

# Health Communication Outcomes

**At the Heart of Good  
Objectives and Indicators**

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# Health Communication Outcomes: At the Heart of Good Objectives and Indicators

*“How do we know if our campaigns are successful?”*

*“What should we measure?”*

At The Health Communication Unit (THCU), our clients frequently ask us these questions. We respond by saying it simply comes down to developing great outcome objectives and indicators.

## Well Written Outcome Objectives

A well written outcome objective includes these four components:

1. who you want to change (audience)
2. what you want to change in the audience (outcome)
3. by how much (the amount of change)
4. by when (time)

For example:

by how much	who	outcome	by when
To increase, by 10%, the number of...	+ ...youth between the ages of 12 and 18 who...	+ ...believe regular physical activity is essential for their overall health...	+ ...within six months.

## Well Written Outcome Indicators

A well written outcome indicator:

1. is specifically designed to measure progress related to an outcome objective;
2. indicates what you will specifically measure;
3. outlines where the data is available (or how it will be collected); and
4. is reliable, valid and accessible

**Reliability:** the degree to which measures used or observations made in a study can be replicated when repeated under the same conditions (1).

**Validity:** The extent to which a measure accurately represents an underlying construct or a conclusion accurately describes an underlying phenomenon (1).

**Accessibility:** The quality of being approachable and available to clients and users of the public health system (2).

For example<sup>1</sup>

For which outcome objective will this indicator measure success?	What specific measure will you use?	Where is the data available (how will it be collected)	Are there any concerns with the reliability, validity or accessibility of this indicator?
To increase, by 10%, the number of youth between the ages of 12 and 18 who believe regular physical activity is essential for their overall health.	+ The number of youth who list physical activity when asked for a list of the top 3 things they can do to stay physically and mentally healthy.	+ This is a standard question on the biannual survey conducted by the Canadian Association for School Health (CASH). CASH makes local data sets available upon request, for a small fee.	+ No, this survey question has been tested by researchers. It has been found to consistently (reliability) and accurately (validity) measure youth beliefs in the importance of physical activity for health and as it is already a part of a biannual survey, the data will be easily available (accessibility).

As shown above, effective outcomes start with carefully selected outcome objectives and indicators.

Please visit the Online Health Program Planner at [www.thcu.ca/ohpp](http://www.thcu.ca/ohpp) for more information and worksheets about writing good outcome objectives (worksheet 3.1) and outcome indicators (worksheet 5.1).

<sup>1</sup> This example is fictional

## Four Levels of Outcomes

THCU has a long tradition of coaching our clients to consider audiences and outcomes at four different levels: individual, network, organization and society (3). The long-term outcomes associated with each level and key audiences of concern are shown in Table One below. Although limited resources may make it impossible to address all levels at once, comprehensive, multi-level initiatives are necessary to achieve long-term change. Thus it is critical to use situational assessment data in the early stages of planning to guide decisions about which level requires the most attention at a given time.

**Table One: Four Levels of Audiences and Outcomes, for Long-Term Behaviour Change Initiatives**

Level	Bottom line target for change (longer-term outcome desired)	Key audiences
Individual	Initiating or maintaining a personal behaviour change	Groups most in need for change such as men, children, low income groups, smokers, etc.
Network	The social environment that impacts an individual and/or behaviour	Opinion leaders of networks such as families, groups of friends, colleagues, team mates. Network opinion leaders may change as the topic changes. For example, grandmothers may be influential on breastfeeding issues; certain friends may be influential about nutrition.
Organization	Policies and procedures	Decision-makers in organizations such as schools, workplaces, primary health care settings, etc. are the primary audiences at the organizational level. Employees, unions and customers are important secondary audiences.
Society	Formal laws	Elected officials and special interest groups are the primary audiences at the societal level. The media are a secondary audience.

Many theoretical models are available to help clarify how change might be affected at each level. These models can help us choose shorter term outcomes that will affect the bottom line. This is particularly important when time or resources prevent us from measuring longer term changes in behaviour, social environment, etc. Traditional and more recent theoretical models that apply to each model are discussed briefly in the following sections.

## Individual Level Outcomes

There is ample evidence to prove that health communication campaigns can affect behaviour change. For example, Wakefield et al. recently reported that mass media campaigns can result in health behaviour changes (4), while Snyder (5) found that approximately five percent of the intended audience changes their behaviour as a result of health communication campaigns. Snyder and others have argued that to be more effective, our communication campaigns need to state explicitly that a desired outcome is behaviour change, even if it is longer-term and even if resources are not available to specifically measure behaviour change.

*“If one has made a strong commitment (or formed a strong intention) to perform a given behaviour and has the necessary skills and abilities to perform the behaviour, and if there are no environmental constraints to prevent the performance of that behaviour, there is a high probability that the behaviour will be performed.”(6,7)*

It is important, especially when changes in behaviour cannot be tracked, to name other campaign outcomes that are precursors to behaviour change. Knowledge and awareness are typically named as outcomes of interest. However, an overreliance on these two outcomes blocks our view of other important precursor outcomes.

## Precursors to Individual Behaviour Changes

Fishbein’s *Integrative behaviour change model* (8) and THCU’s adaptation of Fishbein et al’s earlier work on behaviour change factors (9) in the THCU resource *Changing Behaviours: A practical framework* (10), provide excellent summaries of most well-accepted behaviour changed models. They also provide a concrete list of precursors to individual behaviour change. These precursors can be easily crafted into outcomes, forming the basis of outcome objectives and indicators. A list of these outcomes is shown in Table Two below.

According to Fishbein et al. (9) , intention, skills, and environmental barriers (bolded in the table below) are most important for indicating whether a behaviour change is likely to occur, while the others are more likely to “affect the intensity and direction of the intention” to make a behaviour change.

**Table Two: Menu of Health Communication Outcomes That May Lead to Individual Behaviour Change**

1.	Awareness/knowledge (ability to recall, understand, explain, analyze, synthesize) of risk factors, health problems
2.	Knowledge/awareness of solutions (e.g., services, resources, actions, behaviours, etc.)
3.	Belief in link between risk factors and health
4.	Belief/attitudes toward personal susceptibility
5.	Belief/attitudes toward advantages and disadvantages of doing and not doing the recommended behaviour.
6.	Belief/attitude toward whether/how behaviour is or is not consistent with self image/personal standards
7.	<b>Intention to perform a behaviour</b>
8.	Information seeking behaviour
9.	Perceived social support/social pressure
10.	<b>Perceived barriers in environment</b>
11.	Self-efficacy/confidence about making behaviour changes

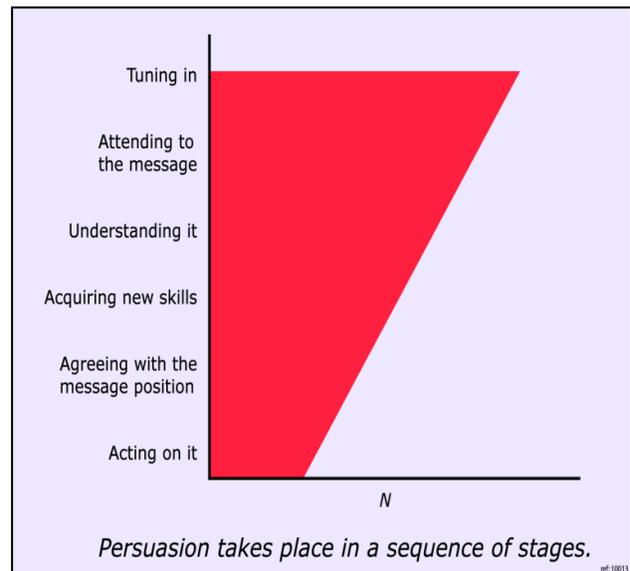
12.	<b>Skills (e.g., in social situations, in deciding on a personal plan, setting goals, implementing the behaviour, etc.)</b>
13.	Emotional reaction toward doing the behaviour
14.	Changing the behaviour (i.e., both small and large steps taken toward to bottom line desired behaviour change)

## Communication Message Effects on Behaviours of Individuals

Cappella (11) argues that message effects and information processing theories should be included in an integrated model of behaviour change that describes how health communication can change behaviour.

McGuire's *Hierarchy of effects model* (12), for example, suggests that receivers of a message progress through different stages of cognition upon being exposed to messages designed to effect behaviour change. The diagram to the right, based on McGuire's work (12) highlights the major stages from awareness to behaviour change.

Diagram One: Stages of Cognition When Receiving Behaviour Change Messages



THCU's *Message review tool* (13) builds upon these stages. Using the *Message review Tool* and McGuire's work as a base and incorporating more recent work on communications and behaviour change theories by Cappella (11) we have

generated a list of possible *communication message outcomes* that may contribute to behaviour change. These are shown in Table Three below.

**Table Three: Menu of Communication Message Outcomes That May Contribute to Individual Behaviour Change**

1.	Ability to recall the message (generally, as well as specific content)
2.	Reported knowledge gains from the message (i.e., new things learned).
3.	Emotional reaction (liking, not being offended by) toward the message (tone, appeal)
4.	Ability to understanding the message content
5.	Beliefs about the accuracy and credibility of the message (Is the information in this message true? Do you agree with it?)
6.	Attitude toward the message source
7.	Attitude toward the messenger (in the ad/message)
8.	Beliefs about whether the message is relevant (to someone like me)
9.	Number of times the message is discussed with others
10.	Content of the discussions about the message with others (number of positive mentions; number of negative mentions)
11.	Reported skill gains from the message (i.e., new skills gained)
12.	Reported influence by the incentives within the message (based on perceived gain or loss).
13.	Actions taken to collect more information related to the topic of the message
14.	Intention/plans made to act on the message
15.	Actions taken toward the behaviour recommended in the message

In combination with other, longer-term individual level outcomes, these very short-term message outcomes provide a complete picture of how behaviour change may occur in a health communication campaign. It can be useful to focus on these short-term message outcomes during pre-testing of campaign materials, treating them as essential precursors to real behaviour change. In other words, without evidence that a communication campaign/message is achieving these effects, it is very unlikely that it will contribute to behaviour change.

## Network Level Outcomes

The focus of health communication campaigns is most often at the individual level. However, other levels are equally deserving of attention. The social environment, that is, the people one socializes or networks with (family, friends, church groups, school peer groups, clubs, online groups, online social networking tools such as facebook, twitter, etc.) have a significant impact on individual behaviours. Thus the characteristics of networks and the type of information flowing through networks can ultimately determine whether a health communication campaign is effective or not. There are now many accessible and highly effective vehicles for influencing networks, due to the recent proliferation of online social networking tools.

Communication campaigns can be designed to impact upon the nature of information flowing through a network. They might also be used to create, expand or otherwise change the structure of a network. Table Four below is based on information in Valente, Thesenvitz and Lombardo (14); Everett Rogers (15); Bartholemew et al. (16); and Glanz et al (17).

**Table Four: Menu of Health Communication Network Level Outcomes That May Lead to Behaviour Change**

Outcomes related to the nature of information flowing through a network	
1.	Knowledge/beliefs/attitudes of network opinion leaders
2.	Number of health topic-related interactions (conversations, emails, forwards, posts, etc.) within the network
3.	Content/quality of the health-related interactions within the network (positive flavour, negative flavour, etc.)
4.	Rates of adoption of new behaviours within a social network (i.e., both small and large steps taken toward bottom line desired behaviour change).
Outcomes related to the structure and other characteristics of networks	
5.	Perceived level of trust and support between two or more network members
6.	Extent to which resources and support are both given and received within the network (reciprocity)

7.	The number of different types of social support or connections between two or more network members (multiplexity)
8.	Extent to which social relationships offer emotional closeness and support between members (intensity or strength)
9.	Extent to which social relationships exist in the context of organizational or institutional roles (formality)
10.	Extent to which network members know and interact with each other (density)
11.	Extent to which network members are demographically similar or diverse (homogeneity)
12.	Geographic distance between network members (geographic dispersion)
13.	The amount of communication between two or more members over a period of time (frequency of contact)

## Organizational Level

The policies, procedures and programs of organizations such as schools, workplaces, health care provider facilities, etc. can have a long-term impact on health behaviours and overall health. Table Five, shown below, provides some examples of organizational level outcomes that may be achieved by health communication.

**Table Five: Menu of Health Communication Organizational Level Outcomes That May Lead to Changes in Policy, Procedures or Programs in an Organization**

1.	Number of gatekeepers, decision-makers and/or other influential people in an organization considering policy changes or adopting specific programs.
2.	Number of gatekeepers, decision-makers, other influential people and/or organizational members (or students, employees, etc.) who feel that the issue is important and change is necessary (building an agenda).
3.	Quantity and quality of information regarding the issue and the policy change required.
4.	Degree of organizational confidence and competence in making health-related policy changes.

## Societal Level

Traditionally health communication work at the societal level focused on developing or changing formal laws and thus focused on the people responsible for making decisions about policy. This remains an important and effective part of health promotion. Stead, M., et al. (18) suggested some outcomes related to policy development. Though the list is almost 10 years old, the outcomes remain useful today. These are included in Table Six below (first section relating to development/changes in formal laws).

However, the more recent body of work on Communication for Social Change should also be considered when choosing health communication campaign outcomes of interest. In their working paper, *Communication for social change: An integrated model for measuring the process and its outcomes*, Figueroa et al. (19) define the model of Communication for Social Change (CFSC) as “an iterative process where community dialogue and collective action work together to produce social change in a community that improves the health and welfare of all its members.” As part of the CFSC model, the authors identify seven outcome areas that can be measured to help assess the level of social change in a community. These include:

- Leadership for community changes
- Degree and equity of participation in community change efforts
- Community access to information and level of awareness and knowledge about a health issue or program
- Community beliefs in its collective capability to attain shared goals and accomplish desired tasks (efficacy)
- Sense of ownership relating to a community problem/issue and/or program
- Social cohesion; the forces that act on members of a group or community to remain in and actively contribute to the group
- Social norms or accepted (and generally practiced) community standards and rules

Outcomes related to these seven areas are suggested below in Table Six.

**Table Six: Menu of Health Communication Societal Level Outcomes That May Lead to Changes in Policy, Procedures or Programs in Communities/Societies**

<b><i>Outcomes related to development or changes in formal Laws</i></b>	
1.	Changes to existing policy to support health issue
2.	New policy
3.	Number of stories generated by press releases and media events
4.	Content/quality of stories generated by press releases and media events (supportive or opposing, whether the solution is framed as policy or individual level, whether the key messages of the organization were included, mentions of key organizations, etc.)
5.	Number of requests for interviews about a health issue
6.	Size, location (of paper/news time/space) of stories generated (i.e., prominence of the story in a publication, reach of the publication itself, etc.)
7.	Community member recall of media coverage
8.	Number of expressions of public concern (for or against) health issue (e.g., letters to newspapers, calls to helplines, requests for information, complaints to council, petitions, etc.)
9.	Number of members in community coalitions related to health issue
10.	Number of appearances of health issue in official/public documents
11.	Changes in official vocabulary to reflect currency of issue (i.e., different words affect how an issue is viewed. For example, smoking habit vs. Smoking addiction).
12.	Number of politicians/decision-makers who express support for policy change
13.	Number of politicians/decision-makers who attend events related to topic/issue
14.	Number of speeches/statements by politicians/decision-makers related to (for or against) health issue
15.	Levels of funding to support health issue
16.	Change in community member attitudes/level of support related to policy change to

	address health issue
17.	Strength of policy enforcement strategy
18.	Compliance rates
<b><i>Outcomes related to leadership for community changes</i></b>	
1.	Extent of leadership
2.	Equity and diversity of leadership
3.	Flexibility in leadership
4.	Competency in encouraging and securing dialogue and action
5.	Demonstrated vision and innovation
6.	Trustworthiness and popularity of leadership
<b><i>Outcomes related to degree and equity of participation in community change efforts</i></b>	
7.	Community access to opportunities for active, substantial, meaningful participation
8.	Extent and level of participation (e.g., number of residents involved, how active, substantial and meaningful their roles are).
<b><i>Outcomes related to community access to information and level of awareness and knowledge about a health issue or program</i></b>	
9.	Community awareness and knowledge about the issue or program
10.	Community accessibility to relevant sources of information
<b><i>Outcomes related to community beliefs in its shared capability to attain their goals and accomplish desired tasks (efficacy)</i></b>	
11.	Community member perceived capability of other community members (to take effective action)
12.	Community member perceived confidence (efficacy) to solve problems and/or take action as a group
<b><i>Outcomes related to sense of ownership relating to a community problem/issue and/or program</i></b>	
13.	Community member opinions about how responsible they are for how a health issue is

	dealt with
14.	Number of community members participating in efforts to address a health issue
15.	Community member opinions about whether/how responsible they are for a program/ response to a health issue
16.	Community member opinions about how important an issue/program is
<b><i>Outcomes related to social cohesion; the forces that act on members of a group or community to remain in and actively contribute to the group</i></b>	
17.	Sense of belonging
18.	Feelings of morale
19.	Goal consensus
20.	Trust
21.	Reciprocity (mutual or cooperative interchanges)
<b><i>Outcomes related to social norms or accepted (and generally practiced) community standards and rules</i></b>	
22.	Norms on participation
23.	Norms about leadership
24.	Norms about the specific issue/program

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