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Evaluating Behavior Change in International Development Operations:

A New Framework

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A Framework for Evaluating Behavior Change in International Development Operations

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Abbreviations and Acronyms

BCC	Behavior Change Communication
BIT	Behavioral Insights Team
CAS	country assistance strategy
CCSA	Cross-Cutting Solutions Area
COM-B	Capability, Opportunity, Motivation, and Behavior model
CrI^2SP	Communication, resources, Information and Incentives, Social factors and activities, and Psychological factors and activities
DEC	Development Economics Department
EAST	Easy, Accessible, Social, and Timely
GEF	Global Environment Facility
GINI	Global Insights Initiative
GP	Global Practice
IEC	information, education, and communication
IEG	Independent Evaluation Group
ICR	Implementation Completion and Results Report
ICRR	ICR Review
IYCF	infant and young child feeding
KAP	knowledge, attitudes, and practices
MINDSPACE	Messenger, Incentives, Norms, Defaults, Salience, Priming, Affect, Commitments, and Ego
PAD	Project Appraisal Document
PPAR	Project Performance Assessment Report
RWSS	Rural Water Supply and Sanitation
SaniFOAM	Focus, Opportunity, Ability, and Motivation Model in Sanitation
SEA	Strategic Engagement Area
TTL	task team leader
WDR	World Development Report

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Summary

The Independent Evaluation Group (IEG) has established three Strategic Engagement Areas (SEAs) around which it has organized its work program. One of those SEAs is Sustained Service Delivery for the Poor. This paper on behavior change constitutes one of two methodology papers (the other being on service delivery) that establish a new lens through which to understand the World Bank's portfolio in IEG evaluations. The paper outlines the economic and psychosocial theories that have led to an array of frameworks for helping policy makers design behaviorally conscious interventions. After establishing criteria for an evaluative behavior change framework suitable for World Bank projects and finding that none of the existing frameworks fits that set of criteria, this paper proposes a new framework, CrI^{2}SP, which categorizes elements of World Bank projects, and introduces an evaluative framework for capturing the degree to which behavioral considerations have been integrated into World Bank projects.

The CrI^{2}SP framework and the coding template have been developed and refined as they have been applied to 33 World Bank projects. The framework and template are now ready for piloting in IEG's forthcoming water and sanitation and urban transit sector evaluations as well as the subsequent evaluation on basic health services. In the process of applying these tools to those sectors evaluations, the tools will continue to be shaped by the needs of the evaluation teams. The tool is designed so that it can be applied to all sectors; however, sector-specific contours of the portfolio are expected.

The sector evaluations will include an analysis of why Bank interventions may or may not be successful by looking through the lens of behavior change.

1. Introduction

IEG's Strategic Engagement Areas

1.1 The Independent Evaluation Group (IEG) introduced Strategic Engagement Areas (SEAs) into its work program as of fiscal year 2017. Three SEAs were chosen to cover a broad range of topical areas that contribute to the World Bank Group's overall objectives. The three SEAs are Sustained Service Delivery for the Poor, Inclusive Growth, and Environmental Sustainability. These areas cover a large share of the World Bank Group's work that is directed toward sustainable development outcomes. The SEAs allow IEG to develop lenses through which deeper insights can be drawn across evaluation topics to explore what works where, when, and why.

1.2 The Sustained Service Delivery for the Poor SEA seeks to promote understanding of evidence-based solutions to delivering services to the poor in a sustained manner. The SEA has developed common frameworks for identifying, describing, and evaluating the various approaches and interventions used to deliver services to the poor and promote behavior changes leading to increased service use. In supporting sustained service delivery for the poor, this paper is one of two (the other one covers service delivery) that will develop frameworks and tools initially to be used to supplement IEG evaluations in urban transport, water and sanitation, and basic health services. The SEAs and their working paper teams have actively engaged with the World Bank Group to promote dialogue and to leverage the current efforts within the Bank Group in these areas.

Purpose of Working Paper

1.3 The objective of the working paper is to develop an ex post evaluative tool that can be used across sector evaluations to assess the role and effectiveness of behavior change activities in attaining service delivery outcomes. In very broad terms, the companion piece on service delivery reflects supply-side issues related to effective service delivery, while the behavior change piece explores challenges surrounding the effective use or uptake of services. The two papers dovetail at the diagnostic stage where users' demands and constraints are taken into consideration. Following the piloting of these two new "lenses" in IEG's evaluative work will come another paper that integrates the two and explains the differences and complementarities of the service delivery and behavior change frameworks.

1.4 This paper serves three purposes. First, it develops a suitable definition of behavior change that accurately captures elements important to World Bank operations. Second, the paper describes theories or frameworks of human behavior that can be applied to behavior change vis-à-vis international development interventions. Finally, the paper presents an evaluative framework or template for sector evaluations to assess the prevalence and integration of behavior change concepts into the life cycle of an intervention from the diagnostic phase through monitoring and evaluation and provides examples of how the World Bank has supported behavior change in water and sanitation, urban transport, and nutrition (a component of basic health care). Given that this endeavor was to develop a tool,

the paper does not draw conclusions on the types or effectiveness of these interventions, it simply presents them as illustrative.

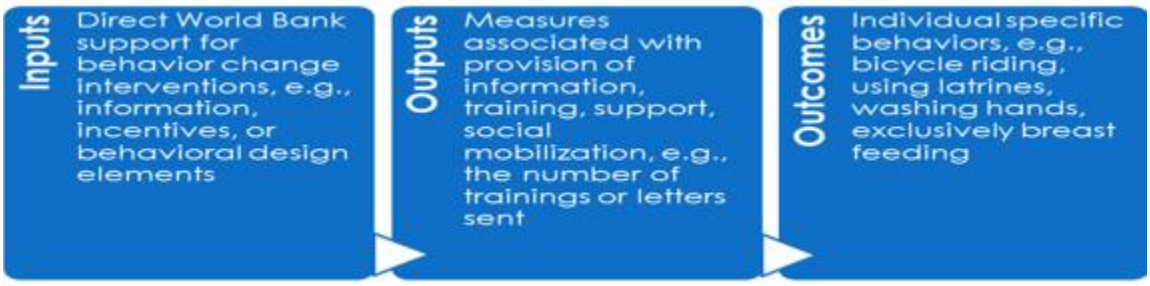
1.5 The primary audience for this work is staff within IEG. While the content may also be beneficial to evaluators in other agencies and staff within the World Bank Group,[1] it is not designed to address the operational needs of Bank Group staff.

Behavior Change Defined

1.6 Behavior is the outward manifestation of an individual's internal response to a situation. The response (an action or change in action) is derived through an individual's decision-making process, which may be automatic or deliberate (Kahneman 2011), and shaped by economic, psychological, or social mechanisms (Pawson and Tilley, 1997; Pawson, 2006; Pawson; 2013). Behavior change activities, target or support specific choices and behaviors that are directly linked to a desired outcome (see figure 1.1).[2] Behavior change (or desired outcomes) can be observed in their changes as increasing, decreasing, being enhanced, improving, or being maintained (Morra-Imas and Rist 2009).

1.7 In international development, outcomes are individuals' behavioral responses to project activities given the particular contexts and mechanisms (factors) present, and outputs achieved. While the first level of behavioral change is often at the institutional level, the focus here is on individuals' demand for goods and services and the factors which facilitate or inhibit service uptake.[3] In effect, all development interventions presume behavior change. For example, when a latrine is built and subsequently used, the use of the new latrine implies a behavior change. However, resources – and the broader enabling environment of which they are a part – are necessary but not sufficient for service use. Resources may not be the binding constraint to service use. There may be other barriers to latrine use that require a different set of project activities which target beneficiaries directly. When economic, psychological, social, or other mechanisms inhibit service use, directly targeting demand-side behavior change is essential for sustained service delivery for the poor. Interventions that acknowledge individuals' decision-making processes and the implicit trade-offs required of individuals are likely to be more successful.

Figure 1.1. Behavior Change Results Chain



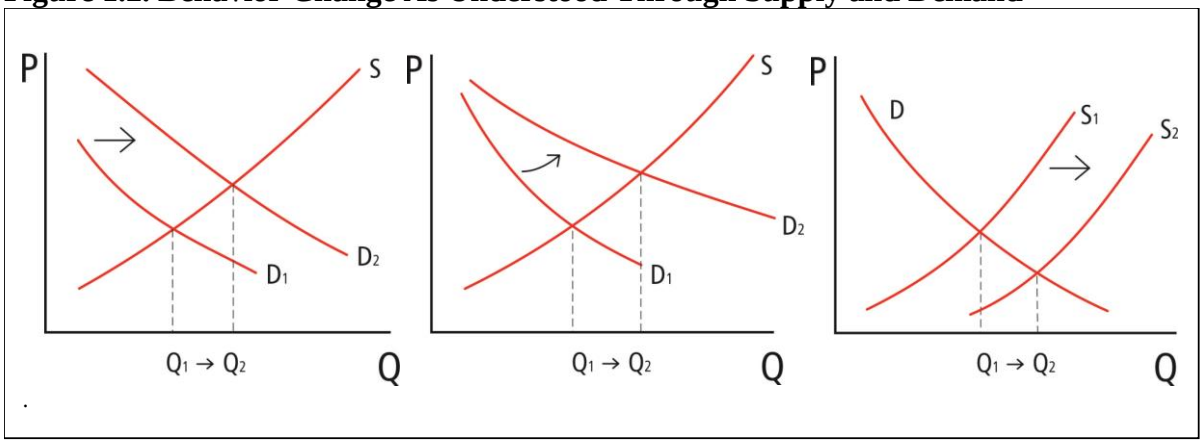
Source: IEG.

1.8 It may be useful to illustrate graphically the definitions and distinctions of behavior change and behavior change activities through the standard economic tools of supply and demand. For this working paper, a "behavior change" (also called an "outcome" or a

"behavior change outcome") is a movement in the equilibrium quantity used of a good or service (movement from Q1 to Q2 in both the first and second panel in figure 1.2). Behavior change activities focus on affecting a shift or change in shape of the demand curve for goods and services.

1.9 A shift in the demand curve (the first panel in figure 1.2) can be caused by several factors, including changes in the relative price of the good, changes in income, or changes in information about the true price (or value) of the good or service. Changes in the shape of the demand curve (the second panel in figure 1.2) are typically caused by changes in preferences for the good or service.[4]

Figure 1.2. Behavior Change As Understood Through Supply and Demand



Source: IEG.
Note: The first panel represents a shift in the demand curve. The second panel is a change in the shape of the demand curve. The third panel is a shift in the supply curve. Changes in shape of the supply curve are also possible but are not represented here. All three produce behavior change outcomes—that is, a change in the equilibrium quantity. Only the first two are considered here to be behavior change activities because only they affect the demand curve itself.

1.10 Provision of additional resources or changes in the technology of production will shift the supply curve. Changes to factors of productivity will change the shape of the supply curve. As mentioned earlier, supply-side interventions, such as building latrines or building roads, can result in a change of behavior if individuals use the latrines and roads. Although changes in supply can lead to a change in behaviors, such interventions are not considered here to be "behavioral" unless they also affect the demand curve itself. Supply-side considerations are dealt with in more detail in the companion working paper on service delivery (IEG 2016).

1.11 The World Bank Group has been actively engaged in providing access to services to the poor for decades. While access to services is necessary, it may not be sufficient for poverty eradication.[5] Although progress has been achieved, challenges remain. Ensuring service usage by directly targeting beneficiaries' behavior can help the Bank achieve its goals by leveraging its work of improving access to services. Evaluating World Bank project with a behavior change "lens" which focuses on the demand-side or at the beneficiary level allows for a deeper understanding of what works to improve service use when resources are not the binding constraint.

1.12 Delivery of sustained services requires overcoming not only hard resource constraints but psychological resource constraints as well. Psychological (or cognitive) resources are mental capabilities that allow people to reach their full potential, given the (economic, social, political) constraints in their external environment. Psychological resources are finite, culturally shaped, and often adaptive. In the context of poverty, psychological resources shape the quality of decisions, the strength of intellectual performance, and the accuracy of judgements. Because psychological resources are limited, the decision-making context of poverty acts as an effective tax on cognition, which influences the process of decision making in a wide range of ways that can lead to the perpetuation of poor decisions and poverty (Banerjee and Mullainathan, 2010).

1.13 People's behaviors are also shaped by social factors, such as their cultural beliefs and their perceptions of how socially acceptable particular behaviors are in their community. In behavioral interventions, social groups may be used to apply social pressure or leverage social capital in order to influence people's practices and behaviors.

Addressing Challenges in Transport, Water and Sanitation, and Health Requires Behavior Change

1.14 Managing motorized transport issues is becoming increasingly important in developing countries experiencing rapid urbanization and population growth. Already, nearly 4 billion people live in urban areas, and this is expected to grow to more than 6 billion people by 2050. With growing populations and growing incomes, people are increasingly choosing to purchase motorized vehicles, resulting in increased congestion and pollution as well as injuries and deaths from accidents. Providing resources, including building infrastructure and adopting enabling policies and regulations, is important to address these challenges, but so too are measures aimed at changing the travel behaviors of urbanites.

1.15 Significant progress has been made over the last decade in achieving water and sanitation outcomes. Still, improving water and sanitation behaviors would help reduce the number of children suffering from stunting and malnutrition as well as to reduce the number of deaths from diarrheal diseases—estimated at 842,000 per year. Additionally, the inefficient use of water resources is contributing to acute water scarcity across the globe. Although one key solution to address this is to build infrastructure, changing behaviors among domestic, industrial, and agricultural consumers to use clean water more efficiently is also instrumental.

1.16 Similarly, the improved provision of basic health services in the developing world has contributed to significant improvements on a variety of health metrics. Globally, under-five mortality rates has dropped from 90 to 43 deaths per 1,000 live births over the past 25 years.[6] Similarly, life expectancy at birth in countries with low human development indicators has increased from 52 to 59 years of age.[7] However, in spite of the significant progress over the last few decades, nutrition lags. Stunting still affects about 159 million children around the world and wasting threatens the lives of 50 million children. Meanwhile, there are now 41 million overweight children in the world, which is about 10 million more than there were two decades ago. Additionally, an estimated 250 million preschool children are vitamin A deficient and a staggering 2 billion people are anemic, many due to iron deficiency.

Nevertheless, even when the supply of quality health services and nutrition resources exists (which is often not the case), several factors remain that may hinder the optimal use of these services, including lack of information, misinformation and harmful beliefs, inadequate resources to access the services, prejudice and fear, and individual trade-offs between health and pleasure.

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[1] The team has limited itself to World Bank projects since International Finance Corporation investments and Multilateral Insurance Guarantee Agency guarantees often lack explicit design elements given the nature of their business models.

[2] The emphasis on outcomes is not meant to imply that behavior change occurs only at one point in time. Behavior change may occur at various stages in project implementation. For example, in a community driven development intervention, at the input stage the beneficiaries might adopt new roles (and hence new behaviors) by participating in if not leading the design of a new intervention. Such a redesigned intervention might work better (e.g., making service facilities more accessible or schools more accountable) even if no other behavior change activity is planned for other stages of implementation.

[3] The evaluative framework can easily be extended to include organizational change and an analysis of how organizations and individuals in organizations work. It can also be modified to recognize that several parties may participate in an intervention process (e.g., citizen beneficiaries, front-line service providers, managers, and administrators) and that successful interventions may require behavior change on the part of many parties.

[4] Consumer theory in neoclassical economics treats shifts (changes to incentives or information) in great detail but typically does not address changes in the shape of the demand curve because it treats preferences as given and generally leaves it to other disciplines (e.g., sociology, psychology, and marketing) to describe how preferences arise.

[5] The 2004 WDR (World Bank 2003) illustrated that illiteracy, ill health, gender inequality, and environmental degradation are all aspects of being poor.

[6] http://www.un.org/millenniumgoals/childhealth.shtml.

[7] http://hdr.undp.org/en/69206.

2. Literature Review

2.1 An understanding of the theoretical underpinnings of behavior change (i.e., models of behavior that suggest ways by which desired outcomes are achieved) is required to evaluate how the Bank has applied behavior change to achieve project objectives. This literature review examines the major concepts in economics, sociology, and psychology related to behavior change and discusses the underlying theories that are relevant to development work. It includes a discussion of four existing frameworks for designing behavior change interventions.

Behavior Change Theories

2.2 The literature on behavior (and, therefore, behavior change) fell naturally into three categories: standard neoclassical economics; psychology and sociology; and a combination of economics, psychology, and sociology (among other social sciences, for example, anthropology, see Hoff and Stiglitz 2016). Although this categorization is imperfect, with strong overlaps between the ideas within each of them, they are useful for understanding the evolutionary building blocks of behavioral interventions over the last century.

STANDARD ECONOMIC THEORY

2.3 Policy makers applying standard neoclassical economic theory in the design of interventions rely on a model of human behavior that assumes individuals are economically rational. They are self-interested and seek to maximize their utility given the constraints they face. They effortlessly process information, including information under uncertainty, without error. Based on these assumptions, the important variables driving behavior change are thought to be incentives (prices and regulation) and information (Becker 1976; Boulding and Stigler 1952; Friedman 1962). These serve as "levers" that enable policy makers to change behavior to obtain a desired outcome. The model is simple, general, and coherent and is powerful in its predictive ability. As Rodrik (2015) notes, standard economic theory has a long and successful track record across a variety of domains. Despite its success however, it has been unable to solve all problems, for example in public health. By applying additional techniques, outcomes are more likely to increase and be sustained over time.

PSYCHOLOGICAL AND SOCIOLOGICAL THEORIES

2.1 Psychological and sociological theories of human behavior are many and varied. These include, for instance, the theory of reasoned action which focuses on communicating persuasive messages, social cognitive theory which is based on the idea that people learn by observing others' social behaviors, and the transtheoretical model which involves a change process consisting of several stages through which individuals change their behaviors. These behavioral models emphasize social and temporal dimensions of behavior change. For example, the transtheoretical model can be applied to disease prevention that requires access to preventative medicines as well as individuals choosing to take the right medicine, at the right time, and in the right quantity. Each step includes an important behavioral element.

CHAPTER 2
LITERATURE REVIEW

2.2 The applied literature on behavior change project design elements underpinned by psychology and sociology is dominated by the field of public health, which has focused on behavior change for decades. No single theory stands out because health problems, populations, cultures, and contexts vary. Interventions based on these theories share commonalities but the application of behavior change activities has been fragmented. Recent research has attempted to develop a theory-linked taxonomy of behavior change techniques—working backward from behavior change activities to theory. It identified common themes among intervention types and mapped these to their underlying theories; for example, the theory of reasoned action, social cognitive theory, transtheoretical model, control theory, and operant conditioning (Abraham and Michie 2008; Cane et al. 2015). The research produced a unified framework of behavior change techniques to impose some form of standardization in the field and allow for comparisons between health interventions and a better accounting of what works under what circumstances. Twenty-six "behavior change techniques" were identified. The techniques are applicable to a range of policy objectives (i.e., not just health). Among the common techniques are barrier identification, self-motivation (goal setting), rewards, prompts, and communication. Simpler taxonomies of behavior change techniques also exist (see Storey et al., 2011 and World Bank, 2014) and have been used to classify a range of behavior change activities in development interventions.

2.3 Communication based on psychology and sociology differs from early attempts at changing behavior that relied on information to raise awareness through information, education, and communication (IEC) campaigns (in line with information provided under the standard economic model). An approach, which emerged later, stems from this literature. Behavior Change Communication (BCC) is a more integrated approach that recognizes a broader set of behavioral determinants beyond awareness, including purely practical constraints, social norms, or cultural perceptions, and can be interactive and can seek to forge an emotional connection with beneficiaries (Favin and Griffiths, 1999).

BEHAVIORAL ECONOMICS

2.4 Behavioral economics combines economics with psychology, sociology, anthropology, neuroscience, and other disciplines to improve the predictive power of the standard neoclassical model and to explain behavior that may not be perfectly rational (Kahneman 2011; Thaler and Sunstein 2008). Some view this as a return of economics to its roots, citing Smith, Keynes, and Hayek as examples of foundational thinkers who "explored psychological and social influences on human decision making" (World Bank 2015).[8] Contemporary researchers working in this field emphasize that individuals often fail to optimize, making systematic errors in judgment and decision making (making decisions that are more harmful than beneficial in the end despite having knowledge to that effect). Moreover, they use mental frames to interpret their environment, which shape their perception and understanding of the world.

2.5 Behavior economics uses some of the same theories of behavior to explain individuals' decision-making processes that psychologists and sociologists use. "Behavioral insights" drawn from noneconomic disciplines are used to develop behavior change project activities to address cognitive idiosyncrasies such as loss aversion, procrastination, and

confirmation bias that prevent people from optimizing. Behavior change activities predicated on behavioral insights most often involve the manipulation of psychological or social factors involved in the decision-making process by setting defaults, simplifying information, emphasizing social norms, leveraging interpersonal interactions and social support or pressure, and so forth.

OVERLAPS IN BEHAVIOR CHANGE THEORIES

2.6 The paper attempts to categorize the approaches to behavior change in social science and public policy. There are many overlaps between the theories and techniques of these areas approaches, often because the several disciplines are each trying to understand the same underlying construct. For example, social cognitive theory has long been used in health communications (Bandura 2004). The central idea in social cognitive theory is that people learn behaviors by observing role models. Recently, economists have also begun to pay attention to role model effects in fertility and gender empowerment (Jensen and Oster 2009; La Ferrara, Chong, and Duryea 2012). It is notable that early papers by La Ferrara did not cite Bandura, but a recent review paper has, which suggests convergence.

Frameworks

2.7 Building on these theories, several frameworks exist to design development interventions to change individuals' behavior. Defra's 4E framework was developed to design policies to promote sustainable lifestyles and waste prevention. The model can be extended to a diverse range of policy contexts. The COM-B framework has generally been used in public health, has not incorporated aspects of behavioral insights, but the model can accommodate this type of intervention. The Messenger, Incentives, Norms, Defaults, Salience, Priming, Affect, Commitments, and Ego (MINDSPACE) and Easy, Accessible, Social, and Timely (EAST) frameworks lay out salient aspects influencing individuals' decision making using mnemonic devices (see box 2.1) to assemble the factors that influence behavior in a manageable way.

2.8 The World Bank has developed behavior change frameworks of its own. Building on the work of Kahneman (2011), the 2015 World Development Report (WDR) entitled *Mind, Society, and Behavior* outlines the processes of behavior change through the lens of behavioral economics (World Bank 2015). The Focus, Opportunity, Ability, and Motivation Model in Sanitation (SaniFOAM) framework was developed at the World Bank to design effective water and sanitation projects (see figure 2.1).

2.9 Defra's 4E framework outlines actions required of policies designed to change behavior. Policies should provide access to services thus enabling behavior; provide incentives and information (e.g., through legislation or subsidies) to encourage behaviors; use social networks and interactive activities to engage beneficiaries and promote desired behaviors; and demonstrate a commitment to policies (e.g., government or role models) to exemplify behavior.[9] Interventions that seek a desired outcome, such as individuals' uptake or use of a good or service, should enable, encourage, engage, and exemplify (the 4Es) such use.

2.10 Michie et al. (2011) describe necessary conditions for behavior change. Individuals must have the physical and psychological ability (capacity); the access to resources and social support (opportunity); and mental model and beliefs required (motivation) to engage in a behavior. Capacity, opportunity, and motivation lead to behavior: the COM-B framework. Interventions and policies should be designed to promote these three conditions.

2.11 The United Kingdom's Behavioral Insights Team (BIT) developed a checklist of noneconomic influences on individuals' behavior. MINDSPACE (box 2.1) is a policy-making tool when used in combination with a behavior change framework, such as Defra's 4Es (Institute for Government 2010). EAST is a further simplification of the MINDSPACE mnemonic and another checklist of psychological, social, and environmental factors that should be considered when making policy. BIT uses MINDSPACE in conjunction with Defra's 4Es plus two additional "E"s that round out a process of informed policy design and results measurement. Policy measures are designed through exploration (diagnostic work) and refined through evaluation.

Box 2.1. MINDSPACE and EAST Frameworks

Messenger: who communicates information is key

Incentives: responses to incentives are shaped by predictable mental shortcuts

Norms: what others do has significant influence over individuals' actions

Defaults: inertia is a strong predictor of response

Salience: novel and relevant options are appealing

Priming: subconscious cues impact decision making

Affect: emotional associations shape actions

Commitments: goals and public promises provide motivation to act

Ego: self-satisfaction is important

Make it **easy:** reduce hassle, simplify, and use defaults wisely

Make it **attractive:** draw attention to things and be creative with incentives to lower costs

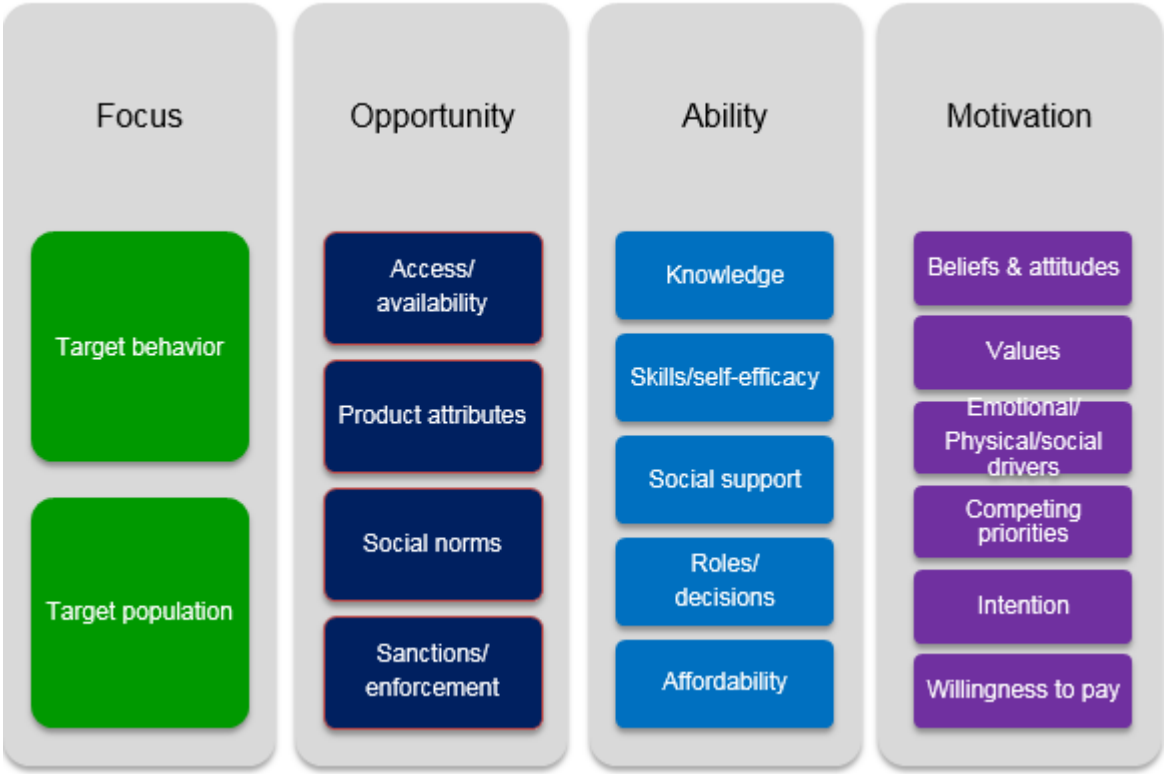
Make it **social:** make a commitment to a social group or describe the prevailing social norm

Make it **timely:** plan actions, set goals, prompt at critical times

Source: Institute of Government (2010); Service et al. (2012).

2.12 The SaniFOAM framework emphasizes (i) making explicit the specific behaviors and populations targeted (Focus); (ii) ensuring individuals have access, ability, and motivation to use (Opportunity); (iii) assessing individuals' capacity to engage in a particular behavior (Ability); and (iv) encouraging individuals to modify their behavior (Motivation). SaniFOAM emphasizes formative research on the targeted population's current behaviors and habits. Diagnostic work on the facilitators and barriers to obtaining the desired outcome are a critical to designing behavior change activities under the SaniFOAM framework.

Figure 2.1. SaniFOAM Framework



Source: Devine (2009)

2.13 The 2015 WDR discusses basic principles of decision making (World Bank 2015):

- Thinking automatically: People simplify problems and think through narrow frames of reference using assumptions and associations that readily come to mind.
- Thinking socially: People are influenced by social networks, identities, and norms.
- Thinking with mental models: People draw on pre-existing concepts, categories, and worldviews to inform decision-making.

2.14 These frameworks are primarily used ex ante to understand behavior and to design policy interventions. An evaluative framework for behavior change that emphasizes an understanding of the underlying models which help explain individuals' behaviors by identifying the underlying factors that influence them and theories which explain how behavior can be changed will provide an effective behavior change "lens" for evaluators.

[8] See also http://voxeu.org/article/behavioural-development-economics.

[9] http://www.wrap.org.uk/content/defra-4es-model.

3. The CrI^{2}SP Framework and Coding Template

3.1 The existing behavioral frameworks already in use–MINDSPACE, EAST, SaniFOAM, COM-B, and others—often label and categorize the same constructs in very different ways. However, all of the existing frameworks are either (i) abstract or diagnostic, describing the particular pathways of thinking that lead to certain behaviors, or (ii) ex ante tools for designing policy actions—if they are intended to be applied to policy. None take an ex post look in order to categorize the behavioral considerations of enacted interventions; in that sense, none is evaluative.

3.2 In response, IEG developed a new evaluative framework with the objective of being able to aid sector evaluations in assessing the prevalence and integration of behavior change concepts into the life cycle of an intervention from the diagnostic phase through to a project's close. Considerations for designing the behavior change framework mandated that the framework should

- be evaluative in nature. It should be descriptive rather than prescriptive. It should be able to look at projects ex post to describe not only what was designed, but also what was implemented, and what changes may have been made along the way. Such de facto categorization allows an evaluator to inspect potential trends in outcomes by type of intervention and behavioral activity.
- be relevant. It should allow the full range of the World Bank's portfolio to be evaluated.
- be flexible. The framework should be applicable across World Bank sectors (GPs, CCSAs).
- be "user friendly" to sector experts or evaluators who may not have a behavioral background.
- be easy. It should build on frameworks already familiar to IEG evaluator staff.
- be beneficiary-focused. It should use the end beneficiary as the unit of analysis of behavior change in considering whether an activity was "behavioral" and in understanding the effect of activities on outcomes—the outcomes evaluated should be the behaviors of individual beneficiaries.
- be comparable. It should use World Bank Group projects, components or subcomponents as the unit of coding.
- be relatively simple and concise. It should be CRISP!

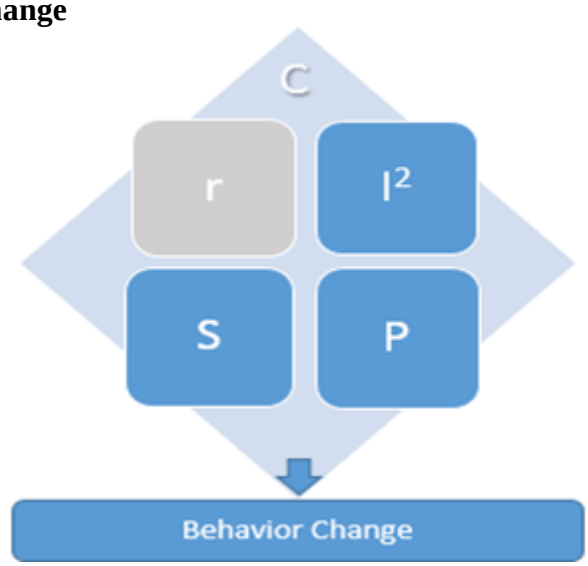
3.3 Although none of the many existing frameworks and approaches met all of these criteria, IEG leaned on them to design a new framework that could meet these requirements. IEG's framework was developed in consultation with authors from the 2015 WDR and was fine-tuned through a series of discussions with the Bank's behavioral hubs. The hubs were the Global Insights Initiative (GINI) in the Development Economics (DEC) department, the Behavioral Insights Team in the Poverty and Equity Global Practice, and the Behavior Change Community of Practice. Individuals from the Transportation, Water and Sanitation, and Nutrition sectors were also consulted as were IEG evaluators and evaluation leads. In addition, 30 participants from an interactive session at the 2016 Results Measurement and Evaluation Stream events actively collaborated to brainstorm and react to the framework.

Finally, early iterations of the resulting framework were discussed with the United Kingdom's Behavioral Insights Team (the "nudge unit").

Understanding Behavior Change ex post: The CrI²SP Framework

3.4 In response to the requirements above, IEG developed the CrI²SP framework with five basic categories for characterizing both the barriers and interventions to motivate behavior change: Communication, resources, Incentives and Information, Social factors and activities, and Psychological factors and activities (see figure 3.1). It is the heart of the IEG approach to evaluate behavior change in practice.

Figure 3.1. The CrI²SP Framework of Barriers and Intervention Types that Can Motivate Behavior Change



Source: IEG.
Note: CrI²SP = Communication, resources, Incentives and Information, Social Factors, and Psychological Factors.

3.5 **Communication** serves as the backdrop to activities that intend to change behavior. This element encompasses the channels or means through which behaviorally-informed messages are conveyed to the target audience. Evaluating communication entails understanding whether the intervention effectively communicated the desired behaviors, and if so, how. A lack of information, misinformation, or incomplete or mistrusted information about an intervention, can inhibit service take-up. A well-designed communication strategy can reduce informational frictions and encourage particular behaviors.

3.6 As supply-side interventions, **resources** are not considered within this framework to be behavioral *activities* per se (thus it appears in the figure with a lower-case "r" and in a grayed box). However, resources may have influenced behavior *outcomes* through expanding an individual's opportunity to engage in an activity or making the desired activity relatively less costly by increasing supply, thereby inducing movement along (down) the demand curve (see the third panel of figure 1) but are not behavioral of themselves. These activities are explored in detail in the companion IEG working paper on service delivery. The broad category of resources also includes policies and regulations and other features that create an

enabling environment. Moreover, it also includes interventions that improve general capabilities but do not have a direct effect on outcomes.[10]

3.7 Even though provision of resources may not be termed a behavior change activity (again, because it does not change the demand curve), the lack of sufficient resources, regulations, and capabilities can be contributing barriers to behavior change—thus, while resources alone are not considered behavior change activities, they can lead to behavior change outcomes. Indeed, providing sufficient resources is a necessary condition for achieving behavior change. Tracking how resources are (or are not) paired with behavioral elements and are correlated with behavior change outcomes can provide insights on the structure of the Bank's portfolio.

3.8 Were sufficient **Incentives and Information** put into place to support the desired behavior change, and if so, how? This category includes the typical motivators of the canonical "rational actor" of neoclassical economics. In broad strokes, this category encapsulates demand. Incentives may be financial or temporal. They may be positive or negative, as in shortening the time of travel, or providing a subsidy for mass transit use, or a tax on fuel. Information may be complete, incomplete (subject to uncertainty) or asymmetric. Information is translated into two types of knowledge. "Knowledge that" includes information on expected benefits or costs, such as the benefits of washing vegetables, while "knowledge how" includes information on the skills and techniques needed to accomplish a specific task, often a behavior.[11] Projects that improve individuals' ability and capability, either through offering specific training, such as water purification, and general also come under this category of incentives and information.

3.9 Incentives and Information account for most shifts in the demand curve (the first panel in figure 1.2). When considered jointly with the category of resources (supply), incentives and information describe the standard economic model of consumer theory of how rational actors optimize utility subject to a budget constraint, taking preferences as fixed. This is analogous to "thinking slow" in Kahneman's (2011) framework.

3.10 How were **Social factors and activities** incorporated to lead to the targeted individual behavior outcomes? Social considerations influence people's behavior through concerns about how they may be perceived by others. These often include social norms, which are broadly shared beliefs about what group members should and are likely to do—did a project work around or bypass norms, market or amplify existing norms, activate or change norms? The category also includes whether diagnostics or projects highlighted moral norms, such as appeals to fairness, altruism or equity, reciprocity and responsibility. A project may have worked through social networks for purposes of social monitoring, social recognition and incentives, underscoring or altering conceptions of group identity, increased social interactions or even targeted individuals to champion social change. Social Interventions might have engaged social norms through a soap opera that destigmatizes public transportation or encouraged a group identity that has socially desirable attributes that could lead to better outcomes.

3.11 **Psychological factors** account for ways in which a project influenced individuals' behavior through their nonrational or bounded-rational perception of the world around them.

This category also includes issues of cognitive stress and hassle. Mental models enter here (including stereotypes, causal narratives, or heuristics) as do cognitive biases and limitations (see appendix C). Also fitting into this category are design elements such as nudges and defaults, attempts to deliberately address faulty mental models as described in the WDR 2015 (for example, describing diarrhea as a result of contamination by germs rather than as a "leaking baby" that has had too many fluids and needs to stop having water), or making a targeted behavior easier, attractive, salient, or timely.

3.12 Taken together, the categories of social factors and psychological factors encompass the psychosocial aspects of human decision making that have been described for decades in noneconomic models and which behavioral economics has recently made efforts to incorporate. Collectively, social and psychological factors account for "thinking fast" in Kahneman's framework and cover the concepts of "thinking automatically, thinking socially, and thinking with mental models" of the 2015 WDR. They describe elements of how preferences are formed, and so can change the shape of the demand curve (represented by the second panel in figure 1.2).

Box 3.1. Comments on CrI²SP

Because drivers of observed behaviors are often highly interrelated, the interventions used to motivate behavior change quite often need to be multifaceted. Furthermore, the nascent nature of social psychology as applied to economics and international development means that codified definitions of behavioral concepts have not yet been established, and new avenues of behavior and cognition are actively being explored. As a result, the categories of the CrI²SP framework are not intended to be (and indeed could not be) either mutually exclusive or collectively exhaustive.

Instead, the framework is intended to establish the basic building blocks of behavior barriers and interventions, any combination of which may be used to describe the behavioral elements of the vast majority of existing World Bank projects. Coding a project or activity against multiple CrI²SP categories is likely. Indeed, in order for a behavior change to take place, it seems likely that each of the 5 main categories of CrI²SP need to be satisfied, either through an intervention or because they were in sufficient supply to not be barriers (that is, the categories are likely to constitute individually necessary and collectively sufficient conditions, allowing for complementarity).

Source: IEG.

3.13 Overall, the CrI²SP framework intends to help evaluators categorize observed behavioral barriers and interventions (see box 3.1). The framework takes the end beneficiary, or consumer behavior, as the unit of analysis. As a result, it is not intended to address organizational behavior or organizational or institutional change, nor is it intended to address the behaviors of providers, such as educators or health care providers. These concerns are more appropriately included in the service delivery working paper. Still, the broad categories and principles of the CrI²SP framework of behavioral barriers and interventions can likely be meaningfully applied to such questions.

CHAPTER 3
THE CrI²SP FRAMEWORK AND CODING TEMPLATE

Capturing Behavior Change in World Bank Group Interventions: The Behavior Coding Template

3.14 The CrI²SP framework of behavioral barriers and interventions are subsumed as the central piece of the behavior coding template to be used for coding behavior change activities in World Bank projects. The template seeks to enable evaluators to code (that is, to capture, label, and categorize) projects that will enable them to answer the following questions:

- Who was the target population? What were their behaviors prior to the Bank's intervention?
- Why were potential beneficiaries acting in that way? What was done with the intent to change those behaviors?
- What was the result?
- How deeply were behavior change considerations integrated into the project?
- Does the portfolio tend to integrate behavior change activities into complex projects with multiple interventions, or to have single, focused behavior interventions?

3.15 These questions may seem ambitious, but they were frequently referenced in consultations with behavioral experts and in published behavior materials. For example, to understand whether behavior changed or to design a project to change it, it is necessary to understand what behaviors already existed and why.

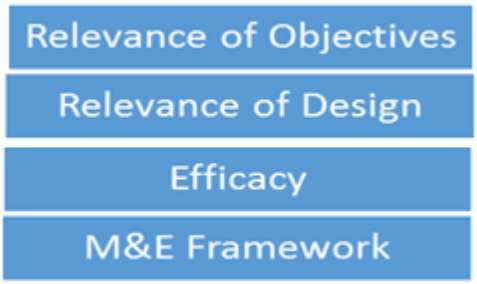
Elements of the Coding Template

3.16 The behavior change coding template covers behavior change in a project's objectives, design, efficacy, and monitoring and evaluation. These elements are the familiar building blocks of nearly all IEG evaluations (figure 3.2). By mapping the template onto these building blocks, IEG evaluators have an immediate depth of understanding of its content and structure. By tracing the project cycle, this framing also allows evaluators to understand the process by which the project was formulated, designed, executed, monitored, and impacted beneficiaries.

3.17 The template can be readily applied to the standard set of project documents: country assistance strategies, Project Appraisal Documents, Implementation Completion and Results Reports (ICRs), ICR Reviews, Project Performance Assessment Reports (PPARs), and so forth.

3.18 The behavior change coding template[12] itself is found in appendix B. Appendix C presents a user's guide that defines terms and gives examples for the behavior change coding template; in particular, it details behavior interventions by applying the CrI²SP framework. Examples of coded projects from Water, Transport, and Nutrition are given in appendixes D, E, and F. Last, a set questions for use in semistructured interviews with project task team leaders (TTLs) is forthcoming.

Figure 3.2. Building Blocks of IEG Evaluations



Note: M&E = monitoring and evaluation.

3.19 **Relevance of objectives to behavior change** covers three topics—defining the project's targeted population, whether and which behaviors are targeted in the project development objectives (PDOs) and other indicators, and diagnosing the current behaviors. First, "behavioral" activities must have a defined population of target beneficiaries. Next, by capturing the PDOs and their indicators and by interrogating the degree to which the project explicitly aims for changes in the way beneficiaries use their agency, evaluators can apply a simple test of whether or not the project is governed by behavioral considerations. The template seeks to help answer the question of whether the project has identified a specific behavior that it is trying to change. Finally, the template asks for details on whether there was any diagnostic work done to identify the current behaviors. Nearly all prescriptive behavioral frameworks emphasize the importance of doing diagnostic work before a project is designed in order to understand the different processes that can produce beneficiary behavior. Behavior specialists at the World Bank felt that the behavioral diagnostic stage in project design is typically underdeveloped. Such diagnostic work may come from a wide range of sources, but understanding the contextual bottlenecks to behavior can affect the design of the intervention is critical. The template uses the CrI²SP framework of behavioral barriers to elicit reasons why the observed baseline behaviors exist and the barriers that individuals may face in moving to the desired behaviors. Evaluators may also choose to collect descriptive information about the implementer (e.g. government (national, state, local), NGO, private for-profit, religious), scale (in terms of number of beneficiaries, financing, geographic reach, or project-defined input or output indicator), and phasing (pilot, later stage) or contextual dimensions of the project that could influence replicability.

3.20 **Relevance of design to behavior change** applies the CrI²SP framework of behavioral intervention types to World Bank projects. This section facilitates understanding of how the portfolio integrates behavior change activities or otherwise seeks to create behavior change. It does this by coding Bank activities against a series of items specific to each element: Communication, Resources, Incentives and Information, Social Factors, and Psychological Factors. The end of the relevance of design section asks questions to understand how well the project did the "right things"—integrating behavioral activities that were related to the diagnostic work, and not including activities that were not prescribed by that work. Details are found in the user's guide (appendix C).

3.21 **Efficacy of behavior change** allows evaluators to understand the effect of the intervention on behaviors. Questions in this portion of the evaluative framework are intended to track whether the targeted behaviors actually changed (increased, decreased, enhanced, improved, or even maintained despite negative pressures), and whether it is plausible that those changes were due to the Bank's involvement. Recognizing the Bank's objective to encourage shared prosperity, the template queries whether there were important differential or heterogeneous effects on the behaviors of identified important target groups or subpopulations such as the poorest two quintiles of the population, at-risk populations, ethnic minorities, women and girls, and so forth. The template also pulls from ICR Review sections on risk to development outcomes by asking evaluators to consider whether the behavior changes are likely to be sustained. Alternately, if changes are not observed, it provides an opportunity to opine on whether the desired behaviors may need more time to take hold beyond the close of the project. Finally, the template probes whether there are any unintended positive or negative effects on behaviors.

3.22 **Monitoring and evaluating behavior change** has been integrated into the template through items that track output and outcome indicators of activities that explicitly aimed to change behavior. By definition, outputs themselves are not behavioral. Outputs are the "tangible products or services produced as a result of the activities" (Morra-Imas and Rist 2009). "Access," for example, is an output. Still, the template captures outputs of behavioral activities, such as the number of text messages sent or the number of households reached through BCC activities, in an effort to understand the intensity of the behavioral activity. Similarly, "outcomes are the behavioral changes that result from the project outputs" (Morra-Imas and Rist 2009). By this standard, all properly defined outcomes are behavioral.[13]. Through critical assessment of whether the nominally "outcome" indicators in project documents are in fact measuring behavior change, evaluators can make conclusions on how well articulated and integrated behavior change was in the monitoring and evaluation (M&E) framework and, subsequently, the project. With that aim, the coding template assembles data on the behavioral activities' outputs and outcomes used for monitoring and evaluation, and which of those were collected at baseline, had targets set, or, importantly, were adapted (or caused the theory of change to be adapted) as a result of observed behaviors. Such adaptation can also be a useful proxy for how well behavior change is integrated into Bank activities. An evaluator may also want to explore various intensities of behavior change; for example, coders could indicate whether outcome indicators were intended to be increased, decreased, enhanced, improved, or maintained (Morra-Imas and Rist, 2009)

Development of the Coding Template—Preliminary Coding Exercise

3.23 The coding template was developed both deductively and inductively. It began as an attempt to map Bank projects against the CrI²SP framework, and was refined in response to other frameworks and was reshaped into a frame that would be familiar to IEG evaluators. Once a rudimentary coding template was created, it was applied to dozens of World Bank projects in the urban transport, water and sanitation, and nutrition sectors to further refine it. The resulting template was then shared with IEG evaluation teams who provided written and verbal comments. Finally, the working paper team endeavored to further clarify the instrument by going through example projects that the working paper team and the

evaluation team had coded individually in order to observe and correct remaining disparities or difficulties.

3.24 To date, 33 projects have been coded in the process of developing the current template: 14 from water and sanitation, of which 10 were coded by the behavior team and four were coded by the evaluation team and double checked by the behavior team; 10 from nutrition by the behavior team; and nine from urban transport, including one that was double coded and compared by the evaluation team and the Behavior Change team. These 33 projects were selected purposively to cover most types of World Bank projects in order to help in the development of the coding tools; this allowed the team to test how well the tools performed against a variety of interventions and refine them accordingly. Importantly, this objective meant that the sample used to calibrate the coding tools would not be a representative sample of the portfolio. Consequently, the group of 33 projects that was coded during the tool development phase was not analyzed to understand the frequency of intervention elements or to make any evaluative claims about the Bank's use of behavior change.[14] Rather, descriptions of behavioral elements of three example projects is found in box 3.2. Fully coded examples from Water, Transport and Nutrition are found in appendixes D, E, and F.

Box 3.2. Examples of Behavior Change in World Bank Projects from Water, Transport, and Nutrition

Three projects from Nepal, Chile, and Senegal illustrate how behavior change activities from the domains of the CrI²SP framework and the behavior change coding template have been integrated into World Bank projects in the Water, Transport, and Nutrition sectors.

In Nepal, the Rural Water Supply and Sanitation (RWSS) Project contributed to improved hygiene behaviors in rural areas. The intervention targeted community leaders and elders, as they were deemed to have the greatest potential to change individual behavior. Women were also identified as an important target group. While men usually control finances, women play crucial roles in affecting behavior changes, particularly of their own children, and typically serve as providers of family hygiene and sanitation. The project included community education activities, interpersonal communication through training of trainers to deliver hygiene and sanitation messages, and social marketing through mass and traditional media campaigns through radio, posters, leaflets, and songs and games.

"Modal shifting" is a commonly targeted behavior change in transport. Chile's Sustainable Transport and Air Quality for Santiago GEF Project addressed social factors in addition to providing people with information. Promotional activities included collaborating with citizen's groups to develop grassroots support for nonmotorized transport, creating publicity campaigns to develop an attractive image of the bicycle as transport mode, hosting training on bicycle riding and safety in schools, developing traffic safety campaigns directed at drivers and cyclists, and establishing a website to provide information useful for cyclists. The campaigns were instrumental in supporting the achievement of the project's objective of increasing bicycle use in the city by 12 percent in the spring and 23 percent in the winter, and a modal shift from cars to bikes of between 3 and 6 percent, depending on the season. In particular, the share of women using bicycles increased from 8 to 20 percent.

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Phase two of Senegal's Nutrition Enhancement Project contributed to improved nutrition behaviors, including breastfeeding for the first six months, adopting appropriate feeding practices for young children, and providing their children with vitamin A supplements. The community-based nutrition component provided information and addressed social factors related to nutritional practices. Specific activities included monthly growth monitoring of children under two years of age with counseling and home visits for mothers as well as a behavior change communication (BCC) campaign on infant and young child feeding (IYCF) practices, disease-preventive measures, and home-based care and care-seeking for sick children. BCC messages also targeted husbands' support to their pregnant wives and sought to empower pregnant women. Recognizing the importance of social factors on behavior and the respect that elderly women generally receive in Senegal, the project "applied a participative approach with grandmothers' networks to negotiate the integration of new practices for child survival and maternal health with positive traditional behaviors."

Note: A more detailed description of these three projects is found in appendix A, including instances of how the projects built on previous diagnostic work and lessons learned, how they established (or failed to establish) outcome indicators, efforts to support long-term sustainability, and details on the interventions and the outcomes they achieved. Coded examples of other projects from Water, Urban Transport, and Nutrition are found in appendixes D, E, and F.

3.25 This coding exercise played a significant role in improving both the behavioral framework and the coding template. For example, the team added "communication" to the framework in response to the many instances of public awareness campaigns and BCCs. Similarly, the behavior team discovered that it needed to develop a user's guide (appendix C) and that it needed to further refine and do additional training on the difference between the enabling environment in the resources category, "information" and "specific skills building" in the information and incentives category, and "public awareness campaigns" in the communications category. Additionally, the team realized that the behavior change coding template could be simplified, coding time could be reduced, and reliability and comparability could be increased by migrating the tool to a database platform such as Microsoft Access. The team is exploring that opportunity and will continue to refine the coding template to improve relevance and speed while facilitating analysis and strengthening inter-coder reliability. Finally, the exercise helped the team crystalize its own understanding of the purpose of the template and considerations for approaching projects that were not necessarily designed with behavior change in mind (see box 3.3).

Box 3.3. Considerations in Using the Behavior Change Coding Template

In the course of coding World Bank projects, evaluators are likely to encounter a project whose documents do not contain information on a particular element of the template. This may even be true for a large swath of the Bank's portfolio. Coders should not be discouraged; that fact itself can be an interesting finding because it indicates the degree to which behavioral considerations were integrated into the objectives, design, efficacy, and monitoring and evaluation of a project.

Moreover, the coding template is designed to be descriptive. Normative judgments about whether a project or a portfolio should have done more (or less) with respect to behavior change are left to the evaluation team. The template includes a section for sector-specific questions; sector evaluation TTLs may use this space to prompt evaluators to consider this normative question based on sector-specific criteria. Even so, coders are asked to consider the entirety of the project—its objectives and design—together with the diagnostic work are mutually coherent to understand whether or not a behavior change activity was appropriate but was not included (or vice versa).

Finally, the template is not meant to be the only source of information on behavior change –project documents won't contain all of the information needed. TTL interviews and CCS questions are imperative to get the full story.

Source: IEG.

3.26 The preliminary coding exercise also indicated that follow-up interviews with TTLs might be particularly important for the behavior change work. The teams have discovered that several of the questions critical to understanding behavior (such as the barriers and facilitators for adopting a new practice) and change (such as establishing a baseline of behaviors at the time of implementation, or which behaviors are integrated into a theory of change) are sometimes not answerable from the project documents. Even so, that in itself may foreshadow a finding on the level of attentiveness of the Bank's portfolio to behavior change.

[10] For example, improving girls' general education can reduce all-cause under-five mortality, likely by increasing marital age, improving agency, and improving a girl's ability to navigate the world (IEG 2013). However, such reductions in mortality were not the primary purpose of the intervention.

[11] For epistemological completeness, a third type of knowledge, knowledge of, stems from the domain of communication; this knowledge describes knowing of the existence of an intervention, or "acquaintance-knowledge" (Bengson and Moffett 2011). By extension, the domain of communication is essential to the knowledge of, knowledge that, and knowledge how.

[12] As a template the behavior change coding tool is a set of information to be collected from project documents. To allow sector evaluation teams flexibility in how they integrated these questions (though selectively choosing only parts of the template is discouraged as doing so will undermine the strength of the behavior-change related portfolio analysis and will disallow cross-sectoral comparisons), the template is intended to be applied to the portfolio coding processes and tools used by a sector evaluation team. It is not itself a "tool" in that it does not come on a ready-to-use platform—again to allow flexibility for work-flow integration. Microsoft Access would be a suitable platform.

[13] Poverty reduction, economic growth, reduced automotive emissions or other more aggregated measures, are more accurately termed impacts or (strategic) objectives rather than as outcomes (Morra-Imas and Rist 2009).

[14] Making such claims about the composition of the portfolio from a purposive sample drawn to test the tool against the range of possible interventions—even if couched as preliminary—would be inaccurate. A frequentist evaluation of portfolio trends and composition should only be done for the full sample or a representative sample.

4. Conclusion

4.1 Causal evidence suggests that behavior change activities in water and sanitation, urban transport, and basic health services (among other sectors) can be highly cost effective. The 2015 WDR cited several examples of impact evaluations of non-Bank activities. A project in Kenya not only provided resources in the form of free chlorine dispensers, but also made water purification easy and salient by placing them at water sources, resulting in 50 percent of the population treating their water who would not have otherwise (Kremer and others 2009). Elsewhere in Kenya, stickers with messages empowering bus passengers to heckle and chide unsafe drivers changed social norms and created social pressure that reduced one measure of accidents by half (Habyarimana and Jack 2011). And in basic health services, immunization rates more than doubled in India when vaccines were given with free small nonfinancial gifts (a variant of the endowment effect) of dahl and dinner plates (salient for mothers' immediate tasks), over offering vaccines alone (Banerjee and others 2010).

4.2 Still, effectiveness is not guaranteed. An impact evaluation of the Vietnam arm of the World Bank's four-country Global Scaling Up Handwashing Program aimed to stimulate and sustain handwashing with soap at critical times (e.g., meal preparation and post defecation) through a BCC campaign that involved social marketing, community meetings, and face-to-face communication. It found that the project had no impact on observed hand washing, health, or productivity (Chase and Do 2012). Because behavioral considerations can but do not necessarily catalyze improvements in outcomes, applying a behavioral framework and evaluative coding template to understand the composition of the Bank portfolio can provide valuable insights potential ways to enhance design and effectiveness of the Bank's work.

4.3 As part of its new Strategic Engagement Area on Sustained Service Delivery for the Poor, IEG has worked to operationalize a lens for understanding how the principles of behavior change have been integrated into the Bank portfolio. In doing so, the paper developed a definition of behavior change that accurately captures elements important to Bank operations. Second, the paper described theories and frameworks of human behavior that can be employed to describe human behavior as an ends and means for development interventions. Because the purpose of the paper was to introduce a tool rather than give an early analysis of the portfolio, this working paper does not give conclusions on the types or effectiveness of these interventions. It simply presents them as illustrative.

4.4 Finally, the paper proposes a tool for sector evaluations to assess the prevalence and integration of behavior change concepts into the life cycle of an intervention from the diagnostic phase through monitoring and evaluation. IEG aimed to develop an ex post evaluation tool of behavior change in World Bank projects. In response, it developed both a framework to describe the interventions in the Bank's portfolio from a behavioral perspective, as well as a template to code portfolio projects against information salient to a behavior change lens. It is anticipated that both the CrI^2SP framework and the behavior change coding template will be further refined over the course of executing the three evaluations on water, transport, and basic health that will be piloting these tools.

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Appendix A. Case Studies

Case Study: Improving Hygiene Behaviors of Rural People in Nepal

In Nepal, the Rural Water Supply and Sanitation Project (P010516; approved in 1996, closed in 2003) contributed to improved hygiene behaviors of people in rural areas. This behavior change intervention was implemented through a health and sanitation education (HSE) subcomponent—a small part ($1.5 million) of the total project amount of $18.3 million.

Target groups identified included a wide variety of community leaders and elders, as they were deemed to have the greatest potential to change individual behavior. Women were also identified as an important target group. While men usually control finances, women play crucial roles in affecting behavior changes, particularly of their children, and typically serve as providers of family hygiene and sanitation.

To change key hygiene and sanitation behaviors, the project included community education activities, interpersonal communication through training of trainers to deliver hygiene and sanitation messages, and social marketing through mass and traditional media campaigns via radio, posters, leaflets, and songs and games. The project's focus on community education was based on prior experiences in which it had been shown to mobilize women in communities who had no prior experience with cooperative action. The project appraisal document (PAD) notes that nonformal education has made people more receptive to new ideas, easier to mobilize, self-confident, and willing to take on new responsibilities.

The project's design included many elements critical to any behavior change intervention, including incorporating lessons from other projects into its design and identifying the need for technical support (a program development officer for HSE and Women's Technical Support Services). The key lesson from prior projects that contributed to its success was HSE programs using a participatory approach have been more successful than those that rely on merely disseminating health messages.

However, while the project identified outcome indicators that would be used to measure results (e.g., handwashing before eating) and established baselines through knowledge, attitudes, and practices (KAP) studies, it did not establish targets for all indicators. Overall, though, the project was found to be successful, with its support for health, hygiene, and sanitation education contributing to improved hygiene behaviors.

To ensure the long-term sustainability of these personal sanitation practices and behaviors, the project has relied primarily on community participation. Additionally, the Project Performance Assessment report notes women said the main reasons they stuck to improved health behaviors were the direct benefits to their families and reduced medical costs.

Case Study: Behavior Change Communication in Senegal Improves Mothers' Nutrition and Childcare Practices

In Senegal, the phase two of the Nutrition Enhancement Project (P097181), approved in 2006 and closed in 2014, contributed to improved nutrition behaviors, including breastfeeding for

the first six months, adopting appropriate feeding practices for young children, and providing children with vitamin A supplements.

These behavioral changes were targeted through several activities conducted under the project's community-based nutrition component. Interventions implemented provided information and addressed social factors related to nutritional practices. Specific activities included monthly growth monitoring of children under two years of age with counseling and home visits for mothers as well as a behavior change communication (BCC) campaign on infant and young child feeding practices, disease-preventive measures, and home-based care and care-seeking for sick children. In addition to providing information, BCC messages also targeted husbands' support to their pregnant wives and sought to empower pregnant women. Furthermore, recognizing the importance of social factors on behavior and the respect that elderly women generally receive in Senegal, the project adopted the Grandmother Strategy, which "applies a participative approach with grandmothers' networks to negotiate the integration of new practices for child survival and maternal health with positive traditional behaviors."

Overall, the project was successful in achieving the targets for its behavior-related indicators with (i) the rate of exclusive breastfeeding for the first six months increased to 65 percent from a baseline of 34 percent (achieving its target of 65 percent); (ii) the percent of children aged 6-59 months in the target group receiving vitamin A supplements increased to 94 percent from a baseline of 79 percent (exceeding its target of 90 percent); and (iii) the percent of pregnant women making at least four prenatal care visits increased to 61 percent from a baseline of 40 percent (thereby achieving its target of 60 percent).

Case Study: Promotion of Bicycle Use in Santiago, Chile

In Chile, the Sustainable Transport and Air Quality for Santiago GEF Project (P073985), approved in 2003 and closed in 2008, contributed to an increase in the use of bicycles in Santiago by 12 percent in the spring and by 23 percent in the winter. In particular, the share of women using bicycles increased from 8 to 20 percent.

Based on lessons learned from a similar, although less successful, project in Lima, Peru, activities under this project included the development of a multipronged promotional strategy in addition to constructing new bikeways. In Lima, although several instrumental activities were conducted—including constructing bikeways, training on bike maintenance, encouraging employers to provide shower rooms and bicycle parking, and coordinating some promotional events, the project neglected to address the cultural barriers inhibiting bicycle use, particularly among women for whom bicycling was seen as a transgression against usual accepted behavior.

Therefore, interventions implemented in Santiago addressed social factors in addition to providing people with information. In particular, promotional activities included collaborating with citizen's groups to develop grassroots support for nonmotorized transport, creating publicity campaigns to develop an attractive image of the bicycle as transport mode, hosting trainings on bicycle riding and safety in schools, developing traffic safety campaigns directed at drivers and cyclists, and the establishing a website to provide information useful

for cyclists. Although the promotional campaign was shorter than anticipated due to delays with hiring consultants, it proved to be instrumental in supporting the achievement of the project's objective of increasing bicycle use.

Overall, the project was able to increase bicycle use by between 12 and 23 percent, and modal shift from cars to bikes from 3 to 6 percent, depending on the season. Among the users are trendy young people, including numerous women, with the number of women using bicycles increasing from 8 percent to 20 percent.

Appendix B. Original Behavioral Coding Template

This is the original version of the coding template following initial testing. The examples in Appendices D-F are coded using this version of the template. As a live document, this template will be further refined and updated as it is applied to evaluation portfolios. Users can request a current version of the template from the authors or from IEG.

0. Project Details

1. Project ID:
2. Project Name, Country:
3. Approval FY:

I. Relevance of Objectives to Behavior Change

4. Was a specific beneficiary behavior (or set of behaviors) targeted for change in the PDO? In PDO Indicators? In other areas/intermediate outcomes? Y/N
5. List/describe the specific behaviors targeted for change? Provide the PDO indicators or other tracked indicators.
6. Was there a specific component or subcomponent devoted to behavior change? Specify whether behavior change is at the component or subcomponent level (or both).
7. Whose behavior was targeted for change (define the populations/subpopulation)?
8. How is behavior change integrated into the theory of change, logical framework, results chain, etc.? (If not integrated state "Not Integrated," if there is no theory of change (or similar), state "No TOC").
9. Was there any diagnostic work done (as part of the project documents or separately) to identify the barriers and facilitators for the desired behavior in the targeted population (e.g., a discussion in the PAD or as a stand-alone piece, pricing studies, diagnostic work, "lessons learned" from a previous version of the same project in the same area, formative research (e.g., positive deviance, barriers analysis, human-centered design, deep dive, trials of improved practices), Knowledge Attitude and Practice study, behavioral constraint analysis, beneficiary analysis, focus groups, surveys, interviews, field visits and observations, "lessons learned," ethnography, etc.)? Describe.
10. Was any piloting of communication or intervention strategies undertaken to observe behavioral responses to planned activities?

	Communication	resources	Incentives and Information	Social Factors	Psychological Factors
11. As identified in the project documents, describe the elements that contribute to the observed behaviors (or prevent desired behaviors) at baseline from among the following factors?					

12. *To be developed by sector teams*: Is there something unique to this sector that should be captured (e.g., to help categorize the common classes of behavior change interventions or behavior outcomes—for example, BRT lines as interventions, or "modal shifting" as behaviors.)?

II. Relevance of Design to Behavior Change (Intervention/Implementation)

Interventions and Design Elements	**Yes/No**	**Explain what interventions were used. Describe the intervention and rationale.**
resources, including an "enabling environment" and "general capabilities"		
Provide hard resources (e.g., build/improve infrastructure, provide cash, provide fertilizer, provide insurance)		
Enabling environment, policies/regulations		
Other		

Incentives (time and money) and information		
Provide financial incentives (subsidy, transfers, tax)		

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Reduce financial costs		
Reduce time costs (separate from psychological stress of "hassle")		
Provide specific information and education (workshops; demonstration events; information and education campaigns (IEC))		
Provide specific training or skills related to the behavior change objective		
Other		
Psychological Activities (Interventions that address psychological factors)		
Make choices or adopting a behavior easy (make products convenient, simplify procedures, lower hassles, provide assistance, nudges and default options; piggyback on existing routines) (e.g., home delivery of chlorine, chlorine dispensers next to the water source, help filling forms out and navigating processes)		
Make the targeted behavior attractive or desirable (new buses, well-lit bus stops perceived to be safe)		
Make the targeted behavior salient (send reminders, place complementary products together, put complementary processes together provide visual cues) (e.g., text messages, chlorine dispensers next to the water source, single window business		

registration, colored paths and painted footsteps)		
Make the targeted behavior timely. Provide incentives and information at optimal times (overcome hyperbolic discounting).		
Optimize the number of choices, simplify the presentation of options (streamline the choice environment; reduce stress on cognitive bandwidth)		
Engage or offer alternative mental models, heuristics, change beliefs (e.g., deliver aspirational messages including self-efficacy training, debunk common misperceptions or myths—fight perception of public corruption)		
Other (e.g., small nonmonetary gifts; novelties; address other cognitive biases)		
Social Activities (Interventions that address social factors, e.g., social cohesion, social comparison)		

APPENDIX B

Social groups and networks: support groups, apply or focus community social pressure[1], leveraging social capital[2], social mobilization		
Interpersonal interactions: Peer proxies, mentors, positive modeling, peer demonstration effects, peer learning, increase social interactions, or target individuals to champion social change		
Activate, change, shift, bypass, market or amplify existing social norms (individual's actions are affected by perceptions of how socially acceptable behaviors are, prescribed behaviors or proscribed behaviors) (e.g., use peer comparison, trigger social fame/shame, inform individuals about neighbors behavior, name cooperating/non-cooperating individuals, appeal to group identity, establish or undermine taboos)		
Activate moral norms (appeal to fairness, responsibility, reciprocity, altruism, equity, etc.)		
Other		
Communication (How did people hear about or engage with the intervention)		
Employ behavior change communication (a specific term found in some interventions, implying multi-faceted communication, which can be interactive, derived from formative research applied to segmented		

[1] For outcomes. Community-driven development in which communities decide on development priorities would generally be about Service Delivery, unless the theory of change of the CDD specifically targets Behavior Change, such as increasing voter turnout in elections by increasing "ownership" and empowerment.

[2] Merely meeting as a group where there is limited group interaction does not count.

audiences using both mass media and interpersonal channels)		
Use social marketing (marketing for social good, including branding, considerations of placement, use of a celebrity or authority figure as "messenger"; or other marketing tools. Can think about the 4 Ps of promotion, price, product and place)		
Diffusion through social networks, targeting nodes, social media		
Use of a "messenger" celebrity or authority figure		
Public awareness campaign, standard media (letter, print, radio, video)		
Other (when not explicitly a part of BCC or social marketing, these may include policy communication, advocacy, social mobilization, interpersonal communication, etc.)		

Based on the diagnostic work and theory of change, are there activities in the CrI^{2}SP that should have been included but were not?	
Are there activities in the design that are not closely related to the theory of change/results chain? (Are there behavioral activities that were included but shouldn't have been?)	
Taken as a whole, does the set of intervention activities accurately reflect the diagnostic work on behavioral barriers and facilitators?	

III. Monitoring and Evaluation of Behavior Change

	List Outputs of BC Interventions	List Outcomes[3] of BC Intervention (intermediate or final)
What behavior change indicators were used for monitoring and evaluation (e.g., the number of reminders sent, the number of people using toilets)?		
Were the behavior change indicators related to the theory of change? Did the TOC imply indicators that were not included?		
For how many behavior change indicators were baseline statistics collected?[4] List indicators and baselines (for those without, indicate "n/a").		
For how many behavior change indicators were targets set? List indicators and targets (for those without, indicate "n/a").		
Did the design or indicators adapt as a result of observed behaviors? Was the theory of change updated?		

[3] Outcomes are distinct from outputs in that outcomes indicate what individuals actually did. That is, there is behavior and choice for beneficiaries in outcomes but not for outputs. Outcome indicators often have words like "use" and "practice"

[4] Newer projects may have baselines in the PADs. Otherwise, the ICR may have them.

IV. Efficacy of Behavior Change

	List Outputs of BC Interventions	List Outcomes[5] of BC Intervention (intermediate or final)
Did the targeted behavior indicators[6] change (increased, decreased, etc.)? Describe.		
Are observed behavior changes likely to be sustained?		

Heterogeneous effects and shared prosperity: Did the bottom 40% change behaviors? Other particular interest groups (e.g., gender, etc.)	
Were there any unintended effects on behaviors (positive or negative)? Describe.	
If behavior change has not occurred, can it reasonably be expected to occur in the near future as a result of the project—is there a natural incubation period?	

[5] Outcomes are distinct from outputs in that outcomes indicate what individuals actually did. That is, there is behavior and choice for beneficiaries in outcomes but not for outputs. Outcome indicators often have words like "use" and "practice"

[6] See question 4 at the beginning of this template in addition to the other questions in this M&E section.

Appendix C. User's Guide for Behavior Coding Template

As described in the working paper, the Behavior Coding Template should be filled out for each project based on information contained in the design (e.g., PAD, SAR, GEF Project Document) and completion (e.g., ICR, ICRR, PPAR) documents to identify and allow for analysis of behavior change activities and outcomes.

Identifying whether a project within the portfolio has behavior change activities can be challenging. It is not as straightforward as simply searching for the keyword 'behavior' in project documents. Although this will turn up some results, particularly in sectors that are more advanced in integrating behavioral interventions into operations such as nutrition and WASH, it will miss many other relevant projects, such as those that talk about changing 'practices'[7]. Overall, the coding exercise for developing this template found greatest barriers to identifying projects addressing behavioral changes in World Bank operations were (i) the lack of a standard lexicon, both across and within sectors, and (ii) the fact that behavior change (sub)/components or activities are sometimes outsourced during implementation and therefore may not be fully captured in official documents.

Evaluators will need to conduct an initial assessment of the project documents, focusing on its PDO and components, to form an initial view on how the activities may fit into the template overall, and the CrI^{2}SP framework in particular. To help determine this, it may be helpful for evaluators to first review the definitions of key terminology in the Interventions and Implementation section of this Users' Guide.

The template has four parts, covering behavior change considerations in the projects' objectives and preparation, design, efficacy, and monitoring and evaluation. The working paper gives a more complete description of the purpose of each of these. This user's guide clarifies some areas of potential confusion to help the coder avoid mistakes. Although some fields may often be left blank, this is still an important finding. Even for such fields, it is still worth inspecting the documents to see if the information is there. Do not be discouraged if the information cannot be found. Please document that the topic was not covered in the project documents.

I. RELEVANCE OF OBJECTIVES TO BEHAVIOR CHANGE

This section covers basic project information (name, project ID, approval FY) as well as information on the projects' design (e.g., objectives, components, target population) and on whether any diagnostic work was done, which is important for understanding how well the project understood the behaviors it sought to change.

[7] This is problematic for searching, because the term 'practices' is used in nearly all project documents to refer to other types of practices (i.e. 'best practices' or 'good management practices' instead of changing practices such as handwashing or breastfeeding). Therefore, 'practices' was not used as a search term.

Some guidance is provided below on how best to answer these questions using the documents available, based on the experience of reviewing a sample of projects for this working paper.

- **Behavior change in the PDO or project indicators**. Some PDOs clearly do target behavior change (e.g., "to improve child and maternal care behavior, and increase utilization of key micronutrients, in order to contribute to improving the nutritional status of vulnerable groups") or do not (e.g., "to increase access to piped water services and improved sanitation in selected districts, and to strengthen the capacity of associated institutions"). However, some require inference by evaluators. For instance, PDOs that target the utilization of services and infrastructure are generally related to behavior change, whereas PDOs that merely target increased access to these services are not. As an example, one PDO reviewed for this paper aimed to "increase access *and* achieve effective and sustained *use* of improved community water supply and sanitation services in villages." Because this PDO includes the "effective and sustained use" of services in its PDO (e.g., targeting the use of latrines by villagers), it was considered as targeting behavioral change. Whereas simply increasing access would merely give people the option to use a latrine instead of open defecating.

  Similarly, project indicators may sometimes clearly indicate desired changes in specific behaviors or practices (e.g., percentage of infants aged 0-5 months exclusively breastfed; percentage of target group washing hands with soap at critical times, such as before eating or after defecation), but it is not always so straightforward. For example, some nutrition project documents included indicators on "receiving" micronutrient supplementation (e.g., Vitamin A, iron, folate) instead of on "consuming" them, leaving it unclear whether some package was just given to those in the target group or whether they actually ingested it. It was determined that these should be included in the Behavior Coding Template, but flagged for follow-up during the TTL interviews. Meanwhile, in the WASH sector, some inferences are also required with indicators, for example, on "villages declared ODF." In order for a village to be open-defecation free, everyone must be using latrines, which means that people had to change their behaviors from previously defecating in the open.

- **Specific behaviors targeted for change**. Some projects do target specific behaviors (e.g., handwashing, breastfeeding), but others just more generally mention that they seek to improve "good hygiene practices" or "good nutrition behaviors." For the portfolio review, it is important to include supporting text from the project documents concerning both these specific and general behaviors targeted.

- **Behavioral Components, Subcomponents and Activities**. Projects will vary significantly in the magnitude of their behavioral interventions—some will have multiple components dedicated to behavior change, while others may only have one small activity under one of its many other large components addressing other priorities. Furthermore, some projects may not explicitly refer to some of its behavior change activities as "subcomponents," per se. However, this technicality is not important; what is important is to capture all information in the detailed project

description in the PAD that is considered part of a behavior change intervention.[8] To assist evaluators with this, this appendix provides detailed definitions for each of the interventions included in the Behavior Coding Template's section on "Interventions and Implementation" below.

- **Target Group(s)**. Here we want to understand who the target population was. Although it is best to identify whether project documents include information specifically on the target groups for the behavioral intervention (e.g., BCC or IEC campaign), in the review conducted for this paper, this level of detail was found for very few projects. Instead, most projects detailed the target population for the entire project. For this question, please provide whatever information is available on both the general and specific target groups.

- **Theory of Change**. Whereas information on a project's development objective (PDO) has a dedicated place in the PAD, information on its theory of change may be spread across several sections (e.g., context and rationale, alternatives considered but ultimately rejected, lessons learned, detailed project description). Additionally, some project documents will include more detailed information than others. For example, some are very explicit and contain a lot of information, e.g.,

  "The project's nutrition education activities should set in motion behavioral changes and adoption of better child-feeding practices leading to long-lasting nutritional improvements in children under three… It is acknowledged that many of the nutrition and related health problems are caused by economic and environmental conditions. However, many are related to socio-cultural factors. Poor nutrition practices, which are based on misguided traditions or simply ignorance, will be the target of much of the IEC program… Traditionally, health and nutrition 'education' was oriented to simply filling information gaps. This approach of providing scientific facts and encouraging behavioral change is not effective. More subtle participatory approaches have been developed which use a combination of media and inter-personal methods focused on inspiring specific changes in behavior among specific target populations. These approaches help the target populations understand their situations and, most importantly, decide for themselves to make changes they perceive will be of benefit to themselves and their families."

  Meanwhile, some have limited information (e.g., "sustainability of health impacts will depend on effective and lasting change in hygiene behaviors"), and some have no information (in this case, input "not discussed" to flag this for the TTL interviews).

- **Diagnostic Work**. This section is designed to help answer the question, "what were the (undesirable) behaviors prior to the Bank's interventions?" Conducting diagnostic work is important for understanding the behaviors the project seeks to change, along

[8] Component/activity descriptions should be copied from the PAD (not from the ICR or ICRR), and should check for information in both the PAD's initial summary and in its annex with the 'Detailed Project Description.' If the ICR contains information on revised components, these should also be noted if relevant to the BC intervention (in addition to, not instead of, the information in the PAD). This ensures that the original intent of the project is captured, and, where relevant, how it evolved over time.

with what barriers and facilitators influence them. This may involve many different types of research, including, for instance, KAP studies, focus groups, behavioral constraint analysis, beneficiary analysis, field visits and surveys, and lessons learned from previous projects. While it is important to document what is discussed in the documents, it is equally important to note if this was "not discussed," as a flag for a question to ask in the TTL interview. Based on conversations with this paper's peer reviewers, it is common for projects to conduct diagnostic work during implementation, after the PAD has already been written and approved, which is why this may not be mentioned in the project documents reviewed.

- **Elements contributing to current behaviors or preventing the adoption of desired behaviors**. This question aims to help evaluators understand what reasons were identified by the Bank as to why potential beneficiaries act the way that they do. These potential reasons are organized by the CrI^{2}SP framework; however, in this case, instead of referring to the behavioral interventions themselves, these elements refer to the barriers and facilitators uncovered during the diagnostic work that influence the behaviors targeted in the interventions. For example, the PAD may identify that socio-cultural factors such as misguided traditions and taboos are preventing the adoption of desired behaviors (e.g., breastfeeding, IYCF practices), as are poor food habits (i.e., psychological), ignorance (i.e., information and incentives), and economic conditions (i.e., resources).

  These elements may later be addressed in the intervention through activities, such as hosting community meetings and theater performances tailored to local traditions, providing counseling and home visits for women, and developing IEC campaigns. However, the information on these activities/interventions will not be discussed here, as they are the subject of the next section of the template.

- **Piloting of Communications or Strategies**. Testing and refining the messages and materials used early on is key to designing effective behavioral interventions. Although this level of detail is rarely included in project documents, it is important to make a note of it when discussed. Otherwise, this question can be discussed during TTL interviews.

Finally, this section also contains an important opportunity for sector evaluations to pre-define any additional questions they would like to put to the portfolio. For example, a sector may have in mind a specific set of behavior changes that they would like to capture explicitly—as in "modal shifting" for urban transport.

II. RELEVANCE OF DESIGN TO BEHAVIOR CHANGE (INTERVENTIONS AND IMPLEMENTATION)

This section is dedicated to defining and giving examples of the particular interventions that may be observed in the portfolio The CRI^{2}SP framework forms the heart of this second section on interventions and implementation; because the terms used to describe the various intervention elements may be new to coders, significant space is dedicated to definitions and examples.

Importantly, a project may have multiple behavior change activities, and each of these activities may have several behavior change elements (the categories and sub-categories of CrI^{2}SP. When coding projects, evaluators should expect to fill in more than one box with information describing the intervention. For example, a project may provide hard resources, adopt enabling legislation, make the target behavior salient, and develop an IEC campaign that includes messages targeting social norms and is delivered by authority figures in the community.

PLEASE NOTE: Four elements of the template may incur some initial misclassification. Specifically, "communication," "Information" (under "Incentives and Information") "Provide specific training or skills" (under "information and incentives"), and "aspirational messages and self-efficacy") under "Psychological Activities"→"mental models") Information refers to facts; information and education campaigns (IECs) fall here because they are generally trying to raise awareness about an issue; training (which also falls under information and incentives) is specific education for the purpose of modifying behaviors—such as training in water and sanitation practices. Communication generally differs from information in that it augments awareness and information with marketing or other techniques designed to create a personal, social or emotional connection with the information.[9] Providing information differs from providing specific skills or training in that training involves conveying a skill to accomplish a specific task or set of tasks. Training and skills differs from the self-efficacy and aspirational messages of the mental models aspect of psychological activities again through specific skills of accomplishing an exterior task; self-efficacy (including cognitive therapy) gives the psycho-emotional tools, for example, to allow a person to consider alternate (improved) future ideations of themselves.

Communication

Communication encompasses *how* a beneficiary comes to know about the project and what change the project is inviting them to make. Accordingly, it incorporates an understanding of the designed or de facto "proximate signal" for the beneficiary. There are several different types of communications approaches used in behavioral interventions. Among the most common are Behavior Change Communication (BCC) and Social Marketing. Additionally, communications strategies may employ different types of media—in addition to delivering behavioral messages via standard media (e.g., radio, newspaper, television), some interventions have joined forces with community leaders and authority figures to disseminate their messages, while others are testing new mediums such as social media and networks. (See note at the beginning of section II in the Users' Guide on the difference between information, and communication, and general education.)

Behavior Change Communications (BCC) refers to the strategic use of communication, both mass media and interpersonal channels, to promote positive behavioral outcomes. It is

[9] From the perspective of the adult beneficiary, general or formal education at the primary or secondary school level that occurred when the individual was much younger contributes to the enabling environment of adults but is not a behavior activity for the purpose of classifying World Bank interventions in relation to adult behaviors. This type of education may make individuals more adept at navigating their surroundings and so have a positive interaction effect with the interventions, but is otherwise unrelated to the behavior change. It is expected that such interventions would be rare for World Bank projects for adult activity. (Clearly formal education activities are relevant behavior change for targeted children.)

based on formative research of the target groups' barriers and facilitators to adopting new practices or changing their current behaviors. Several of the projects reviewed for this reported utilized BCC, especially in the WASH and nutrition sectors. For example, one WASH project utilized BCC in its intervention aimed at achieving open-defecation free (ODF) status in rural communities:

> *"[BCC] will not be restricted to promotion of household toilets, but would aim at long-term behavior change in terms of sanitation and hygiene practices. Formative research on consumer behavior, preferences, motivation and barriers would be coordinated by the State Sanitation Cell. Based on this, a BCC strategy would be created including the key messages for different target groups related to key hygiene behaviors, channels for delivery of messages and methods to track effectiveness of these efforts."*

Meanwhile, the nutrition sector typically uses a slightly different term—Social and Behavior Change Communication (SBCC). This is a relatively recent modification made by the broader health sector to reflect the heightened emphasis placed on social factors that influence behaviors, in addition to the focus of BCC on individuals' behaviors. SBCC, therefore, designs interventions at multiple levels—the behavior of individuals, as well as how they are influenced by the collective actions of groups, social and cultural factors, and the enabling environment.

For instance, one project reviewed in Lao PDR included a nutrition SBCC component, which aimed to contribute to improvements in maternal nutrition and caring practices, infant and young child feeding practices, appropriate sanitation and hygiene behaviors, and dietary diversification. The SBCC strategy was developed, at both the national and village levels, by first assessing what existing materials and delivery approaches had been implemented as well as by conducting additional formative research on the target group's beliefs, motivations and barriers to adopting the desired behaviors and developing the social norms that would ultimately sustain these behaviors. Specific activities carried out for SBCC implementation included the production of campaign materials and tools, such as television spots, radio programs, posters, social media applications, interpersonal communication toolkits for village facilitators, tools for organizing community 'edutainment events', and job-aids for health center outreach staff. However, although this project exemplifies the vital role of SBCC in achieving positive health and nutrition outcomes, it also stresses the importance of connecting communications strategies with other complementary behavioral interventions, noting that, for example:

> *"Well-designed SBCC campaigns promoting iron folate acid or Vitamin A can successfully increase demand for these supplements; however, without functioning supply chains and sufficient stocks in place in the facilities or communities, the desired levels of use of iron folate acid or Vitamin A cannot be attained no matter how high the demand. Likewise complementary feeding and family planning commodities and staff to administer them must be available to cater to any increase in demand for these."*

APPENDIX C

Social marketing refers to the application of commercial marketing approaches to promoting products, services or behaviors that improve project outcomes and impacts. Similar to BCC, it is based on research, which for social marketing is known as market research. However, social marketing recognizes communication (i.e., promotion) is only one element of the marketing mix, and products, along with their placement and pricing, are equally important to achieving objectives. In addition, the target groups of behavioral interventions should be viewed as active participants in the social marketing process (e.g., feedback on product design, or on marketing mediums and messages). In nutrition, social marketing may be used to increase the availability of affordable and desirable micronutrient supplements, whereas in sanitation social marketing may support the construction of latrines and handwashing facilities in households.

In Bangladesh, for example, sanitation entrepreneurs are developing product manuals to provide consumers with alternative types of latrines at different price points and with different materials used in their construction, along with a choice in paint color if desired. In addition, these sanitation entrepreneurs are beginning to host meetings with the latrine production suppliers to provide them with feedback on how to improve product offerings, based on their interactions with existing and potential clients in rural villages (e.g., consumer preference for a short pipe diverting feces to a nearby pit rather than a hole going straight down into a pit directly below).

Standard media includes the use of television, radio, newspapers, posters and billboards, and leaflets to deliver behavior change messages. These mass media campaigns, which are typically designed by communications experts and based on research, may aim, for instance, to influence people to use public transportation, promote handwashing with soap as a healthy practice that all families should adopt, or dispel incorrect traditional beliefs about nutrition and childcare practices. In a sanitation project in Punjab, India, reviewed for this report, for example, an IEC campaign was developed, which included several activities utilizing standard media—community radio, citizen journalism, and even a reality television show.

Social networks and media are relatively new additions to the toolbox for IEC and BCC campaigns. For example, in the Punjab sanitation project mentioned above, in addition to using standard media, social media tools such as WhatsApp, Facebook, Google groups and Mobile voice campaigns are also being used to reach target groups and influence behavioral changes.

Authority Figures and Celebrities are used in behavioral interventions give the recognition that in order to influence their target groups, they must first influence the people who influence them (e.g., local religious leaders, celebrities, local government authorities, respected elders such as grandmothers, leaders of local NGOs or other advocacy groups). These types of interventions typically focus heavily on the social factors described in the prior section, with significant social pressure created by these influential people. For example, one WASH project reviewed for this report targeted its Hygiene Sanitation and Education (HSE) campaign for "leaders of different socio-economic, age, cultural, religious and geographic categories such as community elders, traditional birth attendants [and] women's groups, [based on] the assumption that individual behavior depends on pressures to conform exerted by peers, and formal and informal community leaders."

Resources

Providing resources, such as building infrastructure or strengthening institutional or individual capacities, can support the implementation of behavior change interventions by improving individuals' physical capacity to adopt a particular practice or behavior. These can be categorized into three main types of resources:

- **Hard Resources** aim to provide individuals with the required physical infrastructure or goods/products to enable them to engage in new activities and sustain these behaviors. For example, in WASH this may include latrines, handwashing facilities, piped water infrastructure or soap. For nutrition, this may include daily food and micronutrient supplementation, such as vitamin A or iron tablets. For transport, this may include bicycle lanes, metro lines, bus lanes, stoplights, or streetlights, for instance.
- **Enabling Policies and Regulations** aim to create opportunities, or an enabling environment, for behavior change interventions by establishing new laws. These policies and regulations may, for instance, create a level playing field for a country or local area (e.g., requiring access to water and sanitation infrastructure for urban slums in addition to the larger population), place fines on behaviors that have negative externalities (e.g., fines for not wearing helmets or seatbelts), or set product and marketing standards (e.g., legal provisions stipulating how breast milk substitutes can be marketed and distributed).

In addition, there have been a few other types of resources identified through the pilot portfolio review conducted for this report. For instance, the provision of some types of hard resources requires additional support to reach target beneficiaries (e.g., transportation and storage of iron folic acid tablets and prepared foods). Moreover, some nutrition projects have provided targeted services, in addition to hard resources. In particular, projects have supported growth monitoring services for children in communities through monthly weighing sessions and home visits for children who need specific monitoring. Finally, several WASH projects have carried out market facilitating activities aimed at developing the value chain for latrines rather than providing them directly. These projects identified that demand for latrines existed, but the market was not adequately supplying the necessary inputs for their construction in rural communities. In one project, in particular, women's groups were encouraged and supported to establish sanitary marts, which "increased household latrine construction substantially, as the required materials were available in villages, reducing the cost of transportation."

Incentives and Information

Incentives and information influence people's behavior through careful evaluation of optimal choices. Behavioral interventions of this type can be categorized into four main types:

- **Financial incentives** may lower or raise the price in order to influence behaviors. For example, subsidizing public transit and imposing taxes on motorized vehicles both promote the increase use of non-motorized transport. Meanwhile, for the WASH sector, targeted subsidies or revolving funds may be established for latrines to

decrease open defecation, whereas in the nutrition sector, conditional cash transfers may be given to increase demand for and utilization of health and nutrition services.

- **Time cost reduction** also influences behavior, particularly when an intervention changes the relative time it takes between two or more options. For example, when bus rapid transit (BRT) is developed in a city, buses receive a dedicated lane, thereby reducing the commute time for people who use it compared with those who drive their own vehicle on the congested roads.
- **Information and training** aim to equip people with information to make more informed decisions about their lives, including their nutrition, health, and hygiene. For example, an intervention may design an Information, Education and Communication (IEC) campaign to inform people about the health benefits of handwashing at critical times and using a latrine instead of open defecating in a field or water source. In particular, one project reviewed for this study integrated hygiene education into school curricula, both educating school children on practices such as handwashing, proper use of latrines and menstrual hygiene as well as on the socioeconomic costs of poor sanitation and benefits of improved sanitation. Meanwhile, in the nutrition sector, IEC messages may focus, for example, on the benefits of breastfeeding, infant and young child feeding (IYCF) practices, and micronutrients. Finally, the transport sector may disseminate information about the advantages of using bicycles or public transit in terms of time and money savings. (See note at the beginning of section II in the Users' Guide on the difference between information, communication and general education, skills, and self-efficacy.)
- **Training and skills development** seeks to address barriers to behavior change directly resulting from an individual's lack of a particular skill, such as how to ride and repair a bicycle. Alternatively, interventions may train communities on how to promote behavior change among their peers. In particular, one project reviewed for this study financed technical assistance for the development and distribution of hygiene promotion toolkits in participating communities.

Social Factors

People's behaviors are also shaped by social factors, such as their cultural beliefs and their perceptions of how social acceptable particular behaviors are in their community. Social Factors can be categorized into four main types of behavioral interventions: (i) social groups, (ii) interpersonal interactions, (iii) social norms, and (iv) moral norms.

Social groups may include community or other support groups. In behavioral interventions, they may be used to apply social pressure or leverage social capital in order to influence people's practices and behaviors. This may include public meetings and events or local language theater that is tailored to and/or targets local traditions. For example, in a WASH project reviewed for this report, several public events were conducted as part of IEC activities, including a Handwashing Day, Children's Day, Community festivals, School rallies and Mascot events. Meanwhile, in the nutrition sector, smaller groups of community members (e.g., 5-15 people) are often brought together to meet and discuss their local nutrition situation. For example, in one reviewed project, a small community group assessed nutritional challenges and their causes, and decided on remedial actions to be taken. In

another project, "husbands groups" were organized so that men (who were usually in control of household food purchase) could receive counseling on nutrition management.

Interpersonal interactions refer to in-person, one-on-one communications between a person being targeted by a behavioral intervention and someone involved in influencing their behaviors. Examples in nutrition may include interactions between a health worker and a mother, or a grandmother and her daughter. In sanitation, it could be between a child who was trained on handwashing at school and one of his family members who is unfamiliar with the practice and its benefits, or between a sanitation marketing entrepreneur and the household's financial decision-maker. In particular, in one of the projects reviewed for this report, recognizing the respect that elderly women generally receive in Senegal, the project adopted the 'Grandmother Strategy,' which "applies a participative approach with grandmothers' networks to negotiate the integration of new practices for child survival and maternal health with positive traditional behaviors."

Social norms refer to the perceptions people hold about how socially acceptable particular behaviors are in their respective community or other social group. What is considered socially acceptable may result from a group's cultural or religious beliefs, or their concept of what is fair. Additionally, when determining whether to adopt new practices or change their behaviors, people often are concerned with how they will look compared to others and whether this will result in them being shamed or ridiculed or being celebrated or congratulated. As a result, behavioral interventions addressing social norms may, for instance, seek to inform an individual about their neighbor's behavior or seek to target its messages to the identity of or beliefs held by the larger group. In one of the nutrition projects reviewed, for example, culturally sensitive communication strategies were developed based on the beliefs surrounding family planning and initiation of breastfeeding and the implication of these for the health of the mother and baby. To communicate these messages, the project also worked with local NGOs and religious organizations.

Moral norms influence people to adopt behaviors that they believe are the right things to do. Compared to social norms, moral norms are more ingrained in the fundamental beliefs of society—for instance, that murder and theft are wrong or that respecting elders and recycling are good. In several of the sanitation projects reviewed for this report, behavioral interventions aimed to convince communities that open defecation is a morally and socially unacceptable behavior.

Psychological Factors

Building on the use of incentives and information to influence behavioral changes, interventions addressing psychological factors, including cognitive biases and mental models, have become more prevalent over the last three decades. These can be categorized into seven main types of psychological factors, five of which relate to particular attributes of the behavioral interventions design—(i) attractiveness, (ii) ease and convenience, (iii) salience, (iv) timeliness, and (v) the choice environment; and two of which related to individuals' perceptions and beliefs—(vi) cognitive biases and (vii) mental models.

Attractiveness. Improving the attractiveness of adopting a particular practice increases the likelihood of its uptake and sustainability. For example, bus ridership is more likely to increase if bus stops are well lit and clean, and for some groups, handwashing is more likely to increase if mirrors are also installed with sinks. These examples illustrate that low-income populations do not necessarily desire the most basic option, but have aspirations and demand high-quality, attractive products.

Ease and convenience. If adopting a new practice or behavior is a hassle, it is unlikely to occur. Therefore, interventions should be designed to make products more convenient to access, simplify procedures and/or provide default options. There is a concept in the science of habit about "decreasing the friction" that can imply piggybacking on existing routines and behaviors (e.g. putting a mirror on a handwashing station piggy backs on existing "grooming" behaviors). For example, a common nutrition intervention includes the mass fortification of foods, such as salt iodization and flour fortification (i.e., providing default options). In the WASH sector, interventions may include constructing handwashing facilities in close proximity to toilets and ensuring soap is provided. Previous interventions have shown when there is a long distance between the toilet and sink/water source, that handwashing practices are much lower.

Salience. Interventions that make things more salient, or stand out more prominently, are also more likely to change behaviors. By setting reminders, providing visual cues or "nudges," or placing complementary products together, for instance, specific practices that may have previously been difficult to remember are now difficult to miss due to their new prominence in a given context. For example, primary schools in Bangladesh showed increases in handwashing after painting brightly colored footsteps from latrines to handwashing stations.

Timeliness. Providing people with information and incentives or resources at optimal times can increase the likelihood that they will adopt the desired practice(s). For example, in nutrition, in addition to generally informing mothers about good health and nutritional care for their children through IEC campaigns or annual forums, behavioral interventions that counsel mothers regularly and provide them with timely referrals for health services their children need immediately have been found to be more successful.

The Choice Environment. If the range of choices available to individuals is too large or too small, they often opt out of taking any decision. To address this, behavioral interventions may reduce or increase the number of options, or simplify the presentation of options. In rural sanitation interventions, for example, it is still common that households are only presented with one or two basic options of latrines to purchase, and rarely with additional features such as paint color or mirrors. Although their budgets may be limited, low-income households do have aspirations and ideas about the types of products in which they are willing to invest. By better understanding the desired choice environment of target groups, the design of interventions can be improved and the desired behavioral outcomes are more likely to be achieved and sustained.

In addition to these five attributes, behavioral interventions may be designed to address two additional types of psychological factors, which relate to individuals' perceptions and beliefs:

Mental Models. Individuals' perceptions or ideas about how the world or something in particular works. These may include, for instance, various stereotypes, causal narratives or concepts that affect one's interpretation of situations that occur and their relationships to them. Behavioral interventions, therefore, may be designed to shift individuals' mental models by delivering inspirational messages or changing incentive structures. For example, exposure to a soap opera destigmatizing public transport use may influence one's perception about the attractiveness of using the bus or metro or the types of people who should ride it. Self-efficacy and altering aspiration also fit here (see note at the beginning of section II in the Users' Guide on the difference between information, communication and general education, skills, and self-efficacy.)

Other Cognitive Biases. Idiosyncrasies in cognition originating from mental shortcuts people make when faced with complex decisions (i.e., heuristics). However, whereas some mental shortcuts are useful for efficient decision-making, errors often occur in circumstances where important aspects of a given problem are missing or ignored. These errors, or cognitive biases, negatively affect people's choices, such as whether or not to adopt a new practice or change their behavior.

Some of the most common types of cognitive biases that concern behavior change interventions include: (i) framing, (ii) loss aversion, (iii) anchoring, (iv) risk aversion, (v) hyperbolic discounting, (vi) confirmation bias, (vii) status quo bias, (viii) optimism bias, (ix) self-serving bias, (x) believability bias (definitions, with examples, provided below). To address these biases, interventions may adjust the content and/or format of communications campaigns, or consider alternative approaches such as collaborating with community leaders to influence people.

Framing involves the selective presentation of a particular issue or thing to an audience, whether via mass media sources, political leaders or other actors. How something is framed affects what we pay attention to and how we interpret and perceive it, thereby influencing our perceptions of and reactions to a given choice, such as one's decision to change a behavior or practice. This is closely linked with loss aversion in cases where people's choices are framed in terms of gains and losses. For example, people may make different decisions about whether to undergo surgery depending on whether the potential outcome is framed as "the odds of survival after one month is 90 percent" or "mortality within one month of surgery is 10 percent." Alternatively, behavior change interventions may conduct formative research to determine how messages should be framed to influence a specific target group. For example, in rural Bangladesh, messages were framed around village health outcomes were less successful at encouraging the construction and use of latrines than when messages were framed around pride and dignity.

Loss aversion refers to an individual's tendency to strongly prefer avoiding losses to acquiring gains. For example, sometimes people will initially avoid visiting a doctor when they are sick even if treatment can be provided. This is especially true when the benefits of treatment are low and its costs are high. Another example is when something that you own, such as your house, depreciates in value, and you must sell it for less than what you purchased it for. In addition, loss aversion may also explain why subsidizing healthy food options is sometimes less effective in promoting healthy eating than taxing unhealthy foods.

APPENDIX C

Anchoring is an effect whereby initial exposure to a number serves as a reference point and influences subsequent judgments about value. For example, sales people often present buyers with the most expensive, or premium, options first so that when alternatives are presented, they seem relatively inexpensive and therefore may be more inclined to make a purchase and perceive its value as greater (thereby, potentially negotiating less aggressively). Alternatively, when eating a meal, if provided with a larger plate, some studies have found that people eat more food.

Risk aversion refers an individual's reluctance to accept a bargain with an uncertain payoff rather than another bargain with a more certain but possibly lower payoff. For example, as solar power has become more widespread and inexpensive, it has piqued the interest of many people. However, many remain reluctant to invest in solar panels even when they could realize significant cost savings, due to their perceptions about the risks involved in such an investment and knowledge on proper maintenance. Therefore, the sector has established power purchase agreements (PPAs), where a developer arranges for the design, permitting, financing and installation of a solar energy system on a customer's property at little to no cost, and sells the power generated to the customer at a fixed rate that is typically lower than the local utility's rate. In exchange, the developer receives income from selling the excess electricity, along with any tax credits generated.

Hyperbolic discounting or discounting is the tendency for people to have a stronger preference for more immediate payoffs relative to later payoffs. Hyperbolic discounting, also known as 'present bias', leads to choices that are inconsistent over time – people make choices today that their future selves would prefer not to have made, despite using the same reasoning. For example, people may set future goals to stop smoking and exercise regularly, but when action is required in the present, people may choose to smoke another cigarette or procrastinate on going to the gym. This can be overcome, for instance, by making behavioral interventions timely, such as providing information and incentives at the point in time when a particular decision is being made (e.g., labeling cigarette packages with health messages is intended to discourage some people at the point-of-sale).

Confirmation bias occurs when people seek out or evaluate information in a way that fits with their existing thinking, preconceptions and beliefs. If this bias is strong, the false hypothesis may never be discarded, no matter how much evidence is presented to support the alternative hypothesis. For example, in parts of India, breastfeeding has often been delayed after birth because of the belief that mother's milk is not ready until two to three days postpartum. Similarly, as some mothers believe that breast milk does not provide adequate nutrition for their infants, they may be more susceptible to marketing of supplementary foods and unnecessarily spending money from their limited household income.

Status quo bias occurs when people continue the same course of action they have traditionally pursued, in spite of it no longer being in their best interest. In nutrition, for example, people may continue to buy the same food products they have always bought, in spite of new, fortified products becoming available. To address this, some nutritional interventions have included default options, such as making iodized salt and fortified flour the only options available on the market.

Optimism bias is when someone believes he or she is less at risk of experiencing a negative event than others. This tendency to overestimate outcomes that are favorable or pleasant is also commonly referred to as 'wishful thinking.' For example, people living in rural areas who regularly use water contaminated with feces may believe that their family is still less likely to get sick from diseases such as typhoid or cholera.

Self-serving bias refers to cognitive or perceptual processes that are distorted by the need to maintain and enhance one's self-esteem. For instance, individuals may reject the validity of negative feedback, and instead focus on their strengths and achievements while overlooking their faults and failures. Alternatively, someone may take more responsibility for group work than they give to others. For example, when someone is hired for a new job, he or she attributes it to personal abilities and strengths, whereas when failing to obtain a new job, he or she may attribute it to external factors. In the nutrition sector, mothers targeted with behavior change interventions such as the promotion of appropriate child and young feeding practices, may be defensive at first, saying that they are good mothers and that if their children are shorter (i.e., stunted growth), it is not because they have not provided them with enough food, but that it must be something they cannot control, such as genetics or issues related to religious beliefs.

Believability bias is when someone's evaluation of the logical strength of an argument is biased by the believability of the conclusion. For example, many sanitation interventions initially involved information and education campaigns, where villages were told that their health would be negatively impacted if they continued to drink contaminated water. To them, however, the conclusion was not very believable, as they deemed their current health to be sufficient and could not imagine how some small microorg0anisms could harm them. However, when demonstrations are conducted—where someone takes a cup of clean water, visibly places feces into it in front of a group of people and gives it a swirl, and then offers it to all participants, no one is willing to drink it and generally the previously unbelievable conclusion about the link between sanitation and health is viewed as much more plausible.

Relevance of Design to Diagnostics. This small set of questions asks the coder to reflect on the set of activities as a whole as they relate to the objectives, the diagnostic work, and the theory of change. Did the project include things that it should not have? For example World Bank behavior specialists indicate that quite often training or EIC activities are included even when there is no clear link between them the theory of change or diagnostic work. On the other hand, there may be some barriers that were identified in the diagnostic work that did not have sufficient programming to address them. After objectively describing potential mismatches between diagnostic and design, coders are asked to make a judgement on how relevant the project's design was to observed and targeted behaviors.

III. MONITORING AND EVALUATION

This section allows evaluators to understand how well behaviors were tracked over time and how adaptive the project may have been when observed behaviors were not what was expected.

When filling out this section of the template, there are a few important points to note:

1. For the indicators, use only those listed in the ICR as PDO indicators or Intermediate Outcome indicators, and only list those in the template that you find to be relevant for the behavior change intervention. Sometimes the ICR's narrative on the "assessment of outcomes" includes additional data not monitored through the indicators. This can be reported in the results on whether the desired changes in behavior have been achieved, but not included in the list of indicators.

2. The distinction between outputs and outcomes is critical for determining the efficacy of behavioral interventions. Outputs will be include indicators such as number of radio broadcasts, community theater performances, community events, and home counseling visits; whereas outcomes will track changes in specific behaviors and practices such as breastfeeding, handwashing, latrine use, bicycle riding, and public transit use.

IV. EFFICACY OF BEHAVIOR CHANGE

This section aims to help evaluate the result of the project in terms of behaviors, and whether those changes in intermediate or ultimate outcomes plausibly contributed to the intended impacts. The section also has items to help evaluators understand unintended aspects of the project, including potential heterogeneous effect (which helps with understanding "shared prosperity" effects), and how likely results are to be sustained or whether they may occur later on. There is not hard guidance for determining results for this section; coder discretion, in conjunction with discussions with the evaluation TTL, is advised.

Based on the projects reviewed for this paper, it appears to be common that the desired behavior changes are partially achieved (i.e., a simple yes/no is insufficient to explain whether outcomes were achieved). Please provide some brief supporting text from the ICR (and ICRR and PPAR, if available) that details what the BC intervention has achieved. Please note the important points on indicators and the distinction between outputs and outcomes in the Monitoring and Evaluation section.

Appendix D. Coded Water and Sanitation Project

The original version of the coding template, as found in Appendix B, was used to code this project. Users can request an updated version of the template from the authors or from IEG.

1. Project ID: P010516 (closed, WASH)
2. Project Name: The Rural Water Supply and Sanitation Project
3. Approval FY: 1996
4. Was a specific beneficiary behavior (or set of behaviors) targeted for change in the project development objective (PDO)? In PDO indicators? In other areas/intermediate outcomes? **No** **PDO:** The project had three objectives, which were to raise living standards in rural areas of Nepal by: (i) delivering sustainable health and hygiene benefits to the rural population through improvements in water supply and sanitation facilities; (ii) improving rural real incomes by assisting women identify ways to earn income from time saved in carrying water; and (iii) strengthening governmental and non-governmental capabilities to undertake and sustain these efforts.
5. List/describe the specific behaviors targeted for change? Provide the PDO indicators or other tracked indicators. Personal hygiene practices, including: handwashing before cooking, before serving, before eating, after eating, after defecation, and after cleaning baby bottoms; clipping nails; brushing teeth; cleaning clothes.
6. Was there a specific component or subcomponent devoted to behavior change? The project had three components. Component B had a behavior change sub-component (Hygiene Sanitation and Education). Under Component B, selection and construction of rural water supply and sanitation schemes is a subcomponent for HSE. The HSE program would consist of: (i) promotional and media campaigns for hygiene and sanitation related issues; (ii) orientation and training of health and volunteer workers in all communities; (iii) equipping selected SOs with audio visual and other Community Development materials including specialized training to selected SO and health staff; (iv) training

trainers to deliver hygiene and sanitation messages to the communities; (v) support to hygiene and sanitation in the schools covered by the communities involved in the project; and (vi) part-funding for latrines in project communities through a community level sanitation lending fund. Women would be involved in monitoring and evaluation activities by measuring changes in hygiene practices such as water use and management, personal hygiene, domestic hygiene and environmental sanitation. A combination of two methods would be used: (i) interpersonal and or face-to-face communication, and (ii) mass media campaigns including the use of radio, wall posters, leaflets, and other communication materials.
7. Whose behavior was targeted for change (define the populations/subpopulation)? Target Groups for HSE would include leaders of different socio-economic, age, cultural, religious and geographic categories such as community elders, traditional birth attendants (TBAs), school age children with special emphasis to women's groups. The assumption made here is that individual behavior depends on pressures to conform exerted by peers, and formal and informal community leaders. Women as providers of family hygiene and sanitation play a crucial role in affecting behavioral changes particularly their own young children. In addition, men usually control finances and it is imperative that men also understand the factors affecting their health and that of their families. School children, selected teachers and other government extension personnel are considered important target groups and would be given priority.
8. Is behavior change integrated into a theory of change, logical framework, etc.? Yes Many organizations involved in water supply and sanitation use different approaches for HSE with varying degrees of intensity. HSE programs that use a participatory approach have been more successful than those that rely on disseminating health messages. In addition, hygiene and sanitation education activities that run independently of the water supply and sanitation projects are less effective in achieving behavioral changes and improved hygiene conditions. The project would support HSE that would be developed with the community, taking their knowledge as the starting point. Activities would be integrated with water supply and sanitation activities from all phases of the project cycle. Women will be the focal point of all HSE activities.
9. Was there any diagnostic work done (as part of the project documents or separately) to identify the barriers and facilitators for the desired behavior in the targeted population? Describe.

Yes, a KAP study was conducted; However, no details on barriers and facilitators for behavior were discussed in documents. Results from the KAP study indicate that water and fecal borne diseases were reduced, from a baseline.

	Resources	Incentives and Information	Psychological Factors	Social Factors
1. As identified in the project documents, describe the elements that contribute to the observed current behaviors (or prevent desired behaviors) at baseline from among the following factors?	Financial resources for latrines			Pressures to conform exerted by peers and formal and informal community leaders.

2. Is there something unique to this sector that should be captured (e.g., to help categorize the common classes of behavior change interventions and outcomes)? n/a

3. **II. Intervention / Implementation**

4.

Resources, including an "enabling environment" and "general capabilities" (NOTE: These are not considered to be "behavior change" interventions, but should be coded for completeness)		
Provide hard resources (e.g., build/improve infrastructure, provide cash, provide fertilizer, provide insurance)	Yes	Part-funding for latrines in project communities through a community level sanitation lending fund. Latrine promotion program in support of the Sanitation Fund managed by the community

Provide soft resources (e.g., general education, increase general human capital or capacity)	Yes	Build the institutional capacity and capability of communities, SO/SAs, and local health centers as appropriate to carry out hygiene and sanitation education activities more effectively. Orient and train SO/SA staff and government health staff on participatory hygiene and sanitation education principles and methods. Training of health and volunteer workers in all communities… Equipping selected SOs with audio visual and other Community Development materials including specialized training to selected SO and health staff… Training trainers to deliver hygiene and sanitation messages to the communities. Since health improvements have been linked with other important factors such as literacy levels and improved income, HSE activities would form linkages with non-formal education classes.
Enabling policies/regulations (non-financial)	No	
Other	No	
Incentives (time and money) and information		
Provide financial incentives (subsidy, transfers, tax)	No	
Reduce financial costs	No	
Reduce Time costs (separate from psychological stress of "hassle")	No	
Provide specific information and education (Workshops; demonstrations; IEC campaigns)	Yes	Inform and orient resident communities of water and filth borne related diseases, causes, effects and prevention.

		Community and environmental sanitation… using demonstration activities + School program (where possible) covering the school children and teachers. Demonstration activities and cross visits where similar WSS schemes are being implemented.
Provide specific training or skills	No	
Other	No	
Interventions that address psychological factors		
Make things easy (make products convenient, simplify procedures, lower hassles, provide assistance, nudges and default options)	No	
Make things attractive.	No	
Make things salient (send reminders, place complementary products together, put complementary processes together provide visual cues)	No	
Make interventions timely. Provide incentives and information at optimal times (overcome hyperbolic discounting).	No	
Decrease the number of choices, simplify the presentation of options (streamline the choice environment; reduce stress on cognitive bandwidth)	No	
Engage or offer alternative mental models, heuristics (e.g., aspirational messages, fight perception of public corruption)	No	
Other (e.g., nonmonetary gifts; novelty; other cognitive biases)	No	
Interventions that address social factors (e.g., social cohesion, social comparison)		

Social Groups: support groups, apply or focus community social pressure, leveraging social capital	Yes	Community members would practice problem-solving skills through face-to-face discussion with the community/hygiene facilitator. It has been shown that HSE activities are more effective in small group discussions usually 6-12 people. Hence small group discussions on real life situations would be opted to modify attitudes and behavior. Implement a participatory HSE program through trained community volunteers. The project would support the placement of female CHW through the SOs to bring about changes particularly in personal and domestic hygiene… Organize women into small groups to discuss issues and develop their problem solving capacity.
Interpersonal Interactions: Peer proxies, mentors, positive modeling, peer demonstration effects, peer learning	Yes	Interpersonal and or face-to-face communication… [including], Mother and Child Health focusing on health, hygiene awareness targeting the individual household and women/tap stand groups. Visit women individually particularly the poorest to solicit their participation.
Activate or shift social norms (e.g., peer comparison, social fame/shame, neighbors behavior, name cooperating/non-cooperating individuals, appeal to group identity, establish or undermine taboos)	Yes	Target Groups for HSE would include leaders of different [groups]. The assumption made here is that individual behavior depends on pressures to conform exerted by peers, and formal and informal community leaders.
Activate moral norms (appeal to fairness, responsibility, etc.)	No	
Other	Yes	Participatory community assessment and action planning which would utilize interactive principles, methods and techniques, and other social process methods (e.g., Self Esteem, Associative Strength, Responsibility,

		Action Planning and Resourcefulness (SARAR), Participatory Rural Appraisal (PRA)).
Communication (How did people hear about or engage with the intervention)		
Behavior Change Communication (a specific term found in some interventions, implying multi-faceted interactive communication derived from formative research applied to segmented audiences using both mass media and interpersonal channels)	No	
Use social marketing (marketing for social good)	Yes	Complementary techniques already being used by a number of SOs, some of them developed by the pilot project, would be encouraged such as role playing, flip charts, the use of media, radio talks, video and motion pictures, folk media such as drama, songs and games, and other social marketing techniques specially to promote sanitation facilities would be used to repeat and reinforce messages.
Use of celebrity or authority figure	Yes	Target Groups for HSE would include leaders of different socio-economic, age, cultural, religious and geographic categories such as community elders, traditional birth attendants (TBAs), school age children with special emphasis to women's groups. The assumption made here is that individual behavior depends on pressures to conform exerted by peers, and formal and informal community leaders.
Standard media (letter, print, radio, video)	Yes	Mass media campaigns including the use of radio, wall posters, leaflets, and other communication materials.
Other (when not explicitly a part of social marketing, these may include policy communication, advocacy, social mobilization, interpersonal communication, etc.)	Yes	Women would be involved in monitoring and evaluation activities by measuring changes in hygiene practices such as water use and management, personal hygiene, domestic hygiene and environmental sanitation.

V. M&E

	List Outputs of BC interventions	List Outcomes of BC Intervention (intermediate or final)
How many behavior change indicators were used for monitoring and evaluation? What were they?	n/a	Nine Personal hygiene practices, including: handwashing before cooking, before serving, before eating, after eating, after defecation, and after cleaning baby bottoms; clipping nails; brushing teeth; clean clothes
For how many behavior change indicators were baseline statistics collected? List any indicators for which there was not a baseline.	n/a	Nine
For how many behavior change indicators were targets set? List any indicators for which there was not a target.	n/a	Zero
Did the targeted behaviors change? Describe.	n/a	Yes The project inputs have improved health, hygiene and sanitary behavior and practices of rural population through improved and sustained water supply and sanitation facilities. Although there is a possibility that other factors may have contributed to improved health, there is sufficient evidence that points to the project's positive impact. The first objective of delivering sustainable health

		and hygiene benefits to the rural population through improvements in water supply and sanitation was achieved. Organization of 6,266 HSE sessions conducted in more than 12,766 women's tap stand groups jointly with village health promoters (VHPs) proved to be effective in creating awareness and, are made responsible for tap stand cleanliness and for encouraging to adopt hygienic and sanitary practices at personal, household and environmental levels (Impact Studies of Batch I, II and III). Latrines were constructed and are being used in 46,328 households (i.e., 48% of Households in communities) and 589 schools in the communities (i.e., 100% schools without latrine within community). Impact: Incidence of disease decreased from 20.5% to 4.3%. The Batch IV impact survey also demonstrated that disposal of children's feces also improved. Before the project, only 39 percent disposed of it in a latrine; after the project, this rose to 74 percent.
Heterogeneous effects and shared prosperity: Did the bottom 40% change behaviors? Other particular interest groups (e.g., gender, etc.)	Yes, project targeted the poor.	Yes, project targeted the poor.

Were there any unintended effects on behaviors (positive or negative)? Describe.	No information.	No information.
Did design or indicators adapt as a result of observed behaviors? Was the theory of change updated?	No information.	No information.
Are observed behavior changes likely to be sustained? (risk to development outcomes)	Questionable.	Questionable.
If behavior change has not occurred, can it reasonably be expected to occur in the near future as a result of the project—is there a natural incubation period?	n/a	n/a

Appendix E. Coded Urban Transport Project

The original version of the coding template, as found in Appendix B, was used to code this project. Users can request an updated version of the template from the authors or from IEG.

I. Design/Preparation

1. Was there any diagnostic work done (as part of the project documents or separately) to identify the barriers and facilitators for the desired behavior in the targeted population (e.g., a discussion in the PAD or as a stand-alone piece, pricing studies, diagnostic work, "lessons learned" from a previous version of the same project in the same area, formative research (e.g., positive deviance, barriers analysis, human-centered design, deep dive, trials of improved practices), Knowledge Attitude and Practice study, behavioral constraint analysis, beneficiary analysis, focus groups, surveys, interviews, field visits and observations, "lessons learned," ethnography, etc.)? Describe. a. Not clear from the PAD.
2. What were the barriers and facilitators identified? a. As described in 8.
3. Was a specific behavior (or set of behaviors) targeted for change in the PDO? In PDO Indicators? In other areas? a. Yes. Component 2: Demonstration Corridors and Incentive Fund Program. i. Sub-Component 2.1 "Safe Corridors" Demonstration Program
4. What specific behaviors were targeted for change? a. Safer traffic behaviors (compliance with seat belt usage and speed limits)
5. Was there a specific component or subcomponent devoted to behavior change? a. Yes. Component 2: City Demonstration Projects. i. Sub-Component 2.1 "Safe Corridors" Demonstration Program
6. Whose behavior was targeted for change (define the populations/subpopulation)? a. Car drivers.
7. Is behavior change integrated into a theory of change, logical framework, etc.? a. Yes. It is part of intermediate outcomes.

	Resources	Incentives and Information	Psychological Factors	Social Factors
20. As identified in the project documents, describe the elements that contribute to the observed behaviors (or prevent desired behaviors) at baseline from among the following factors?		Ineffective enforcement of safety-related law (speed limits, drunk driving, motorcycle helmet and seat belt); Lack of road safety awareness		

21. Is there something unique to this sector that should be captured (e.g., to help categorize the common classes of behavior change interventions and outcomes)? Safer traffic behaviors

II. Intervention / Implementation

Resources, including an "enabling environment" and "general capabilities" (NOTE: These are not considered to be "behavior change" interventions, but should be coded for completeness)		
Provide hard resources (e.g., build/improve infrastructure, provide cash, provide fertilizer, provide insurance)	Yes	Acquisition of technological equipment to support better driving conducts (better speed limit compliance, seat belt usage, helmet usage, control of drunk driving, etc.)
Enabling policies/regulations (non-financial)	No	
Other	No	

APPENDIX E

Incentives (time and money) and information		
Provide financial incentives (subsidy, transfers, tax)	No	
Reduce financial costs	No	
Reduce Time costs (separate from psychological stress of "hassle")	No	
Provide specific information and education (Workshops; demonstrations; Information, Education and Communication (IEC) campaigns)	Yes	improvement of road safety awareness through the carrying out of education and social communication campaigns Measures of coordinated road user education and social communications campaigns awareness building (consultancy services)
Provide specific training or skills related to the behavior change objective	No	
Other	Yes	Traffic safety enforcement specifically targeted for the "safe corridors' To the later end, in order to enable the police to better conduct traffic law enforcement, enabling tools and equipment, of appropriate technology will be procured. This will be in the pursuit of effecting better speed limits compliance, and control of drunk driving. (training, goods);
Interventions that address psychological factors		
Make things easy (make products convenient, simplify procedures, lower hassles, provide assistance, nudges and default options) (e.g., home delivery of chlorine, chlorine dispensers next to the water source, help filling forms out and navigating processes)	No	
Make things attractive.	No	

Make things salient (send reminders, place complementary products together, put complementary processes together provide visual cues) (e.g., text messages, chlorine dispensers next to the water source, single window business registration, colored paths and painted footsteps)	No	
Make interventions timely. Provide incentives and information at optimal times (overcome hyperbolic discounting).	No	
Decrease the number of choices, simplify the presentation of options (streamline the choice environment; reduce stress on cognitive bandwidth)	No	
Engage or offer alternative mental models, heuristics (e.g., deliver aspirational messages, fight perception of public corruption)	No	
Other (e.g., small nonmonetary gifts; novelty; address other cognitive biases)	No	
Interventions that address social factors (e.g., social cohesion, social comparison)		
Social Groups: support groups, apply or focus community social pressure[1], leveraging social capital[2]	No	
Interpersonal Interactions: Peer proxies, mentors, positive modeling, peer demonstration effects, peer learning	No	

[1] For outcomes. Community-driven development in which communities decide on development priorities would generally be about Service Delivery, unless the theory of change of the CDD specifically targets Behavior Change, such as increasing voter turnout in elections by increasing "ownership" and empowerment.

[2] Merely meeting as a group where there is limited group interaction does not count.

Activate or shift social norms (individual's actions are affected by perceptions of how socially acceptable behaviors are, prescribed behaviors or proscribed behaviors) (e.g., use peer comparison, trigger social fame/shame, inform individuals about neighbors behavior, name cooperating/non-cooperating individuals, appeal to group identity, establish or undermine taboos)	No	
Activate moral norms (appeal to fairness, responsibility, etc.)	No	
Other	No	
Communication (How did people hear about or engage with the intervention)		
Behavior Change Communication (a specific term found in some interventions, implying multi-faceted interactive communication derived from formative research applied to segmented audiences using both mass media and interpersonal channels)	No	
Use social marketing (marketing for social good)	No	
Use of celebrity or authority figure	No	
Standard media (letter, print, radio, video)	No	
Other (when not explicitly a part of social marketing, these may include policy communication, advocacy, social mobilization, interpersonal communication, etc.)	No	

III. M&E	List Outputs of BC Interventions	List Outcomes[3] of BC Intervention (intermediate or final)
How many behavior change indicators were used for monitoring and evaluation? What were they (e.g., the number of reminders sent, the number of people using toilets)?	• At project end, the BRT corridors developed in Pimpri will carry at least 75 percent of their anticipated ridership for that year • The proportion of BRT riders accessing the BRT through bicycles or by foot increases by 2 percent by EoP. • At least two Public transport corridors are established and in operation between Naya Raipur and Raipur • Safe sidewalks and cycle tracks are provided on the main roads of Naya Raipur	Mode shares in Pune, Pimpri-Chinchwad and Naya Raipur become more sustainable by project end
For how many behavior change indicators were baseline statistics collected?[4] List any indicators for which there was not a baseline.	All	All
For how many behavior change indicators were targets set? List any indicators for which there was not a target.	All	All
Did the targeted behaviors[5] change? Describe.	N/A (Project is still active)	N/A (Project is still active)
Heterogeneous effects and shared prosperity: Did the bottom 40% change behaviors? Other particular interest groups (e.g., gender, etc.)	N/A (Project is still active)	N/A (Project is still active)
Were there any unintended effects on behaviors (positive or negative)? Describe.	N/A (Project is still active)	N/A (Project is still active)

Did design or indicators adapt as a result of observed behaviors? Was the theory of change updated?	N/A (Project is still active)	N/A (Project is still active)
Are observed behavior changes likely to be sustained?	N/A (Project is still active)	N/A (Project is still active)
If behavior change has not occurred, can it reasonably be expected to occur in the near future as a result of the project—is there a natural incubation period?	N/A (Project is still active)	N/A (Project is still active)

[3] Outcomes are distinct from outputs in that outcomes indicate what individuals actually did. That is, there is behavior and choice for beneficiaries in outcomes but not for outputs. Outcome indicators often have words like "use" and "practice"

[4] Newer projects may have baselines in the PADs. Otherwise, the ICR may have them.

[5] See question 1 at the beginning of this template in addition to the other questions in this M&E section.

Appendix F. Coded Nutrition Project

The original version of the coding template, as found in Appendix B, was used to code this project. Users can request an updated version of the template from the authors or from IEG.

I. Design/Preparation

1. Project ID: P097181 (closed, nutrition)
2. Project Name: Nutrition Enhancement Project II
3. Approval FY: 2006
4. Was a specific beneficiary behavior (or set of behaviors) targeted for change in the PDO? In PDO Indicators? In other areas/intermediate outcomes? **Yes, in the PDO and intermediate outcome indicators** **PDO:** To expand access to and enhance nutritional conditions of vulnerable populations, in particular those affecting growth of children under five in poor urban and rural areas.
5. List/Describe the specific behaviors targeted for change? Provide the PDO indicators or other tracked indicators. Exclusively breastfeeding for the first 6 months Sleeping under insecticide-treated bed nets (pregnant women and children under five years of age) Pregnant women making at least four prenatal care visits Improved feeding practices for children 6-24 months Cooking more nutritious foods (and dietary diversification) Using iodized salt Consuming iron and Vitamin A supplements **Specific behavior change PDO indicators:** Infants exclusively breastfed for the first six months in the intervention areas (%) Pregnant women and children under five years of age sleeping under insecticide-treated bed nets in intervention areas (%)

Specific behavior change intermediate outcome indicators: Pregnant women making at least four prenatal care visits in intervention areas (%)
6. Was there a specific component or subcomponent devoted to behavior change? The project had 3 components, Component 1 had several behavior change activities Component 1. Community-based nutrition… Activities include monthly evaluation of the growth of children under two years of age with counseling feedback to mothers, home visits to children requiring special attention and cooking demonstrations during which mothers can discuss child health matters while sharing local recipes for complementary foods based on local products. The behavior change communication strategy will particularly focus on infant and young child feeding practices as recommended by WHO and UNICEF", disease-preventive measures, and home-based care and care-seeking for sick children. Particular emphasis will be placed on the prevention of malaria as a major cause of child morbidity and mortality through the distribution of impregnated bed nets and the promotion of its use by children and pregnant women, and education on home-based care of fever illnesses, recognition of danger signs, and timely care-seeking. Grandmother strategy: Elderly women generally receive much respect in Senegalese society. Decisions and behaviors regarding health and nutrition are strongly influenced by grandmothers, and they are particularly inclined to advising young mothers on social and religious-appropriate behaviors. The Grandmother strategy aims to reinforce those women's capacity to absorb new concepts in health and nutrition and thereby modify their advice towards the promotion of key behaviors. The strategy applies a participative approach with grandmothers' networks to negotiate the integration of new practices for child survival and maternal health with positive traditional behaviors.
7. Whose behavior was targeted for change (define the populations/sub-population)? The primary target population of the community-based nutrition program (Component 1) was children under five in poor rural and urban areas. It was estimated that the number of children reached would increase from 320,000 to 710,000 (originally) in rural areas. In addition, 1,500 000 (originally) mothers were expected to be reached with behavior change communication and counseling.
8. Is behavior change integrated into a theory of change, logical framework, etc.?

Yes

Lessons learned and reflected in project design:
Behavior change communication and community mobilization: To improve nutrition is to change behaviors and this requires access to parents, households and communities. The first phase of the project has shown community-based communication to be very effective in reducing malnutrition by changing behaviors. Moreover, it confirms that nutritional improvements can be brought about by behavior change communication without the use of external food assistance.

9. Was there any diagnostic work done (as part of the project documents or separately) to identify the barriers and facilitators for the desired behavior in the targeted population? Describe.
Yes, a social assessment identified some factors; However, the planned KPC survey was not conducted.

Social Assessment: Various socio-cultural issues, notably social factors and traditional beliefs, determine mother and child care practices and behaviors and thereby nutritional status and growth.

Due to the funding constraints in early stages of the project, the planned baseline Knowledge, Practices and Coverage (KPC) survey was not conducted as planned. Instead, annual Lot Quality Assurance Sampling (LQAS) surveys were used to provide additional quality monitoring information on the indicators.

	Resources	Incentives & Information	Psychological factors	Social Factors
10. As identified in the project documents, describe the elements that contribute to the observed current behaviors (or prevent	Bed nets	Information and nutrition education		Various socio-cultural issues, notably social factors and traditional beliefs, determine mother and child care practices and

desired behaviors) at baseline from among the following factors?				behaviors and thereby nutritional status and growth.

11. Is there something unique to this sector that should be captured (e.g., to help categorize the common classes of behavior change interventions and outcomes)? n/a

II. Intervention / Implementation

Interventions and Design Elements	Yes/No	Explain what interventions were used. Describe the intervention.
Resources, including an "enabling environment" and "general capabilities" (NOTE: These are not considered to be "behavior change" interventions, but should be coded for completeness)		
Provide hard resources (e.g., build/improve infrastructure, provide cash, provide fertilizer, provide insurance)	Yes	Provision of insecticide treated bed-nets
Provide soft resources (e.g., general education, increase general human capital or capacity)	Yes	Training and supervision of nutrition aides in the communities providing the services to the community on a voluntary basis
Enabling policies/regulations (non-financial)	No	
Other	No	
Incentives (time and money) and information		
Provide financial incentives (subsidy, transfers, tax)	No	
Reduce financial costs	No	
Reduce Time costs (separate from psychological stress of "hassle")	No	
Provide specific information and education (Workshops; demonstrations; IEC campaigns)	Yes	Themes in the BCC [included]… Iron supplementation; The birth plan; The danger signs of pregnancy; Early initiation of breastfeeding; Maintaining the temperature of the newborn; Correct position during

		breastfeeding; The danger signs in the newborn; Exclusive breastfeeding for child aged 0 to 5 months; The principles of complementary feeding; The preparation of porridge made from flour; The feeding of infants and young children; The child's diet during the first 24 months; Feeding the sick child. Provided specific recommendations related to pregnancy and delivery Nutrition education for mothers with cooking demonstrations using local foods The project financed: (i) Community-based growth promotion and c-IMCI sessions for children under two during which mothers were counseled on the nutritional status of their child, on improved infant and young child feeding practices, on recognition of danger signs during illness and on home-based care.
Provide specific training or skills	**No**	
Other	No	
Interventions that address psychological factors		
Make things easy (make products convenient, simplify procedures, lower hassles, provide assistance, nudges and default options)	No	
Make things attractive.	No	
Make things salient (send reminders, place complementary products together, put complementary processes together provide visual cues)	No	
Make interventions timely. Provide incentives and information at optimal times (overcome hyperbolic discounting).	No	

Decrease the number of choices, simplify the presentation of options (streamline the choice environment; reduce stress on cognitive bandwidth)	No	
Engage or offer alternative mental models, heuristics (e.g. aspirational messages, fight perception of public corruption)	No	
Other (e.g. nonmonetary gifts; novelty; other cognitive biases)	No	
Interventions that address social factors (e.g., social cohesion, social comparison)		
Social Groups: support groups, apply or focus community social pressure, leveraging social capital	Yes	The project financed… (vi) Community-level communication activities to create demand for iodized salt, Vitamin A, iron supplements and dietary diversification;
Interpersonal Interactions: Peer proxies, mentors, positive modeling, peer demonstration effects, peer learning	Yes	Activities include monthly evaluation of the growth of children under two years of age with counseling feedback to mothers, home visits to children requiring special attention and cooking demonstrations during which mothers can discuss child health matters while sharing local recipes for complementary foods based on local products. Grandmother strategy: Elderly women generally receive much respect in Senegalese society. Decisions and behaviors regarding health and nutrition are strongly influenced by grandmothers, and they are particularly inclined to advising young mothers on social and religious-appropriate behaviors. The Grandmother strategy aims to reinforce those women's capacity to absorb new concepts in health and nutrition and thereby modify their advice towards the promotion of key behaviors. The strategy applies a participative approach with grandmothers' networks to negotiate the integration of new practices for child survival and maternal health with positive traditional behaviors.

Activate or shift social norms (e.g. peer comparison, social fame/shame, neighbors behavior, name cooperating/non-cooperating individuals, appeal to group identity, establish or undermine taboos)	Yes	Themes in the BCC [included]… Husband's Support to pregnant women; Power to the pregnant woman
Activate moral norms (appeal to fairness, responsibility, etc.)	No	
Other	No	
Communication (How did people hear about or engage with the intervention)		
Behavior Change Communication (a specific term found in some interventions, implying multi-faceted interactive communication derived from formative research applied to segmented audiences using both mass media and interpersonal channels)	Yes	The behavior change communication strategy will particularly focus on infant and young child feeding practices as recommended by WHO and UNICEF", disease-preventive measures, and home-based care and care-seeking for sick children. Particular emphasis will be placed on the prevention of malaria as a major cause of child morbidity and mortality through the distribution of impregnated bed nets and the promotion of its use by children and pregnant women, and education on home-based care of fever illnesses, recognition of danger signs, and timely care-seeking. The behavior change communication and counseling that was provided to mothers also targeted pregnant women and provided specific recommendations related to pregnancy and delivery
Use social marketing (marketing for social good)	No	
Use of celebrity or authority figure	Yes	Issues are periodically discussed with community leaders, bringing women's issues to the forefront of community discussions. This puts SNEP in a unique position to channel women's voices all the way up to the level where LDP are conceived, elaborated, and implemented.
Standard media (letter, print, radio, video)	No	
Other (when not explicitly a part of social marketing, these may include policy	Yes	Promotion of iron, Vitamin A supplements and deworming medication

communication, advocacy, social mobilization, interpersonal communication, etc.)		

III. M&E

	List outputs of BC interventions	List outcomes of BC intervention (intermediate or final)
How many behavior change indicators were used for monitoring and evaluation? What were they?	Two - Mothers of targeted children participating in monthly information and education session in intervention areas (percentage) | Baseline: 60% | Target: 90% | Achieved: 90% - The percentage of children under the age of five in rural areas who were covered by the program increased from 14% in 2006 to 73% in 2014, surpassing the original target of 40% and the revised target of 70%.	Three - Infants exclusively breastfed for the first six months in the intervention areas (percentage) | Baseline: 34% | Target: 65% | Achieved: 65% - Pregnant women and children under five years of age sleeping under insecticide-treated bed nets in intervention areas (percentage) | Baseline 12% | Target: 75% | Achieved: 86% - Pregnant women making at least four prenatal care visits (in intervention areas) (percentage) | Baseline: 40% | Target: 60% | Achieved: 61%
For how many behavior change indicators were baseline statistics collected? List any indicators for which there was not a baseline.	Two	Three
For how many behavior change indicators were targets set? List any indicators for which there was not a target.	Two	Three
Did the targeted behaviors change? Describe.	n/a	Yes

		ICRR: Achievement of Objectives (Efficacy): Improve nutritional conditions of vulnerable populations, in particular children under five years of age in poor urban and rural areas: Substantial Project Development Objective 1: Target population (children under 5) reached by the community nutrition program (%). – 16% baseline, 70% target, 73% achieved… This corresponds to 1,451,490 children. Project Development Objective 2: Mothers targeted providing exclusive breastfeeding (%)… Throughout the project period there has been a gradual increase of mothers who exclusively breastfeed. Between June 2013 and June 2014, the average percentage of mothers exclusively breastfeeding their infants for the first six months was 65 percent… The trend of gradual improvement in exclusive breastfeeding in the last ten years as the project coverage has increased and as the promotion of exclusive breastfeeding has been intensified, indicates that the project likely has contributed to this improvement. Project Development Objective 3: Pregnant women and children under five sleeping under insecticide-treated bed nets (%)… The target has been surpassed and has continued to increase. In December 2013 it was

		measured at 86 percent. This major accomplishment contributes to a decrease in malaria infection but also to reduce anemia in women, which in turn has a direct impact on child delivery outcome. The Beneficiary Assessments (BA) during PRN I (2005) and at the final stages of a cash transfer pilot (2012) both reported high satisfaction levels with provided services. The growth monitoring and promotion activities were perceived as well organized and the promotion of behavior changes was communicated clearly by nutrition aides.
Heterogeneous effects and shared prosperity: Did the bottom 40% change behaviors? Other particular interest groups (e.g., gender, etc.)	Yes, project targeted the poor.	Yes, project targeted the poor.
Were there any unintended effects on behaviors (positive or negative)? Describe.	No information.	No information.
Did design or indicators adapt as a result of observed behaviors? Was the theory of change updated?	No information.	No. A rigorous impact evaluation of the first phase of the project documented significant impact of the intervention on nutritional status and a broad range of nutrition outcomes, including infant and young child feeding behaviors. The positive results informed the decision to scale up the interventions during Phase II, which would be monitored through the comprehensive monitoring system.

Are observed behavior changes likely to be sustained? (risk to development outcomes)	Questionable.	Questionable.
If behavior change has not occurred, can it reasonably be expected to occur in the near future as a result of the project—is there a natural incubation period?	n/a	n/a

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