator, the more likely they are to be open to his or her arguments. The most powerful traits that contribute to 'liking' seem to be loyalty, honesty, sincerity, competence, and physical attractiveness. There is also evidence that people like others who have opinions similar to their own; and who are dressed and groomed in a similar way to themselves. In short, a message is more likely to be accepted if it is delivered by someone who has similarities with the audience, and who is honest

and sincere about the message he or she is putting across[1].

Walster and Festinger[13] have found that a "message is more effective if it is overheard rather than directed towards the listener. People become suspicious if they think that the communicator is trying to persuade them of something. For example, information about the dangers of transmission of HIV via infected needles might be more effective at changing attitudes among drug users if it is 'overheard' rather than aimed directly at them. In addition, if the intentions of the communicator are perceived as honest he or she is more likely to produce attitude change.

An essential factor in disseminating health information among Maori and Pacific people is that the more prestige the communicator possesses, the greater the change in attitudes he or she is likely to produce[14]. People are not foolish enough to believe information just because it is told to them. They need to have some basis for judging its credibility. The use of group members, or opinion leaders within a community, as a source of information can therefore be an effective strategy for changing attitudes. However, the other role of group members, that of 'insulating' current attitudes and resisting change, should not be forgotten.

In Pacific communities health professionals are the leaders in their profession and any health message is expected to be delivered by them. It is more or less a cultural norm in many Pacific countries that the doctor is the only one the community will accept educating on health from. Even though a nurse may be instructed by the doctor to perform that role, lay people are usually only involved in supporting roles such as organising transportation, meetings, refreshments and social functions[15].

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The message

Provided information must be useful and relevant to the recipients and be relevant for the person at that moment. Positive information is preferred to information that is negative. There is strong evidence that people attend more to 'good' news than bad, especially when they are forming an opinion or when their commitment to an opinion is low.

Research shows that simple messages are more powerful than complicated messages. Novelty of the information is also of importance. If people believe that they are about to hear something new, they are more likely to change their attitude towards the subject after hearing the message. This principle also extends to the use of 'alternative' methods, such as art, drama, and humour, for transmitting the information. In most situations, two-sided communication is more effective than one-sided one - probably because communicators are likely to be perceived as better informed, less biased, and less trying to influence the audience[1].

The audience

Not everyone can be reached with the same message, nor should they be. Getting the right message to the right people at the right time means targeting the message. For example when promoting the responsible consumption of alcohol, a message appropriate for pregnant women is different from one appropriate for people in social situations, and different again for drivers.

Hovland and Janis[16] have shown that subjects who are "persuadable under one set of conditions tend also to be so under others". We do not know which personality factors are responsible for this tendency even though most research agrees that subjects low in self-esteem are more persuadable. Also, women have been found to be more open to persuasion than men. Intelligence is another factor which is related to persuadability in certain circumstances. However, the relationship is not a direct one, as is illustrated by the finding that intelligent people become more persuadable if a conclusion is not stated.

It is strongly advisable that those communicating health messages do not decide on the arguments to use before finding out the attitudes presently held by the audience because people judge new information in terms of how they already feel about a topic. Any argument that differs too much from their current beliefs on a topic will be rejected. Presently held attitudes may be changed but only through gradual progress over time.

The medium

The medium used to convey information can be crucial to the success of attempts at changing attitudes. The superiority of audiovisual modalities over the written or spoken word is well attested in education technology. There is sufficient evidence to suggest that film or video can be an effective way of informing the public. The audio-visual medium has several clear advantages over the written word and also over audio-recordings. However, written words and recorded sound have their benefits as well, and should certainly not be discarded as media for providing information[1,17].

Information provided in books, magazines, and leaflets is relatively inaccessible to those who either cannot read or

are unlikely to apply themselves to comprehending and assimilating written information. It needs to be presented in an attractive, interesting manner to encourage people to read. There are several ways of doing this. Zimmerman[18], for example, proposes the use of humour as an effective way of presenting messages. It often allows people to see the problem in a different perspective and creates a mood in which other positive emotions, such as enthusiasm and hope, can emerge.

As mentioned before, people are more receptive to information presented by someone similar to themselves. The voice is one indicator of similarity, and in this sense audio-recordings could have an advantage over the written word if the communicator is matched with the target audience.

Audio-visual methods are most effective if they incorporate some of the ingredients already identified: presentation by a credible, prestigious presenter - giving positive information honestly, and in a simple and relevant form. Several studies have elicited changes in viewers' attitudes following a visual presentation. The differences were not as great as those found with a face-to-face meeting, but video proved decidedly superior to audio-recordings of the same events. Probably the best of way of providing information is for different media to combine, overcoming limitations of some methods and reinforcing messages in different ways.

The best fit message

The type of messages, the ways that they are presented and the methods of dissemination are all aspects of a desired message that is highlighted below. It is a summary of issues to take into account when sending health messages to Maori and Pacific people.

Assimilation
- avoid complex multi-messages
- promote positive Maori/Pacific concepts

Language
- keep the language simple and clear, avoiding jargon and transliterations (in translations)

Approach
- approach people in ways that are acceptable to them
- use a promotional group approach as often as possible
- keep messages consistent at all levels of influence
- use practical task-orientated education methods if possible

Relevance
- keep programmes accessible and representative of Maori/Pacific Island needs and aspirations
- avoid converting, adjusting, manipulating and stretching programmes intended for Europeans to Maori/Pacific people

Dissemination
- use existing Maori/Pacific networks to disseminate information in addition to usual channels

Media strategies
- ensure that media strategies promote positive Maori/Pacific role models, the work images are relevant and exciting and build upon Maori/Pacific knowledge systems and work within them
- avoid scare tactics, negativities, victim blaming and promoting unfamiliar social systems and environments.

The best fit messenger

The best fit messengers are Maori/Pacific people at the first instance. Whether the person is male or female depends on the area that they are promoting. For example, "Rangatahi respond well to either and tend to prefer someone to fulfil an older brother or sister role and are reformed smokers. Women prefer women. In the area of sexual health, an older women is seen to be more preferable, especially if she has had children"[10]. The messenger needs to be someone that people can relate to and identify with.

Conclusions

In order to effectively improve access to, understanding of, and use of information, there is a need to concentrate on the following:

1. educating the health professional; the health professional in the future must become an expert in some very new and very old forms of communication.

2. educating the general public and implementing effective health promotion strategies at:
   - schools and the formal education system
   - health services
   - workplaces
   - mass media
   - community-based and community wide contexts

3. developing a health information infrastructure to give all New Zealanders the highest-quality, lowest possible cost information network, in order to give them all access to the employment, educational, health care and wealth creating opportunities of the 'information age'. It is important to stress that many Maori/Pacific communities are not at the same starting point as 'European' communities; therefore Internet access to health information is probably unlikely to become a reality for Maori/Pacific communities in the near future. The emphasis must be on the basics: improving access to, understanding of, and use of health information. The appropriate approach must also stress (at least initially) developing a culturally effective health workforce (including development of the Maori and Pacific health workforce) and making use of appropriate messengers and messages.

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Health is the first of all liberties, and happiness gives us the energy which is the basis of health.

Henri Amiel 1821-1881 in Journal Intime