ENVIRONMENTAL HEALTH AND SANITATION DIRECTORATE (EHSD) OF THE MINISTRY OF LOCAL GOVERNMENT AND RURAL DEVELOPMENT (MLGRD)

AND

WATER DIRECTORATE (WD) OF THE MINISTRY OF WATER RESOURCES WORKS AND HOUSING (MWRWH)

WATER, SANITATION AND HYGIENE (WASH) BEHAVIOUR CHANGE COMMUNICATION (BCC) STRATEGY FOR THE URBAN SUB SECTOR, GHANA

JUNE 2011

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PREFACE

In arriving at the decision to develop a behaviour change communication (BCC) strategy for the Water, Sanitation and Hygiene (WASH) sector in Ghana's urban settings, sector stakeholders recognized that BCC issues were not adequately integrated in WASH.

For water, sanitation and hygiene delivery to yield the maximum health benefits, they need to be delivered in an integrated manner. While this is working well in rural Ghana and small towns, not much is being done in the urban areas. This is what precipitated the need to develop this strategy to bridge the existing gap.

In developing this strategy, the working group made up of stakeholders including Government, Development Partners, and Community Based Organizations/Non Governmental Organizations consulted broadly in order to arrive at the appropriate strategy that can drive the process of integrating BCC in Urban WASH services.

The satisfaction of all who made inputs into developing this important document will not only be that they have made inputs, but that the strategy will be implemented according to specification, with innovation and flexibility depending on the situation on the ground.

At the end of the day, this strategy should help to standardize the implementation of BCC interventions by different organizations working in the WASH sector, as well as serve as a tool to enhance the effectiveness of service delivery by WASH stakeholders in the urban sub sector.

HON. SAMUEL OFOSU-AMPOFO

MINISTER FOR LOCAL GOVERNMENT AND RURAL DEVELOPMENT

LIST OF ABBREVIATIONS AND ACRONYMS

AVRL	Aqua Vitens Rand Limited
BCC	Behaviour Change Communication
BCSP	Behaviour Change Strategic Plan
BITF	Behaviour Change Communication Implementation Task Force
CHN	Community Health Nurse (s)
CDC	Centre for Disease Control
CWSA	Community Water and Sanitation Agency
DHS	Demographic Health Survey
DP	Development Partners
EHA	Environmental Health Assistant (s)
EHO	Environmental Health Officer(s)
EHP	Environmental Health Plan/Policy
EHSD	Environmental Health and Sanitation Directorate
ESP	Environmental Sanitation Plan/Policy
FBO	Faith Based Organization (s)
FGD	Focus Group Discussion (s)
GES	Ghana Education Service
GHC	Ghana Cedi
GHS	Ghana Health Service
GII	Ghana Integrity Initiative
GSB	Ghana Standards Board
GWCL	Ghana Water Company Limited
HIF	Hygiene Improvement Framework
HMC	Hygiene Management Committee
IE	Information and Education
IEC	Information, Education and Communication

JHU	Johns Hopkins University
JMP	Joint Monitoring Program
M&E	Monitoring and Evaluation
MLGRD	Ministry of Local Government and Rural Development
MMA	Metropolitan and Municipal Assembly (ies)
MMDA	Metropolitan, Municipal and District Assembly (ies)
MOE	Ministry of Education
MOH	Ministry of Health
MWRWH	Ministry of Water Resources Works and Housing
NEHSP	National Environmental Health and Sanitation Policy
NGO	Non-Governmental Organisation
NWP	National Water Policy
PURC	Public Utilities Regulatory Commission
PWSPP	Pakistan Water and Sanitation Promotion Project
REHD	Regional Environmental Health Directorate
SD	Sanitation Directorate
SHEP	School Health Education Program
SWITCH	Sustainable Water Improves Tomorrow's Cities Health
TRG	Technical Resource Group
UNICEF	United Nations Children's Fund
UP	Urban Poor
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WASH-UP	Water Access, Sanitation and Hygiene for the Urban Poor
WD	Water Directorate
WHO	World Health Organisation
WSMP	Water and Sanitation Monitoring Platform

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EXECUTIVE SUMMARY

Introduction

Water, sanitation and hygiene (WASH) are among the powerful drivers of human development as it affects quality of life at many levels including improved health and economic status. There is growing awareness among public health practitioners that, until proper hygiene is consistently practiced, both at home and in the community as a whole, the desired impact of improved water and sanitation infrastructure in terms of community health benefits cannot be realized.

The process of preparing this BCC strategy began with a baseline study and formative research as part of CHF's USAID funded Water Access, Sanitation and Hygiene for the Urban Poor (WASH-UP) project. This included a situational analysis of the urban sub sector in 5 urban communities in Ghana (Avenor, Ayidiki and Nima in AMA and New Takoradi and Kojokrom in STMA.) The situational analysis included a review of documents of national level studies such as the Demographic and Health Survey (DHS) reports, the Environmental Sanitation Policy (ESP) Document of the Ministry of Local Government and Rural Development (MLGRD), the National Water Policy (NWP), as well as studies, manuals and guidelines prepared by the Community Water and Sanitation Agency (CWSA) among others. A Technical Working Group comprising representatives of key stakeholders in the WASH sector in Ghana was constituted to oversee the development of the strategy. A coordinator was also appointed to draft the strategy using inputs from the Technical Working Group, under the guidance of the BCC Specialist at CHF Ghana. The draft BCC strategy was validated in three zonal workshops (Accra, Tamale, and Kumasi) followed by a, final National Validation Workshop in Dodowa in the Dangbe West District in March 2011

The overall outline of the BCC Strategy follows Johns Hopkins University's (JHU) document, "Designing a Health Communication Strategy"[i]. The Hygiene Improvement Framework, designed by the Environmental Health Project (EHP) of USAID, was also adopted in developing this strategy and sets the theoretical and conceptual basis for the BCC strategy. The strategy is laid out under key headings:

- Situation Analyses
- Audience Segmentation
- Prioritizing Behaviours
- Behaviour Analyses
- Strategic Approach
- The Message Brief
- Communication Channels, Tools and Strategy
- Management Plan
- Monitoring and Evaluation
- Overall Recommendations

Situation Analyses

The ratio of the urban population to the total population for Ghana in 1948 stood at 13% (Authur A. B.[ii], 2009). The proportion steadily increased to 32% by 1984 and further increased to 44% in 2000. In 2010, it was estimated that 50% of all people in the country were living in urban areas. Alongside this huge urbanisation mostly attributed to migration can be seen the great cultural, ethnic and linguistic diversities, as well as inadequate infrastructure in urban settlements across Ghana.

The urban population in Ghana using improved water declined from 86% in 1990 to 79% in 2006[1] and further down to 59% in 2009. About 10% who mainly live on the outskirts of Accra are completely without access to piped water from Ghana Water Company Ltd (GWCL). About 60% (Ntow S. 2010)[iii] of urban population have no direct access to piped water, but rely on tertiary vendors, including Tanker Services Providers, except for the middle zone (Ashanti and Brong Ahafo regions) where Tanker services are not significant.

Water quality is questionable as most of the supply is intermittent and drainage problems are considerable in many areas, thus leading to contamination. Ghana Water Company Limited (GWCL), reports that, water quality at treatment points are good, but get contaminated during transmission due to broken pipes that allow intrusion.

Only 18% of the urban population has access to an improved latrine. Nearly 50% use public latrines whilst the rest of the population use other unsafe sanitation facilities and 7% reportedly practice open defecation. In slum areas, the proportion of those practicing open defecation increases to 37%.

Audience Segmentation

Eight (8) Primary Target audience segments considered "good" and four (4) segments considered "possibly good" segments were identified as priority audience segments under this strategy. The selection of segments was based on criteria such as the proportion of the urban population covered by targeting the segment, public health importance, and the likelihood of being receptive to communication messages. Following this, the Secondary Audience segments (influential people in the primary audience's social networks), as well as Tertiary targets were also identified.

Behaviour Analyses

Priority WASH Behaviours within the urban sub sector of Ghana based on a systematic behaviour analysis were identified. These comprise 10 macro-behaviours, and 26 micro-behaviours. The macro-behaviours identified were:

- Maintaining water safety at source of supply, especially at vending points and tanker trucks
- Safe transportation of water to homes
- Safe water storage and use at household level
- Household water treatment/water disinfection

[1] Note: Other reports from GWCL put 2006 coverage at 59%

- Safe disposal of Excreta
- Safe disposal of household solid waste
- Safe disposal of other solid waste
- Hand washing with soap at 5 critical times
- Food hygiene
- Personal hygiene

Consequently, eleven (11) behaviour change objectives have been set, with clear indicators and time frame for measuring impact. Barriers and motivators of these behaviours have also been identified to inform the overall communication strategy.

Strategic Approach

The approach adopted for implementing this strategy combines three main intervention areas that reinforce each other for sustainable behaviour change. These intervention areas include:

- Promoting access to hardware (e.g. infrastructure, products, and service level improvements);
- Adopting approaches to hygiene promotion covering communication—IE and BCC, training, and mobilization—social and community
- Creating an enabling environment, encompassing policies and advocacy, institutional development strengthening and creation as well as sustained financing schemes

To illustrate the interrelationships amongst these three areas, a sample Behaviour Change Strategic Plan for slum dwellers has been provided to enable similar plans be developed for other target audiences.

The Message Brief

The strategy provides a general frame for development of messages that will flow logically from the stated behaviour change objectives and the desired changes at the level of each target group, taking fully into account its knowledge, attitudes and practices with regard to Water, Sanitation and Hygiene. The definitive messages will be developed at a later stage.

Communication Channels, Tools and Strategy

For each target group, the channel or mix of channels through which messages targeting them can be reached have been determined, along with the medium or tools to be used. The following channels were identified:

- **Institutional channel:** This comprises the recognized public and private bodies such as the education systems, Government Ministries with outreach workers (e.g. MLGRD/EHSD, Ghana Health Service, MoE/GES etc), networks of development workers, NGOs, etc.

- **Media channel:** Media bodies and ICTs such as television, radio, printed press, posters and Internet.

- **Socio-traditional and socio-cultural channels:** Opinion leaders (customary chiefs, religious leaders, notables, cadres, intellectuals, etc.) and other informal networks (neighbours, various groupings), the various forms and opportunities of traditional popular and inter-personal communication (collective work in the fields, vigils and wakes, talks, baptisms, markets, marriages, funerals, journeys, etc.)

- **Commercial channel:** The marketing circuits for common WASH related products such as supermarkets, shops, bookshops, kiosks, pharmacies, etc.

Management Plan, Monitoring and Evaluation

The strategy also details a management plan outlining the key elements necessary for the effective implementation of the strategy, and for monitoring and evaluating it. Among the most important of these are the Institutional Framework, Production Plans, Capacity Building, Work Organization and Budget. A Monitoring and Evaluation plan has also been outlined to ensure the tracking of progress towards desired outputs and outcomes.

Overall Recommendations

The strategy recommends the following:

1. WASH BCC Strategy for the Urban sub sector should be updated every two years, as this is a living document.
2. A National WASH BCC Monitoring and Evaluation plan, with its various manuals to be outsourced and be drawn for the urban sub sector
3. Some funds should be sourced to pilot this strategy for a period of 18 months to provide an opportunity to both field test and refine the overall strategy. .
4. A National WASH BCC Campaign and Communication Strategy, with its various manuals should be drawn and launched after the pilot phase
5. A National WASH BCC Handbook or Manual should be drawn out of this strategy document
6. A National Training of Trainers Manual on WASH BCC for urban sub sector with its various sections should be developed
7. A WASH BCC Communication Expert should be contracted to deliberately work on WASH BCC on the aspect of Strategic Communication. The Consultant will work with other experts on WASH BCC Communication strategy, manuals and plans
8. The custodial institution of the WASH BCC for urban sub sector should be the Environmental Health and Sanitation Directorate of the MLGRD with support from the Water Directorate, the Ghana Health Service and the Ghana Education Service

SECTION1: INTRODUCTION

1.1 Background

Water, sanitation and hygiene (WASH) are among the powerful drivers of human development as they affect quality of life, improved health and rising wealth. Awareness is growing amongst public health practitioners that, until hygiene is properly practiced, both at home and in the community as a whole, the desired impact of improved water and sanitation services in terms of health benefits cannot be realized. In accordance with these, CHF International is implementing a three-year United States Agency for International Development (USAID) funded WASH initiative in partnership with two municipalities; Accra Metropolitan Assembly (AMA) and Secondi-Takoradi Metropolitan Assembly (STMA) in Ghana dubbed the "Ghana Water Access, Sanitation and Hygiene for the Urban Poor" (WASH-UP) Project which commenced in October 2009. Enshrined in the WASH-UP Project is the Behaviour Change Communication component to help address information constraints about proper hygiene practices by integrating innovative and comprehensive hygiene behaviour change interventions to derive maximum health benefits from the safe water and sanitation infrastructure improvement interventions.

Consultations with Community Water and Sanitation Agency (CWSA), a major sector player, for the possible adoption of the existing community water, sanitation and hygiene promotion strategy revealed that the strategy, even though quite comprehensive, covers only rural communities and small towns and excludes large urban centres, which have different developmental issues and social dynamics from the rural and small towns. Lack of a specific Urban BCC on water, sanitation hygiene Behaviour Change Communication (BCC) policy or strategy for the urban, peri-urban, urban poor and slum communities in Ghana indicates a stronger need for the development of a national BCC strategy which is suitable for sector players to fill in the gap, rather than a project-specific BCC strategy. CHF International under the WASH-UP Project with funding from USAID has therefore assisted the Ministry of Water Resources Works and Housing to develop the Water, Sanitation and Hygiene Behaviour Change Communication (BCC) Strategy for the Urban Sub-Sector in Ghana.

Among other benefits that will be derived from this strategy and framework is that it will help the urban sector to standardize the implementation of BCC interventions by different organizations working in the WASH sector. The strategy will also serve as a tool necessary for the enhanced service delivery by Environmental Health and Sanitation Directorate (EHSD) in the urban area as well as help sustain the results derived from efforts towards changing water, sanitation and hygiene behaviour in the urban communities including the slums.

At a stakeholders' consultative meeting of participants drawn from professionals and experts in the WASH sector, it was agreed that to promote the involvement of wide range of stakeholders, a working group and affiliate sub-groups should be formed. It was also concluded that the process should be managed by CHF International and the Water Directorate (WD) of the Ministry of Water Resources, Works and Housing (MWRWH) and coordinated by a technical person who will collate the inputs from the various working groups into a strategy document. This strategy document is a result of consultations and inputs from the working group and further refinement and validation by stakeholders, professionals and experts involved in implementing WASH activities at the various levels.

SECTION 2: THEORIES AND CONCEPTS AT A GLANCE

2.1 Behaviour Change Theories

Behaviour Change Communication (BCC) has its roots in behaviour change theories and models that have evolved over the past several decades and hence several learning theories drive behaviour change interventions. The various theories and models form the basis for designing effective strategies. BCC practitioners use a combination of theories and practical steps that are based on field realities, rather than relying on any single theory or model. This particular BCC strategy document is hinged largely on the Social Cognitive Theory and to some extent on a combination of the other theories and models.

2.1.1 Learning Theories: Learning theories emphasize that learning a new, complex pattern of behaviour, like changing from a sedentary to an active lifestyle, normally requires modifying many of the small behaviours that compose an overall complex behaviour. A further complication to the change process is that new patterns of physical activity behaviour must replace or compete with former patterns of inactive behaviours that are often satisfying. Reinforcement describes the consequences that motivate individuals either to continue or discontinue a particular behaviour. Most behaviour, including physical activity, is learned and maintained under fairly complex schedules of reinforcement and anticipated future rewards. There are several learning theories including the following:

2.1.2 Theory of Reasoned Action and Theory of Planned Behaviour[iv]: The theory of reasoned action states that individual performance of a given behaviour is primarily determined by a person's intention to perform that behaviour. This intention is determined by two major factors:

- The person's attitude toward the behaviour (i.e., beliefs about the outcomes of the behaviour and the value of these outcomes) and
- The influence of the person's social environment or subjective norm (i.e., beliefs about what other people think the person should do, as well as the person's motivation to comply with the opinions of others).

The theory of planned behaviour adds to the theory of reasoned action the concept of perceived control over the opportunities, resources, and skills necessary to perform behaviour. The concept of perceived behavioural control is similar to the concept of self-efficacy -- person's perception of his or her ability to perform the behaviour. Perceived behavioural control over opportunities, resources, and skills necessary to perform behaviour is believed to be a critical aspect of behaviour change processes.

2.1.3 Social Support Theory: This theory is often associated with health behaviours such as physical activity; social support is frequently used in behavioural and social research. There is, however, considerable variation in how social support is conceptualized and measured. Social support for physical activity can be:

- Instrumental, as in a non-driver given a ride to an exercise class;
- Informational, as in telling someone about a walking program in the neighbourhood;
- Emotional, as in calling to see how someone is faring with a new walking program; or
- Appraising, as in providing feedback and reinforcement in learning a new skill.

Sources of support for physical activity include family members, friends, neighbours, co-workers, and exercise program leaders and participants.

2.1.4 Ecological Approaches: A criticism of most theories and models of behaviour change is that they emphasize individual behaviour change processes and pay little attention to socio-cultural and physical environmental influences on behaviour. Recently, interest has developed in ecological approaches to increasing participation in physical activity. These approaches place the creation of supportive environments at par with the development of personal skills and the reorientation of health services. The concept of a health-promoting environment has been demonstrated by describing how physical activity could be promoted by establishing environmental supports, such as bike paths, parks, and incentives to encourage walking or bicycling to work. An underlying theme of ecological perspectives is that the most effective interventions occur on multiple levels. A model has been proposed that encompasses several levels of influences on health behaviours: intrapersonal factors, interpersonal and group factors, institutional factors, community factors, and public policy. Similarly, another model has three levels (individual, organizational, and governmental) in four settings (schools, worksites, health care institutions, and communities). Interventions that simultaneously influence these multiple levels and multiple settings may be expected to lead to greater and longer-lasting changes and maintenance of existing health-promoting habits. This is a promising area for the design of future intervention research to promote physical activity.

2.1.5 Social Learning/Social Cognitive Theory (SCT):[v] Social learning theory, later renamed social cognitive theory by Albert Bandura, proposes that behaviour change describes a dynamic, ongoing process in which personal factors, environmental factors, and human behaviour exert influence upon each other. According to SCT, three main factors affect the likelihood that a person will change health behaviour:

(1) Self-efficacy,
(2) Goals, and
(3) Outcome expectancies.

If individuals have a sense of personal agency or self-efficacy, they can change behaviours even when faced with obstacles. If they do not feel that they can exercise control over their health behaviour, they are not motivated to act, or to persist through challenges[9]. As a person adopts new behaviours, this causes changes in both the environment and in the person. Behaviour is not simply a product of the environment and the person, and environment is not simply a product of the person and behaviour. SCT evolved from research on Social Learning Theory (SLT), which asserts that people learn not only from their own experiences, but by observing the actions of others and the benefits of those actions. Albert Bandura updated SLT, adding the construct of self-efficacy and renaming it SCT. (Though SCT is the dominant version in current practice, it is still sometimes called SLT.) SCT integrates concepts and processes from cognitive, behaviours, and emotional models of behaviour change, so it includes many constructs **(Table 2.1.)**. It has been used successfully as the underlying theory for behaviour change in areas ranging from dietary change to pain control.

Table 2.1: The Concepts of Social Cognitive Theory

Concept	Definition	Potential Change Strategies
Reciprocal determinism	The dynamic interaction of the person, behaviour, and the environment in which the behaviour is performed	Consider multiple ways to promote behaviour change, including making adjustments to the environment or influencing personal attitudes.
Behavioural capability	Knowledge and skill to perform a given behaviour	Promote mastery learning through skills training
Expectations	Anticipated outcomes of a behaviour	Model positive outcomes of healthful behaviour
Self-efficacy	Confidence in one's ability to take action and overcome barriers	Approach behaviour change in small steps to ensure success; be specific about the desired change
Observational learning (modelling)	Behavioural acquisition that occurs by watching the actions and outcomes of others' behaviour	Offer credible role models who perform the targeted behaviour
Reinforcements	Responses to a person's behaviour that increase or decrease the likelihood of reoccurrence	Promote self-initiated rewards and incentives

Source: Theory at a Glance – A guide for Health Promotion Practice (Second Edition)

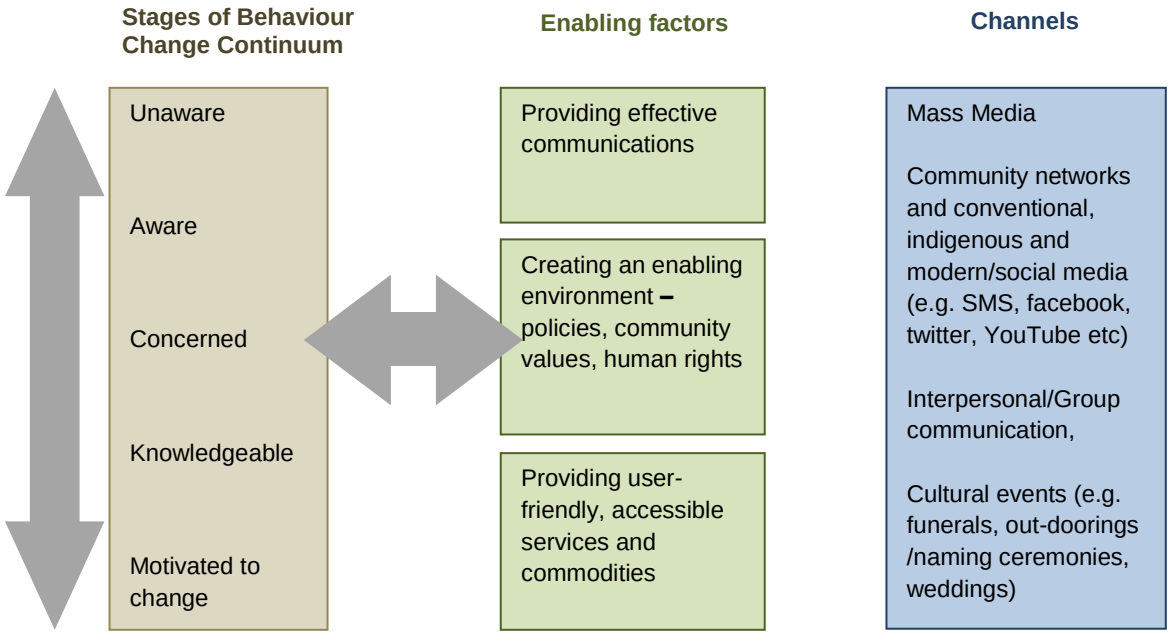
A central tenet of social cognitive theory is the concept of self-efficacy. A person must believe in his or her capability to perform the behaviour (i.e., the person must possess self-efficacy) and must perceive an incentive to do so (i.e., the person's positive expectations from performing the behaviour must outweigh the negative expectations). Additionally, a person must value the outcomes or consequences that he or she believes will occur as a result of performing a specific behaviour or action. But because these expected outcomes are filtered through a person's expectations or perceptions of being able to perform the behaviour in the first place, self-efficacy is believed to be the single most important characteristic that determines a person's behaviour change. Self-efficacy can be increased in several ways, among them are providing clear instructions, providing the opportunity for skill development or training, and modelling the desired behaviour. To be effective, models must evoke trust, admiration, and respect from the observer; models must not, however, appear to represent a level of behaviour that the observer is unable to visualize attaining.

Many of the theoretical approaches highlight the role of the perceived outcomes of behaviour, although different terms are used for this construct, including perceived benefits and barriers (health belief model) and outcome expectations (social cognitive theory and theory of planned behaviour). Several approaches also emphasize the influence of perceptions of control over behaviour; this influence is given labels such as self-efficacy (health belief model, social cognitive theory) and perceived behavioural control (theory of planned behaviour). Other theories and models feature the role of social influences, as in the concepts of observational learning (social cognitive theory), perceived norm (theory of reasoned action and theory of planned behaviour), social support, and interpersonal influences (ecological perspective).

However, the Social Cognitive Theory is the preferred learning theory upon which this strategy is designed because most of the other theories and models, do not address the influence of the environment on health behaviour. Moreover, it has been used successfully as the underlying theory for behaviour change in areas similar to what this strategy is addressing. It has also been widely supported by past research in related areas.

A popular framework based on the combination of the theories/models commonly used by Behaviour Change Communication practitioners is presented in figure 2.1 below.

Figure 2.1: Framework for BCC Design

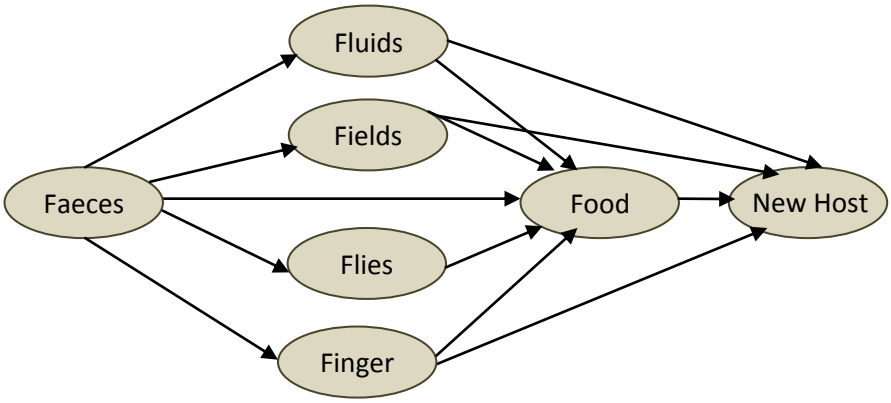


When changing behaviour, the individual or the target community goes through a series of steps (as indicated in the stages of Behaviour Change Continuum column in the figure above) — sometimes moving forward, other times moving backward and sometimes skipping steps. Even when individuals or communities adopt new behaviours, there may be times when individuals or communities revert to old behaviours, at least under certain circumstances. Understanding where the majority of a group is in the change process is crucial in designing this BCC strategy.

2.2 The Pathways of Contamination

The direct and indirect means or "paths" by which people come in contact with faeces in their environment are well known. From the original causal agent—faeces—the bacteria, viruses, protozoa and helminthes that cause diarrhoea can make their way to any individual i.e. The "host" via five different but often intersecting paths: (1) fluids, (2) fields, (3) food, (4) flies, and (5) fingers. The F-diagram in figure 2 below best illustrates the inter linkages amongst these.

Fig 2.2: The F-Diagram



Adapted from EHP, 2004[vi]

1. *Fluids* usually refer to the water used for drinking or cooking. The host can either drink contaminated water directly or eat food that has been washed in contaminated water.
2. *Fields*. People defecate outdoors or use faecal material as agricultural fertilizer. Children often defecate in the yard around a house. This exposes the micro-organisms in faeces to rain water, flies, and food—from where it can infect the host.
3. *Food* can be contaminated by flies, micro-organisms present on the utensils used to prepare it or in the preparation area itself, contact with contaminated water, or contact with contaminated fingers.
4. *Flies* touch down on faeces and transmit the helminthes, protozoa, bacteria and viruses in faeces to food, water, utensils, the preparation area, or directly to the mouth of the child.
5. *Fingers* can become contaminated by unhygienic cleansing practices and disease agents can be passed to the new host directly or by contaminating food or water.

Box 2-2: Pathways of contamination

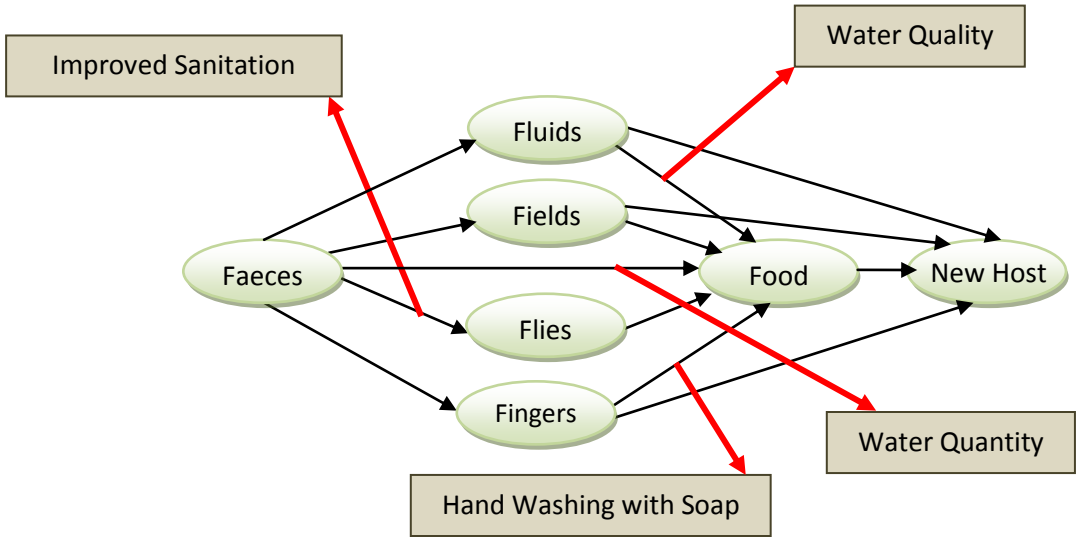
A child with diarrhoea can pass the infection to other members of the family through several ways. When the child defecates in the open, the protozoa, bacteria and viruses present in the faeces will contaminate the soil directly, or drinking water and food through flies. When other members of the family consume the contaminated water, they will also get sick. In addition, rain water may wash the faeces to farms, where low lying vegetables may be contaminated, or other children who play with soil contaminate their hands. People who clean children may also get infected through their hands where hand washing with soap is not practiced.

Each of the arrows represents a transmission route which can be broken by focusing on a number of interventions. For instance, the Faeces-Fluids route can be disrupted by providing sanitation facilities, and changing behaviours of people to use them properly. Similarly, the Fingers-Food route can be disrupted by practicing hand washing with soap at the five critical times.

Breaking the Transmission of Pathogens

Pathogens can be effectively reduced by blocking several of the transmission routes represented by the arrows. Sanitation improvement, provision of adequate quality and quantity and practicing proper hygiene such as hand washing are effective interventions that are capable of effectively containing germs from spreading as indicated in section 2.3.

Figure 2.3: Blocking the Transmission Routes



Adapted from Wagner and Lanois, 1958.

2.3 Hygiene Improvement Framework (HIF)

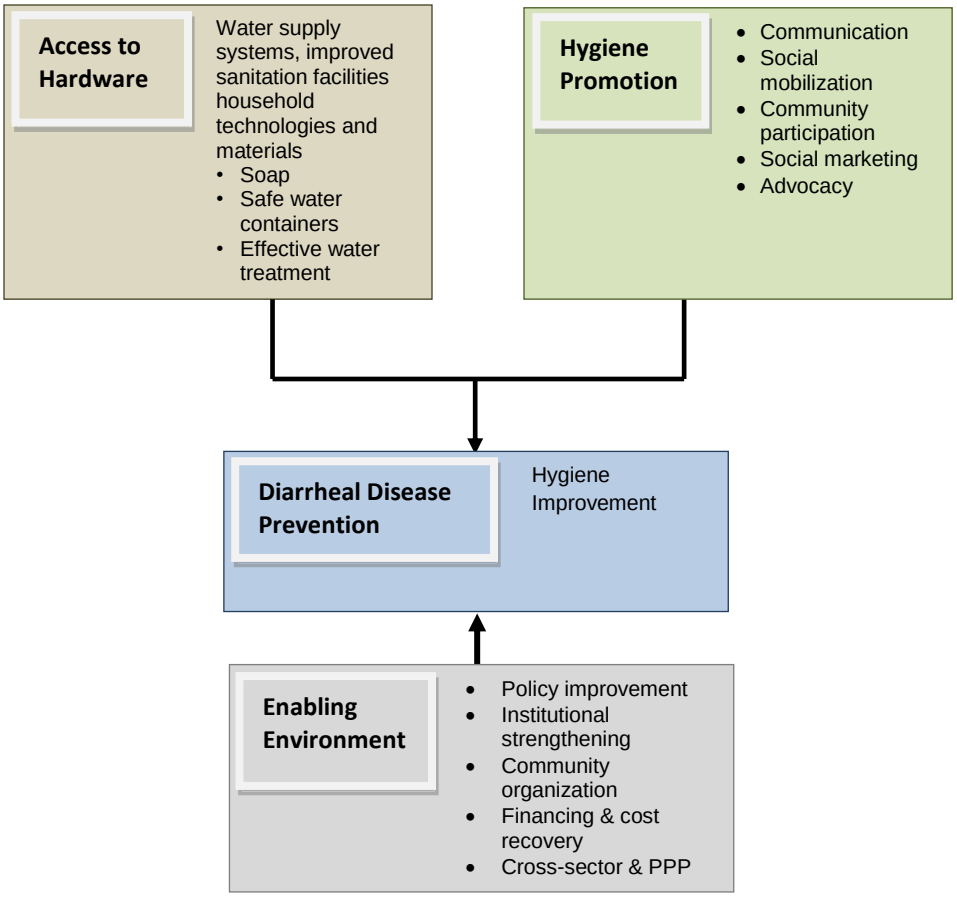
The Hygiene Improvement Framework (HIF) was originally developed by the Environmental Health Project (EHP) of the United States Agency for International Development (USAID) and has since been further refined by UNICEF, Water and Sanitation Program of the World Bank (WSP) and others. The HIF is a holistic programming framework where all aspects of hygiene are promoted including improvements to water supply services. It is based on the premise that in order to prevent diarrhoea, an intervention should comprise three components: access to hardware, hygiene promotion and an enabling environment. These three components are the key elements of the framework and are designed to encourage household behaviours that reduce the incidence of diarrhea, namely: safe disposal of faeces, washing hands correctly at the right times, and storing and using safe water for drinking and cooking.

Improving access to hardware includes:

- Continuous safe water supply systems to communities.
- Sanitation facilities to dispose of faeces, especially the faeces of young children.
- Technologies and materials for improving household level hygiene, such as soap, water treatment and safe storage containers.

By linking this strategy to the HIF, we are able to focus on creating demand and providing the enabling environment in order to achieve a change in hygiene behaviours for better health. An adapted version of the Hygiene Improvement Framework (HIF) is presented in figure 4 below.

Figure 2.4: Hygiene Improvement Framework (HIF)



Adapted from EHP, 2004[vii]

2.4 Methodology

The process of preparing this BCC strategy began with a baseline study and formative research in the WASH-UP project communities followed by a Situational Analysis of the urban sub sector in Ghana. The situational analysis included a review of documents of national level studies such as the Ghana Demographic and Health Survey (GDHS) reports, the Environmental Sanitation Policy (ESP) Document of the Ministry of Local Government and Rural Development (MLGRD), the National Water Policy (NWP), as well as studies, manuals and guidelines prepared by the Community Water and Sanitation Agency (CWSA) among others. The baseline survey and BCC formative research was conducted in 5 communities within the WASH-UP project area in the Accra and Sekondi-Takoradi Metropolitan Areas. A technical working group made up of three

sub-groups (namely the Behaviour Change Communication and Media Group, School Hygiene Promotion Group and the Water and Sanitation Technical Group) was then established to provide periodic inputs and review the BCC strategy document. The working groups met twice during the period of development of the strategy. In summary, the strategy document was developed through the processes outlined below.

1. An extensive literature review to analyse the WASH situation in the urban sub sector and to assess behavioural barriers and motivators. The literature review included relevant project documents, international literature to give an overview of the global WASH situation, various studies done in the country, the Joint Monitoring Program (JMP) of WHO/UNICEF and provider-based water and sanitation data and formative research as well as a baseline survey.

2. Stakeholder interviews were conducted with a range of policy makers, program implementation staff, Development Partners and service providers.

3. Stakeholder workshops were held in the Northern, Middle and Southern zones of the country for further input and refinement.

4. A technical working group made up the 3 sub-working groups with representation from Government, Development Partners; International NGOs, local NGOs, Faith Based Organizations (FBO), the Media and the Private Sector provided strategic inputs to the document at every stage of the development process during stakeholders' workshops. The draft strategy document was circulated two times during the course of the development process for review by the members of the technical working group. A core group selected by the Water Directorate from the technical working group then met two (2) times to finalize the document.

5. Regular on-going reviews, discussions and inputs were also received by the Water Directorate (WD) to continuously enrich the strategy.

6. CHF International WASH BCC Specialist provided technical guidance at every stage of the development process

2.5 Outline of BCC Strategy Document

The overall outline of the BCC Strategy follow guidelines adopted from John Hopkins University's (JHU) document titled, "Designing a Health Communication Strategy". In all there are eleven sections. Sections one and two present a general background and an introduction to behaviour change theories and models. The Hygiene Improvement Framework is also presented and a description of the methodology adopted in developing this strategy described. The Section sets the theoretical and conceptual basis for the BCC strategy.

Section three presents an analysis of the WASH situation in the urban sub sector of Ghana, with regards to access and use of water, sanitation and hygiene. The global, regional and national contexts have been presented to enable a better appreciation of the rationale and justification for developing this strategy. The section provides relevant statistics and trends to inform the choice of hardware and software interventions, communication strategies and channels, a combination of which will yield the best behavioural change outcomes and improved hygiene practices.

Section four presents a detailed analysis of the target audience within the context of multiple priority behaviours to be addressed. The primary, secondary and tertiary audiences have been thoroughly analyzed to understand key influencers of the primary target audience. An attempt has been made to paint a portrait of the primary audience for people who are less familiar with the local context to better appreciate the circumstances of the audience who are the subject of the interventions outlined in this strategy.

Section five catalogues all undesirable behaviours that must be addressed. Within the context of limited resources, behaviour analyses was carried out to identify those behaviours that affect a significant proportion of the population, and have a high degree of relevance to public health as well as being realistic in terms of likelihood of changing within the timeframe of this strategy. The barriers and motivations of behaviour change have also been identified. Section six presents the strategic approach to implementing this strategy, whilst Section seven provides examples of key messages that were developed. Section eight identifies the tools and channels to deliver such messages. Section nine provides a management plan, including the identification of key stakeholders, roles and mandates to effectively roll out this strategy. Section ten provides an M&E plan, specific monitoring indicators and timeframes. Section eleven concludes with a set of recommendations and general observations.

SECTION 3: SITUATION ANALYSIS

3.1 Global Context

Infectious diseases are still the number one threat to public health in developing countries. Diarrheal diseases alone are responsible for the deaths of at least two million children yearly. Diarrhoea caused by unsafe water, inadequate sanitation, and poor hygiene accounts for 15 to 18 percent of child deaths annually[viii] .

Presently, over 50 percent of the world's population live in cities and by 2030, population living in large cities in developing countries is estimated to be 60 percent. Cities in the developing world will absorb 95% of population growth in the next 2 decades. About 1 billion urban dwellers live in slums, and currently, less than 50% of urban dwellers have piped water in-house, and less than 25% have adequate sanitation facilities[ix].

3.2 National Context

The ratio of the urban population to the total population for Ghana in 1948 stood at 13% (Abeiku Authur[x], 2009). This increased in 1984 to 32%, and in 2000 further increased to 44%, and then to 50% in 2010. The number of urban localities rose from 39 in 1948 to 188 in 1984 and 364 in 2000. About 34% of the urban populations live in the 5 largest cities, namely Accra, Kumasi, Sekondi-Takoradi, Tamale and Tema. While it took 36 years for urban localities to increase by149% in 1984, it took only 16 years for the figure to double in 2000. Ghana will have more of its population living in the urban areas much earlier than the estimated 2025. There is great cultural, ethnic and linguistic diversity in urban settlements across Ghana. Although English is the official language, the majority of the populations speak a variety of local languages, including Akan, Ewe, Hausa, Dagbani, Ga and others.

3.3 Rationale for WASH BCC in the Urban Sub Sector

Many diseases are related to inadequate safe water supply, poor environmental sanitation and poor hygienic practices. Diarrhoea, dysentery, intestinal parasites (such as worms), typhoid and cholera are all caused by excreta contamination of food, water, soil or hands. Diseases attributable to poor environmental sanitation accounted for 70% of OPD attendances in 2008[xi], and contribute to high incidence of diarrhoea morbidity in children, which accounts for 25% of under-five mortality. Child mortality is 76 per 1000 live births whilst infant mortality 51 per 1000 live births (GDHS, 2008)[xii]. The high prevalence of these diseases in Ghana is largely due to the lack of potable water and domestic toilets in many homes, insanitary public toilets, widespread "free range"/open defecation and unsafe hygiene behaviours. This is even more so in urban areas, as the high concentration of people provides more opportunities for infections to spread from one person to another. However, these conditions can be controlled by the use of safe and hygienic toilets with adequate treatment and disposal of the toilet waste, and by the proper use of water for personal and domestic hygiene. According to the World Health Organisation (WHO, 1998)[xiii] official website, accessed on 23rd September 2010) on international platform:

- 90% of cholera cases globally are children under 5, mostly in developing countries.
- 88% of diarrheal diseases are attributed to unsafe water supply, inadequate sanitation and hygiene.
- Improved water supply reduces diarrhoea morbidity by 21%.

- Improved sanitation reduces diarrhoea morbidity by 37.5%.
- The simple act of washing hands at critical times can reduce the number of diarrheal cases by up to 50%.
- Additional improvement of drinking-water quality, such as point of use disinfection, will lead to a reduction of diarrhoea episodes of 45%.
- Basic sanitation reduces the disease by up to 77%.
- Improving access to safe water sources and better hygiene practices can reduce trachoma morbidity by 27%.
- Access to safe water and sanitation facilities and better hygiene practice can reduce morbidity from ascariasis by 29% and hookworm by 4%.

3.4 Access to Water in Urban Areas

The urban population in Ghana using an improved water supply declined from 86% in 1990 to 79% in 2006[2] and further down to 59% in 2009. Rising population in urban areas has already overstretched water and sanitation services, and could worsen if adequate steps to meet the ever growing demand are not taken. Production is about 646,494m3/day while demand is 1,101,032m^3/day for the year 2008 resulting in a shortfall of about 454,538m^3/day[3], and service failures also occur frequently.

The major source of water available to households in 5 poor urban communities targeted by CHF for water, sanitation and hygiene improvements is pipe water[xiv]. About 90% of household heads in these communities reported using water from the public utility company, Ghana Water Company Limited (GWCL). Out of this, 42% have a pipe connection to their houses whereas the remaining 58% access water from either public or private commercial stand pipes[xv]. However, less than 30% of people with a pipe connection in their homes have water supply every day whereas 35% obtain water for two days each week or less.

About 10% who mainly live on the outskirts of Accra are completely without access to piped water from Aqua Vitens Rand Ltd (AVRL)[4]. About 60% (Ntow S. 2010)[xvi] of urban population have no direct access to piped water, but rely on tertiary vendors including tanker services, except for the middle zone (Ashanti and Brong Ahafo regions) where Tanker services are not significant.

According to a Ghana Integrity Initiative report (GII,2010)[xvii], only 15% of the poor in Accra have direct access to piped water, 15% have access to water from wells (boreholes, protected and unprotected wells) while 2.5% have access to natural (river/stream, rain water/spring, dugout/pond/lake) and 8.4% have access to other sources (water truck/tanker service (0.9%,), water vendor (3.4%) and sachet/bottled water (4%). About 71.1% of medium wealth and 94.8% of high wealth[5] households have indoor pipe connection. Only 28.8% of poor households have indoor pipe connections. In urban areas people who do not have access to improved systems rely to a large extent on water tankers and private water vendors, while also using rainwater and shallow wells when available.

[2] Note: Other reports from GWCL put 2006 coverage at 59%

[3] Ghana Water Company Strategic Investment Plan (SIP) 2009

[4] AVRL is a private operator that is currently managing the day to day operations of urban water supply in Ghana under a Five-year Management Contract with GWCL

[5] High wealth households refer to those that fall within the 4th and 5th quintiles of standard wealth ranking (World Bank). Low income households are those that fall within the first and second quintiles, whilst medium wealth households refer to those within the 3rd quintile

Water quality is questionable as most of the supply is intermittent and considerable drainage problems in many areas lead to contamination. Ghana Water Company Limited (GWCL), reports that, water quality at treatment points are good, but get contaminated during transmission due to broken pipes that allow intrusion. The common practice of using the same tanker trucks to supply drinking water and raw water for construction projects presents additional quality challenges to those who rely on such services for drinking water. Although the Public Utilities Regulatory Commission (PURC) has issued some guidelines for tankers, in practice, the quality of water from tankers is not monitored on a consistent basis.

The poor, generally, pay much more for water than the rich (sometimes 10 to 12 as much) because they get most of their supply from water vendors. The current tariff structure, in which unit cost of water increases with quantity consumed, means that poor people who normally live in compound housing and use shared connection pay more for unit of water consumed.

3.5 Water Supply Systems, Infrastructure and Sources

There are several key categories of actors involved in Ghana's urban water supply system. GWCL, the main provider of urban water services provides household connections, yard taps, and public standpipes (pay and fetch system). Water tankers deliver water from GWCL to homes that have neither a household connection, nor close to a public stand pipe. They also service households that may have household tap connection, yet experience intermittent water flows through the taps. Tanker operators exist mainly in large towns where they may serve an important part of the population. The PURC regulates the price at which the tankers purchase the water from GWCL but not how much they sell to consumers. In some urban cities across Ghana, especially Accra, water tankers have formed different associations mainly to provide welfare support for the drivers, including support in times of illness. However, little is done in terms of water they serve to their clients for drinking. Water Vendors are also a crucial component of the water supply system, often serving the poorer sections of the community. Most water vendors are individuals who store water in tanks and sell to people within their neighbourhood. Besides the static water vendors, there are a growing number of water carriers who make a living by buying water from water vendors for onward retailing to others on

Box 3-1: How Pure is "Pure Water"

The consumption of sachet water, usually packaged in 500ml polythene sacs, has seen dramatic growth in Ghana since 2000. Concerns about perceived poor quality of tap water partly accounts for this trend. However, majority of Ghanaians still rely on tap water and other improved sources as their sole source of drinking water. According to the Ghana Statistical Services, 15.2% of the urban population consumed sachet water as of 2008 (GDHS 2008). NGOs in the water and sanitation sector have argued that, the rise in consumption of sachet water is a result of marketing gimmicks employed by their producers to persuade people away from public water supplies. They contend that contrary to the widely held public perception that sachet water is better in quality, sachet water in fact, is fraught with many hygiene and quality challenges. Majority of them are not registered with the appropriate regulatory authorities. Most produce under unhygienic conditions, whilst others package tap water directly without any further treatment or filtration. The conditions under which sachet water is sold also raise concerns. The four corners of the sachet is usually the convenient area that sellers who hardly wash their hands grab to hand out to prospective buyers. These corners are exactly the area where consumers bite open to drink the water.

Source: Patrick Apoya

request. About 12% of the urban population relies on packaged water for drinking, mostly in polythene sheets packed in 500ml units, called “Pure Water”.

3.6 Environmental Health and Sanitation in the Urban Sub Sector

Averagely in Ghana, each person (including adults and children) produce about half a kilogram of solid waste every day. This is equivalent to one or two tonnes (about half a tipper truck load) by an average family in a year[xviii]. The total solid waste currently produced in all of Ghana's urban areas comes to over one million tonnes per year, and it is expected to rise to almost three million tonnes per year (enough to fill the Accra Sports Stadium ten times over) by 2020[xix]. About 40% of households store household refuse appropriately (i.e. in containers with fitted lids). In the WASH-UP formative study in the target communities in the AMA and STMA, it was found that, around 32% keep refuse in open containers, and 19% keep refuse in plastic bags whilst very few - about 1% dig and bury or burn the refuse. This fact was reiterated during Focus Group Discussions (FGDs). Across board, the commonest practice for waste collection is the central collection system where skip containers are placed and people pay between 5-20 Gp (Ghana pesewas) to dump. However, in the parts of the middle and northern zones, people do not pay for dumping although in Kumasi people pay 20 Gp (pesewas) per dump.

Only 18% of the urban population has access to an improved latrine. Nearly 50% use public latrines whilst the rest of the population uses other unsafe sanitation facilities and 7% reportedly practice open defecation. In slum areas, the proportion of those practicing open defecation increases significantly to about 37%. Squatters and people living in incomplete houses go for open defecation or dig shallow pits that are not hygienically safe. Some households also reported the use of “flying toilets” characterized by individuals defecating in polythene bags in their rooms, then throwing it off afterwards to open spaces, alleys or even drains, causing the drains to choke as well as health threat to the environment when convenient.

3.7 Hygiene Practices

In Ghana, diarrhoea contributes to about 25% of the under five mortality (GSS, 2008)[xx]. The underlying causes of diarrheal disease include inadequate access to safe water, poor household and environmental sanitation, and poor hygienic practices. Recent studies have revealed that hand washing with soap (HWWS) at critical times, along with point-of-use water treatment and safe excreta disposal are the three most effective water, sanitation and hygiene (WASH) interventions in the reduction of diarrheal morbidity and mortality[xxi]. Most households in the WASH-UP target communities considered hand washing with water and soap after defecation as most critical time for washing their hands (Trend Group, 2010)[xxii]. Numbers for people who indicated that they wash their hands before food preparation were over 80% in all project towns. The critical moments where most respondents said they resort to hand washing according to field data is after using the toilet (90%), before meals (86%), after meals (62%), after changing dippers (29%) and after visiting the urinal (23%)[xxiii]. No household reported any hand washing before feeding a child. A significant majority wash hands in bowls containing water (45%), and 30% washed under running water with soap. Others pour water on hands and rub with soap. Almost all the public latrines in the project communities did not have hand washing facilities and where it existed, it was just a bowl and water. Only 2% were tap basins with soap, 5% had basins, water and soap and another 5% had basins and water for washing.

The same water and towel is used by many and the water is only changed when it becomes visibly dirty.

Hygiene practices related to water vending including cleanliness of the surroundings of public stand pipes, and storage tanks private household vendors, handling and sale of sachet water and tanker trucks by observations is also poor. Supplementary FGDs confirmed the fact that, while hygiene awareness around the importance of hand washing with soap is widely understood, other hygiene practices are rare. Water storage at the household level is a widespread practice as a result of the non-reliability of the water supply situation in urban areas. In the WASH-UP target communities, about 66% of households store water in Veronica buckets /Gallons (Jerry Can) with a tap (13%). These are safe and the recommended approach.

Box 3-2: How Clean is Your Water Tank?

It has come to the attention of the Aqua Vitens Rand Ltd (AVRL), acting for and on behalf of the Ghana Water Company Ltd (GWCL) as the operator, that contamination of potable water is often blamed on the company. We wish to advise our customers to consider their storage facilities a possible source of contamination.

In most cities and towns in Ghana today, plastic tanks have become a feature of the landscape. This has become necessary because supply of water lags far behind demand and this led to rationing. Consumers are thus compelled to store water in large tanks when taps run. Unfortunately, many of the containers used to store water are not well protected hygienically though they are in fact, periodically cleaned and disinfected. Sometimes birds, reptiles and insects drown and decompose in tanks resulting in contamination. Water stored for too long contains sediments that eventually affect its physical attractiveness. We wish to advise consumers on how to store water hygienically and keep it safe at all times. Corrosion resistant containers, fibre glass and galvanized containers are suitable for home use but they must always have lids which should be closed tightly to prevent foreign materials from falling into them. Water should be stored away from volatile organic products such as gasoline, kerosene, pesticides and other related chemicals. If water is not properly stored it absorbs gases within its surrounding and as such may have some odour.

It is pertinent to state that water storage facilities should be cleaned and disinfected at least twice in a year with appropriate chemicals and in the right quantity. As long as this is done, potable water can always be safe for drinking and for other uses. If this is not done, storing water for more than six months is not safe. One must avoid storing water in containers made of lead because lead poisoning may occur if it is continued as a practice over time. Consequences of not cleaning water storage facilities regularly include but are not limited to:

- The growth of microbes which could lead to diseases like gastro-intestinal disorders like diarrhoea.
- The accumulation of sediments.
- The formation of bio-films (a zone in your water reservoir where bacteria colonize and multiply)
- Growth of algae (green plant) on the walls of reservoirs which produce bad odour.
- Change in the taste, odour and colour of the water

In conclusion, it is important to recognize that how well your tank is cleaned also matters. There are instances where cleaners enter reservoirs with bare feet or dirty boots. This could lead to further contamination after the work is supposedly done. It is therefore advisable to locate professional water reservoir cleaners to undertake such a task in order to safeguard your health and well –being.

Source: AVRL; published in the People's Daily Graphic, 23rd September 2010, page 36.

However the cleaning and usage of these containers, if not done properly, may also be a source of contamination with health implications. Very few respondents reported storing water in covered containers.

SECTION 4: AUDIENCE SEGMENTATION

4. 1 Identifying and Prioritizing of Primary Target Audiences

Based on the findings from the Situation Analyses, potential audiences for the communication efforts were identified at the second stakeholders' consultative workshop. For each audience, subgroups with traits that make them significantly[6] different from others in the larger group were further identified. Segmentation was based on geographical, demographic and socio-cultural differences. It was not possible to differentiate by stage of behaviour change due to insufficient data on this aspect.

Finally, the audiences were prioritized due to inadequate resources to address every target audience at the same time. Priority was given to the audience segments that comprised a significant proportion of the urban population, public health importance, and likely to be most receptive to communication messages or at a stage where the target is most likely to move to the next behaviour change stage. Audience segments that already practice behaviour will be encouraged to advocate the behaviour to others. For each behavioural change objective, the key primary audience were identified. The identified audiences were then prioritized according to the following criteria: size, accessibility etc. Finally their influencers were identified in a brainstorming session. The list obtained was further systematically analyzed and prioritized using the matrix presented in Table 4-1. From this exercise, we arrived at 8 good audience segments and 4 possible segments that should be considered as primary targets. There are 10 other segments that are not important enough to be included as primary targets at this stage, unless sufficient resources are available. These are presented in Annexes 1 and 2 for the Middle and Northern zones respectively

Table 4-1: List of Target Audience per Desired Macro-behaviour and Primary Target

Component	Macro-behaviour	Primary Target
1. Safe Drinking Water	Maintaining water safety at source of supply, especially at vending points and tanker trucks	• Water tanker truck operators • Water producers and tanker owners • Private water vendors • Public stand pipe attendants • People who sell from their own wells
	Safe collection and transportation of water to homes	• Men, women, children who cart water on head for sale • Men, women, children in homes without pipe connection
	Safe water storage and use	• Women, men, children aged 5-17 years, household
	Household water treatment	• Men, women, children
2. Improved Sanitation	Safe Disposal of excreta	• Residents of compound houses, residents of peri-urban areas – mothers, guardians of children under 5 years, Landlords, Caretakers
	Safe disposal of household solid waste	• Women, men, children
	Safe disposal of other solid waste and sullage (grey water)	• All urban residents
3. Hygiene	Hand washing with soap at 5 critical times	• Mothers, Fathers, Guardians of children less than five years, school children aged 5-17 years, out of school children aged 5-17 years, food handlers
	Food Hygiene	• Chop Bar Operators, Butchers, Food Vendors, Restaurants, Meat Sellers
	Personal hygiene	• Slum Dwellers, female/male Head Porters (Kaya yee), Push Truck Operators, Lorry Park Operators, all residents, Food Vendors

[6] A significant difference is one that will require a different communication message or approach

Prioritized Target Audience Segmentation

The importance of each audience segment is assessed by scoring it against three important variables, (how large is that audience; what is the importance of that segment to public health; and what is the likelihood that the audience will respond positively) as presented in Table 4-3 below. The bigger the score, the better suited the target segment is for selection using the scoring key presented in Table 4-2.

Table 4-2: Scoring Key

Score	Interpretation			
	Size of Audience (% of total urban population)	Importance to public health	Likelihood that audience will be responsive to the communication effort	Total Score
1	1-5%	Not at all	Not at all likely	A very unlikely segment
2	6-10%	Not important	Not likely	Unlikely segment
3	11-15%	Fairly important	Somehow likely	Possible segment
4	16-20%	Important	Likely	Good segment
5	>20%	Very important	Very likely	Very good segment

Table 4-3: Prioritized Target Audience Segmentation (National)

Audience	Rating					Will focusing on this group achieve overall goal	Overall assessment as possible primary target segment
	Size of audience (% of pop.)	Importance to public health	Likelihood audience will respond to message	Total score	Priority		
People who use shared HH latrines	5	5	4	14	High	Yes	Good segment
Mothers of children under 5	3	5	5	13	High	Yes	Good segment
Public toilet attendants	4	5	4	13	High	Yes	Good segment
School children aged 5-17	2	5	5	12	High	Yes	Good segment
Tenants of compound houses	4	5	3	12	High	Yes	Good segment
People who use public toilets	4	5	3	12	High	Yes	Good segment
Fathers of children under 5	3	5	3	11	High	Yes	Good segment
People who use improved HH latrines	3	4	4	11	High	Yes	Good segment
People who store water in overhead tanks	2	3	5	10	Medium	No	Possible segment
Slum dwellers	3	4	3	10	Medium	Yes	Possible segment
Out-of-school children aged 5-17	4	3	3	10	Medium	No	Possible segment
Food vendors	2	5	3	10	Medium	No	Possible segment

4.2 Secondary Target Audience (Influencers of Primary Audience)

Following the preliminary stage of primary audience segmentation, influential people in the primary audience's social networks were identified. These are either people who suggest ways that can prevent health problems that are important to the primary audience, people who influence their decision to seek assistance in preventing or treating the health problems, people

who may influence their decision to try certain products or practice certain healthy behaviours or people who influence their decision to continue or not to continue their new healthy behaviours.

Ultimately, the objective is to target the secondary audience with BCC messages to help them influence the primary audience in favour of the desired behaviours. It is believed that the secondary audiences have the ability to influence the primary audiences' knowledge and attitude about issues of concern of which a change in behaviour is mostly required. Based on the degree of their influence, the BCC formative research identified the following secondary target groups or influencers for each of the 8 good primary target audiences identified in Table 4-3. The list was validated during the stakeholders' workshops.

4.3 Identification of Influencers of Primary Audience

Table 4-4: Identification of Influencers of the Primary Target Audiences

Primary Audience	Who does the Primary Audience discuss their health or WASH related problems with?	Who influences the actions that the primary audience takes to resolve their health or WASH related problems?	Who provides the primary audience with the health or WASH related information, products and services that they need?
1. School children aged 5-17 years	Teachers, mothers, fathers, guardians, friends, relatives	Teachers, mothers, fathers, peers	Teachers, mothers, fathers, friends, peers and relatives
2. Mothers, guardians of children under five years old	Husbands, health workers, pharmacists, religious leaders	Husbands, health workers, pharmacists, religious leaders, friends, relatives	Health workers, teachers, EHO
3. People who use shared household latrines	Friends, landlords, health workers, GWCL/AVRL staff, co-tenants, care takers, relatives and friends Assembly men /women	Landlords, health workers, husbands/wives, GWCL/AVRL staff, environmental health officers, municipal authorities	Health workers and environmental health officers, but this information is not currently being provided adequately
4. Public toilet attendants	Health workers, pharmacists, urban council and town council members, unit committee and town council	Municipal authorities, NGOs, CBOs	Health workers and environmental health officers, but they are currently not being reached
5. Tenants of compound houses	Friends, husbands/wives, land lords, health workers, GWCL/AVRL staff, religious leaders, co-tenants	Land lords, GWCL/AVRL staff, religious leaders, health workers, EHO	Health workers and environmental health officers, but they are currently not being reached
6. People who use public toilets	Friends, health workers, religious leaders, pharmacists, town council /councillors	Religious leaders, health workers, teachers and community heads/leaders	Health workers and environmental health officers, but they are currently not being reached
7. Fathers, guardians of children under five years old	Wives, health workers, GWCL/AVRL staff, (private contractors - delete), pharmacists, religious leaders, friends and relatives, teachers	Wives, health workers, (GWCL/AVRL-delete) staff, religious leaders, social groupings /clubs	Health workers and environmental health officers, but they are currently not being reached
8. People who use improved household latrines	Friends, health workers, religious leaders, EHO	Friends, health workers, religious leaders, EHO	Health workers and environmental health officers, but they are currently not being reached, community development officers

4.5 Analyses of Primary Target Audience Influencers

Table 4-5: Primary Target (e.g. People who Use Shared Household Latrines) Influencer Analyses

Who influences the Primary Target?	How much influence do they have (Strong, Medium, Weak)?	What behaviour are they currently encouraging the Primary audience to do, or not to do?	Why will they encourage the desired behaviour?	Why will they NOT encourage the desired behaviour?	What are the most important sources of information for the influencer?
Friends	Strong Medium	Cleaning shared household toilet according to duty roster	Peer influencing	To avoid being criticized for not practicing the behaviour Avoid conflict	Media and other friends, family
Land lords	Strong	Cleaning shared household toilet according to duty roster, keep compound clean	To keep house clean, to avoid flies and smell, to avoid illness	No incentive	Land lord association, media
Health workers	Strong	Home management of diarrhoea, hand washing with soap, general cleanliness	To promote good health and reduce illnesses	Not happening	Health training institutions, Senior Public Health Officers
GWCL/AVRL Staff	Strong Weak	To have, or not to have a household pipe connection	To attract and maintain good clients who pay for water	Not happening	Media, other staff
Environmental Health Officers	Medium Strong	Keep compound clean, place water in clean containers and cover with lid	To maintain public health and good environmental sanitation	Not happening	Training institutions, district assemblies
Municipal authorities	Medium	Do not use bucket latrines, don't throw household rubbish in open spaces, do not defecate in open spaces	To maintain public health and good environmental sanitation	Not happening	Specialist staff
Pharmacists	Strong Weak	Choice of treatment of illnesses	More effective treatment in order to attract repeat sales	Not happening	Training institutions, media, suppliers
Mass media	Strong Medium	Public awareness creation	Educate public	Not happening	NGOs, Journalists, government

4.4 Tertiary Target Audiences

The target audiences whose actions indirectly affect the primary audiences include:

1. Media
2. Private-sector
3. NGOs
4. Faith-Based Organizations (FBOs)
5. Municipal/Metro Chief Executive
6. Local Health and Education Committees
7. Municipal Environmental Health Officers
8. Health Promotion and Education Units of the Ghana Health Service
9. School Health Education Unit of the Ghana Education Service

10. Environmental Health and Sanitation Directorate
11. Water Directorate
12. Public Utilities Regulatory Commission
13. Teacher training institutions
14. Health training institutions
15. Schools of Hygiene
16. Universities and other tertiary institutions (who train the sanitary engineers)
17. Micro/macro Financial institutions

4.6 Portrait of Primary Audience

Box 4-1: Empowering a woman living in a compound house with shared latrine with knowledge on good hygiene

Adjoa Mentil, a 35-year old petty trader lives with her husband, Anor Mensah, in a crowded suburb of Accra with their four children. They occupy two single rooms next to each other, and share a common compound with 15 other families, in what is commonly called a compound house. The Landlord also stays in the same house. Adjoa sells fish and other ingredients in front of the compound and hardly makes a hundred Ghana Cedi (GHC100) profit in a month. Her husband is a manual labourer with a local brick making company, and receives a daily wage of five Ghana Cedis (GHC 5). The family's meagre income is not enough for their upkeep; as a result they sometimes fall on friends to borrow money for health care, school fees, and the family's upkeep.

Adjoa works hard to keep their environment clean. She wakes up early every morning to sweep their room, and prepares breakfast for the family with the assistance of their daughters. She keeps rubbish in an old broken bucket, placed in front of their room. They wait until night to dispose off the rubbish in a little stream behind the house. There are only two pan latrines and two bathrooms in the house, one each assigned to men and women. There exists a prepared duty roaster to guide women in the compound to take turns in cleaning the latrine and the bathroom. The roaster excludes the wife of the Landlord from taking part in the cleaning. They have no hand washing facilities near the toilet area, nor anywhere in the house. They even appear not be aware of the importance of hand washing at the critical time after defecation.

The piped water in the house was recently disconnected by GWCL because of accumulated arrears of unpaid water bills. Although Adjoa's family and other tenants paid their portions of water bills over the years to the Landlord, the payment did not eventually get to GWCL. Adjoa's family now relies on a private water vendor who is about a 5 minute walk away for their drinking water. They have a blue large sized plastic bucket with a cover which can store up to 40 liters of water. A cup is placed on the bucket for fetching the water. Though efforts are made to keep the cup clean, and minimize contamination of their stored water, two of their children below the age of five do not understand the rules. They grab any part of the cup with their hands and sometimes their hands get soaked in the stored water each time they try fetching water out of the bucket.

Presently, keeping the house clean is a big problem as the house's water lines has been disconnected. Cleaning the bathroom and the latrine for instance requires a lot of water, which has to be provided by the woman on duty. Adjoa, like most of the other women in the house, is forced to cope with the situation. Each family member now baths only once in a day, with less than half the quantity of water needed for a good bath. The latrine is cleaned with dry brooms, as the cost of water to wash thoroughly is getting out of hand. Dishes are washed with very little water. Jojo, their last born who is only one year old used to get a good bath each time he did the poopoo, but now he only gets a wipe around his bottom with a wet rag.

In a chat with a Community Health Nurse who visited her recently, Adjoa confessed that sanitation has become a big problem for them since they lost their pipe connection. She has observed that Jojo gets at least one bout of diarrhoea each week. Besides the fact that she has to spend more money to buy medicine in the pharmaceutical shop near the house, Jojo is getting weaker and weaker and cries a lot these days. She is disturbed and wonders whether things will ever get better. The Nurse comforted her and spent time educating her on hand washing with soap. The Nurse assured her that this would reduce Jojo's diarrhea episodes. Adjoa assured the Nurse of her willingness to adopt the practice of hand washing with soap immediately despite some challenges they may face. Her husband has to be convinced about it as well, besides the fact that they often run out of soap for bathing. More seriously is a place for hand washing facilities in the crowded compound. Notwithstanding, Adjoa is determined to make this work, if that is what it will take to make her family and Jojo healthy and happy again.

Story: Patrick Apoya, 2010

Box 4-2: Community Hygiene

Temebabi community is surrounded by two streams from which some inhabitants fetch their water for domestic and other purposes. It has an adult population of about 450. The main economic activity of the community includes farming, petty trading and the like. Illiteracy rate of the population is very high and the nearest health facility is about 5km from the community. The community has a public toilet situated at the extreme north of the community that serves the whole community and a refuse dump about half a kilometer further away from the communal toilet facility whose uplift is irregular. A fee of 20p is charged per dump and 10p per use of toilet. There is also one borehole which serves the whole community as well as one licensed chemical shop.

There is a high demand for public toilet in the community because it is just one and the community's population keeps on growing which puts pressure on public utility usage. Some people avoid the long queues to use the toilet by rising up early in the morning to defecate in the surrounding bushes around the community, in polythene bags, and along the banks of the river bodies of the community. This act not only contaminates communal streams and others but also increase diarrheal cases in the community. There is also a particular norm of the community's inhabitants that they do not wash their hand after use of public latrines, or going to toilets. The community's populace including children in the community also does enjoy their morning bath and swim in the water/ river bodies which further creates more health problems. Dumping of refuse is done just any how since the pay and dump site is not well regulated. The road to the dump site is also very bad which discourages regular uplift of communal refuse container.

The situation in the Temebabi community results in regular diarrhea and water related diseases in. The environment becomes very filthy and ill struck. Majority of the populace depend on herbalists who prepare medicine under unhygienic conditions. Others also visit the licensed chemical shop for drugs. Not much attention has been paid by the government for this community. A concerned citizen in the community contacted health personnel to conduct a public health education on good sanitation practices. This include proper hand washing, proper disposal of refuse, regular lifting of communal refuse containers and more. Additional boreholes should be constructed to reduce the stress on the existing one. The chief instituted a law that discourages bad sanitation practices. Offenders would be punished severely.

The populace accepted to adopt the good sanitation practices advocated by the health officers. There are similar communities facing this problem which we are advocating for similar and better intervention.

Source: Stakeholder WASH BCC workshop Middle Zone, December 2010

Box 4-3: Open Defecation and use of unsafe Drinking Water

Napore, Abongo and Bayor are three students sharing a single room in a compound house of 10 rooms with an average of 2 people per room. Though the house was recently constructed, the toilet facility is yet to be completed. Water has not been extended to the area as well. The only source of water is an underground water tank which stores and supplies water to the people in the area at a cost of GHp 5 per bucket and this also serves as drinking water. The reservoir has been in use for over 5 years without cleaning and disinfection. Due to the high cost of getting water, the people in the house cannot afford to keep a hygienic environment. These students bath once a day with all the three sharing a bucket of water. They pile a lot of dirty bowls and wash them once every two days. The bathroom is always slippery and dirty because the women in the house cannot get water to clean it.

A piece of undeveloped land behind their house has been turned into a defecating area. The bushes in the rainy season protect them from being seen and so they could defecate at any time. However in the dry season it is done either early in the morning or late in the evening when it is dark. The darkness make people step on feces and take them to their homes.

Due to the combined effects of contamination from the practices of open defecation and consumption of contaminated water, the three gentlemen reported several cases of diarrhea. A recent visit by an Environmental Health Officer to the area recommended use of ORS as an immediate measure to control the diarhoea cases. He also recommended household treatment of water by using aqua tabs. He then recommended that houses should as a matter of urgency dig, line and fence particular points to confine their excreta to prevent easy contamination of the underground water and prevent people from eating excreta.

Source: Stakeholder WASH BCC workshop Northern Zone, December 2010

SECTION 5: PRIORITIZING BEHAVIOURS

5.1 Selection of Priority Behaviours

The purpose of identifying priority behaviours is to assist in developing a focused BCC strategy that can contribute to sustainable change in the health condition of the urban population. Specific behaviours related to WASH will be addressed at the individual, household and community levels using tools that enable specific BCC, rather than the "prescriptive one-way messages". Need based BCC focuses on establishing dialogue and motivating change that can be easily assimilated within the socio-cultural milieu of urban communities in Ghana.

Priority areas for WASH BCC focus, within the urban sub sector is based on an analysis of the situation in Ghana. Hygiene intervention will focus on the promotion of 10 macro-behaviours, encompassing 26 micro-behaviours. The macro-behaviours that were identified through analysis of focus group discussions (FGDs) are as follows (not listed in order of importance):

1. Maintaining water safety at source of supply, especially at vending points and tanker trucks
2. Safe transportation of water to homes
3. Safe water storage and use
4. Household water treatment/water disinfection
5. Safe disposal of Excreta
6. Safe disposal of household solid waste
7. Safe disposal of other solid waste
8. Hand washing with soap at 5 critical times
9. Food hygiene
10. Personal hygiene

5.2 Detailed Behavioural Analyses

Table 5-6: Detailed behavioural analysis of Primary targets[7]

(Audience: Primary target audience as identified in Section3.3.1 Table 3-1)

Ideal Behaviour	Current Reported & Observed Behaviours	Barriers to Ideal Behaviours	Facilitators to Motivators Ideal Behaviours	Feasible Behaviour/Practice
Maintaining water safety at source of supply, especially at vending points and tanker trucks				
Keep water safe at source of supply	• Vendors hardly disinfect water storage reservoirs • Surroundings of vendors not kept clean • Tanker trucks switch between supply of safe water for consumption and raw (unsafe)water for other purposes but hardly disinfect their tankers • Broken pipes (due to erratic flow of water / illegal connections) leading to contamination of pipe water supply to homes • Unhygienic hand dug wells • Poor personal hygiene of some vendors	• High cost of disinfection • Reluctance to lose a day's sale in order to clean reservoirs • Clients not complaining about safety of water they buy • Good patronage of vending points • Unregulated industry, no oversight role by any public authority • Lack of culture of rapid water quality test by consumers • Lack of knowledge on disinfection procedures or products • High demand	• Attract more customers • Maintain public health • Enforcement of regulation	• Test your drinking water for contamination at point of sale. • Disinfect reservoir once every six months • Disinfect tanker every month, or immediately after using it to cart raw water • Keep surroundings of vending points clean all the time • Proper location of vending points (wells)
Safe transportation of water to homes				
Always transport water in closed containers	• Some water is transported by children in open containers • Some water is transported in closed jericans • Open basins and clay pots	• High cost of jerry cans • Absence of jericans in some homes • Inadequate awareness about the health dangers of contamination	• Easy and convenient to use jerry cans • Water will not spill even if child falls • Ensure clean water for drinking • Responsibility for health of family. • Understand importance of "clean" drinking water	• Transport water in containers that are properly covered • Transport in properly cleaned containers

[7] It was not possible to do a detailed analyses of each target because of absence of literature by target group, and inadequate resources and time to undertake Focus Group (FGDs) Discussions with specific target groups

Ideal Behaviour	Current Reported & Observed Behaviours	Barriers to Ideal Behaviours	Facilitators to Motivators Ideal Behaviours	Feasible Behaviour/Practice
Safe water storage and use				
Cover drinking water container at all times.	• Mostly cover drinking water container and few do not. • Use plastic sheets to cover containers with large opening • Some water receptors not covered	• Forgetfulness of children to cover drinking water container. • Damage to lid by children.	• Understanding of importance. • Performing of behaviour.	• Cover drinking water • container at all times • Reinforce and strengthen good behaviour with: "*Continue to cover your water-good job*"!
Fetch drinking water in a manner that does not put hands/fingers into drinking water, i.e. tap, long-handled ladle, pour.	• Seldom use of long-handled scoop. • Sometimes pouring drinking water. • Often use short- handled cup that allows hand contact with the drinking water.	• Unavailability of scoop in the household. • Lack of awareness that hands can contaminate water. • Cost of tap/nozzle for attachment. • Cost of buying a new container with tap/nozzle.	• Availability of scoops in the market. • Cost for scoop. Access to scoops already in house.	• Use a long-handled scoop to give out your drinking water. • Pour out your drinking water. • Use a drinking water container with a tap.
Place drinking water container on a raised surface out of reach of small children.	• Mostly place drinking water on a raised surface.	• None apparent.	• Understanding of importance of performing behaviour.	• None required as already practice ideal behaviour. Can reinforce good behaviour with: *"Continue to place your drinking water out of reach of children-good job"!*
Household water treatment				
Use proven, effective methods to purify drinking water, i.e. boiling, purification tablets/sachets, filtration, solar heating[8]	• Hardly boils water for drinking. • Rarely purifies water with tablets/ sachets. • Seldom uses filtration devices. • Never solar purifies water.	• Limited awareness about household water treatment • Availability of sachet water • Belief that water is pure and does not need to be purified. • High cost of products -tablets • Perceived unpleasant taste of boiled/tablet purified water. • Limited availability of tablets/sachets. • Time-consuming (boiling/solar). • Unaware of filtration devices.	• Desire to improve wellbeing of family. • Availability of required products. • Low cost of products.	• Test your drinking water for contamination • Solar heat your drinking water. • Filter your water with simple household filtration devices, e.g. Ceramic and slow sand filters. • Treat your water with chlorine tablets/sachets.

[8] Cited by Centers for Disease Control (CDC) as proven most effective water purification methods, Pakistan safe drinking water and hygiene promotion project; Behaviour Change Strategy (BCS) And Behaviour Change Communication Plan (BCCP), 2007

Ideal Behaviour	Current Reported & Observed Behaviours	Barriers to Ideal Behaviours	Facilitators to Motivators Ideal Behaviours	Feasible Behaviour/Practice
		• Boiling water is a waste of fuel		
Safe disposal of excreta				
Use a latrine at all times.	• Majority use bucket latrine, followed by pit latrine and then VIP latrine regularly. • Some use public toilets • Defecate in polythene wrappers and throw faeces out in the open • Practice open defecation • Child defecates in chamber pots and faeces thrown in the open outside the house	• High cost of a latrine. • Unavailability of space to construct a latrine in built areas. • Refusal of land lords to provide toilets • Bad smell and unclean public latrines • Latrines not child, girl and disability friendly • Lack of adequate water supply • Water logging • High cost of removing sludge	• Desire to care for and improve well- being of family. • Privacy in general • Prestige and social status. • Desire to avoid long queues in the morning • The fear of soiling oneself in case of diarrhoea in the night • Availability of latrines. • Knowledge of link between faeces and diseases.	• Continue to use your VIP latrine • Ask your landlord to provide a latrine. • Draw a schedule to clean toilet in turns, in case of compound housing • Keep public toilets clean • Provide hand washing facilities in front of all toilets. • Always defecate into the pit to avoid messing up the toilet • As a general institutional enforcement behaviour, district assemblies enforcing byelaws for the provision of toilets should also consider behaviour related to it
Safe disposal of household solid waste				
Dispose of solid waste generated at home safely	• Few place household refuse in bins with tight fitting lids • Most place refuse in polythene sacs, and uncovered bins • Some heap refuse at a designated corner of the house for days • Bins are not emptied regularly • Household waste is thrown into gutters or open spaces	• High cost of litter bins • Poor awareness about the health danger of decomposing waste • Absence of municipal waste collection service • High cost of refuse collection in some areas	• Desire for a clean compound or environment • To keep children healthy • To avoid flies and bad odour	• Ask husband to buy suitable litter bin • Place litter in appropriate bin and cover tightly • Dispose of litter at designated points daily, or every other day
Safe disposal of other solid waste				
Dispose of litter outside the home safely	• Litter is thrown around indiscriminately • Litter is dumped into gutters • Litter is thrown down from moving vehicles	• Absence of litter bins in public places • Improper education on disposal of litter in vehicles • Weak municipal enforcement of sanitation laws • Inadequate solid waste collection	• The pride of a clean city • Improve public health • Fear of penalty by municipal authorities	• Place all litter in the appropriate bin provided in public places • If travelling in vehicle, leave litter in vehicle

Ideal Behaviour	Current Reported & Observed Behaviours	Barriers to Ideal Behaviours	Facilitators to Motivators Ideal Behaviours	Feasible Behaviour/Practice
		services		
Hand washing with soap at 5 critical times				
Wash hands with soap (HWWS) and air dry at the 5 critical times, i.e. • before eating, • after handling child's faeces, • before preparing food, • before feeding a child, • after defecating.	• Wash hands with water only. • Most often does not wash hands before eating • Rare hand washing before feeding babies, or changing baby diapers • Sometimes wash hands after defecation. • Seldom wash hands at other times. • Rarely wash the hands of their children before meals. • Wash hands of children when hands are dirty, with water only.	• Forgetfulness. • Cost of soap. • Lack of family cooperation required. • Unavailability of soap at hand washing station. • Soap runs out, no stock on hand. • No hand washing facilities at vantage points • High cost of hand washing facilities • Lukewarm attitude towards children's health - "in God's Hands." • Lack of knowledge on all critical times to wash. • Lack of knowledge of all the steps. • Lack of sufficient quantity of clean water.	• Desire to prevent children from infectious diseases • Easy access to water • Peer pressure • Desire to care for and improve wellbeing of family. • Availability of soap. • Desire for children to be active and healthy. • Nice smell of soap.	• Wash the hands of your children under 5 with soap and air dry before every meal. • Wash your hands with soap and air dry every time after using the toilet. • Wash the hands of your children Under 5 with soap and air dry every time after they go to the toilet. • Teach your children how to wash their hands with soap and air dry. • Wash your hands with soap before feeding your children. • Wash your hands with soap before preparing meals, before eating, after changing baby diapers and after defecating. • Air dry your hands or use disposable hand towels after eating in a public place
Food hygiene				
• Use clean water to prepare your food • Cook food well, or wash vegetables well in brine (Salt water)	• Most use clean water to prepare food at home • Chop bar operators use water that is not properly stored to prepare food • Water used for pounding fufu is mostly contaminated • Use of common hand towel to dry hands after hand washing in chop bars	• Large volume containers without covers used for storing water in chop bars • Feeling that cooking will destroy germs • Contaminated water sometimes added to cooked soup to make lighter • Traditional practice of using water in bowls to sprinkle on fufu • Lack of awareness on part of customer & chop bar operators" about the pathways of contamination related to	• Good patronage of clients, leading to increased sales • Cumbersome to close large water storage containers • High cost of fitting pipes • Lack of adequate number of health and sanitary inspections	• Provide disposable paper hand towels in chop bars for clients • Use only disposable hand towels to dry your hands, otherwise air-dry. • Treat water before using to prepare food • Keep water in closed containers fitted with taps at the bottom • Use clean water from tap to sprinkle your fufu in chop bars, or clean water in a bowl at home

Ideal Behaviour	Current Reported & Observed Behaviours	Barriers to Ideal Behaviours	Facilitators to Motivators Ideal Behaviours	Feasible Behaviour/Practice
		food preparation in general.		
Personal hygiene				
Clean yourself with adequate water and soap regularly	• Some people do not have adequate water at home, hence use only small amount of water to bathe. • Some people bath only once in a day, and others two times in a day • Some mothers do not clean their children with water regularly, after soiling with faeces	• Inadequate water supply • Laziness • Lack of soap at home • No time • Do not have a habit of bathing • Do not like bathing cold water, and warming is not feasible	• Protect oneself from skin diseases • Look neat and be admired by others • Keep child healthy and comfortable	• Bath at least twice everyday with clean water • Wash baby with clean water if soiled with faeces

5.3 Behaviour Change Objectives

This section defines some outcome objectives that detail the kind and amount of change that is expected to be achieved for the different specific population segments within a given time frame. Fundamentally, the strategy seeks behaviour change:

- to improve the personal health and welfare of members of the target audience, and
- to benefit society more broadly.

This implies that every aspect of planning should begin at the end—the desired behaviour—
and work backward to achieve the behavioural goal. Thus, beginning with these outcome objectives, stakeholders can quantify the desired behaviour change, and estimate the amount of change that will be necessary in what each target segment thinks, feels, knows, intends, and does to reach the ultimate behavioural objective.
The objectives are SMART, in being:

- Specific
- Measurable
- Achievable
- Relevant
- Time-specific

This provides potential evaluators with standards against which to judge the effects of various intervention activities.

Table 5-7: WASH Behaviour Change Objectives: The overall Objectives is to reduce diarrheal related mortality in children living in urban areas by 50% within 5 years

Specific Objective	Indicators	Years (Y)				
		Y1	Y2	Y3	Y4	Y5
1. Within 3 years, 50% water vendors and tanker truckers that sell water to the urban population disinfect their reservoirs and trucks according to PURC guidelines	In 50% of cases, water obtained from third party suppliers meet Ghana Standards Boards (GSB) and WHO drinking water quality standards					
2. Within 3 years, 100% of water that is carted is done so in containers with lids	• 100% of water carted is done so in closed containers					
3. Increase the proportion of households that practice safe water storage from 65% to 85% by 2013	• Proportion of households that store water in containers with narrow necks, with a tight fitting lid and placed in a location off the floor. • Proportion of households that pour out water directly from spout of storage container, or use long handle scoop to fetch water out of containers increased from 50% to 90%					
4. Within the next 2 years, increase the proportion of urban households who practice household water disinfection from 1% percent to 20%	• Proportion of households to practice either boiling, chlorination or solar disinfection of water used for drinking and cooking					
5. Within the next 5 years, increase the proportion of the urban population that defecate in a household or public latrine from 62% to 70%	• Proportion of people using a public latrine properly increased from 65% to 85[9]%.					
6. Within the next 5 years, increase the proportion of the urban population that use a household latrine from 13% to 30%.	• Proportion of people using a household latrine increased from 13% to 35%					
7. Within 5 years, the proportion of households that use appropriate containers with lid to collect household refuse, and dispose at approved points increased from 60% to 85%	• Proportion of households disposing of domestic waste safely increased from 60% to 85%					
8. Within 5 years, 30% urban dwellers will dispose of solid waste appropriately	• Proportion of solid waste collected to landfill sites increased from 60% to 80%					
9. Increase the proportion of mothers of children up to 5 years who practice hand washing at the 5 critical times from 32% to 80% by 2015	• 100% of mothers with children under 5 years know and practice hand washing at 5 critical times • 75% of out of school children aged 5-18 years know and practice hand washing at 5 critical times • 100% of school children aged 5-18 years know and practice hand washing at 5 critical times					
10. Within 5 years, 70% of urban food vendors store and use water safely to prepare food and wash dishes	• 90% of food vendors use safe water in preparing food and washing dishes					
11.Within 5 years,90% of urban dwellers practice appropriate personal hygiene	• 90% of slum dwellers have adequate water for bathing and cleansing					

[9] This is not limited to only toilets defined as "improved" by the Joint Monitoring Program (JMP), but covers all forms of available toilets in use.

Notes in addition to the above

Stakeholders in the Middle Zone felt that:

1. Pharmacists will not be effective in educating the populace on Hygiene issues
2. The critical times for Hand washing in Ghana should include a sixth one, being, after social gatherings such as funeral celebrations, out-doorings etc.
3. Households who dig their own hand dug wells should be educated to study the location of septic tanks in neighbouring homes before citing their wells.

5.4 Prioritized Behaviours per WASH Component

Feasible behaviours were selected based on situation analysis and on applying the following eight factors[10] proven as effective in influencing a behavioural pattern among intended audiences:

1. Expected outcomes – believes that the benefits of performing the behaviour exceed the disadvantages;
2. Intention – has committed to perform the behaviour;
3. Skills – possesses the skills to perform the behaviour;
4. Self-efficacy – has the conviction that they can effectively perform the behaviour;
5. Emotion – believes that the behaviour is most likely to produce an overall positive effect;
6. Self-standards – believes that performing this behaviour is consistent with her/his self image.
7. Perceived social norms – recognizes greater social pressure/acceptance to perform behaviour than not to perform it; and
8. Barriers – experiences fewer environmental obstacles to performing this behaviour.

These factors are core tenets of the social cognitive theory which is founded on the concept of self-efficacy. A person must believe in his or her capability to perform the behaviour (i.e., the person must possess self-efficacy) and must perceive an incentive to do so (i.e., the person's positive expectations from performing the behaviour must outweigh the negative expectations).

Furthermore, from the perspective of the audience, it is key to select behaviours that have a significant health impact, are easy to perform, have positive effects on the lives of the audience, are affordable, are non-time-consuming, are compatible with and similar to current behaviours, and are observable. The behaviours delineated below and the subsequent steps detailed are intended to integrate each of these factors and these audience perspectives.

In all, the strategy will focus on the promotion of 10 macro-behaviours, (behaviour clusters) encompassing 30 micro-behaviours as shown in Table 5-8.

[10] Fishbein, et. al. 1993 "Eight Common Behavioural Factors." These factors not only represent points of consensus among behaviouralists, but have been empirically shown to account for most of the variations in any given behaviour within any particular population.

Table 5-8: Behaviour Clusters for WASH BCC

Component	Behaviour Cluster (Macro)	Micro Behaviours
1. Safe Drinking Water	Maintaining water safety at source of supply, especially at vending points and tanker trucks	• Keep water vending sites clean all the time • Clean water storage tanks with disinfectant once every six months • Disinfect tanker trucks used to sell drinking water to homes monthly • Disinfect tanker truck after using it to transport raw/ untreated water
	Safe transportation of water to homes	• Use only closed containers (e.g. Jericans) to transport water to home
	Safe water storage and use	• Store Water in closed container fitted with pipe, or container with small spout that is always closed. • Place water storage containers off the floor on a raised platform • Continue to cover your drinking water • Continue to place your water out of reach of your children • Use a long-handled scoop to give out your drinking water • Pour your drinking water directly from the container • Use a drinking water container with a tap
	Household water treatment	• Test your drinking water for contamination • Boil your drinking water. • Solar heat your drinking water. • Treat your water with chlorine tablets • Filter your water through household filters, such as bio-sand or ceramic filters
2. Improved Sanitation	Safe Disposal of Excreta	• Use household latrines for defecation. • Where household latrines are not available, use public latrines for defecation. • Dispose of child faeces safely, e.g. in a toilet, or dig and bury. • Always keep the household latrine clean
	Safe disposal of household solid waste	• Place all household waste in a temporary storage receptacle with tight fitting lid • Empty temporary storage container every day or every 2 days • Channel all grey water into soak-away or drainage system
	Safe disposal of other solid waste	• Drop used materials (paper or plastic sachets/bags etc) in a litter bin • Public transport operators to educate passengers against throwing out garbage from moving vehicles the vehicle
3. Improved Hygiene	Hand washing with soap at 5 critical times	• Wash hands with soap and water after going to the bathroom or contacting faeces, cleaning baby or shaking hands, and before eating, feeding baby or cooking. • Use only disposable paper napkins in chop bars and restaurants
	Food Hygiene	• Boil vegetables well before eating, otherwise wash in brine (concentrated salt solution) or vinegar if they have to be eaten raw • Wash fruits in vinegar or brine (salt solution) and rinse with clean water before eating
	Personal Hygiene	• Bath at least, once every day with clean water and soap • Wash baby with clean water and soap if soiled with faeces

5.5 Analyses of the barriers to WASH Behaviour Change

A detailed evidence based barriers analysis for all the priority behaviours is presented in Table 5-8. The barriers to behaviours, interventions to address the barriers, strategy and monitoring indicators are presented for each of the priority behaviours in a modified log frame format. The first step has been to identify the socio-cultural, infrastructure, socio-economic and environmental barriers associated with the priority behaviours.

5.5.1Socio-Cultural Barriers

Some common socio-cultural barriers pertaining to WASH behaviour change that were identified included:

- Non-partitioning of latrines separately for males and females
- In schools, girls and female staff do not have access to changing rooms or bins for disposal of sanitary towels.
- Males are hardly involved in the cleaning of latrines at home and in some cases, at school
- Most latrines and urinals are neither child friendly, girl friendly or disability friendly
- Cultural beliefs by some people that their excreta mixing with others is a bad omen
- Preference of water from natural sources due to perceived taste differences
- The general feeling that mothers can't be infected/affected by their child's faeces.
- Fear of risk of infection in using public/communal latrines expressed by women in particular

5.5.2 Service and Infrastructure Related Barriers

Talking about service and infrastructure related barriers, some urban and peri-urban communities have serious issues pertaining to:

- Limited space for constructing household latrines in tenement areas
- Difficult tenancy land tenure arrangements
- Poor ground conditions such as a high water table making for limited design choices and technology options
- Public latrines are not well kept so some people avoid them.
- There are only few child and disability friendly latrines available.
- Proper utilization, operation and maintenance of facilities not known and/or followed
- Inadequate school sanitation and water facilities (toilets)
- Irregular flow of water in piped areas
- Bureaucracy in obtaining household pipe connection
- Difficulty in accessing container sites or transfer stations
- Closure of public toilets for days due to non-payment of desludging fees
- Poorly ventilated public latrines promoting stench

5.5.3 Economic Barriers

A number of economic barriers amongst many others for urban communities include:

- Financial constraints in acquiring a toilet facility
- High cost of obtaining a household pipe connection
- Charges for desludging or cleaning out of household toilet facilities is quite high

- Over 40% of households consider the cost of water high with price of water almost tripling when there is water shortage.
- In 2001 the people with household water connections used 35 liters of water per capita, spending less than 5% of their income whereas those depending on other suppliers used 15 liters of water per capita but spent 12% of their income on acquiring the water.
- The cost of 5p-50p for use of public toilets is high resulting in open defecation

5.5.4 Environmental Barriers

- Vast expanse of forest around communities is a barrier to use of improved latrines, and easily promotes open defecation
- High rainfall exceeding 150mm per annum and/or recurrent flooding pose significant barriers to latrine construction and use
- Bushes and other weedy outgrowth in open spaces constitute barriers to safe solid waste disposal, and promotes indiscriminate dumping
- Hard basement rocks increase the cost of latrine construction considerably
- Some soil conditions such as clay or marsh do not favour latrine construction and use

5.5.5 Other Barriers

Other barriers, especially related to household water treatment, grey water disposal and solid waste disposal requires further investigation through FGDs.

5.6. Motivations

Top five (5) motivations for household toilet preference identified during FGDs are:

1. Avoid*in*g morning queues,
2. Privacy,
3. Convenience,
4. Preventing soiling oneself and
5. Because it is cheaper in the long term.

Motivations for drinking clean water

1. Good health
2. Avoiding diseases such as cholera and typhoid
3. Prestige associated with drinking bottled water

Motivations for properly disposing of grey water and solid waste include the following which need further investigation and validation through FGDs:

1. Prevent stench
2. Prevent/avoid stagnant water and breeding of mosquitoes
3. Possibility of grey water contaminating clean drinking water

SECTION 6: STRATEGIC APPROACH

6.1 Introduction

According to a joint publication of the Environmental Health Project (EHP), USAID, UNICEF and the Water and Sanitation Program (WSP) of the World Bank (2004)[xxiv], a comprehensive approach to preventing the spread of WASH related diseases must address three key elements: a) access to the necessary hardware or technologies, b) promoting healthy behaviours, and c) support for long-term sustainability. This will encourage key household behaviours that reduce the incidence of childhood diarrhoea, namely: safe disposal of faeces, washing hands correctly at the right times, safe transportation and storing and using safe water for drinking and cooking. While comprehensive approach to hygiene improvement (that combines hygiene promotion with increased access to hardware) for maximum impact, selective or sequential approaches (e.g., starting with hygiene promotion) can be an effective entry point for improving child health. A detailed description of the three components is presented below.

6.2: Key Interventions

Based on the Behaviour analyses in the previous Section 5 above, a combination of three main intervention areas will be pursued to increase, encourage and sustain a change in sanitation hygiene and health practices. These intervention areas include:

1. Access to hardware (e.g. infrastructure, products, and service level improvements);
2. Approaches to hygiene promotion covering communication—IE and BCC, training, and mobilization—social and community;
3. Enabling environments, encompassing policies and advocacy, institutional development strengthening and creation, and sustained financing schemes.

6.2.1: Intervention Area 1: Access to Hardware (Infrastructure, Products and Service Improvements)

This requires improvement in sustainable infrastructure to enable desired practices to occur e.g. instance, increasing direct household connections, building more communal stand pipes, construction of household latrines, etc. It also requires making available wide range of products, materials, items or hardware necessary to effectively practice the health behaviour (Table 6.9). ***Service Level Improvements*** recommend possible change to present services that will facilitate the adoption and sustained practice of health behaviours. This will include opening additional water filtration plants, creating new distribution mechanisms for soap and water purification tablets, etc.

6.2.2: Intervention Area 2: Communication, Capacity Building and Social Mobilization (Approaches to hygiene promotion)

This entails a full range of ***Communication Activities*** that detail specific materials that can be developed to encourage the behaviour change and to aid activities where these materials can be used. An effective implementation requires a communication strategy with focus on various target groups as detailed in Table 8.11. A capacity building program based on a systematic delineation of possible training audiences, training needs, and training content guided by a developed training manual will be implemented. The capacity building needs that exist at different levels for implementing the strategy relate to:

- BCC planning and management
- Campaign design and implementation
- Design and development of appropriate material
- Training methodologies for development of health communication skills

- Evaluation, supervision and facilitation
- Documentation and Reporting
- Participatory methodologies
- Communication Research
- Negotiation & Advocacy

A Social ***Mobilization*** program will be outlined to implement additional activities that can take place within the urban setting to encourage the needed behaviour change and help to sustain its practice after organization of National and Global WASH related events, . Training and mobilization interventions should be used in conjunction with communication activities and tools.

6.1.3: Intervention Area 3: Enabling Environment (Policies, Advocacy, Institutional Development and Financing)

Relevant policies**,** including the Urban Policy, the National Water Policy, the Revised National Sanitation Policy, and others will be reviewed to ensure that they explicitly incorporate suggestions on ways Ghana government can create a more favourable environment for people to practise desired behaviours (e.g. inclusion of hygiene messages into ongoing programming, hygiene line item in national, regional, and district budgets, etc.). Capacity of relevant institutions will be developed to provide leadership and guidance on systems and organizational structures needed to support WASH BCC effort. This may even involve the creation of new local institutions such as Hygiene Management Committees (HMCs). Adequate sustainable ***Financing*** will need to be provided to relevant institutions, agencies, programs and projects to enable them play their respective roles effectively.

While any one of these intervention areas can encourage healthy practices, when used together, they can effectively increase adoption and sustainable probability of desired practices.

6.2 Product Availability

As many of the possible WASH practices to promote good health involve some sort of product, it is important to detail what is presently known about product availability. There has been no comprehensive survey on the full range of products available, but some of the most commonly available and used products have been listed in Table 6.9 below. A more comprehensive survey can be conducted later to update this list. Table 6-9 lists items that are most relevant at the present stage of the BCC program.

Table 6-1: WASH Related Product Availability

Behaviour Cluster	Products (currently commonly known and available)
Maintaining water safety at source of supply, especially at vending points and tanker trucks	Hard brush with long handle, Wellington Boots, Suitable disinfectant, e.g. Aqua tabs, Chlorine powder etc, Broom
Safe transportation of water to homes	Jericans, commonly called Kuffuor Gallons, liter plastic buckets with lids and plastic/aluminium bowls
Safe water storage and use	Pig feet container, (various sizes), Plastic Storage tanks, Ceramic pots, Plastic bucket with lid (20-30 liters)
Household water treatment	Chemical Disinfection, Chlorine tablets (for point of use disinfection), Other chemical disinfectants, Solar Disinfection, Empty water bottles, Household water filtration devices, Bio-sand filters, Vestergaard Frandsen Life Straw
Safe disposal of excreta (including	Vent pipes, cement, Chamber pots (for children), Pre-fabricated slabs (sold in

Behaviour Cluster	Products (currently commonly known and available)
on-site sanitation)	sani-marts), Household latrines (improved/unimproved)
Safe disposal of household solid waste	Litter bins with lids, carts. waste collecting vehicles/trucks (pay-loader, skip loader, tricycle), waste dumps
Safe disposal of other solid waste	Litter bins with lids, street litter bins
Hand washing with soap at 5 critical times	Approved toilet soaps by the Ghana Standard Board (GSB) on the market such as: Key Soap, Sunlight (tablet), Sunlight (liquid), Alata Samina, Dettol (5 types), Lux, Palmolive, Guardian soap, Geisha soap, Veronica buckets, Disposable hand towels (alternatively, a general hand towel kept clean, washed and disinfected at least twice a day), Metal stand (alternatively is any appropriate durable stand)
Food hygiene	Same as products for hand washing and water storage
Personal hygiene	Same as products for hand washing, plus buckets

6.3 Behaviour Change Strategy Plan (BCSP)[11]

Table 6-2: Example of a Comprehensive BCSP indicating Intervention for Urban Dwellers

Intervention Area 1: Access to Hardware	Facilities	Water filtration devices, drainage systems, latrine construction, water supply
	Products	Hand washing basins, plastic bottles, sachets, long-handled scoops, narrow necked bottles, alternative filtration,
Intervention Area 2: Approaches to Hygiene Promotion	Communication	Radio spots for water purification, posters, dramas/skits, songs, clean water demonstrations, dirty hand demonstrations, fliers, flipcharts, cassette packages, group discussions, theatre, songs, testimonials - experiences of "healthy" families, hygiene kit, educational games, drama/skit scripts, banners, soap, memory aids/danglers, Point-of-purchase advertising.
	Training	Create cadre of hygiene promoters. Train media on hygiene issues. train health staff, teachers, promoters: - critical hand washing times - basic water purification - how to - conduct a community group - meeting - negotiation skills - how to effectively communicate with children
	Social Mobilization	Support of associations, hygiene groups, etc., champion community contests, clean household promotion contest for "clean household," hygiene management committees, school fairs, water filtration fairs, community micro-finance groups to sell water, soap &/or new point of use (pou) products, school science, craft, & water bottle projects, community fairs,
	Social Marketing	Soap, tablets, sachets, create sanitary marts, operate production centers, create "basket brigade," create cadre of outreach sellers.
Intervention Area 3: Enabling Environment	Institutional Development & Capacity Building	Threshold program, skills in: filter maintenance governance, conflict resolution, water quality management, etc.
	Policy & Advocacy	RCC & local government participation in hygiene programs & decision making. review urban policy, sanitation policy, water policy, regulation of tankers & vendors
	Financing	Adequate budget at national, regional and municipal/metro level, resourcing NGOs, micro credit for household latrine construction
	Private Sector Participation	PPP for distribution of WASH related products and systems

[11] This BCSP section of the WASH BCC is adapted from Pakistan Water and Sanitation Promotion Project (PWSPP)

SECTION 7: THE MESSAGE BRIEF

This section is intended to provide a foundation for the formulation of the themes or ideas of different messages aimed at the identified target groups in such way a as to provoke the desired effect. The messages should flow logically from the stated behaviour change objectives and the desired changes at the level of each target group, taking fully into account its knowledge, attitudes and practices with regard Water, Sanitation and Hygiene. The definitive messages should be developed later, at the stage of producing the communication material for implementation. As a general guideline, the specific messages should contain some of the following elements:

- The **what** and the **why:** What is the change expected and what is the interest of the target group to adopt this change;
- The **where**, the **when** and the **how:** Where to go, at what time and what has to be done for the behaviour to be adopted?
- The **guarantee** and **support:** The elements which give the message its credibility.

Example: Diarrhoea leads to dehydration of your child, and can eventually kill him/her. This can be avoided by making sure that your entire family practice hand washing with soap at all the 5 critical times [specify these times] consistently.

7.1. The Ghanaian Communication Context

- The electronic media (television, radio and internet) are by far the most popular (70%) channels of conveying hygiene information and education in communities.
- About 71% of households listen to health and hygiene education programmes on radio and TV channels.
- Face-to-face communication is also a reliable and primary source of information in the country.
- Gossips (Grapevine) have also been very important part in the spread of information among friends and peers in the communities
- The value attached to information received by word of mouth is dependent on who communicates it. There is a need to further explore who the most respected people are and how they can be used as effective channels.
- There are various types of extension officers (Community Health Nurses, Environmental Health Assistants etc) in urban areas but no study has examined how effective they are in spreading information and promoting long-term behaviour change
- Traditional/indigenous media can be integrated with modern media. The health sector and Sanitation sub sector through use of songs/folk songs, poetry, folk tales, drama etc spread educational information. Social events have the potential for sharing information among large numbers of people.
- Community-based communication strategies should be encouraged for indigenous-style settlements in urban areas, while traditional /indigenous media are integrated with conventional mass media. It is essential to involve communities in developing educational and health programs that use traditional/indigenous channels[12] to reach their target audiences because communities can best assess the appropriateness of messages as well as the media through which such messages can be delivered to the targeted audience. Communities are also able to assist in couching and packaging the appropriate messages to particular audiences.

[12] Examples of traditional channels are story-telling, traditional linguists/gong gong, folklore etc

- Apart from school, pupils learn about hygiene practices through media especially television and in the house by their parents and vice-versa.

7.2 Key Messages

To translate the broader BCC strategy into specific actions, this Section outlines messages, media and communicators mix as understood currently. This will now form a base on which further understanding should evolve. There is the need to ensure a shared and consistent understanding of health priorities, needs, change indicators and critical health messages across different levels within the WASH sector. Approaches suggested include defining behaviour change objectives and indicators for each of the different audience groups. It is suggested that a reference document outlining critical WASH related behaviours and behaviour change indicators should be compiled and disseminated at all levels. The messages, media and communicators for the 10 behaviours are outlined below, namely:

- Maintaining water safety at source of supply, especially at vending points and tanker trucks
- Safe transportation of water to homes
- Transport water in covered containers, and store water in clean covered containers for use
- Household water treatment
- Safe Disposal of Excreta (-the use of "shit" instead of excreta is to be encouraged in the WASH sector)
- Safe disposal of household solid waste
- Safe disposal of other solid waste
- Hand washing with soap at 5 critical times
- Food Hygiene
- Personal hygiene
- Fit hand pumps on wells instead of using buckets
- Boil water, or filter, or treat with safe chemical before drinking. Safe chemicals need to be named specifically without advertising any brands
- Use safe trucks for carting solid and liquid waste in cities to avoid contamination of the environment through spilling
- Discourage unapproved water connections-sensitise community members to act as watchdogs against illegal connections
- Land lords: provide household toilets for your tenants
- City authorities: provide waste collection bins

Box 7-1: The Message Tone

The tone of the message requires a choice being made about the orientation, or the nature of the 'call', of each message so that it will have an optimum influence on the target group. Generally speaking, this choice is based upon the known characteristics of the target group and lessons learned elsewhere. Depending on these factors, a choice can be made from the following tones (or a combination of them):

- Emotional message (a call to such emotions as love, fear, anxiety, security) as opposed to a rational message (a call to logical arguments, or proof);
- A positive message (which shows that there is a favourable solution to the known risk) as opposed to a negative message (which presents the dark and threatening situation which would arise if the target group does not follow the desired course of action);
- A call to the group (group pressure) as opposed to a customised call (personalized arguments);
- Humorous message (humour makes a message pleasant, whilst still allowing a serious message to be transmitted) as opposed to a serious message (rigorous, plain talking);
- A single-minded message as opposed to a message with several points of view (in the form of a debate, or clashing ideas);
- A message with a definitive conclusion (i.e. The desired conclusion) as opposed to a message with an open-ended conclusion (allowing the target group to reach its own conclusion and make its own opinion);
- A repetitive message (which repeats the message several times) as opposed to a unique message (sent only once).

The source of the message should also be assigned to make it credible in the eyes of the target group: Expert, political authority, moral or religious authority, a peer, development worker, etc. This does require knowing the criteria of credibility in the area where the message will be passed.

Source: Adapted from Communication for Development Manual, 2002; Methodological Guide for Designing and Implementing a Multimedia Communication Strategy

SECTION 8: COMMUNICATION CHANNELS, TOOLS AND STRATEGY

For each target group, the channel(s) through which messages targeting them can be reached needs to be determined, along with the medium or tools to be used. The medium or tool is the instrument on which the message is affixed for its delivery[xxv], such as audio tape or cassette, film, video, poster, brochure, magazine, stamps, calendar, exhibition, sign, banner, so-called gadgets (bags, key rings, hats, tee-shirts, cloth), a picture box, flip-chart, wall-cloth, model, slide, painting, games, diagrams, theatre, etc. For the purpose of this BCC strategy, four main categories of channels have been identified for delivering each message from its source to its final target group.

These are:

- **Institutional channel:** This comprises the recognized public and private bodies such as the education systems, Government Ministries with outreach workers (eg. MLGRD, Ghana Health Service, MoE/GES etc), networks of development workers, NGOs, etc.
- **Media channel:** Media bodies and ICTs such as television, radio, printed press, posters and Internet.
- **Socio-traditional and socio-cultural channels:** Opinion leaders (customary chiefs, religious leaders, notables, cadres, intellectuals, etc.) and other informal networks (neighbours, various groupings), the various forms and opportunities of traditional popular and inter-personal communication (collective work in the fields, vigils and wakes, talks, baptisms, markets, marriages, funerals, journeys, etc.)
- **Commercial channel:** The marketing circuits for common WASH related products such as supermarkets, shops, bookshops, kiosks, pharmacies, etc.

Table 8-1: Advantages and Disadvantages of Different Channels

Channel	Advantages	Disadvantages
Institutional	• Has a network of field staff • Well-organised, structured • Formal and performing in view of its hierarchical nature	• Risk of political connotation and of rejection • Possible cumbersome bureaucracy to deal with • Its major players change a lot
Media	• Reaches a large part of the population • Public finds its attractive • Reaches even the most isolates areas • Has a variety of media at its disposal	• Poorly targeted • Relatively high costs in equipment and in production • Requires specialists
Commercial	• Aggressive (using commercial techniques) • Is well-organised and in the field	• Requires purchasing power • Is driven by viability
Socio-traditional/ Socio-cultural	• Matches the values and logic systems of the community, of which it is a part • Its media are low-cost	• Hard to recognise and to control • Can be manipulated by its leaders • Can appear to be outmoded to some

Source: Communication for Development Manual, 2002; Methodological Guide for Designing and Implementing a Multimedia Communication Strategy

The specific channels and tools for each message should be selected at the time of implementation based on the target groups concerned. In Ghana, most of the channels are already well developed, and only requires a little effort to build on. A number of organisations have also developed some for WASH BCC programs that will be suited for the implementation of this strategy and could be adapted. E.g., The CWSA, UNICEF, Johns Hopkins University, GES/SHEP, MLGRD, GHS and a host of local NGOS have a variety of tools for WASH BCC at their disposal. The development of new tools should strictly be considered only when it is established that these tools do not already exist for adaptation. Table 8-11 below presents a summary of communication strategies for the various target groups to inform the final selection of appropriate channels and tools when planning for implementation.

Table 8-2: Communication Strategy for Target Groups

Target Group	Brief Description/Justification	Communication Strategy
1. Children	They are a vulnerable group and have been shown to be effective change agents as peers and at the household level.	Interpersonal communication through Guardians, parents and caregivers
2. Children of School going age (in and out of school)	• Children play around a lot out of the house. • They are ready to learn new things	• Health Clubs • Posters, flyers and drama • Churches and mosques • Schools
3. Caregivers • Parents (literates and non-literates) • Guardians • Health providers • House helps	• They feed, bath and keep children clean. • They are a major source of influence on children's behaviours as they spend a lot of time with them. • They are a potential vector for transmission of disease	• FGDs, especially for women /mothers groups • ANC check ups • Community associations • Posters and newspapers • Community durbars • Radio – health talks targeting these groups
4. Food value Chain • Food vendors • Food producers (farmers) • Food transporters • Market women • Consumers	These are very common mediums through which food can be contaminated by faecal matter	• Radio and TV jingles • Folk songs • Formation of associations (e.g. vegetable growers) • Training in personal and food Hygiene as well as the PHAST methodology • Training in proper and hygienic handling of food materials • Campaigns and advocacy for consumers to demand good hygienic practices from food vendors
5. MMDAs/TAs • Environmental health officers/assistants	• These hold authorities to make and enforce local laws in communities	• BCC manual • Public hearings • Posters • Leaflets, brochures etc
6. Transport service providers (transport unions and their drivers)	• Control Waste generation • Could be agents of change	• Stickers on and in cars • Waste collection • Education • Hand washing
7. Tanker service providers	They are delivery agents and provide water services	• Health talks at tanker stations • Involve tanker operators in community education • Promote the use of Aqua tabs for treatment of water before delivery • Monitoring control of contamination
8. Restaurants/hotels	They provide food to the public	Radio, posters, health talks
9. Market women	• They interact with many people • They sell hardware related to WASH	Posters, radio and TV

SECTION 9: MANAGEMENT PLAN

This section outlines the key elements necessary for the effective implementation of the strategy, and for managing and evaluating it. Among the most important of these are the Institutional framework, Production plans, Capacity Building, Work Organisation and Budget.

9.1 Institutional Framework

The institutional framework defines the institutions, roles and relationships that are necessary to ensure the effective implementation of the strategy. This involves:

- The selection of the institution which can provide the leadership and coordination required during the implementation of activities;
- Determining the operational mechanisms of the institutional framework. The institutional framework should be formalized in an official document (Policy, LI, project document etc) which will allow the stakeholders to collaborate and coordinate their activities on a clear foundation

9.1.1 Roles and Responsibilities of Key Stakeholders

An explanation on Key WASH BCC Institutions and Institutional Roles is detailed in Table 9-1.

Table 9-1: Key WASH BCC Institutions and Institutional Roles

Institution	Roles and Responsibilities	Competencies
Environmental Health Directorate of the MLGRD	As lead institution for the implementation of the BCC strategy: • Establish a BCC Secretariat, with staff and resources. • Constitute a BCC Implementation Task Force (BITF) comprising key stakeholders and representation of key institutions. • Identify and provide resources and expertise on operational research, and monitoring of change indicators. • Facilitate the development and execution of a mass media plan based on the needs flagged by the BCC Implementation Task Force (BITF). • Procure relevant and quality material such as films, print material to develop a reference and resource section and appropriately disseminate it. • Establish and maintain an interactive website for health communication materials, strategies and methodologies. • Publish a quarterly newsletter for internal and external communication. • Ensure integrated planning approaches and intersectoral coordination and convergence at the State level. • Coordinate and collaborate with various support agencies, media and donors. • Develop suitable capacity building modules for Training of Trainers (ToT). • Build and update a database of training material on communication. • Provide mentoring and support to the regional health communication hubs.	• All aspects of BCC including planning and management, training of trainers, message & material development, relevant research • Working with designers, creative artists, preparing Terms of reference (TORs) • Building linkages, advocacy & mentoring
Water Directorate of the MWRWH	As lead institution in the principal water sector and for the implementation of WASH BCC strategy: • Formulation of water policy, planning, coordination and harmonization, for the water supply and sanitation. • Monitoring and evaluation. • Inter-sector and sub-sector coordination. • Donor and NGO coordination at national level. • Sourcing of funds and coordination of budgets.	• All aspects of BCC including planning and management, training of trainers, message and material development, relevant research • Working with

Institution	Roles and Responsibilities	Competencies
	• Coordination of sector investment plans. • Advocacy for the sector.	designers, creative artists, preparing Terms of reference (TORs) • Building linkages, advocacy & mentoring
Technical Support Partners: UNICEF, SHEP, GHS, CHF International. Etc.	• Identify health communication priorities as well as help with audience profiling leading onto the development of media mix. • Develop behaviour change objectives and indicators and critical messages for different population-groups and health risks (covered under national programmes and others). • Conduct research and impact evaluations. • Provide hand-holding support to ear-marked districts.	• BCC, community mobilization • Technical proficiency in specific areas like hygiene, sanitation, water, gender, qualitative research, etc.
Development Partners, NGOs and allied institutions	• Include the module on health in their training programmes • Contribute to making health departments programmes more holistic. • Programme implementation for defined audience segments, e.g. schools, slums etc	• BCC and technical proficiency in specific areas
Regional Environmental Health Directorates	• Carry out formative research for designing city specific BCC initiatives. • Prepare and maintain audience profiles based on the results of research and evaluations. • Define the behaviour change objectives and indicators based on research and in consultation with the Metro/Municipal and state level institutions. • Undertake pre-testing of message and materials in their regions and among the various population groups. • Make an inventory of hygiene promotion strategies/ activities within the city • Maintain necessary databases. • Organise and implement the capacity building, research and evaluation functions. • Design pre and post evaluations. • Training of trainers for health communication work and training of health communicators.	• Plan, conduct and use formative communication & social research (including baseline and end line evaluations) • Message design, pre-test & material development • Training & mentoring • Monitoring & evaluation • Reporting & documentation
Metropolitan/Municipal Assemblies	• Design and develop Metro/Municipal WASH IEC/BCC Plan based on programme indicators through a task force constituted for this purpose. • Finalise the plan and submit to Regional Environmental Health Directorate for its approval. • Implement the above plan with leadership provided by the BCC task force. • Design context specific messages and material. • Mobilise civil society resources available within the Metro/Municipal areas. • Contribute regularly to the BCC newsletter.	• Programme planning & implementation • Conduct formative research • Selecting media & provider mix • Programming & designing material in locally suitable formats • Organizing events

9.1.2 Stakeholders Implementation Arrangements

Feedback from all stakeholders suggest that the Environmental Health and Sanitation Directorate (EHSD) of the Ministry of Local Government and Rural Development (MLGRD) is the most appropriate to oversee the implementation of this strategy. However, the Water Directorate will continue to be a key collaborator in this regard due to the large dimension of water that this strategy embraces. It is therefore suggested that the urban WASH BCC strategy

be anchored at the EHSD of the MLGRD. A dedicated secretariat, with qualified and well equipped staff should be provided for the purpose of implementing this strategy. A BCC Implementation Task Force (BITF) or Steering Group should be formed to provide strategic direction to the secretariat and other direct implementers. NGOs and Development Partners (DPs) can draw portions of the strategy into their own programming. BITF should meet quarterly to review progress of implementation and offer support to the secretariat at any given time.

School Health and Education Programs (SHEP) will lead the school based interventions, as it already does a great deal of that now. Technical Resource Groups (TRG), such as UNICEF and the Ghana Health Service (GHS) will provide technical guidance to the secretariat, Municipal/Metro Assemblies, NGOs and SHEP to plan and implement tailored plans within their geographical areas of work. One proposal for the partners to consider is to implement the strategy intensively for one year in two or three cities, and then to use that experience to modify the strategy, if needed. The EHSD, supported by the Water Directorate will coordinate Monitoring and Evaluation (M&E) activities at the national level and will assist regions on request.

9.2 Materials Production Plan (for communication materials)

The production of materials or media for communication is a relatively complex set of activities often involving significant resources and several partners such as content specialists (gender, agriculture, health, environment, etc.), communication experts, technical advisory services, members of target groups, production technicians and artists, media professionals, traditional communicators, researchers, centres for the production and reproduction of materials, future (end-) users, etc. This requires the establishment of mechanisms for ensuring the participation of all stakeholders, and in light of this, it is often common to have workshops for the design of materials and training of various stakeholders where a production plan is drawn up. The latter will need to list the various tasks associated in the development of materials, the production methodology, the time-frame for each task, and the resources needed (human, technical and financial) for completing work on each medium, as well as presenting the allocation of responsibilities.

9.3 Plan for capacity building

The successful implementation of this strategy will depend on adequate and quality human resources at all levels of implementation. Thus, there will be the need to develop capacity development training for some stakeholders, to provide them with the knowledge, attitudes and skills required for the effective fulfilment of their roles. Training should cover managers at the central and intermediary levels, field staff, beneficiaries, media professionals, traditional communicators or artists and designers. A more comprehensive training plan should be developed, describing the training needs, intended audiences, general goals and objectives, major axes of the content, responsible people, time-span and other relevant aspects.

9.4 Budgeting

In order to assess the costs of the strategy, it is necessary to review and list activities and the resources required for their implementation, and evaluate all categories of expenditure:

- Research activities, monitoring and evaluation activities (salaries/fees, travel expenses, supplies, processing and analysis of data, publication of reports, feedback workshops on results, etc.);
- Training (fees, training material, organisational expenses, provision for participants' costs, transport, etc.);
- Production and dissemination of material (design workshop, fees/salaries of technical staff, copyright, authors' rights, artists' fees, travel, fungible costs, reproduction costs, distribution and dissemination costs, etc.);
- Communication activities in the field (equipment, travel, salaries, field expenses, costs of special events such as press conferences, open days, etc.)

As much as possible, the budget should be allocated on an annual basis.

Determining the resource requirements for the implementation of the strategy on a continuous basis is one of the main functions of the Environmental Health and Sanitation Directorate (EHSD). All required resources should be adequately budgeted for and funding sourced from government, development partners, NGOs and the private sector.

9.5 Action Plan Components

Main elements of immediate work plan are detailed in Table 9-2 below.

9.2 Action Plan

Action	When												Responsibility
	Year 1				Year 2				Year 3				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1. Formation of Urban WASH BCC Implementation Task Force	x												EHSD/MWRWH
2. Creation of BCC Secretariat at the MLGRD		x	x										EHSD
3. Annual BCC plan: Especially for material development and capacity building, the media –message mix for national level dissemination	x				x				x				EHSD
4. Develop Municipal/Metro BCC plan integrated with development plans	x				x				x				Metro/Municipal Assemblies (MMA)/Regional Environmental Health Directorates (REHD)
5. Resource Mobilization	x	x	x	x	x	x	x	x	x	x	x	x	EHSD/MWRWH
6. Recruitment of professional staff in	x	x	x										EHSD

Action	When												Responsibility
	Year 1				Year 2				Year 3				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
the BCC Secretariat													
7. Revised job profiles for Existing Extension personnel	x	x	x	x									EHSD
8. Capacity building			x	x	x	x			x		x		EHSD/MWRWH
9. Full implementation of BCC plan				x	x	x	x	x	x	x	x	x	EHSD/MWRWH
10. Monitoring and evaluation	x	x	x	x	x	x	x	x	x	x	x	x	EHSD/MWRWH

SECTION 10: MONITORING AND EVALUATION PLAN

10.1 Scope

The BCC strategy recommends implementation as well as M&E as one continuous process in order to supply data needed to make good decisions along the way. Monitoring and evaluation allow us to document the processes and assess quality of work towards positive outcomes. The key indicators as well as the major activities for monitoring and evaluation are defined in Table 5-7 in the Behaviour Change Objectives Section.

10.2 Indicators

Two types of indicators are to be defined and collected - Process Indicators and Outcome Indicators. *Outcome indicators* will assess the change in behaviour whereas process indicators will inform us as to whether the activities through which this outcome is to be achieved have been undertaken with sufficient coverage and quality. Even as *Process indicators* capture an important performance aspect related to the communication efforts, some indicators of intermediate behaviour change will also be needed while undertaking BCC. They will essentially relate to the various steps in behaviour change for instance knowledge, approval, intention, trial and practice, not necessarily in that order. This will also help to monitor the relationship and movement between information/knowledge, skills, motivation, enabling environment and behaviour change. The choice of indicators for a few programme objectives has been detailed in the preceding Section as an illustration of how indicators can be designed.

10.3 Monitoring and Feedback

Monitoring needs to have a strong element of participation built into it. Thus planned periodic feedback sessions should be organized with field level input. The correct choice and use of indicators will enhance the quality of monitoring.

10.4 Evaluation

Evaluation can be of outputs and of outcomes or of the impact. The actual impact of BCC interventions in terms of health outcomes is, however, difficult to assess because the impact on morbidity and mortality depends on many more elements beyond BCC activities and cannot always be directly attributed to one intervention. Additionally, the results of health interventions can take time to happen and are thus, not easily measurable in a limited time period.Impact evaluation requires preliminary information collected at the beginning of the interventions (child health, hygiene, infant and child mortality and morbidity etc.), a public health management information system, as well as an evaluation design that allows establishing associations among environmental factors (physical, psycho-social-cultural-economical) and factors related to health sector interventions contributing to changes in the health status of the population, including BCC interventions. Necessarily there should be both an internal evaluation by the Programme Management supplemented by an end of the programme external evaluation after three years. Help from professional consultants may be required for designing the evaluation and for the analysis of data.

Table 10.1 M&E Plan

Behaviour Change Objective (for the urban sub-sector)	Indicators	M&E Methods	Place/ Period	Responsible	Cost/ Resources
1. Within 3 years, 50% water vendors and tanker truckers that sell water to the urban population disinfect their reservoirs and trucks according to PURC guidelines	In 50% of cases, water obtained from third party suppliers meet Ghana Standards Boards (GSB) and WHO drinking water quality standards	Water Quality Tests	GSB Accredited laboratories, quarterly	GSB/EHSD	Transport, Laboratory services
2. Within 3 years, 100% of water that is carted is done so in containers with lids	• 100% of water carted is done so in closed containers	Observation	Delivery points, transport routes, quarterly	PURC/EHSD	Transport, Personnel
3. Increase the proportion of households that practice safe water storage from 65% to 85% by 2013	• Proportion of households that store water in containers with narrow necks, with a tight fitting lid and placed in a location off the floor. • Proportion of households that pour out water directly from spout of storage container, or use long handle scoop to fetch water out of containers increased from 50% to 90%	Inspection, Observation, Survey	Visit to households, quarterly	EHSD/Water Directorate, GSS, WSMP	Transport, Personnel, Consultants
4. Within the next 2 years, increase the proportion of urban households who practice household water disinfection from 1% percent to 20%	• Proportion of households to practice either boiling, chlorination or solar disinfection of water used for drinking and cooking	Inspection, Observation, Survey	Visit to households, quarterly	EHSD/Water Directorate, GSS, WSMP	Transport, Personnel, Consultants
5. Within the next 5 years, increase the proportion of the urban population that defecate in a household or public latrine from 62% to 70%	• Proportion of people using a public latrine properly increased from 65% to 85[13]%.	Inspection, Observation, Survey	Visit to households, quarterly	EHSD/Water Directorate, GSS, WSMP, UNICEF	Transport, Personnel, Consultants
6. Within the next 5 years, increase the proportion of the urban population that use a household latrine from 13% to 30%.	• Proportion of people using a household latrine increased from 13% to 35%	Inspection, Observation, Survey	Visit to households, quarterly	EHSD/Water Directorate, GSS, WSMP, UNICEF	Transport, Personnel, Consultants
7. Within 5 years, the proportion of households that use appropriate containers with lid to collect household refuse, and dispose at approved points increased from 60% to 85%	• Proportion of households disposing of domestic waste safely increased from 60% to 85%	Inspection, Observation, Survey	Visit to households, quarterly	EHSD/Water Directorate, MMDAs	Transport, Personnel, Consultants
8. Within 5 years, 30% urban dwellers will dispose of solid waste appropriately	• Proportion of solid waste collected to landfill sites increased from 60% to 80%	Inspection, Observation, Survey	Visit to households, quarterly	EHSD/Water Directorate, MMDAs	Transport, Personnel, Consultants
9. Increase the proportion of mothers of children up to 5 years who practice hand washing at the 5 critical times from 32% to 80% by 2015	• 100% of mothers with children under 5 years practice hand washing at 5 critical times • 75% of out of school children aged 5-18 years practice hand washing at 5 critical times • 100% of school children aged 5-18 years practice hand washing at 5 critical times	Inspection, Observation, Survey	Quarterly Visit to households, Annual survey	EHSD/Water Directorate, UNICEF/WHO, GSS	Transport, Personnel, Consultants,
10. Within 5 years, 70% of food vendors store and use water safely to prepare food and wash dishes	• 90% of food vendors use safe water in preparing food and washing dishes	Inspection, Observation, Survey	Visit to households, quarterly	EHSD/Water Directorate, MMDAs	Transport, Personnel, Consultants
11. Within 5 years,90% of urban dwellers practice appropriate personal hygiene	• 90% of slum dwellers have adequate water for bathing and cleansing	Inspection, Observation, Survey	Visit to households, quarterly	EHSD/Water Directorate, MMDAs	Transport, Personnel, Consultants

[13] This is not limited to only toilets defined as "improved" by the Joint Monitoring Program (JMP), but covers all forms of available toilets in use.

SECTION11: OBSERVATIONS, RECOMMENDATIONS AND CONCLUSION

11.1 Observations

The WASH sector in Ghana is in a state of considerable change defined by an ongoing process towards a Sector Wide Approach (SWAp). From the foremost observation, Ghana has, over the past two decades, developed a functional institutional framework for WASH delivery through a set of policies, legal and regulatory mechanisms and organizations with well-defined mandates, yet, there are some grey areas. With respect to the urban poor and the urban sub-sector it is a challenge to clearly assign roles and responsibilities for WASH actors to ensure service delivery. There is little clarity in responsibility and accountability among any of the main actors to slum communities. According to the National Water Policy (NWP), improving access to good sanitation; improving WASH services to poor urban communities; and increasing the availability of financing for the sector are only some of the challenges facing the sector thus service provision remains a big challenge. Another challenge is the fact that roles, responsibilities and activities of key actors keep changing rapidly, and hence it is sometimes difficult to track performances and progress.

11.2 Recommendations

1. The WASH BCC Strategy for the urban sub-sector should be updated every two years as this is a living document.
2. A detailed National WASH BCC Monitoring and Evaluation plan, with its various manuals should be outsourced and drawn for the urban sub sector to help track change of behaviours at the different levels as well as inform policy makers on actions to be taken
3. Some funds should be sourced to pilot this strategy in an urban setting over a period of 18 months to field test and provide an opportunity to fine tune the strategy
4. A National WASH Behaviour Change Campaign and Communication Strategy, which combines the rural and urban settings in a comprehensive manner with its various manuals should then be drawn and launched after the pilot phase
5. A National WASH BCC Handbook or Manual should be drawn out of this strategy document
6. A National Training of Trainers Manual on WASH BCC for urban sub sector, with its various sections should also be developed
7. A WASH BCC Communication Expert should be contracted to work on WASH Strategic Communication
8. The custodial institution of this WASH BCC Strategy for the urban sub sector should be the Environmental Health and Sanitation Directorate of the MLGRD with support from the Water Directorate, the Ghana Health Service (GHS) and the Ghana Education Service (GES).

11.3 Conclusion

Despite the many challenges of WASH facing the urban sector, some positive conclusions can also be drawn about the WASH sector in Ghana. The first is that, when compared with much of the rest of the West African sub region and the continent, the sector itself and its key organizations are well developed and solid. Furthermore, the concept of WASH BCC is

understood by many actors in the sector. CWSA has tremendous experience and expertise that can be tapped to the benefit of this strategy.

Behaviour change communication in the urban sub sector is a grey area; hence an institutional home for this BCC strategy has to be properly established. This will ensure that the various activities critical for change of behaviour at the individual and community levels can be carried out so that the full benefits of WASH interventions can be realised.

This strategy has examined the key actors in the WASH behaviour change communication efforts of the Urban WASH sub sector. The roles of these actors towards beneficiaries of WASH services and their roles to each other have also been looked at and spelled out in this strategy. However it has also been recommended that the Environmental Health and Sanitation Directorate of the MLGRD be the custodial institution for this strategy with support from the other key actors such as the Water Directorate, the Ghana Health Service and the Ghana Education Service. It is hoped that behaviour change communication will make its way into the formal planning process of WASH interventions to ensure full integration of BCC with the WASH sector in particular and other relevant sectors such as health and education in general. This will not only ensure sustainable implementation of the strategy, but also the efficient use of scarce resources in its implementation in a holistic and well integrated manner to achieve the required and desired results.

Annex 1: Prioritized Target Audience Segmentation Middle Zone (Ashanti and Brong Ahafo Region)

Audience	Rating					Will focusing on this group achieve overall goal	Overall assessment as possible primary target segment
	Size of audience (% of pop.)	Importance to public health	Likelihood audience will respond to message	Total score	Priority		
1. People who use shared HH latrines	5	5	4	14	High	Yes	Good segment
2. Mothers of children under 5	3	5	5	13	High	Yes	Good segment
3. Public toilet attendants	2	5	5	12	High	Yes	Good segment
4. School children aged 5-17	3	5	5	13	High	Yes	Good segment
5. Tenants of compound houses	5	5	3	13	High	Yes	Good segment
6. People who use public toilets	4	5	3	12	High	Yes	Good segment
7. Fathers of children under 5	5	5	3	13	High	Yes	Good segment
8. People who use improved HH latrines	2	5	4	11	High	Yes	Good segment
9. People who store water in overhead tanks	2	3	5	10	Medium	No	Possible segment
10. Slum dwellers	3	4	3	10	Medium	Yes	Possible segment
11. Out-of-school children aged 5-17	4	3	3	10	Medium	No	Possible segment
12. Food vendors	2	5	3	10	Medium	No	Possible segment
13. People living in middle-class neighbourhoods	3	3	5	11	Medium	No	Possible segment
14. Market women	3	5	3	11	Medium	No	Possible segment
15. Tanker truck operators	1	5	2	8	Medium	No	Possible segment
16. People who practice open defecation	4	5	2	11	Medium	No	Possible segment
17. Water vendors – self supply	1	3	5	9	High	No	Possible segment
18. Private water vendors from public supplies	2	3	4	9	Medium	No	Possible segment
19. Public pipe stand operators	2	3	4	9	Medium	No	Unlikely segment
20. Sachet water sellers	3	3	3	9	Medium	No	Unlikely segment
21. Male traders	2	3	3	8	Medium	No	Unlikely segment

Audience	Rating					Will focusing on this group achieve overall goal	Overall assessment as possible primary target segment
	Size of audience (% of pop.)	Importance to public health	Likelihood audience will respond to message	Total score	Priority		
22. Lorry park operators	2	3	3	8	Medium	No	Unlikely segment
23. Peri-urban dwellers	4	3	4	11	Medium	No	Unlikely segment
24. People in HH that buy water outside of home	4	4	4	12	Medium	No	Unlikely segment
25. Head porters (kaya yee)	2	3	3	8	Low	No	Unlikely segment
26. People who cart water on their heads for sell to others	1	4	3	8	Low	No	Unlikely segment
27. Push truck operators	1	4	3	8	Low	No	Unlikely segment
28. Plumbers supplying illegal connections	1	4	8	13	Low	No	Unlikely segment

Annex 2: Prioritized Target Audience Segmentation Northern Zone (Northern, Upper East and Upper West Regions)

Audience	Rating					Will focusing on this group achieve overall goal	Overall assessment as possible primary target segment
	Size of audience (% of pop.)	Importance to public health	Likelihood audience will respond to message	Total score	Priority		
1. People who use shared HH latrines	3	5	3	11	High	Yes	Good segment
2. Mothers of children under 5	3	5	5	13	High	Yes	Good segment
3. Public toilet attendants	3	5	4	12	High	Yes	Good segment
4. School children aged 5-17	3	5	5	13	High	Yes	Good segment
5. Tenants of compound houses	4	5	5	14	High	Yes	Good segment
6. People who use public toilets	4	5	4	13	High	Yes	Good segment
7. Fathers of children under 5	3	5	2	10	High	Yes	Good segment
8. People who use improved HH latrines	2	4	3	9	High	Yes	Good segment
9. People who store water in overhead tanks	1	4	5	10	Medium	No	Possible segment
10. Slum dwellers	1	4	2	7	Medium	Yes	Possible segment
11. Out-of-school children aged 5-17	3	4	3	10	Medium	No	Possible segment
12. Food vendors	2	5	4	11	Medium	No	Possible segment
13. People living in middle-class neighbourhoods	3	4	4	11	Medium	No	Possible segment
14. Market women	4	5	3	12	Medium	No	Possible segment
15. Tanker truck operators	1	5	3	9	Medium	No	Possible segment
16. People who practice open defecation	4	5	1	10	Medium	No	Possible segment
17. Water vendors – self supply	1	5	5	11	High	No	Possible segment
18. Private water vendors from public supplies	2	5	3	10	Medium	No	Possible segment
19. Public pipe stand operators	1	5	4	10	Medium	No	Unlikely segment
20. Sachet water sellers	3	5	2	10	Medium	No	Unlikely segment
21. Male traders	2	2	2	6	Medium	No	Unlikely segment

Audience	Rating					Will focusing on this group achieve overall goal	Overall assessment as possible primary target segment
	Size of audience (% of pop.)	Importance to public health	Likelihood audience will respond to message	Total score	Priority		
22. Lorry park operators	2	4	3	9	Medium	No	Unlikely segment
23. Peri-urban dwellers	3	3	3	9	Medium	No	Unlikely segment
24. People in HH that buy water outside of home	4	5	3	12	Medium	No	Unlikely segment
25. Head porters (kaya yee)	1	1	1	3	Low	No	Unlikely segment
26. People who cart water on their heads for sell to others	1	1	1	3	Low	No	Unlikely segment
27. Push truck operators	1	1	1	3	Low	No	Unlikely segment
28. Plumbers supplying illegal connections	1	1	1	5	Low	No	Unlikely segment

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