## Understanding influences on self-care behaviour





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### UNDERSTANDING INFLUENCES ON SELF-CARE BEHAVIOUR

#### **EXECUTIVE SUMMARY**

Self-care has enormous benefits to individuals and to the formal health- care system by responding to the consumer desire to take a stronger role in their own health and by reducing unnecessary utilization of scarce professional healthcare resources. Understanding how consumers make decisions and what inputs influence those decisions is critical to ensuring a holistic approach to maintaining a strong self-care environment.

This paper describes the valuable role that self-care makes to the well-being of individuals and to the sustainability of healthcare systems. It also describes the decision-making process that individuals go through with respect to dealing with everyday ailments.

Research demonstrates that there is a well-defined path that people follow in their quest for health-related outcomes. Studies point to a process of exploration of health options once an individual recognizes a need to address a specific health concern. When a person decides to take action there are numerous inputs that guide their final decisions. The strongest influences on self-care decision-making come from the advice of physicians, friends, family and other health care professionals. Passive information sources such as advertising of products plays a role in creating awareness that a product exists with specific benefits but product advertising has low impact since it is not self-driven. The real search for a solution to a health concern begins when a person starts a self-driven search for information.



When a solution to a health need results in the acquisition and use of a

health product for self-care, the success of that course of action becomes a highly influential input that can help people to make choices in the future. When a product delivers the desired outcome, there is a higher likelihood that the individual will recall that experience the next time the same need arises and will make the same decision.

The decision-making process that people employ to address a health need is considerably more deliberate than one might imagine. There are many inputs to the final actions taken and they all are important to understanding how people behave in response to an identified health need.



#### INTRODUCTION

Self-care is the primary modality of health care throughout the world. In fact, studies report that 80 to 95 percent of all health problems are managed through self-care (McGowan, 2014).

Understanding how people respond to their own health care needs is critical to making informed decisions about the valuable role that self-care can play in the delivery and sustainability of health care. The purpose of this paper is to provide an overview of the various elements that contribute to the way that people make decisions about maintaining their health or responding to illness and in particular how they make decisions about using medicines for self-care.

To paint a complete picture of how self-care is managed by individuals, it is important to understand the value that self-care provides to the health care system and to the people who choose to take a stronger role in managing their own health. The paper first sets out the evidence for self-care's role in the sustainability of health care. It addresses the resource allocation in health care and how giving self-care a greater role in health care is beneficial to both the healthcare system and individuals themselves.

Essential to the development of self-care policies (for example, regulatory control of advertising and regulated conditions for access to medicines) is an understanding of the journey that people take towards making a choice for their self-care needs. This decision-making process has many inputs that help shape the final choices that people make when choosing to engage in self-care and in choosing a consumer health product for health maintenance or treatment of an illness as part of self-medication. The impact of information resources on the decision-making process is critical to the final choices made. These inputs are discussed in the context of the various steps taken by people in their search process for self-care options, including consumer health products. All inputs have a valuable role to play but need to be understood in terms of their relative impact on how people eventually make use of their chosen treatment.





## SELF-CARE'S ROLE IN HEALTH CARE

The World Health Organization defines self-care as "activities individuals, families, and communities undertake with the intention of enhancing health, preventing disease, limiting illness, and restoring health. These activities are derived from knowledge and skills from the pool of both professional and lay experience. They are undertaken by lay people on their own behalf, either separately or in participative collaboration with professionals." (World Health Organization, 1983).

Broadly defined, self-care can mean many things, but within that larger domain, consumers can avail themselves of a wide variety of health products to assist in the prevention or management of self-treatable conditions. For example, smoking cessation is a behaviour that can contribute immensely to the health of an individual as well as providing a benefit to the formal health care system and society more broadly. For those wishing to quit, they may choose a smoking cessation product. Health products intended for self-care play a valuable role in supporting consumer's ability to manage their own health and thereby contribute substantially to the sustainability of health care.





#### ECONOMICS

Some governments recognize the value of self-care to the sustainability of their overall health care systems. In the United Kingdom self-care is actively promoted and encouraged. "Increased self-care, and the more aware and engaged public associated with it, could result in useful cost benefits for the health service both in terms of levels and effectiveness of resources, arising from more appropriate use of health and social care services." "Department of Health estimates ... suggest that, for every £100 spent on encouraging self-care, around £150 worth of benefits can be delivered in return" (Wanless, 2002).

Many other countries are recognizing the valuable role that self-care can play in the sustainability of their health care systems. Furthermore, self-medication is recognized as a fundamental component of selfcare. A report from the European Union makes this point clear. *"People want to have a more active role in their own healthcare, including in the decisions about what medicines to take. When it comes to access to self-medication, good information and support translate into empowered patients who can benefit fully from the opportunities of self-care and who can practise it safely and effectively with informed choice."* (Working Group on Promoting Good Governance for Non-prescription Drugs in Europe, 2013)

Several countries have examined the economic impact that self-care can have on the health-care system (see Appendix A). These studies have primarily looked at the costs to the system for people who do not look after their own health for self-manageable conditions but rely on doctors and other reimbursed medical services. There is growing interest in this sector as surveys amongst physicians confirm that a



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significant proportion of their time is spent advising patients about the management of self-treatable illness.

For example, Michael H. Cooper suggested that many patients are using doctor visits for self-treatable conditions (Cooper, 1985). He cites one study in which 50% of physicians said that 25% of their consultations were inappropriate, and a second wherein the doctors indicated a full 65% of their consultations were for minor complaints of the self-limiting kind.

A 2011 survey of United States primary care physicians, including internists and pediatricians (Consumer Healthcare Products Association, 2011) found that on average physicians believe that at least 10 percent of visits to their own offices *"result from minor ailments which could be managed by the patient, including the use of over-the-counter medicines."* Health economists Paul A. London, Ph.D. and Daniel Shostak, M.P.H., M.P.P., concluded from this study that avoiding just half of the potentially unnecessary office visits to primary care physicians would save approximately 26.3 million appointments or \$5.26 billion annually for the US health care system.



## SELF-MEDICATION'S CONTRIBUTION TO SELF-CARE

There are many actions people can take to engage in self-care and health promotion efforts often focus on the actions that can be taken through diet and exercise to help reduce the risks of chronic non-communicable diseases. Similarly, public education can provide useful information about how to avoid risk factors for acute illness such as hand washing and precautionary measures to reduce the risk of catching or spreading cold or influenza viruses.

There are health products available that also assist people in the treatment of illness (e.g. allergy medications), as well as reducing risks associated with other influences on health such as smoking (e.g. nicotine replacement therapies). Furthermore, people can access health products that can prevent or reduce the risk of some conditions (e.g. Vitamin D and calcium for preventing osteoporosis).



Figure 1. The self-care continuum. Adapted from (Duggan, Chislett, & Calder, 2017)

It is beyond the scope of this paper to discuss all the public health measures designed to help citizens make good lifestyle choices. The intention herein is to paint a clear picture of the role that self-care medicines play in the larger self-care continuum. In order to gain a comprehensive understanding of how people treat their own health it is necessary to frame their behaviour through the process they use to make such decisions.





### THE CONSUMER DECISION-MAKING PROCESS

The decision-making process always starts with a recognition that there is a health-related need to be addressed. Virtually all illness starts with the patient identifying that they have a health concern (except situations where a person is unconscious or is diagnosed through routine screening).

Once they have ascertained that they have a health need, the next step towards finding a solution is to gather information about the available options. While most people in developed countries have the option to see a doctor for any illness, the focus of the following discussion are the types of conditions that are amenable to self-treatment. There is a general alignment worldwide on the understanding of which conditions are commonly self-treatable. Few question that most people can and should manage symptoms such as common cold, headache, indigestion, insect bites and stings, minor cuts and grazes and pain due to sprains, soft tissue illnesses and joint pain and other conditions. With help in the initial diagnosis and access to effective medicines people are also able to manage conditions such as irritable bowel syndrome, migraine, vaginal thrush and cystitis.

The way that people search for, purchase and use products for self-care is highly influenced by the amount and type of information available about the choices to be made for either the management of a self-treatable conditions or the maintenance of good health. In a traditional consumer decision-making process, people start from a position of either familiarity with a product and its attributes or they are faced with a new health consideration where they have no previous experience. In the case where someone is faced with a recurrent health need, the decision process is aided by past experience but the same inputs into the process are still present regardless of whether the person wants to find a solution to a novel health concern or one that they are familiar with.

Even when people are confident that they recognise that they have a self-treatable illness they do not automatically use a medicine to treat them. In many cases they simply wait for the symptom to resolve itself or use a non-medical intervention to manage it. Graphically, the consumer decision-making process can be seen in Figure 2.



Figure 2. The Consumer Decision-making Process.



#### AWARENESS PHASE

There are numerous sources of information available that can provide a knowledge base to assist people in their search once a need is recognized. However, there is a period prior to need recognition that is important to the eventual search process. Advertising is a fundamental tool for marketers of branded products for self-care. Advertisements provide information about branded products, the conditions they treat and what health benefit they can be expected to provide. The main purpose of this advertising is to create awareness and differentiate products from each other in a very competitive market place so that when a health care need is identified by the consumer there is an initial awareness of some options to consider during the search process.



Every day consumers are exposed to numerous information sources and advertising (broadcast, print, web sites and social media) is a frequent vehicle to convey basic product messages. This exposure does not mean that every viewer of an advertisement is interested in the products or that every exposure leads to a sale. David Court puts this into perspective: *"Unless consumers are actively shopping, much of that exposure appears wasted."* They go on to point out that once there is a trigger to prompt a desire to act *"Those accumulated impressions then become crucial because they shape the initial consideration set"* (Court, Elzinga, Mulder, & Vetvik, 2009).

While advertising is a rather passive information source to assist consumers in their search, it has the advantage of being persistent. Since no advertiser would know when a person has recognized a health concern that they wish to address, they cannot provide "just in time" information about their products. Even for conditions which are seasonal in nature, such as the common cold and allergy, there is no guarantee that the advertisement will be seen by the person suffering this specific health problem. Having consistent messaging about solutions to self-care health needs available through the channels preferred by different people increases the likelihood that when a health needs arises there is an awareness of some initial opportunities to address that need. Therefore, general awareness can exist without the actual need for a solution.

Online advertising can focus on consumer search results for specific conditions, this provides some greater opportunity for a person with an existing health need to become aware of a product that may be suitable for them. However, this more temporally associated messaging does not change the fundamental nature of how advertising works as an awareness tool in the consumer search process.

For example, someone watching a sporting event may see an advertisement for an athlete's foot remedy. This information has value for those seeking a treatment for that condition but if the person watching the commercial does not have that condition, it is unlikely that they will feel the need to investigate this any further. However, should they eventually experience the symptoms of athlete's foot they already have an awareness of a possible choice that they can pursue.

This example highlights the fact that advertising for health products gains attention from viewers when it is relevant to their existing health care needs. They tend not to take action after seeing an OTC ad if there is no relevance to their current personal situation. However, as Willis and Stafford point out *"If the consumer finds the message relevant, he or she is more likely to allocate more resources to comprehend the content..."* (Willis & Stafford, 2016). This reinforces the role of advertising as a source of information that can trigger subsequent steps in the search process rather than being a highly influential driver of purchase intent.

A model for the utility of advertising as an awareness tool has been developed and tested to determine the factors that influence whether an ad message can effectively raise awareness to stimulate a further search process (Huh, DeLorme, & Reid, 2016). In this model, there are a number of complex conditions that must be satisfied before an advertisement can successfully influence prompt the search process. The key findings of this research



support the common-sense notion that attentiveness to advertising is fundamental to its utility. Attentiveness is driven by a person's needs at the time they are exposed to an advertising message. The greater the need for a solution to a health issue, the greater the attentiveness will be to the message.

The same research by Huh et al. demonstrated that ads for consumer health products is highly related to cognitive (critical thinking) rather than affective (attitude) responses. This means that nonprescription medicine advertising prompts an evaluation of the product by consumers instead of spurring immediate purchase decisions. The authors conclude that OTC ads provide their value *"by influencing consumers to first think about ad-delivered drug information and then evaluate those judgments."* The most common behaviors that are derived from seeing ads relate to further information seeking. The greatest frequency of reported actions prompted by a media message include communications with a health care professional or friends and relatives (Lee, King, & Reid, 2015)

In general, the real driver of the search process for self-care health solutions starts with the recognition of a health need and a desire to act on finding a solution to address that need. The self-care need may be satisfied in the form of a therapeutic option for an illness that can be self-treatable or it may be a desire to take some action to prevent or reduce the risk of illness. Regardless, the next stage of the search process is where desire to act starts to be converted to taking action to resolve the identified health need.





### NEED RECOGNITION AND INFORMATION SEARCH

Up to this point, many of the information sources available to people has been passive but once a person's desire to act is stimulated they take on a more active engagement role in seeking inputs to guide their evaluation of options. According to research by Court et al. two-thirds of the touch points during the information search phase involve consumer-driven information seeking (Court, Elzinga, Mulder, & Vetvik, 2009). These touch points involve resources such as advice from friends and family, doctors, pharmacists, web-based reviews and past experiences.



Where a person has had a previous experience with a health concern, their past experience has a significant impact on decisions to be made for there current condition. Influences such as successful outcomes from the previous experience are powerful determinants of actions to be taken. However, that experience can be further influenced by other inputs from numerous sources. There are several studies on the relative impacts of different resources on the consumer's evaluation process.





### RELATIVE IMPACT OF ADVERTISING AND OTHER SOURCES

Due to the prevalence of advertising, it is tempting to overstate its influence. As an awareness tool, product advertising is a very valuable input but once a person has recognized a need and decided to take further action, advertising plays the least significant role in the final selection of an appropriate product.

A study done by Hill and Johnson (Hill & Johnston, 2014) found that there are a large number of sources that people turn to in their search process. The top three resources are the physician, family and friends and the pharmacist. More importantly these are also the top three most trusted information resources. It is at this point that advertising and other passive information tools are given much less weight in the evaluation process. In this study, product advertising is only trusted as a tool to assist in decision making by 6% of the population. In a review of the effects of advertising on health behaviours, Koinig also found that advertising played a small part (also 6%) in the decisionmaking process for the selection of products intended for self-care (Koinig, 2016).

Research conducted in Great Britain (British Market Research Bureau Ltd., 1987) similarly found that only about 6% of people said that advertising has influenced their choice of a particular product. These results also have been found in the United States where consumers trust doctors, pharmacists family and friends significantly more that advertising (only 6% trust advertising as an information source) (Accent Health, 2014). Advertising was rated as the lowest influence out of 20 attributes that consumers rely upon for their choice of OTC medicines in a 2013 study (Nielsen and IMS, 2013).



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Interestingly, the low level of advertising impact on the decision-making process continues after a person has previously dealt with the health concern. A study in the United Kingdom (British Market research Bureau International, 1997) found that the main influence of a subsequent re-purchase of a nonprescription medicine is the positive experience they had with the outcomes of the prior treatment. In the case of a repurchase decision 49% of the impact resulted from past experience, followed by impacts from friends and family or physicians with advertising accounting for on 6% of the considerations for a decision.

In a US study (Roper Starch Worldwide, 2001) the authors conclude that the main sources of information that influence a decision to purchase and use either an OTC product or a dietary supplement were physicians or friends and family members. However, they also noted that "The extent to which people rely on these sources and other less traditional sources, such as the Internet or newspaper articles, varies based on the seriousness of the ailment. When it comes to serious medical conditions, people tend to seek out a physician's advice and rely very little on other information sources. For self-manageable conditions, on the other hand, the sources consulted are much more varied."

Another study from the United States (IRI, 2014) also found that the doctor was the major influence on OTC and dietary supplement purchase and use (almost 4 out of 5 claim they are influenced by a physician). When asked, consumers indicated that they are primarily concerned about the safety of products and which ones are preferred.



Seventy-two percent of respondents indicated that they check to determine if there are interactions to be concerned about and 52% want to know about side effects. A further 46% wish to determine if an OTC treatment is preferred to a prescription drug. Consumers find that OTC advertising is focused more on information than ads for other categories of goods (Ipsos, 2014). This multi-country analysis of consumer perceptions of advertising also noted that the messages are primarily focussed upon the product attributes and relevance to health needs so that specific product recall is somewhat lower than other categories of advertised products. The authors state that *"OTC ads communicate much more on a posture of service-provider than on a posture of product-seller. Consumers remember pieces of advice and solutions for small illnesses they heard in the ad but they notice less the product's name (or the brand itself) than in other sectors. To sum up, they see OTC ads as being helpful in their search process, at the opposite of ads that are seen to promote impulse purchase."* 

A similar study in Japan (Morimoto, 2017) showed that "product merit" advertising is the most common focus for OTC advertisements. The authors note that "this is not too surprising as people purchase OTC drugs to solve a particular problem (i.e. ease symptoms)". Since consumer health products are not considered to be impulse items, this focus on informational aspects of product attributes serves to inform those who may have an existing or future health need and serves as a useful awareness tool in the search process.

Overall, advertising may be a low-involvement medium but it serves two purposes. First, to raise awareness of a possible solution to an identified health need and second, to allow manufacturers to make consumers aware of their particular brand within the range of products available.





## **EVALUATION OF ALTERNATIVES**

During the stage where a person examines their choices in response to their health need they take into consideration a number of potential actions. When it comes to a self-manageable condition, they may choose to do nothing, purchase or use a product for self-care or seek a health care professional to resolve the issue. A study done by BMBRB International (British Market research Bureau International, 1997) found that 46% of people weighed their alternatives and chose to do nothing about their condition. Twentyseven percent used an OTC medicine to deal with their condition while the remainder of actions chosen included seeking a doctor's prescription or using a home remedy.

The reasons that people chose to do nothing rather than treat an illness included the lack of perceived severity (44%), a feeling that the condition really doesn't need treatment or that the problem will resolve itself (26% and 20% respectively).

Once the individual decides that there is a need to act to address either a current condition or to act in a manner that can reduce the risk of illness, they gather information on the available options to deal with their health need. It is at this time that product alternatives arise from which they can choose. How they asses these alternatives often depend upon the number of choices they have and their own selection criteria.

It is at this stage that people compare the various products that they have determined to be capable of solving the health needs that they intend to address. Evaluation criteria that guide the evaluation process can either be objective or subjective. The subjective aspects are often guided by the existing attitudes that an individual holds while the objective process is a more systematic consideration of product attributes.

With respect to objective assessment of the options, a decision filter is employed where various product attributes are considered before making a decision on purchase. In a cough and cold study that examined the filters used by people with cold symptoms the results





pointed to symptom relief as the primary consideration. With several products that could treat cold symptoms available the next consideration was which brand would be preferred. Then attributes such as form (e.g. liquid or solid), flavour, size and price are used to narrow the choices to where a single product is deemed to be appropriate for dealing with the identified health need (Novartis Consumer Health, 2014).



#### PURCHASE DECISION

Unlike most consumer purchases, decisions about health are more complex and often there are numerous inputs into the final decision. It is noteworthy that one of the largest influences on a decision about health actions occurs at the moment a person faces a decision to select a product from the store shelves.

Aker and colleagues published a study that examined the steps consumers take when they are seeking a consumer health product in a retail environment (Aker, 2014). They found that consumers in the final stages of making a product choice are guided by signage and to some extent familiar brands. They start by looking for



helpful signage (94%) that will lead them into the area where they will find health products. They then look for category specific signage (89%) that relates to their symptoms or needs and finally they narrow the search to familiar brands (56%) and other product attributes such as price (14%).

As previously noted, past experience can reduce the number of considerations but where there is no previous need to deal with a particular health concern, the full search process is generally employed and the time invested by an individual to make their choice is considerably longer. Research into how consumers behave when purchasing a nonprescription medicine for the first time reveals that there is a significant amount of time spent understanding the product's attributes (indications, cautions etc).

In a study that examined how people act when they are making a health product choice for the first time, over 95% of purchasers read label information prior to purchase (76.9% always read the label and 19.0% usually do so) (Taylor, Lo, & Suveges, 2008). Beyond the examination of product labels prior to selection, a significant number of people also ask a pharmacist for advice when purchasing for the first time. In fact, this study found that only 9.5% of people never ask for a pharmacist's advice. Another study examine the same question regarding label reading prior to first purchase and found that 91% of people read the label to inform their final decision (Canadian Facts, 1991).

People who aren't familiar with a particular product for the condition they are seeking to treat, most often choose to seek out a pharmacist's advice prior to making the purchase decision. In an Australian report (Macquarie University, 2015) the vast majority (69.9%) of people indicate that they always seek a pharmacist's advice prior to an initial purchase of a new medicine. It is generally agreed that the main reason why pharmacists are sought for their advice is that they are seen as trustworthy and this creates a strong sense of confidence in the recommendations they provide for treating self-manageable ailments (Chan & Tran, 2016). This trust and confidence may be owing to a perceived impartiality. When it comes to advertising influences on pharmacist recommendations some studies report that the recommendations they make are based solely on therapeutic considerations and are not influenced by advertising (Kapedanovska-Nestorovska, Naumovska, Sterjev, Suturkova, & Grozdanova, 2016).

This behaviour was reinforced by another Australian study looking at the influence of advertising on health actions undertaken by consumers for self-care products (Centre for Health Economics Research and Evaluation, 2016). The effects of commercials were found to drive the search for a product where an existing illness was already identified. In this experiment, the test subjects were provided with an ad message while the control group was not. In both cases, consumers would most likely seek a pharmacist's advice about the product (64.6% for the test group and 58.9% for the control). This would indicate that an ad may slightly increase the likelihood of seeking a pharmacist's advice but reinforces the generally high reliance on the pharmacist in the search process. But there was another interesting observation. Where there was no awareness of a nonprescription product (the control group), the likelihood of a doctor visit was higher while the test group were more likely to see a pharmacist. In either case



the ad prompted the search process further when there was an identified need but it would seem that increased attention to ads for a nonprescription product may favour the use of a pharmacist's advise in the next stage of the consumer purchase decision pathway.

Another report on consumer behaviour and attitude found that the likelihood of a person approaching a pharmacist for advice increases with age (Redfern, M., 2011). For the most common category of medicine use (pain management), the likelihood of seeking a pharmacist's advice rose from 49% for those under the age of 30 to 66% for those 50 years and older.

In a 2011 report, the notion that a positive experience with a nonprescription therapy helps a person to deal with future episodes was supported (Redfern, M., 2011). Only 3-5% of respondents said that they would do something different the next time they needed a product for the same health concern. This is based on the same rates of satisfaction with the outcomes from their previous choices.

In a study of elderly patients, research demonstrated that there were two processes at work for people making decisions about their choice of self-care product (Holden RJ, 2018). One pathway was a very deliberate approach to using multiple sources of information to make an informed selection of a product for their condition. This process is characterized as a deliberation-based decision process and is a predominant course of action for making decisions on treating self-manageable conditions. The other pathway makes use of past experience and previous decision making leading to a successful outcome. While the latter is likely the result of an initial behaviour using the deliberation approach, both are based on receiving input from a number of sources before making a final choice.

The evidence would seem to support a consumer behaviour that seeks an environment where there are multiple sources of information when making a selection for the first time. After the initial use and satisfaction with outcomes the consumer may look to make repeat purchases without the need for such fulsome external input.





#### POST-PURCHASE BEHAVIOUR

Successful outcomes from a choice made by a consumer can reinforce their ability to deal with future occurrences for the same health need. The value of success with a particular brand is that it can provide a touch point for consumers when they decide to take action. After an initial experience with a specific brand and a successful outcome, the decision-making process can be shortened for that concern.



Brands assist consumer purchasing decisions by the use of brand name,

packaging and design attributes for products designed to treat the same or related conditions. To meet the needs of their consumers, brand owners constantly review and research consumer preferences and amend or develop their brands to meet those needs.

Positive brand experience can create loyalty to that brand and influence the decision-making process for a future recurrence of a particular condition. However, it can also be helpful when a person identifies the need to act on another health concern. When there are brands that are extended into other classes of health needs, then one of the considerations in the evaluation of alternatives can be emphasised by narrowing the search among competing brands in the selected category.

It is important to note that positive outcomes from the use of a chosen product is dependent on its proper use. Various studies have examined the use of products for self-medication and found that the level of adherence to label instructions is strong (Redfern, M., 2007).

In a study done in the United Kingdom adherence to label instructions was very high with 90% of people saying that they read the label carefully before using the product for the first time (British Market Research Bureau Ltd., 1987). Similarly, A US study (Roper Starch Worldwide, 2001) found that "An overwhelming majority of Americans say they are generally very cautious when they use nonprescription medications. Most people say they take necessary precautions, such as reading directions before taking a product for the first time (95%), reading labels to choose appropriate OTC medicines (89%), and reading about possible side effects and interactions (91%)."

Consequently, it is not surprising that people tend to use the products they select successfully and that this contributes to brand satisfaction and intention to re-purchase when the same need arises. Not only does the successful outcome create a positive input to future purchases, it also results in people making recommendations to friend and family for the same health needs. This, of course, is a strong input for the decision-making process of those to whom the person gives such recommendations.



### CONCLUSION

The influences on the consumer's decision-making process are numerous and the process itself is sophisticated relative to how purchase decisions are made for many other consumer goods.

Advertising and other product information sources play a role in creating awareness of self-manageable conditions and available solutions for self-care health needs. Such low involvement approaches to making the consumer aware of product availability are helpful in the early stages of the consumer search process. People most often see an advertisement in various media when they do not have an existing health need. However, once a person has identified a health need, the awareness created by advertising can lead to the next steps in the search process for a solution to the health concern. Similarly, awareness of advertising for a product previously purchased and successfully used can help reinforce that brand's value by reminding the consumer of its availability. It is clear from the examination of the role of advertising in the consumer search process that it does not create a situation where products would be purchased and consumed unless there was an identified health need.

Once a person recognizes a health care need and they decide that some action is necessary, they seek information to assess the alternatives available to them. The main sources of information that people use are mainly the recommendations of health professionals and friends or family members. Internet searches and other information inputs into the decision-making process add to the tools that people use to evaluate their treatment possibilities. During the evaluation stage of the decision process, many people will chose to do nothing. However, choosing to purchase a product to deal with their health concern is also a major course of action and the selection of a particular product becomes more focussed as the person takes the finals steps to purchase a product form the retail shelf.

Finally, after the product is chosen, purchased and used successfully for the intended purpose, the person has a new baseline of experience to inform future actions when he or she faces the same or similar needs.

The decision-making process that people employ to address a health need is considerably more deliberate than one might imagine. There are many inputs to the final actions taken and they all are important to understanding how people behave in response to an identified health need.





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# APPENDIX A: EXAMPLES OF COUNTRY-SPECIFIC STUDIES ON SELF-CARE ECONOMICS

#### AUSTRALIA

In a 2013 study (The Macquarie Centre for the Health Economy, 2014) the current value of over-the-counter (OTC) medicines to the Australian healthcare system was quantified. Hypothetical scenarios covering eight categories of common illnesses treatable by OTC medicines were examined and costs estimated if such products were only available on prescription.

Results revealed that 52 to 70 per cent of people suffering from an illness in these categories would visit a doctor to obtain their required medication. Given this potential impact on physician workload, the costs to government and third-party payers would be unsustainable. Government would have to pay an additional \$2.5 billion (Australian) for the resulting 58 million doctors' visits. Taking into account the indirect costs of visiting a doctor, these eight categories of medicines would have cost Australia over \$10 billion if there were no access available to lower risk medicines for self-care. In other words, self-care in these few categories of illness saved the Australian economy in excess of \$10 billion. Once all categories of self-treatable health concerns is considered the savings are very impactful.

#### CANADA

A 1989 study conducted in Ontario demonstrated that 13.2% of all visits to family doctors and general practitioners are for the treatment of colds and minor viral respiratory conditions. In other words, 9.3 million Ontario residents consulted their physicians about self-limiting respiratory infections. The total costs for these self-manageable conditions to be treated by doctors are enormous. In fact about 12.5% of the provincial government's payment to family and GP physicians) would relate to treating colds and minor viral respiratory diseases (Weinkaf, 1992). Based on the Ontario data, Canada would have spent over a billion dollars for the treatment of this category.

In 1995, Queen's Health Policy (Queens Health Policy, 1995) investigated the economic impact of individuals with allergic rhinitis. The authors assessed the value and costs associated with various treatment options. They concluded that for every \$1 (Canadian) spend on non-sedating antihistamines, allergy sufferers received an average of \$1.24 in benefits. The study also examined the impact associated with switching these products to self-care status and found that there was a net savings to a single province (Ontario) of approximately \$11.6 million dollars in a single year. Once the cost of consumer's time to make physician visits and obtain prescribed drugs were taken into consideration, the total savings by giving consumers greater access to non-sedating antihistamines amounted to another \$4.4 million. After these products shifted to OTC status the savings to Ontario totaled \$16.0 million per year.

Overall, it has been estimated that self-care using consumer health products to treat self-manageable conditions has saved the Canadian Health Care system more than \$1 billion each year. That figure does not take into consideration the impact that a generally improved health status provides as a result of proper use of risk reduction self-care actions (e.g. the reduction of cancer treatment costs from the use of nicotine replacement therapies and sunscreen use etc).



#### **UNITED STATES**

In 2012, Booz&Co (Booz&Co, 2012) examined a scenario wherein people did not have access to consumer health products for their self-manageable health needs in seven categories.

The total value of OTC medicine was assumed to include the total direct savings from not having to visit a doctor and associated prescribed medication costs. The model used took into account the value derived from the enhanced access to treatment OTCs provide as well as effects on productivity from self-care (e.g., reducing the number of sick days and time out of work to see a physician).

The results of this study demonstrated that the availability of OTC medicine provides \$102 billion in annual savings relative to formal care alternatives. The authors conclude that for every dollar spent on OTC medicines there is a \$6-7 in value to the U.S. healthcare system.

Drug cost savings account for about \$25 billion, of the total \$102 billion in annual savings to the U.S. healthcare system. These drug-related cost savings accrue from using lower-cost consumer health products in lieu of higher-priced prescription medicines to treat self-managed conditions. Avoided clinical visits account for an estimated \$66 billion of total savings to the health care system.

#### **EUROPEAN UNION**

A study in 2004 looked at several countries in the European Union to determine the economic effect of self-medication on the costs of health care delivery (Association of the European Self-Medication Industry, 2004). The research was designed to determine the effect of people shifting from provided care to self-care. The utilization of doctor services for self-manageable conditions that could be treated by patients themselves varied from country to country (for example, in 1996 the United Kingdom reported that 14% of doctor visits were for self-treatable conditions). However the researchers used a very conservative conversion rate of 5% to estimate the cost savings from selfcare. In other words, if only 5% of the people relying on a doctor to treat their self-manageable conditions were to choose self-care then there would be immediate savings to the health care system.

The results demonstrated that for a 5% shift towards self-care, the savings would amount to 11.5 billion euros for the countries examined in depth. Extrapolating these data to the rest of Europe, the conclusion was that the overall savings would amount to 16.4 billion euros.

Releasing this self-care potential needs the full engagement of healthcare professionals to build the patients confidence and ensure that they know what conditions they can treat and when they should cease to treat and seek medical advice. The National Institute for Clinical Excellence has taken on this challenge and is now including self-care advice to physicians including information on the normal duration of illness and the "red flag" symptoms which indicate self- care is no longer appropriate or a differential diagnosis is needed (National Institute for Health and Care Excellence, 2012).

#### **MEXICO**

A 2018 study (Asociation de Fabricantes de Medicamentos de Libre Acceso, 2018) on the economic impact of self-care on 5 categories (cold/flu, acute diarrhea, vulvovaginal candidiasis, mycosis: tinea/onychomycosis and osteoporosis) demonstrated that for every \$1 MXP spent on the four OTC treatments the public health system saved \$5 MXP. For risk reduction in osteoporosis, the same study showed that the public health system benefitted from self-care by saving \$3.7 XP for each \$1 MXP spent by consumers.



## A healthier world through better Self-Care

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