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CONCEPT PAPER

PSI Behavior Change Framework
"Bubbles": Proposed Revision

PSI Research Division

Population Services International (PSI) delivers reproductive and other health products, services and information to enable low income and vulnerable people to change their behaviors and lead healthier lives.

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Executive Summary

This concept paper proposes a revision and expansion of the current PSI Behavior Change Framework known as "Bubbles". This task is accomplished by discussing the history and limitations of the current framework, introducing new behavior change constructs, updating definitions of behavioral determinants, or bubbles, with examples of operationalized measures, and providing better guidance on the link between theory and application. Adoption of the proposal will result in improved strategic project and marketing decision making and validity and actionability of PSI research.

After the logical framework, "Bubbles" is the most widely used framework for project and marketing plan decision making within PSI and for research study design, segmentation, monitoring, and evaluation. Because PSI programmers and researchers extensively use "Bubbles", recent efforts to improve the measurement of "Bubbles" in PSI surveys revealed that the current working definitions of behavioral determinants were no longer consistent with the behavior change theories from which they were derived. The names of certain bubbles had been modified over time, blurring the distinctions among basic concepts, such as awareness, knowledge, attitudes, and beliefs, thereby lessening PSI's ability to translate its findings in terms useful to stakeholders. This lack of precision undermined a recent effort to increase the actionability of "Bubbles" for market segmentation and targeting.

Currently, the framework includes 10 bubbles, whose conceptualizations were checked by conducting a comprehensive literature review. This process resulted in the scope of some bubbles being changed, refined, narrowed, or introduced. For example, the bubble of "social norms and support" is actually two bubbles, namely social norm and social support. Other original bubbles have received new names, which are more aligned with academic literature, measurement, and methodologies. For example, product efficacy is now referred to as outcome expectation to generalize its applicability to services, and affordability is now willingness to pay to be consistent with its method of measurement. New bubbles, such as attitudes, beliefs, quality of care, and subjective norm, are proposed to align our measures with PSI stakeholders.

The revised framework in this concept paper preserves the purpose and, to a substantial degree, the intent of the original PSI Behavior Change Framework even though now 16 bubbles are proposed, which are categorized in terms that increase their actionability for segmentation, monitoring, and evaluation. The proposed definitions are re-aligned with theory, thus giving immediate benefit in the current effort to improve measurement and to expand the use of theory and evidence-based intervention design and decision making. The bubbles are generic to all behaviors promoted by PSI across HIV/AIDS, reproductive health, family planning, maternal and child health, including malaria prevention and treatment. The proposed "Bubbles" offers new opportunities to define and test the process of behavior change and the way that process is modified by the four social marketing instruments of product, place, price, and promotion.

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Concept Paper

History and Problem Statement

In 1997, PSI/Mozambique's Clayton Davis and Andrew Karlyn were working to conduct PSI's first systematic, theory-based social marketing interventions. Their challenge was how to put into action the 50 or so behavior change theories that are available to practitioners. Davis and Karlyn had put together a brochure and presentation to PSI/Southern Africa programs in March 1997 to discuss their ideas with stakeholders. One of those stakeholders, the University of Pennsylvania's Annenberg School of Communication, critically reviewed this work, leading to a substantial revision of PSI/Mozambique's conceptual framework for behavior change.

In 1998, PSI-Mozambique presented the new conceptual framework to PSI/Africa programs. Guy Stallworthy, then PSI's director of technical services, did a critical review of that presentation and with the aid of some circles—later referred to as bubbles or behavioral determinants—the initial framework, "Bubbles", was born.. In late 1998, Stewart Parkinson from PSI/Nigeria restructured the original "Bubbles" framework based on his work in marketing and social marketing and gave it the scope and form it has today. That framework is presented in Figure 1 and is referred to as Phase 1.

Figure 1: PSI "Bubbles" Framework – Phase 1 (1998)
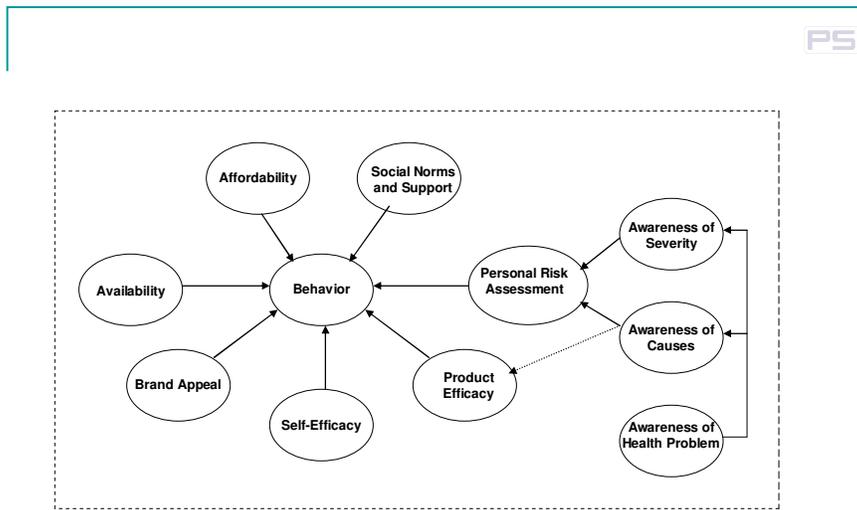
Since then the Phase 1 "Bubbles" framework has been adopted throughout PSI. It has been the basis for the first systematic marketing trainings within PSI, known as SMART Marketing. Proposals incorporate objectively verifiable indicators definitions at the output level based on it. Marketing plans are nearly universally based on its concepts, particularly increasing "risk assessment" and "self-efficacy", which have become widely

identified targets in settings where distribution systems have broad and reliable coverage. The framework has been presented at external and internal workshops and conferences. Bubbles transformed PSI research fundamentally from an original focus on socio-demographic determinants of behavior, such as age, sex and education, to an effort to gain insight into what are believed to be "mutable" or changeable determinants of behavior, such as beliefs about whether condoms work, which the Phase 1 framework refers to as "Product Efficacy." Because of the framework's versatility, product champions for malaria and family planning made efforts to modify and reorder "Bubbles" so that the framework could be used in those interventions and to present visually theories about the process of behavior change and the planning priorities for PSI social marketing interventions.

In 1999, a seminal article on social marketing was published that for the first time defined marketing in strategic terms relative to health education and regulation (Rothschild, 1999). Opportunity, ability, and motivation (OAM) to behave were theorized as being the summary determinants of behavior change, which education, marketing and law were, to varying degrees, capable of influencing. The opportunity, ability and motivation framework appeared to fit well the PSI Behavior Change Framework as the bubbles could be grouped into the summary constructs of OAM (see Figure-referred to as Phase 2).

Figure 2: PSI "Bubbles" Framework – Phase 2 (1999)
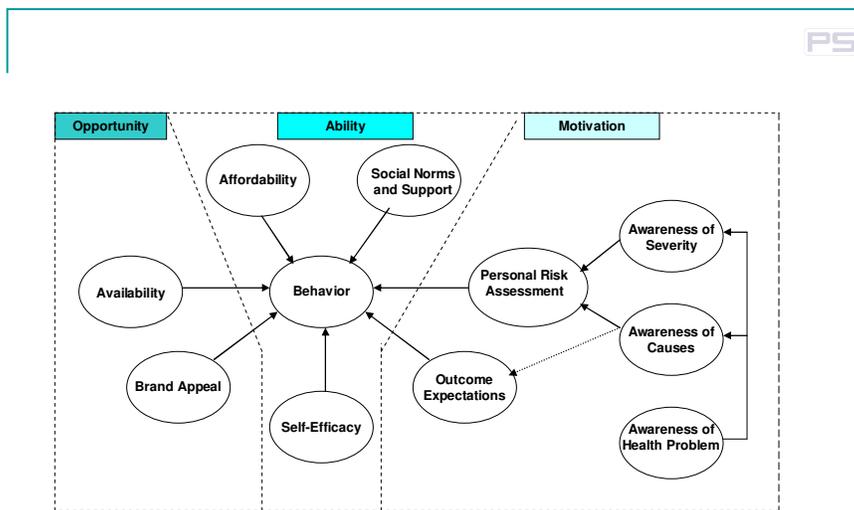
The bubbles of "availability" and "brand appeal" were thought to be related to Opportunity. "Affordability", "social norms and support", and "self-efficacy" all appeared to be encompassed under Ability. "Risk perceptions", "product efficacy" or what was increasingly called outcome expectations, and three different definitions of "awareness" appeared to fit with Motivation. If the OAM categories described and

matched well with the PSI Behavior Change Framework, then the need to increase opportunity, ability and motivation in individuals gave justification for a social marketing strategy to be employed, rather than, according to Rothschild, education or regulation.

Further, the Phase 2 "Bubbles" allowed PSI to identify summary gaps in opportunity, ability, and/or motivation which could be helpful in (1) market segmentation and targeting by identifying larger groups with common needs and (2) the definition and measurement of 10 standard measures of social marketing performance identified in PERForM (a PERformance Framework for social Marketing) in Figure 3 (Chapman, 2004). A brief description of PERForM is provided in a subsequent section.

Figure 3: PERForM and 10 Measures of Social Marketing Performance
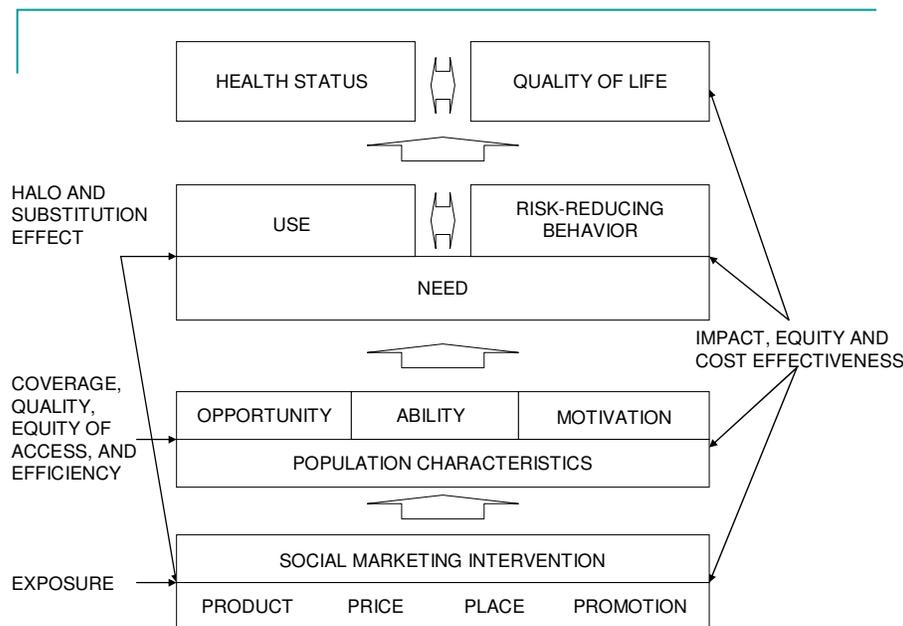
Meanwhile, PSI-Research efforts to measure "Bubbles", as has been done since 1999, began to reach its analytical limits. The use of single or few "yes or no" questions or items to measure each one of the bubbles was resulting in less and less variation between those who behaved and those who did not, as well limited reliability and validity of results to help guide programs. As such, correlations between bubbles and behavior were increasingly harder to measure, limiting the actionability of research results. Efforts to improve these measures revealed the need to begin constructing multi-item scales or indices that were capable of identifying the finer degree to which individuals varied on certain bubbles, like "self-efficacy".

In the process of locating existing multi-item scales or indices previously used, tested, and validated in survey questionnaires in different countries by other researchers, ambiguities and questions arose and were identified in the current definitions of the bubbles. For example, if knowledge, attitude, and beliefs (KAB) are known determinants of behavior, do the three awareness bubbles (see Figure 2) each contain these aspects of

KAB or are they distributed across all the bubbles? If awareness in communication research is a measure of exposure, why is it a series of bubbles and not an exposure measure in the PSI Framework? Further, the categorization of whether a bubble was related to opportunity, ability, or motivation was undefined. Many other issues came up, as well, which began to test "Bubbles" capabilities in terms of theory, measurement, and application.

These issues led to an effort to go back to the literature associated with a number of disciplines (i.e., public health, advertising, marketing, business, communication, social psychology, consumer behavior, etc.). This exercise forced a reexamination of the original behavior change theories from which "Bubbles" was developed to (1) revaluate which determinants were or were not included in "Bubbles", (2) make the selected bubbles definitions precise, (3) define the process by which they would be categorized as opportunity, ability, or motivation, and (4) examine how these bubbles were measured from a multi-item approach.

The results of this effort are presented here. First, opportunity, ability, and motivation as summary behavioral constructs are defined. Second, an explicit algorithm for categorizing bubbles as related to opportunity, ability, and motivation is proposed. Third, standard definitions of selected bubbles from different behavior change frameworks are presented. Finally, population characteristics, although not bubbles per se but still aid to influence and explain behavior, are defined.
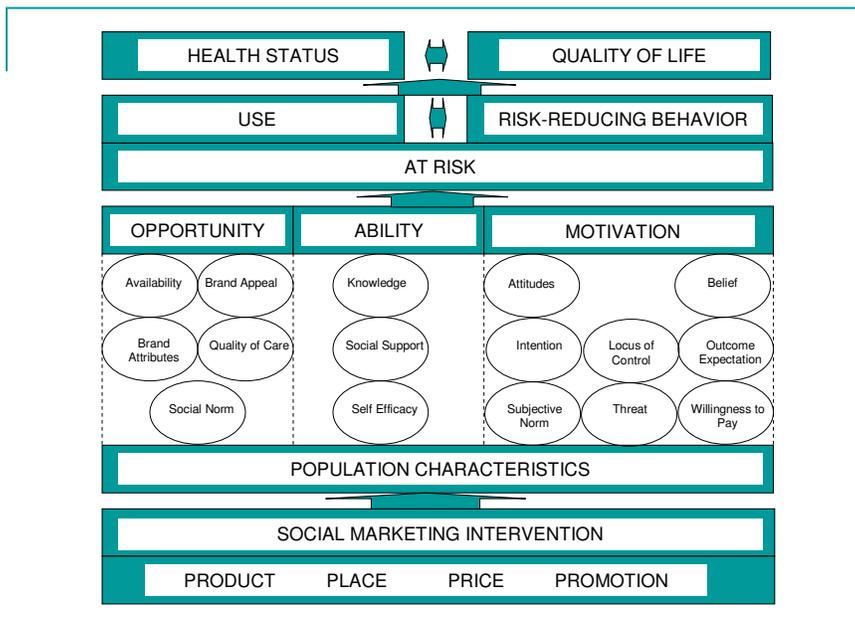
PERForM and the Proposed "Bubbles"

PERForM is currently the overarching conceptual framework utilized by PSI to help guide and conduct research on our social marketing interventions and activities. The aim of PERForM (Figure 3) is to summarize known determinants of behavior and the relationship between behavior and health. Generally speaking, PERForM can be categorized into four levels, which incrementally help to better understand and explain behavior change and health status. For a more in-depth discussion on PERForM, please refer to Chapman (2004).

The four levels are:
- (1) goal (i.e. health status and quality of life)
- (2) purpose (i.e., use, risk-reducing behavior, and need)
- (3) outputs (i.e., opportunity, ability, motivation, and population characteristics)
- (4) activities (social marketing intervention and the four Ps)

The proposed PSI Behavior Change Framework is embedded within PERForM at the third level (i.e. outputs). Accordingly, the proposed "Bubbles" can be seen in Figure 4 and is also referred to as Phase 3.

Figure 4: PERForM and Proposed "Bubbles" – Phase 3 (2004)

When comparing the different phases of "Bubbles", certain differences begin to emerge, which are worth noting before the bubbles can be specifically discussed.

First, unlike "Bubbles" Phase 1 and Phase 2, which were stand alone frameworks, Phase 3 is actually part of a larger framework. The benefit of this approach is clear from the

perspective of segmentation, monitoring, and evaluation to make better evidence-based programmatic decisions based on the bubbles. Moreover, it allows one to better place "Bubbles" in a larger context, which helps to define the social marketing intervention and exposure to the 4 Ps, so the linkages and correlations between the activities and bubbles, behavior, and health status can be fully understood.

Second, this proposed version does not specify precise path linkages, or directional arrows, between bubbles and behavior. Instead of limiting researchers and programmers to a concrete guide in which all bubbles must be measurable and linked (as in the past), decision makers and stakeholders can use unique sets of bubbles now to best explain behavioral outcomes across different health issues, different countries, and different audiences. In other words, one framework does not work for all. Theoretically selecting which bubbles to measure and use for guidance in programming decisions can easily be made through this proposal. In time, frameworks and relationships can be better tested and compared/contrasted to determine the effectiveness of PSI's interventions on behavior change by allowing for variance.

Finally, Phase 3 introduces new bubbles, reclassifies bubbles from other phases, and eliminates certain bubbles completely. Overall, the purpose and intent of the framework, which is to best explain behavior in order to guide PSI's social marketing activities, has been retained.

Definitions for Opportunity, Ability and Motivation

Within "Bubbles" Phase 3, opportunity, ability, and motivation are summary behavioral constructs under which specific bubbles fit. Definitions of opportunity, ability, and motivation are based in the disciplines of consumer behavior, marketing, advertising, public health, social psychology, and economics (MacInnis, Moorman, & Jaworski, 1991; Andreasen, 1999). Specifically, OAM can be defined as:

- Opportunity is institutional or structural factors that influence an individual's chance to perform a promoted behavior.

- Ability is an individual's skills or proficiencies needed to perform a promoted behavior.

- Motivation is an individual's arousal or desire to perform a promoted behavior.

According to PERForM, these three summary constructs proximally explain a person's use of preventive/curative health products and services and/or risk-reducing behavior (MacInnis, Moorman, & Jaworski, 1991; Moorman & Matulich, 1993; Rothschild, 1999; Hallahan, 2000; Wiggins, 2004; Binney, Hall, & Shaw, 2004). In other words, opportunity, ability, and motivation facilitate or inhibit the behavior, and they can be enhanced, increased, or positively changed within the target audience by the social marketing agency. When opportunity, ability, and motivation are increased, the probability of behavior change is increased (Figure 4).

The need for having and using OAM within the PSI behavior change framework is very high for some significant reasons.

First, classifying target audiences based on their existed level of OAM at a given point in time provides programmers an excellent method for determining what type of strategy (i.e. marketing, education, or law) that an intervention should employ in order to change behavior (Rothschild, 1999).

Second, from a research perspective, the utility of OAM lies in the ability to reduce evidence into easy to understand packages of information in order to guide programming. Instead of speaking about each determinants and indicator that relates to OAM or that is in PSI's logical frame, researchers can now pragmatically investigate and measure target audiences in relation to summary constructs known as opportunity, ability, and motivation.

Finally, OAM provides programmers and researchers an intuitive manner in which to communicate. Although precise definitions for OAM are listed above, there exists a layperson's understanding of what opportunity, ability, and motivation are. This simple agreement of OAM between both groups allows researchers to give program designers better guidance when creating campaigns, which increase the target individual's opportunity, ability, and motivation.

With the definitions for OAM and the reasons needed for OAM in "Bubbles" in mind, let's now turn our attention to understanding how and what specific bubbles are categorized into the summary constructs.

Integrating Bubbles into OAM: Categorization Algorithm

Known behavior change determinants from published theories must be categorized into the summary constructs of opportunity, ability, and motivation within the PSI Behavior Change Framework. Each bubble is proximal to opportunity, ability or motivation, which in turn is proximal to an individual's use of preventive and curative products and services and risk-reducing behavior (Figure 4). Social marketing interventions attempt to positively enhance, increase, or change a combination of bubbles in order to alter a target person's opportunity, ability, and motivation and in turn to increase the likelihood of performing the promoted behavior.

To categorize determinants that are derived from the various disciplines, an algorithm is proposed with three decision-making points. This algorithm is vital to "Bubbles" because very little literature exists which attempts to blend a wide array of disciplines under one rubric. In other words, the PSI Behavior Change Framework integrates OAM, which is primarily from the areas of marketing, advertising, and business, with a plethora of behavioral determinants, which are drawn mainly from consumer behavior, social psychology, public health, and communication. Due to this integration, an exact and comprehensive delineation on how to place the bubbles into the summary constructs of OAM can not be found. The algorithm uses a three step process in order to determine which bubbles fit into opportunity, ability, and motivation, based on mutability, control, and demonstrability:

- Mutability is the extent to which the social marketing agency is theoretically or empirically able to enhance, increase, or modify the bubble through the four social marketing instruments of product/service, place, price, and promotion in its interventions (Andersen, 1995).

- Control is the degree to which the targeted individual has direct influence over the bubble.

- Demonstrability is the extent to which the bubble can be observed through or has the potential to be seen in the targeted individual's overt action.

With these three decision making criteria, the categorization algorithm can be used in the following manner (Figure 5).

First, a bubble can be categorized as opportunity, ability and motivation only if it is mutable. If not, then the determinant is categorized as a population characteristic, which is immutable, such as age, sex, or religion.

Second, if a mutable bubble is wholly outside the control of the individual (external), then it is classified as an element of opportunity. In other words, if the individual does not typically have the direct power and control to influence the changeability of the bubble, then it is part of opportunity. Otherwise, a bubble that is within the direct control (internal) of the individual is categorized as ability or motivation.

Finally, a mutable bubble within the control of the individual that is demonstrable is categorized as ability. If it is not demonstrable, it is categorized as motivation.

Figure 5. OAM Bubbles Categorization Algorithm Flowchart

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                    Is the bubble changeable by the
                      social marketer (mutability)?

          Yes                                    No

  Is the bubble wholly under                        Population
     the influence of the                          Characteristic
     individual (control)?

       Yes                    No           Opportunity

  Is the bubble able to
  be seen in action          Yes            Ability
  (demonstrability)?

       No

    Motivation
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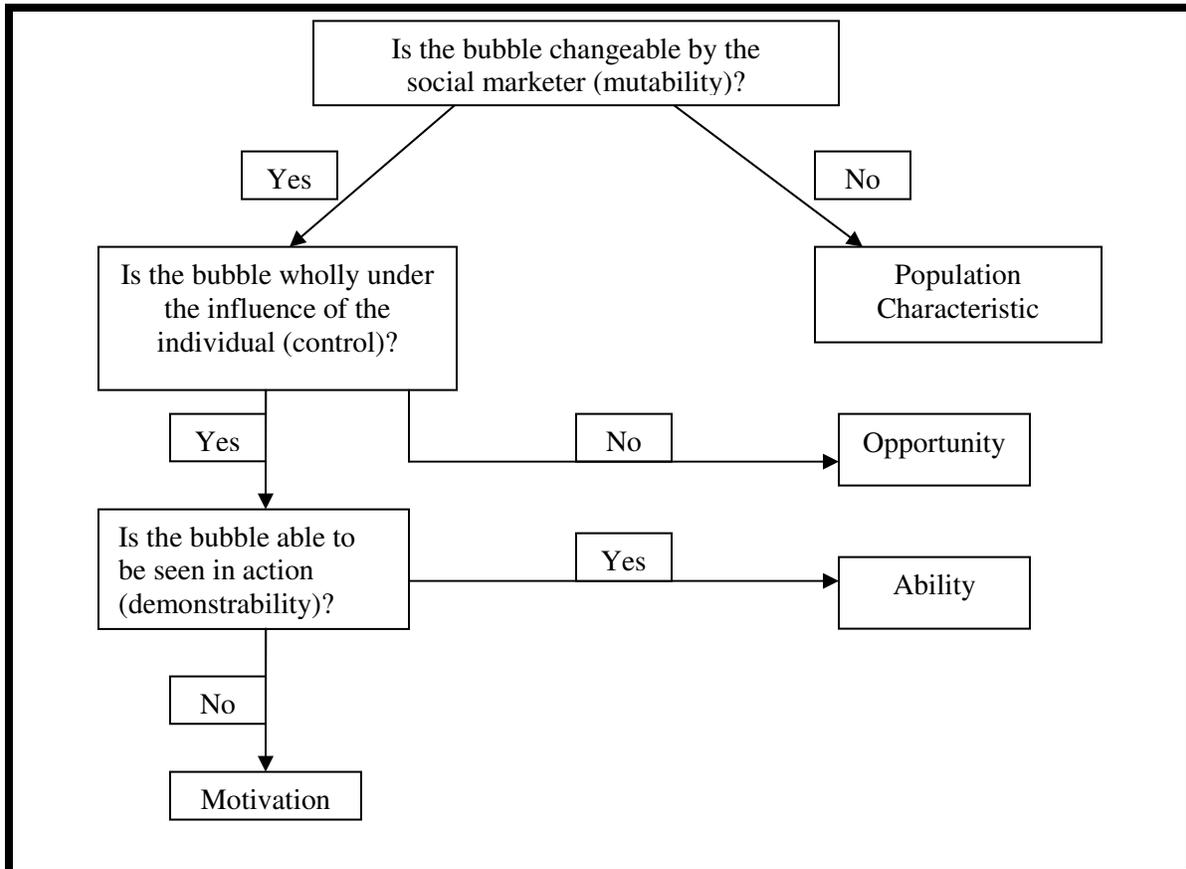
Following this decision making algorithm brings to mind a few points.

First, each bubble that is included in the PSI Behavior Change Framework must be categorized into only one summary construct of opportunity, motivation, and ability using the algorithm, regardless of how intuitive a bubble may appear to potentially overlap into two or more summary constructs. The need for mutual exclusivity and well conceptualized OAM bubbles is paramount to the manner in which the bubbles are measured and tested for purposes of segmentation, monitoring, and evaluating audiences and intervention activities.

Second, in order for researchers and programmers to speak the same language with each other, it is important that a common understanding exists of what constitutes opportunity, ability, and motivation. Otherwise, comparing and contrasting PSI interventions regionally and globally, based on OAM and bubbles, is not feasible.

Third, only bubbles that are mutable by social marketing agencies and their four instruments and strategies of promotion, price, place, and product can be considered for inclusion within "Bubbles". Although many bubbles can be enhanced in other ways outside the scope of a social marketer, those behavioral determinants can not fit within the framework by definition.

Finally, the use of the algorithm is helpful for determining which social marketing strategies should be used after segmentation evidence has been gathered. For example, opportunity gaps require activities related to the health system, product, or community. Ability needs mandate strategies that engage individuals in learning and practice. Motivation gaps require persuasive communication efforts to address issues. By knowing which bubbles concretely fall into only one of the summary constructs, programmers can either overall enhance OAM or they can isolate the bubble related to the OAM which attributes to the gap or need.

Bubbles: Definitions and Example Measures

With the articulated categorization algorithm, its needs, and some implications in mind, this section explicates OAM and its underlying bubbles through definitions, discusses links between the theoretical conceptualization and PSI's activities, and finally offers example survey items for each of the bubbles. Some points must be mentioned before moving forward.

Although only bubbles which are mutable by a social marketing agency are included, those that comprise "Bubbles" are only a small lens of the potential array of bubbles that exist in the multitude of behaviour change theories and the corresponding academic disciplines. Decisions about inclusion of these bubbles in the Phase 3 Framework are based on (1) importance, (2) measurement, and (3) explanatory power.

First, these bubbles are currently deemed important by many PSI and non-PSI researchers and programmers based on previous experience and testing within the field. They have been prioritized based on importance and relevancy, keeping in mind that other constructs for now have been added to another pending list for potential consideration for inclusion into "Bubbles" in the future (i.e., trialability, cognitive load, sensation seeking, social capital, boredom, etc.).

Another reason is that certain bubbles are much easier to measure than others due to limitations in data collection and analysis, especially when attempting to use multi-item scales and indices. With input from PSI-researchers, this proposed set of bubbles represents what potentially and realistically may be measured and categorized as a scale versus an index for a given bubble.

Finally, the last decision making point for including certain bubbles stems from what the academic literature tells us with regard to explaining health behaviour. The bubbles, which have been included, have been shown in various disciplines to provide significant explanatory power for describing behavioural outcomes.

At this point, let turn our attention to the definitions and survey examples for each bubble within the OAM summary constructs. To help facilitate with ease of understanding, each bubble is in reference to the same public health problem (HIV/AIDS), recommended product (condom), and behavioural outcome (using a condom). Additionally, since many bubbles can be measured objectively (i.e. measured responses typically not elicited from the target individual) or subjectively (i.e. measured responses elicited from the target individual), only example survey items for the subjective definitions are offered with the exception of knowledge.

Opportunity

Opportunity is institutional or structural factors that influence an individual's chance to perform a promoted behavior. Opportunity bubbles are mutable by the social marketing agency, outside the control of the individual, and can be measured objectively (i.e. measured responses typically not elicited from the target individual) and subjectively (i.e. measured responses elicited from the target individual). These bubbles are: availability, brand appeal, brand attributes, quality of care, and social norm.

- Availability is the extent to which the promoted product or service is found in a pre-defined given area.

    o For PSI, availability objectively is the presence or absence of the promoted product or service within a pre-defined area (Chapman, 2003, p.; Conteh & Hanson, 2003; Duncan, Jones, & Moon, 1996; Kearns & Moon, 2002; Weir, Pailman, Mahlalela, Coetzee, Meidany, & Boerma, 2003).

    o For PSI, availability subjectively is perceptions about the frequency and accessibility of the promoted product or service within a pre-defined area (Rosero-Bixby, 2003).

        ▪ Type of Multi-Item Measure: Index

        ▪ Example Survey Item: 7 point scale (strongly disagree to strongly agree)

            Condoms are available within ½ kilometer from my house.

        ▪ Theory-Application Link:

            As availability of a product or service increases, individuals are more likely to obtain and use the promoted product or service.

- <u>Brand Appeal</u> is the extent to which the characteristics of the prompted product or service's branding (i.e., name, term, sign, design, layout, slogan, etc.) distinguishes the product or service from its competitors (McDowell & Sutherland, 2000).

  - o For PSI, brand appeal objectively is the chosen identity that the social marketing agency creates and gives to a product or service (Royle, 1999-2000).

  - o For PSI, brand appeal is perceptions about the level of identification with the brand (Fournier, 1998; Hoyer & Brown, 1990; Royle, 1999-2000).

    - Type of Multi-Item Measure: Index

    - Example Survey Item: 7 point scale (strongly disagree to strongly agree)

      This condom brand is made just for me.

    - Theory-Application Link:

      As the brand appeal of the promoted product or service increases, individuals are more likely to obtain and use the product or service.

- <u>Brand Attributes</u> is the extent to which the physical components of a brand are practical to use.

    o For PSI, brand attributes objectively is the extent to which physical components of a brand are practical to use based on the number of steps required to use the promoted product or service and the frequency with which those steps must be taken (Rogers, 2003).

    o For PSI, brand attributes subjectively is perceptions about the physical components of the brand related to the practical use of the promoted product or service (Rogers, 2003).

        ▪ Type of Multi-Item Measure: Index

        ▪ Example Survey Item: 7 point scale (strongly disagree to strongly agree)

            Too much time goes into opening up the condom's packaging.

        ▪ Theory-Application Link:
            As the brand attributes of the promoted product or service decrease, individuals are more likely obtain and use the product or service.

- <u>Quality of Care</u> is the extent to which the promoted service is of high value.

  o For PSI, quality of care objectively is compliance with standards that increase safety, effectiveness, and satisfaction of services (Eur-Assess Project Subgroup 1997; Bruce, 1989).

  o For PSI, quality of care subjectively is perceptions about services with regard to the delivery point (i.e., waiting times, cleanliness, privacy, reliability etc.) and provider (suitability-female provider for female patients, trustworthy, etc.) (Bruce, 1989).

    ▪ Type of Multi-Item Measure: Index

    ▪ Example Survey Item: 7 point scale (strongly disagree to strongly agree)

      At the clinic, I do not have to wait very long to get a condom.

    ▪ Theory-Application Link:

      As the quality of care increases, individuals are more likely to seek out the promoted service and utilize it.

- Social Norm is the behavioral standards which exist in the community for an individual to follow.

    o For PSI, social norms objectively are the presence or absence of formal or informal laws, regulations, and rules that affect behavior (Andreasen, 1999).

    o For PSI, social norms subjectively are the perceived standards for behavior accepted as usual practice.

        ▪ Type of Multi-Item Measure: Scale

        ▪ Example Survey Item: 7 point scale (strongly disagree to strongly agree)

            Most of my friends carry condoms with them.

        ▪ Theory-Application Link:

            As more favorable social norms related to the promoted behavior exist, individuals are more likely to perform the promoted- behavior.

Ability

Ability is an individual's skills or proficiencies needed to perform a promoted behavior. Ability bubbles are mutable by the social marketing agency, are controllable by the individual, and can be demonstrated (or have the potential to be seen) through some action. These bubbles can be measured objectively (i.e. measured responses not elicited from the target individual) or subjectively (i.e. measured responses elicited from the target individual), or both, and they are: knowledge, self efficacy, and social support.

- Knowledge is true facts accumulated through learning about objects, actions, and events (Clarke, 1992).

    o For PSI, knowledge objectively is the ability to provide correct information about the public health problem (i.e., symptoms, causes, and transmission) when tested.

        ▪ Type of Multi-Item Measure: Index

        ▪ Example Survey Item: dichotomous response (correct or incorrect)

            HIV can be transmitted by hugging.

        ▪ Theory-Application Link:

            As knowledge increases, individuals are more likely to perform the promoted behavior.

- <u>Self Efficacy</u> is the belief that an individual is able to perform a promoted behavior effectively or successfully (Bandura, 1977).

  - Self Efficacy subjectively is the perception about an individual's ability to perform a promoted behavior effectively.

    - Type of Multi-Item Measure: Scale

    - Example Survey Item: 7 point scale (strongly disagree to strongly agree)

      I am capable of properly using a condom.

    - Theory-Application Link:

      As self efficacy increases, individuals are more likely to perform the promoted behavior.

- <u>Social Support</u> is the assistance that an individual gives/receives. Emotional support is activities that an individual does to make others feel loved and cared. Instrumental support is tangible help that an individual receives/provides. Informational support is help that an individual gets/offers through information (Seeman & Berkman, 1988).

  o Social Support objectively is the number of times or length of time an individual gives or receives help.

  o Social Support subjectively is the perception about the quantity (i.e., number of times, length of time, etc.) and quality (i.e., content, depth, mode, type, etc.) of help that an individual gives or receives.

    ▪ Type of Multi-Item Measure: Scale

    ▪ Example Survey Item: 7 point scale (strongly disagree to strongly agree)

      I encourage my best friend to use a condom.

    ▪ Theory-Application Link:

      As the amount of social support increases, individuals are more likely to perform the promoted behavior.

Motivation

Motivation is an individual's arousal or desire to perform a promoted behavior. Motivation factors are mutable by the social marketing agency, are wholly within the control of the individual, and are not demonstrable. Motivation bubbles can only be measured subjectively (i.e. measured responses elicited from the target individual), and they are: attitude, belief, intention, locus of control, outcome expectation, subjective norm, threat (risk), and willingness to pay.

- Attitude is an evaluation or assessment of an object (Eagly & Chaiken, 1993).

    o For PSI, an attitude is an individual's evaluation or assessment about the promoted behavior.

        ▪ Type of Multi-Item Measure: Scale

        ▪ Example Survey Item: 7 point scale (strongly disagree to strongly agree)

            Wearing a condom is good.

        ▪ Theory-Application Link:

            As more favorable attitudes that are related to the promoted behavior exist, individuals are more likely to perform the promoted behavior.

- <u>Belief</u> is a perception about an object, which may or may not be true.

    o For PSI, a belief is perception about the promoted behavior, which may or may not true. Typically, beliefs are about myths and misconceptions related to promoted behavior.

        ▪ Type of Multi-Item Measure: Scale

        ▪ Example Survey Item: 7 point scale (strongly disagree to strongly agree)

            Wearing three condoms at the same time provides more protect against HIV than one condom.

        ▪ Theory-Application Link:

            As more favorable beliefs are developed that relate to promoted behavior, individuals are more likely to perform the promoted behavior.

- <u>Intention</u> is an individual's plan to perform the promoted behavior (Fishbein & Ajzen, 1975).
    - o   For PSI, an intention is the future want or desire to perform the promoted behavior.

        - ▪ Type of Multi-Item Measure: Scale

        - ▪ Example Survey Item: 7 point scale (strongly disagree to strongly agree)

            I intend to wear a condom next time I have sex with my partner.

        - ▪ Theory-Application Link:

            As behavioral intention increases, individuals are more likely to perform the promoted behavior.

- <u>Locus of Control</u> is the external or internal site of control in an individual's life. An external locus of control suggests that an individual's health is under the control of powerful others or is determined by fate, luck, or chance. An internal locus of control suggests that an individual's health is directly controlled by him/herself (Rotter, 1966).

   - For PSI, locus of control is the site of control in an individual's life in relation to the promoted behavior.

      - Type of Multi-Item Measure: Scale

      - Example Survey Item: 7 point scale (strongly disagree to strongly agree)

         God determines if I should use a condom next time I have sex.

      - Theory-Application Link:

         As an individual perceives their locus of control to be more internal than external, they are more likely to perform the promoted behavior.

- Outcome Expectation is the belief that an object or action is effective in fulfilling its purpose (Bandura, 1977).

  - o For PSI, outcome expectation is the belief that a promoted product, service, or behavior is effective in fulfilling it purpose as intended. Although outcome expectation may be largely defined as any perception or expectation related to the promoted product, service, or behavior's outcome, PSI narrows the definition specifically to a type of outcome expectation known as response efficacy.

    - Type of Multi-Item Measure: Scale

    - Example Survey Item: 7 point scale (strongly disagree to strongly agree)

      Wearing a condom is an effective way to prevent the transmission of HIV.

    - Theory-Application Link:

      As an individual's sense of outcome expectation increases, s/he is more likely to perform the promoted behavior.

- <u>Subjective Norm</u> is perceived pressures to comply with what an individual believes others in the social group believe about the promoted behavior (Fishbein & Ajzen, 1975).
    - o For PSI, subjective norm is perceived pressures in direct relation to the promoted behavior.
        - Type of Multi-Item Measure: Scale
        - Example Survey Item: 7 point scale (strongly disagree to strongly agree)

            I believe that my best friend believes that I should wear a condom next time I have sex.

        - Theory-Application Link:

            As more favorable subjective norms that are related to promoted behavior exist, individuals are more likely to perform the promoted behavior.

- Threat (Risk) is a perceived dangerous or harmful event that exists in an individual's surroundings. Threat (risk) is comprised of two perceived dimensions: severity and susceptibility.

  o For PSI, threat is first comprised of severity, which is an individual's perceived magnitude of the harm of the targeted public health problem (i.e., significance or seriousness of a public health problem, degree of physical, psychological, or economic harm caused by the public health problem, etc.) (Witte, 1992).

    ▪ Type of Multi-Item Measure: Scale

    ▪ Example Survey Item: 7 point scale (strongly disagree to strongly agree)

      HIV/AIDS is a serious problem in my community.

    ▪ Theory-Application Link:

      As the level of severity increases, threat from the public health problem may also increase.

  o For PSI, threat is also created by susceptibility is an individual's perceived likelihood that the targeted public health problem negatively harms him/her (i.e., degree of vulnerability, personal relevance, risk of experiencing the public health problem) (Witte, 1992). Example survey item:

    ▪ Type of Multi-Item Measure: Scale

    ▪ Example Survey Item: 7 point scale (strongly disagree to strongly agree)

      I feel vulnerable to getting HIV next time I have unprotected sex.

    ▪ Theory-Application Link:

      As the level of susceptibility increases, threat from the public health problem may also increase

<u>Willingness to Pay</u> is an individual's intention to pay for a promoted product or service.

- For PSI, willingness to pay is a theoretical estimate of the amount in currency an individual would pay for a promoted product or service (Foreit & Foreit, 2000).

  - Type of Multi-Item Measure: unclear at the present time

  - Example Survey Item: dichotomous response (yes or no)

    1. What price do you currently pay for a 3 pack of condoms?
    2. Would you pay X% more?
    3a. If yes to 2, would you pay a higher increase?
    3b. If no to 2, would you pay a lower increase?
    4. What is the highest price you would pay?
    5. What would you do if the price were too high?

  - Theory-Application Link:

    As an individual's willingness to pay for a promoted product or service increases, s/he may be more apt to obtaining and using the promoted product or service.

Population Characteristics: Definitions and Example Measures

Although not formally part of "Bubbles, another set of constructs do exist in PERForM (Figure 4), which can influence behavioral change.

Population characteristics are measurable factors of individuals that are associated with behavior but are immutable by the social marketing agency. By definition then, population characteristics are not bubbles, but they can determine behavior and influence OAM, albeit much more distally than the proximally bubbles.

Population characteristics are categorized into four types: (1) socio-demographics, (2) communication interactivity, (2) personality traits, (3) socio-demographics, and (4) experience.

- Socio-Demographics are descriptive characteristics of the population.

    - For PSI, socio-demographics typically are age, social and economic status, education, residence, religion, family size, and lifestyle habits.

- Communication Interactivity is the extent to which an individual has contact and interaction with channels which deliver messages about the social marketing instruments.

    - For PSI, communication interactivity is related to a number of factors, but not limited to, media availability, media access, media use, exposure, reach, recall, and awareness.

- Experience is an accumulation of knowledge and skills through direct participation in events, activities, and situations.

    - For PSI, past and current experiences, which are immutable, may contribute to behavior change. Some examples of such experiences are personal history with a given public health problem, interaction with others who have the disease, etc.

- Personality Traits are innate predispositions which influence individual's behavior, (Yamagishi & Yamagishi, 1994).

    - For PSI, personality traits, such as interpersonal trust (i.e. a person's natural tendency to find others a trustworthy) can influence the probability of behavior change, especially when dealing with relational issues.

The Way Forward: Next Steps

With this proposed revision to "Bubbles", a few next steps for the way forward should be explicated in order to disseminate it throughout PSI-DC and field offices.

First, much of the Phase 3 (2004) framework is already currently in place in various capacities under different social marketing activities. The newly proposed ideas can and should be expanded, integrated, and tested in relatively rapid fashion throughout trainings, capacity building work, donor proposals, log frames, and meetings.

Second, research using this framework is also under way through a number of projects implemented by PSI-DC-Research. Through the efforts of Project Scale, MAP, TRaC, and Exposure, many PSI researchers and programmers in field offices have been introduced through social marketing research trainings on what "Bubbles" is and how to use it to better under behavior change. These projects now should continue to aid staff to better measure, analyze, and understand "Bubbles" in order to make effective evidence-based programming decisions.

Finally, this version of "Bubbles" should not become static. In the future, our hope is that we can use our field experiences to expand and continue to develop this framework. With better measurement, new projects, more diffusion of ideas, and greater understanding, PSI can challenge "Bubbles" by globally testing it and sharing the results with stakeholders-internal and external to PSI.

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