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THE HANDWASHING HANDBOOK

A guide for developing a hygiene promotion program to increase handwashing with soap

THE WORLD BANK
BNWP
wsp water and sanitation program

The Handwashing Handbook

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FOREWORD

Hygiene is essential to the public health mission of reducing the transmission and consequences of disease. The sharp decline in deaths from infectious diseases observed in wealthy countries last century could not have been achieved without vastly improved public hygiene. Raising living standards allowed people to become more hygienic once clean water was piped into their homes, and soap became cheap enough to put at every sink. Eventually, the collective efforts of both the public health movement and private industry ensured that clean hands, clean homes, and clean lives, became a social norm.

Unfortunately, the story in poor countries could not be more different. By the end of the 20th century, two billion people still had inadequate access to sanitation, and one billion were without enough clean water to drink. Efforts at promoting effective hygiene have been piecemeal and ineffective. Though industry has succeeded in getting soap into almost every home, it has not consistently promoted good hygiene or handwashing to accompany their products.

This is a missed opportunity for public health. The two biggest killers of children in the developing world today are diarrheal disease and respiratory tract infections. The simple act of washing hands with soap can cut diarrhea risk by almost half, and respiratory tract infection by a third. This makes handwashing a better option for disease prevention than any single vaccine.

If developing countries are to achieve their 2015 millennium development targets for reductions in child mortality, this unfinished agenda of the 20th century must be completed. Not only must water and sanitation become universal, but so must the habit of handwashing with soap. This requires Ministries of Health, Education, and Water, in addition to non-governmental organizations (NGOs) and community-based groups, to exploit every opportunity to promote handwashing with soap.

Moreover, private industry, which played such a large part in creating standards of good hygiene in rich countries, can do the same as it expands its business in developing countries.

Handwashing with soap can and must become commonplace in developing countries. To do this we have to:

- Make sure everyone knows the importance of handwashing
- Build alliances between the public and the private sectors
- Mobilize the necessary resources and expertise
- Use proven high-impact communications outreach to promote handwashing to a mass audience
- Demonstrate that measurable changes in behavior can be achieved cost-effectively.

In a noisy world of competing messages aimed at people from all directions, only the most effective, best-designed campaigns will lead to behavior change. This handbook seeks to meet this challenge.

It describes a new approach to handwashing promotion, building on the pioneering work of the Public-Private Partnership for Handwashing with Soap. It explains how the latest thinking in industrial marketing can be combined with the latest research in public health to provide powerful new insights to drive effective handwashing campaigns. It offers lessons from national programs in Ghana, Peru, Senegal, and other countries. Early indicators suggest that this may be the start of an exciting new field in public health in the 21st century.

Several members of the Global Public-Private Partnership for Handwashing Initiative must be acknowledged for making this handbook possible. We would especially like to thank Beth Scott, Val Curtis, and Jason Cardosi for compiling this guide. We are grateful to Ali Diouf, Rocio Florez, and Nana Garbrah-Aidoo for providing country examples. Special thanks go to Peter Kolsky, Mariam Claeson, Stéphane Legros, and Nancy Lee for their in-depth peer reviews. Valuable contributions were also made by Steve Luby, Eckhard Kleinau, Suzanne Reiff, Camille Saade, Myriam Sidibe, Barbara

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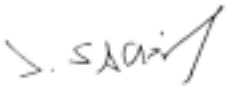

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EXECUTIVE SUMMARY

Handwashing is one of the most effective means of preventing diarrheal diseases, along with safe stool disposal and safe and adequate household water supply. Evidence suggests that improved handwashing can have a major impact on public health in any country and significantly reduce the two leading causes of childhood mortality – diarrheal disease and acute respiratory infection. Because handwashing with soap can prevent the transmission of a variety of pathogens, it may be more effective than any single vaccine or hygiene behavior. Promoted broadly enough, handwashing with soap can be viewed as an essential *do-it-yourself* vaccine. Almost every household in the world, regardless of economic status, has soap. Handwashing with soap at key times, however, is not widely practiced. If the millennium development targets for reduction in child mortality are to be met, handwashing habits must be improved along with access to safe water and sanitation.

The Global Public-Private Partnership for Handwashing has brought together various organizations and sectors to promote handwashing with soap on a large scale. The partnership includes:

- governments who, by prioritizing hygiene, enable handwashing to move from piecemeal, village-by-village, efforts to national programs;
- donor organizations who increasingly include handwashing in their water, sanitation, health, and education programs;
- the private sector which has brought state-of-the art marketing knowledge and techniques to the table;
- academic and scientific organizations who are contributing the latest behavior change theory and scientific evidence of the effectiveness of handwashing; and
- non-governmental and community-based organizations who are aiming to integrate handwashing messages into their own work programs.

The *Handwashing Handbook* lays out the experiences of this global partnership in a practical guide. While countries are still optimizing and experimenting with approaches, it is important to disseminate what is currently known. This way others can begin designing programs and contributing to the global body of knowledge and experience in the fight against child mortality. This guide is for staff in governments and development organizations charged with carrying out handwashing programs. Decision makers in ministries and funding agencies will also find assistance in this book for designing policies and programs to improve public health.

The approach to large-scale handwashing promotion covers the following components:

Laying the Foundation for a National Handwashing Program

To be successful, handwashing programs must address a recognized health need and have the support of key stakeholders. Government, industry, and donors can all offer unique resources which are necessary to ensure the success of a large-scale program. Conducting a situation assessment and, where needed, making the case for handwashing on topics ranging from cost-effectiveness to health impact will give the handwashing program a solid foundation.

Understanding the Consumer

In order to change long-held habits related to behaviors such as handwashing, a firm understanding of the factors the drive and facilitate behaviors in target consumers must be established. This means putting the needs of the target audience – primarily mothers and caretakers of children under five years old as well as school-aged children – at the center and having their perspective determine the nature and scope of all promotion activities. Carrying out consumer research provides a baseline for measurement and understanding of the target audience by answering four broad questions: What are the risk practices? Who carries out the risk practices? What drivers, habits, and/or environmental factors can change behavior? How do people communicate?

Program Implementation

The results of consumer research drive program implementation including which environmental factors related to handwashing need to be addressed, what is the most appropriate and appealing way to promote handwashing, and what is best mix of communication channels to reach the target audience. Implementation also includes the careful monitoring of the program and periodic evaluation and adjustment.

Program Organization

When partners from different backgrounds and sectors are not accustomed to working together, establishing common aims and trust takes time and effort. Placing a program coordinator in a trusted organization is an effective approach to steering diverse partners towards a common objective.

Throughout the handbook, references, case study information, and tools are provided to support handwashing programs. Users are encouraged to combine their creativity with existing knowledge in order to innovate and optimize approaches to large-scale handwashing promotion.

INTRODUCTION

Purpose of This Handbook

This handbook grows out of the experience of the Global Public-Private Partnership for Handwashing with Soap (PPPHW) and its predecessor, the Central American Handwashing for Diarrheal Disease Prevention Program. These efforts demonstrated that mass programs with public and private sector involvement can be successful in promoting handwashing and reducing disease. With core support from the Bank Netherlands Water Partnership, the PPPHW has brought together global public and private agencies to consolidate approaches while initiating large-scale handwashing promotion in Ghana, Peru, Senegal, and Nepal.

While much has been learned about handwashing promotion in recent years, especially in the areas of research and program design, countries are still experimenting with, and optimizing approaches to implementation. It is important to lay out what is known so that others can begin designing programs and contributing to a global body of knowledge and experience in the fight against child mortality.

This handbook is intended for staff in government and development organizations charged with carrying out handwashing programs. Decision-makers in Ministries and funding agencies will also find assistance in designing policies and programs to improve public health.

Context

Handwashing is one of the most effective means of preventing diarrheal diseases, along with safe stool disposal and safe and adequate household water supply. This handbook focuses entirely on handwashing and advocates for stand-alone handwashing-with-soap programs.

It is not the intention of this guide to detract from hygiene behaviors other than handwashing. On the contrary, each has a place and should be addressed distinctly, carefully, and in the right context. However, it is axiomatic in communications programs that messages have to be single and simple: economies of scale do not operate at the level of message delivery. For example, conveying two messages in a single communication reduces the effectiveness of each by half. Consequently, lumping the three key hygiene behaviors together is inadvisable.

The handwashing promotion approach described in this book involves careful consumer research followed by up-to-date marketing efforts. This approach adapts itself well to other health issues, and lessons learned from carrying out a handwashing program could clearly be applied to other programs using similar technical and institutional approaches.

Current efforts to promote good hygiene, including handwashing, have not been sufficient to engender mass behavior change. Many public health programs include improved hygiene among their objectives: in any country at any time, one might find a diarrheal disease control program, a school health education program that includes hygiene, a water supply and sanitation program that invests in raising hygiene awareness, and sporadic local-level hygiene education. All these efforts share the weakness of treating hygiene as a side issue, rather than a central one. Sufficient resources are lacking; imagination, human skills, and enthusiasm are not fully engaged; and the approaches may be outdated. No one agency champions hygiene, and financing bodies do not see its importance. Objectives committed to paper are never fully operationalized, resourced, evaluated, or monitored. Successes have largely been confined to individual villages, achieved by approaches that cannot be scaled up countrywide. Worse, confusion reigns at the most basic level as to what good hygiene is: different actors define it differently, and prejudice and local preference take precedence over evidence.

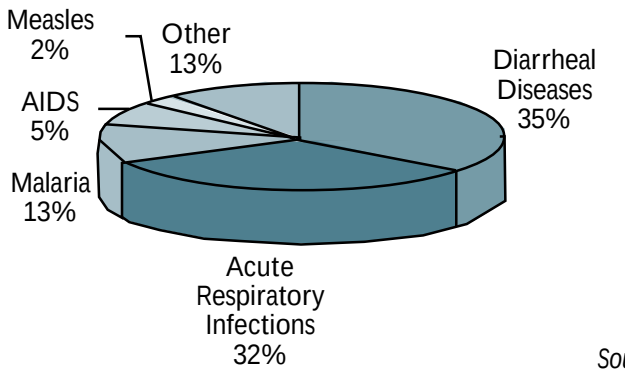
The approach outlined here aims to resolve all of these problems: it raises awareness, enhances political commitment and resource allocation for hygiene, offers a route to a coordinated national program, combining them all under one umbrella. It also uses high-profile and up-to-date methodologies to change the hygiene behavior which consistently demonstrates the greatest potential impact on overall public health; handwashing with soap.

Just as every child has a right to vaccination, each should also have the right to protection from hand-transmitted disease. This means simply washing hands with soap after using the toilet or cleaning a child and before handling food.

The Leading Causes of Child Mortality

The World Health Organization (WHO) estimates that diarrhea and respiratory infections are responsible for two-thirds of child deaths (figure 1). UNICEF estimates that diarrhea alone kills one child every 30 seconds. The vast majority of child mortality occurs among the world's poorest populations in low- and middle-income countries.

Figure 1: Distribution of Global Child Deaths by Cause



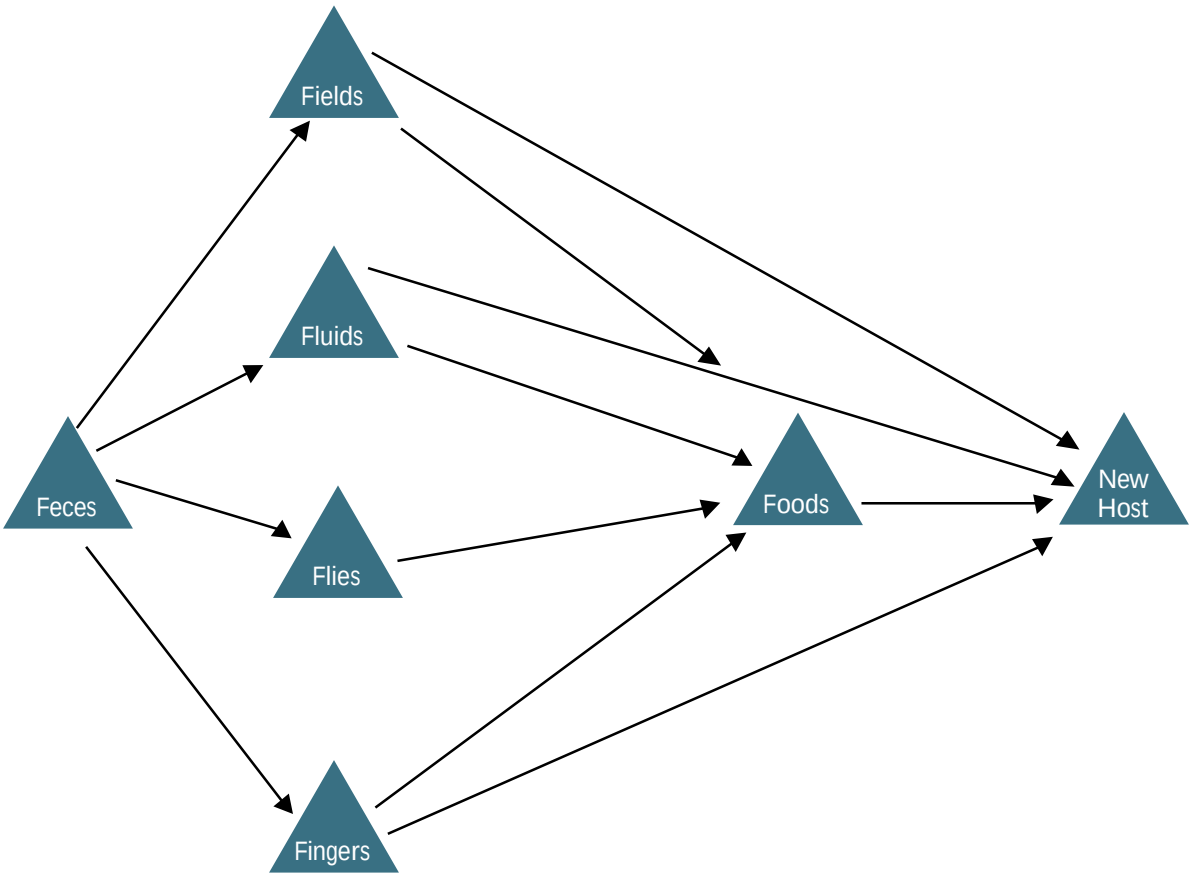
Source: WHO 2001

Handwashing with Soap: The Most Effective *Vaccine* against Childhood Infections?

Human feces are the main source of diarrheal pathogens. They are also the source of shigellosis, typhoid, cholera, all other common endemic gastro-enteric infections, and some respiratory infections: just one gram of human feces can contain 10 million viruses and one million bacteria. These pathogens are passed from an infected host to a new one via various routes, as shown in figure 2. While the routes are numerous, they all emanate from one source: feces. While secondary measures (food handling, water purification, and fly control) may have an impact, far more important are the primary barriers – sanitation and handwashing – after fecal contact. These barriers prevent fecal pathogens from reaching the domestic environment in the first place.

Handwashing interrupts the transmission of disease agents and so can significantly reduce diarrhea and respiratory infections, as well as skin infections and trachoma. A recent review (Curtis and Cairncross 2003) suggests that handwashing with soap, particularly after contact with feces (post-defecation and after handling a child's stool), can reduce diarrheal incidence by 42-47 percent, while ongoing work by Rabie et al. suggests a 30 percent reduction in respiratory infections is possible through handwashing. This remains true even in areas that are highly fecally contaminated and have poor sanitation. Another current study found that children under 15 years living in households that received handwashing promotion and soap had half the diarrheal rates of children living in control neighborhoods (Luby et al. 2004). Because handwashing can prevent the transmission of a variety of pathogens, it may be more effective than any single vaccine. Promoted on a wide-enough scale, handwashing with soap could be thought of as a 'do-it-yourself' vaccine.

Figure 2: The F-Diagram: Major Transmission Routes of Fecal-Oral Diseases



Source: Wagner and Lanois, 1958

Feces are the source of diarrheal pathogens, microscopic 'bugs.' As the figure shows, these bugs enter the environment if not disposed of safely, and are then spread by the four F's: flies, on fingers, in fluids, and via surfaces, such as fields. Cutting these routes of transmission is key to the prevention of diarrheal disease, but which of the many possible hygiene practices would eliminate the most disease? Boiling or sterilizing water in the home would reduce diarrhea, but preventing fecal pathogens from ever reaching household water is likely better and more cost-effective. Similarly, foods should clearly be reheated carefully to kill any bugs that multiplied during storage, but preventing fecal pathogens from ever reaching food is more effective.

Two key actions isolate fecal material and prevent its reaching the environment and then the four F's. These actions are adequately disposing of adult and child feces and handwashing with soap after touching feces. Such touching occurs after using a toilet or when cleaning a child after defecation.

Some respiratory tract infections, including the SARS-causing coronavirus, are also transmitted via the fecal-oral route or simply on hands, so handwashing helps prevent these infections as well.

How should hands be washed? The evidence suggests that soap – any soap – and water adequately remove microbe-containing dirt from hands. Antibacterial soaps or other hand-sanitizing technologies have no additional advantage. Hands have to be fully covered with soap and then rinsed off.

The Challenge of Handwashing Promotion

If handwashing with soap is so important, why doesn't everyone do it?

Table 1 suggests that worldwide rates of handwashing with soap are very low. While many wash their hands with water, only a small percentage use soap at critical times.

Table 1: Observed Rates of Handwashing with Soap Around the World

Setting	Handwashing with Soap	Prevalence	Reference
Kerala State, India	After defecation	34 percent	PPPHW
	After cleaning up a child	35 percent	
Ghana	After defecation	3 percent	PPPHW
	After cleaning up a child	3 percent	
Peru	After defecation	6 percent	PPPHW
	After cleaning up a child	30 percent	
Senegal	After defecation	31 percent	PPPHW
	After cleaning up a child	26 percent	
Kolkata, India (slums)	After defecation	16 percent	Sircar et al. 1996
Kyrgyzstan (rural)	After cleaning up a child	0 percent	Biran 1999
	After using a toilet	18 percent	
Nigeria (rural)	After cleaning up a child	10 percent	Omotade et al. 1995
Burkina Faso (urban)	After cleaning up a child	13 percent	Curtis et al. 2001
	After using a toilet	1 percent	
Brazil (childcare centers)	After cleaning up a child	16 percent	Barros et al. 1999
Lima, Peru (shanty town)	After defecation (soap use 'rare')	12 percent	Gilman et al. 1993
Northern England (peri-urban)	After cleaning up a child	47 percent	Curtis et al. 2003

Note: All prevalences are observed, except Sircar et al., which used soap measurements.

The cause of low handwashing rates is rarely a lack of soap. Soap is present in the vast majority of households worldwide, but it is commonly used for bathing and laundry, not handwashing. Lack of water is usually not a problem either, as hands can be effectively washed with little, or recycled, water. In studies around the world, the main reason given why rates of handwashing with soap are so low is that it is simply not a habit.

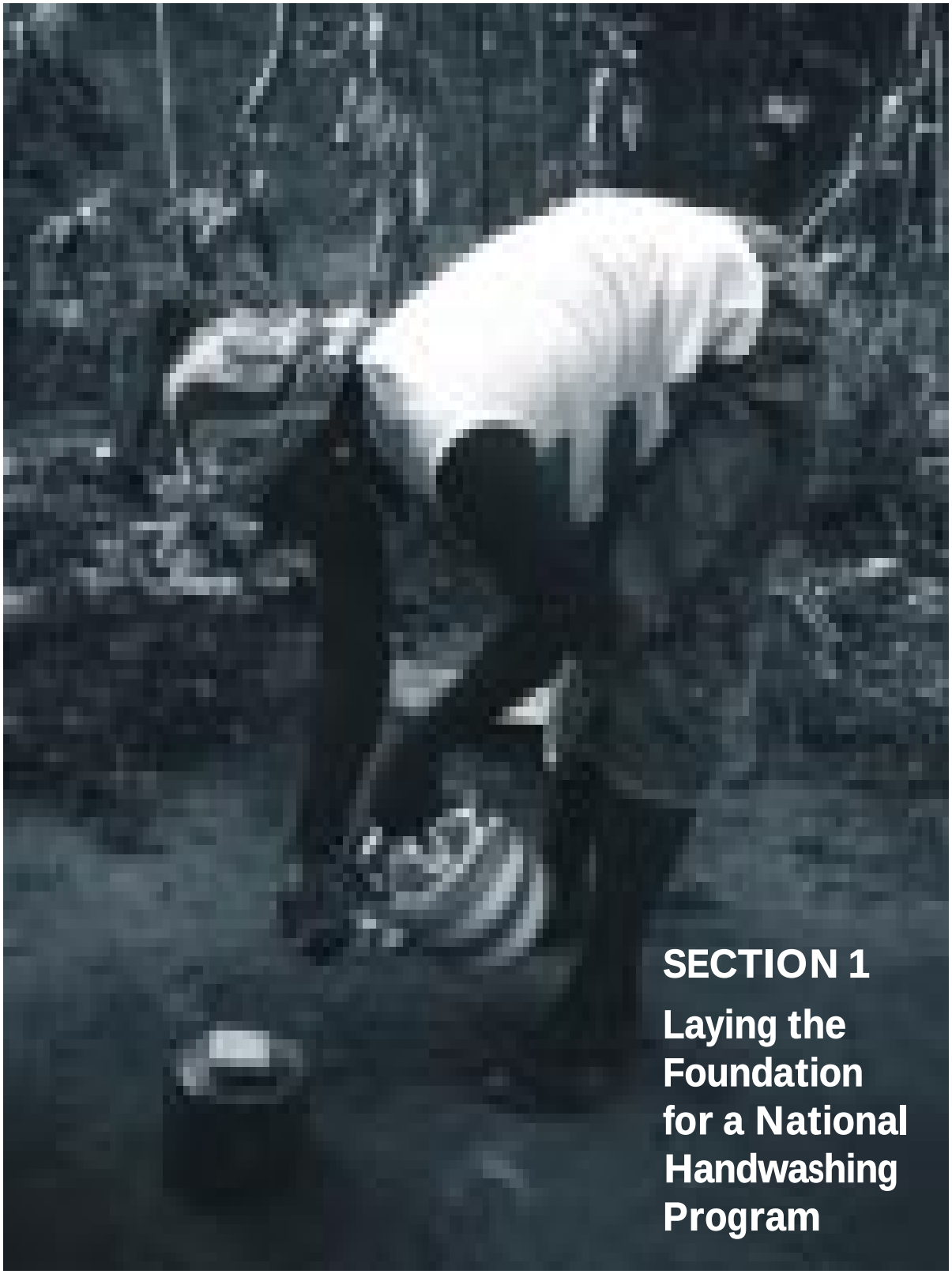
The challenge remains – to make handwashing with soap a habit and a social norm on a worldwide basis.

What's New about This Approach?

This handbook outlines how handwashing behavior can be changed on a large or national scale by providing lessons from industrial marketing approaches as well as from current public health thinking. Its core feature is a focus on the potential handwasher as a consumer, who has many choices to make. With the handwasher as the focal point, this handbook explains how to:

- *Research* consumer needs to delve into handwashing habits, barriers and drivers of behavior change, and the best ways to communicate to the target audience;
- *Design* appropriate and appealing messages; and
- *Implement* a promotion program that makes use of all suitable channels, including outreach workers, citizen networks, special events, soap distributors, schools, and mass media.

Section 1 of this handbook describes the foundations for a national handwashing program. Section 2 discusses how to understand consumers so that the handwashing campaign can be designed around their reality. Section 3 explains how new insights can become a campaign that is effective in changing handwashing behavior. Section 4 outlines the organization of a handwashing program, providing information that spans the other stages; it is designed to be read in parallel with previous sections. The annex provides examples of tools, such as study instrument and terms of reference.



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SECTION 1

Laying the Foundation for a National Handwashing Program

SECTION 1. Laying the Foundation for a National Handwashing Program

Getting Started: Is This the Right Place at the Right Time?

A strong handwashing program can make a big contribution to public health, but building that program takes time, resources, effort, and commitment. To be successful, handwashing programs must address a recognized health need and have the support of key stakeholders.

Conducting a Rapid Situation Analysis

A situation analysis can determine whether a country has a supportive environment for a handwashing program and whether champions exist or can be created in government, among donors, and in the private sector.

The first determinant of success is a health need, such as:

- Diarrhea and respiratory tract infections are significant causes of morbidity and mortality;
- Rates of handwashing with soap at key junctures are low, or at least suspected to be; or
- Cholera, typhoid, or SARS is recognized as a problem.

If a health need exists, assessing interest and capacity within key stakeholder groups will help determine the viability of an initiative and how it can best be organized. Typical groups and issues to consider include:

Government

- The country has committed to meeting the Millennium Development Goals (MDGs) and has a Poverty Reduction Strategy;
- Water, sanitation, and hygiene are government priorities; and
- Potential champions exist in Ministries of Health, Education, and Water.

Industry

- A soap market exists;
- There is room for growth in the soap and related industries (e.g., plastics companies producing water tanks), especially in poor market segments; and
- Firms are looking to enhance their profile and corporate image.

Donors and Other Partners

- There are programs in health, water, sanitation, or hygiene within which handwashing could fit;
- Donor organizations are looking to develop new models of partnership;
- NGOs can integrate handwashing into existing programs; and
- Others, such as healthcare providers, water companies, and religious and community groups, are looking to play a major role in public health.

The likelihood of a successful, large-scale, and timely program will increase with the number of factors that exist or can be created.

Public-Private Partnerships

Because both the public and private sectors have an interest in promoting handwashing, country programs usually take the form of a public-private partnership (PPP). While the public sector can be wary of working with industry and the private sector skeptical that working with government would produce significant results, both sectors stand to gain from cooperation.

First, industry typically invests a significant portion of its energies into understanding the consumer in order to make and promote appropriate products. Hygiene promotion programs generally lack this expertise, which is not widely available in the public sector.

Secondly, industry has already brought soap for bathing and laundering into over 90 percent of households worldwide, showing how successful it can be at making soap and its accompanying behaviors almost ubiquitous. In developed countries, industry was instrumental in changing domestic hygiene practices; it can do the same in poorer communities while benefiting from market expansion.

The private sector stands to gain from a PPP, mostly through market expansion. In addition, the benefits of being seen as contributing to social goals and of being at the table with development partners and international

experts can also be substantial. In addition, many soap company executives are glad to be involved in efforts to improve social well-being.

In summary, the public sector gains from the marketing expertise and resources of industry. Teamed, both parties can produce public health campaigns that rival – or surpass – industrial marketing efforts.

Industry is already making efforts to promote handwashing as part of ongoing marketing or social responsibility programs. Colgate-Palmolive, Procter and Gamble, and Hindustan Lever have school-based programs in many countries that educate children about handwashing (see box 11 for details). Such companies may already be converts to the handwashing message and ready to participate in partnerships with the public sector. Issues of branding and exclusive rights will often need to be discussed and agreed upon.

Other industries may be willing and able to contribute resources, expertise, or in-kind contributions to PPPs. These sectors include the water industry, media companies, manufacturers of tanks and pipes, and transport companies, etc. For example, in Ghana, Polytank, a plastics company that manufactures water storage tanks, intends to provide tanks to schools at cost or lower. Companies that do not contribute directly might be encouraged to carry the handwashing message on their products, such as on soap, handwashing buckets, or toilet paper rolls. This increases the intensity of the handwashing message in the environment.

Where skepticism might deter private sector involvement, it may be advantageous to label a public-private partnership an 'Alliance for Handwashing.'

Making the Case for Handwashing

If a handwashing program is to succeed, advocates will have to sell the idea to stakeholders, including government, industry, and potential funders. A SWOT (strengths, weaknesses, opportunities, and threats) analysis can determine which factors need to be addressed when engaging these stakeholders. First, the SWOT analysis looks at factors that can potentially be controlled by the stakeholders as potential partners in the initiative (table 2).

Second, external factors are assessed. These factors are outside the influence of the initiative but may have a positive or negative impact on the target audiences. Table 3 will help an initiative develop a list of external factors.

Third, stakeholders can be engaged in partnership in order to address weaknesses, build strengths, recognize opportunities, and mitigate threats.

Making the Case to Government

Key issues that will drive government interest are the scale of the health problem and links to targets such as the MDGs, the economic costs of disease caused by not washing hands, links to poverty reduction, and costs of treatment and work time lost.

SUZANNE REIFF

Table 2: SWOT Analysis Factors

Factors within Sphere of Control	Strengths	Weaknesses
Sources of funding		
Experience		
Expertise		
Ability to reach and serve target audiences		
Management and political support		
Issue priority for the organization		
Current alliances and partnerships		
Others		

Table 3: SWOT External Factors

External Factors	Opportunities	Threats
Cultural forces (including trends and events that affect the country's values and norms)		
Technological forces (noting the potential for new technologies that might be leveraged)		
Demographic trends (relevant to the campaign)		
Economic forces (that could impact success)		
Political and legal forces (that may affect campaign efforts or target audiences)		
External publics (groups outside the initiative and its alliances that could have an impact on the target audience or the plan)		

Investigating these issues will produce the arguments to convince decision-makers to support handwashing programs. Good sources for information on disease rates include national community-based surveys, such as Demographic Health Surveys. (Health facility reporting is a poor data source because it fails to capture a community's infectious disease rates.) The costs to society and to an economy of not washing hands can be estimated by calculating the cost of (a) treatment for hand-borne infections; (b) working days lost; and (c) deaths due to diarrhea and respiratory infection. In addition, a national program can save money by replacing piecemeal hygiene promotion activities with a broader, more cost-effective approach (see box 1).

Water and sanitation programs are attractive to governments because they involve the purchase and installation of hardware. It can be very difficult to make the case that some of this funding be diverted to what is seen as a 'soft' issue, that of handwashing. Though some international organizations and governments are swinging towards increased investment in hygiene, acceptance is slow. Advocacy efforts as to the relative importance of the software issues have to be made repeatedly and at every opportunity.

Making the Case to Industry

Though industry likes to be a good citizen, what drives country-level activities is profit. Industries invest time, expertise, and resources where they see a potential profit. It is therefore vital to make estimates of potential growth in the whole soap market. For example, one could estimate that each handwashing event uses 0.5 grams of soap; this factor can be multiplied by the population of the target area, the average number of times a person would wash hands each day, and the number of days in the period being considered. The resulting estimate would show how much more soap could be sold to each individual. Note that the soap brands that may benefit include laundry bars and locally made soaps, not just toilet soaps or special handwashing formulations.

Other potential benefits to industry include being able to extend or stretch existing brands, grow existing handwashing brands, raise visibility, and improve political contacts. Businesses, both small and large, will also benefit from the market research and international contact. Multinationals may see a wider benefit of participating in a PPP, and involving the international headquarters can help drive country-level investment.

As mentioned, industry can, and should, play a key role in promoting handwashing in the countries where it is most needed. Attracting industry support has not always proved as straightforward as expected. When economic times are good, soap companies have some latitude in spending, but during downturns, all available resources tend to be targeted at brand support.

Because the current PPP model proscribes the use of branding in programs with public funding, industry's interest is reduced.

The problem can be resolved on several fronts. High-level, headquarters commitment and support may be essential to ensure commitment of funds and technical resources at country level. Companies often ask for an exclusive deal with the partnership in return for substantial support. It may be possible to unlock this source of resources by splitting particular activities and allowing branding within them. So, for example, in Ghana, Unilever might support a schools program and PZ-Cussons a maternity hospital bounty-pack scheme.

Making the Case to Financiers

Though they technically work through governments, external support agencies often have their own agendas and usually their own funding cycles. As handwashing moves up the international list of priorities, more and more organizations are preparing to invest in handwashing promotion. To obtain donor support, it is important to determine donors' priorities, where decision-making ability lies, and the mechanisms for obtaining funding.

Decision-making about the use of funds from bilateral agencies, such as the Danish International Development Agency (DANIDA) and the United Kingdom Department for International Development (DFID), is increasingly devolved to the national level, and accessing them may require lobbying at local, government, and international levels. Multilateral agencies, such as the United Nations Children's Fund (UNICEF), may have programs that can support handwashing in parts of a country. Lastly, World Bank loans for water and sanitation may specify expenditure on hygiene.

Financing Issues

Initially, funds are needed to cover the costs of a program start-up, which usually entails an individual and/or organization spearheading the initiative and acting as a coordinator. Funds are next needed for consumer research and then to hire a communications agency. The agency needs a budget for mass media, direct consumer

contact, and government-based programs, so commitments for funding should be in place early. Fundraising is discussed as part of advocacy and public relations efforts in sections 3 and 4.

Financing mass media activities has been particularly challenging in several countries. The private sector has little spare cash not otherwise earmarked. Governments and donors have few existing budget lines for such nontraditional activities. However, it may be possible to tap into a government or agency desire to be seen as being proactive, especially when there is a perceived threat to national health, such as a cholera outbreak or natural disaster. Similarly, agencies may be more forthcoming with support if they are offered visible credit on promotional materials.

Box 1: The Cost-Effectiveness of Handwashing Programs

Health projects rarely focus on handwashing to improve value-for-money. However, there is mounting international evidence that hygiene, sanitation, and health investment focused on handwashing and other health promotion programs are among the most cost-effective investments that can be made with public and private resources. Esrey (1991), for instance, demonstrated that hygiene promotion is often required for water supply and sanitation projects to have an impact on health.

A recent handwashing cost-effectiveness study developed a standardized methodology for performing an economic analysis of handwashing interventions. First, a cost-effectiveness analysis of handwashing initiatives is conducted to establish comparisons with the effectiveness of other health-related projects and with projects in other sectors. A cost-benefit analysis of handwashing initiatives is then prepared to compare their impact in a broader context.

This methodology found that the Central American Handwashing Initiative (see box 2) is cost-effective, preventing diarrhea for less than US$10 per case and averting a cost per DALY* of US$91.30. Even without the intervention, the presence of soap, water, and certain equipment in these countries is generally high, so the economic analysis can discount these costs, thereby lowering the private costs. The sensitivity analysis reveals that even considering a lower rate of reduction of diarrhea, the handwashing initiative remains cost-effective.

Estimates made with this methodology for the Peruvian Handwashing initiative (see box 10) during 2003 show that preventing a case of diarrhea here also cost less than US$10, and the cost per DALY averted was US$122.70. With this evaluation, policy makers are now, theoretically, able to calculate and change some original assumptions on the effectiveness of the initiative. This can be achieved by establishing control groups to isolate the intervention and calculate disease reduction in the intervention area.

The main results from the cost-benefit analysis indicate that both handwashing initiatives save costs for their respective societies. The net present value (NPV) of benefits for The Central American Project is US$4.3 million in the base scenario with an internal rate of return (IRR) of 226 percent. For the Peru initiative, the NPV of benefits represents US$8.1 million, with an IRR of 533 percent. Sensitivity analyses in both cases remain positive and confirm the cost savings of these projects.

The comparisons that are established reveal that handwashing initiatives do not represent greater burdens for Ministries of Health and that the contribution of private partners is recommended for mutual benefits. Promotion of the initiatives and future participation of private actors is possible with an estimate of benefits for each partner with respect to the investment. While the Central American initiative demonstrates that the presence of soap is almost universal, soap use still needs to be improved, recommending an appropriate handwashing campaign that would incidentally increase soap sales.

* DALY, Disability Adjusted Life Year, is the quantitative indicator of burden of disease that reflects the total amount of healthy life lost, whether from premature mortality or some degree of disability during a period of time.

Extracted from Cercone et al. 2004

Box 2: The Central American Initiative

The Central American Handwashing Initiative was designed to reduce under-five morbidity and mortality through a campaign to promote handwashing with soap to prevent diarrhea. Carried out in five countries, the initiative consisted primarily of a PPP that included a number of public players and four private sector soap producers. The initiative promoted increased access to soap by distributing free samples, conducting promotional and educational events, and sponsoring media activities to convey information on the link between hygiene and diarrhea prevention.

The public sector provided technical support and market research to soap companies, supported advertising agencies' involvement, and helped form a task force to coordinate and direct the efforts of the various players. In the end, the greatest contribution of the program may have been the model it presented for establishing how public health goals can be compatible with business goals.

In Guatemala, where the work was most carefully documented, the initiative resulted in:

- Ten percent of mothers improved from an 'inadequate stage' of handwashing to either the 'intermediate' or 'optimal' stage.
- A 10 percent decline in the number of mothers who agreed with the inaccurate statement: "Most times washing hands with water is sufficient."
- A 10 percent increase in the number of mothers who agreed with the statement: "When I don't use soap, I feel that I am not clean."

Extrapolating from these and other findings and from literature on the relationship between handwashing and the prevalence of diarrhea, it was estimated that "over the course of the intervention there was a 4.5 percent reduction in diarrheal prevalence among children under five."

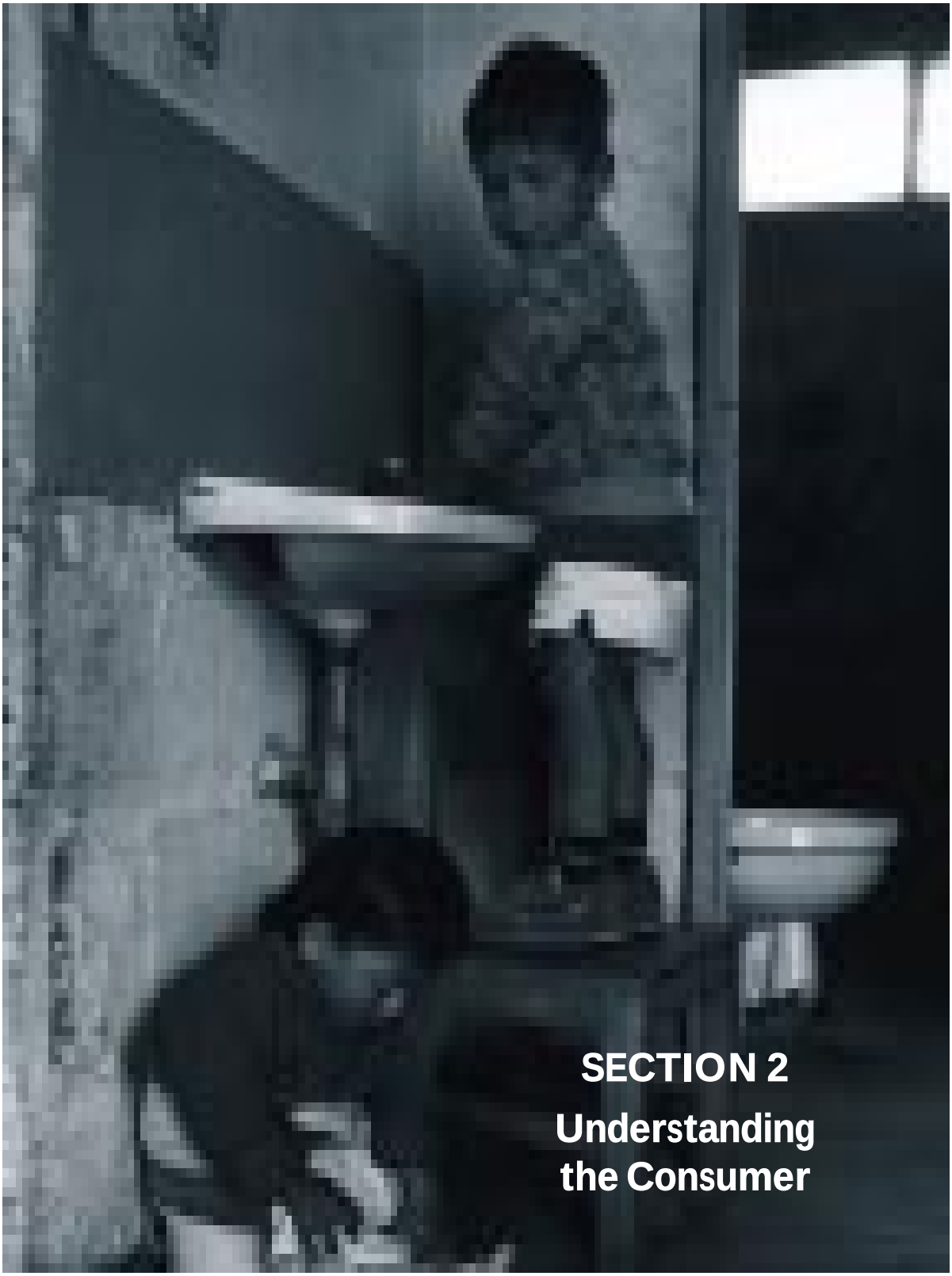
Source: Environmental Health Project (EHP), UNICEF/WES, United States Agency for International Development (USAID), and World Bank/WSP and WSSCC, May 2004

Organization and Coordination

If an assessment finds favorable conditions, a first meeting or workshop with potential stakeholders will help to consolidate ideas and interest. The agenda might include experts outlining the importance of handwashing; a sharing of initial visions and expectations of potential stakeholders; and the establishment of initial commitments, partnership structures, and milestones.

When setting out the vision and leading the program, it helps to have a country coordinator or catalyst. This individual or organization should be viewed as a legitimate or neutral party and provide drive; enthusiasm; skills in marketing; and knowledge of public health, management, and communications. The coordinator could be in a public agency, a private sector body (such as the local soap manufacturer's umbrella organization), an agency, or NGO. In Central America a catalyst organization was set up to bring together public and private partners and eventually phased itself out (see box 2).

This section has outlined key aspects of starting a program. Further details about management and structure can be found in section 4.



SECTION 2

Understanding the Consumer

SECTION 2
Understanding the Consumer

The Marketing Approach

Once a platform for developing the handwashing work has been established and consensus reached on moving forward, the focus then shifts to the potential handwashers, called "consumers" in marketing terminology. The only way to change long-held habits related to behaviors such as handwashing is to have a firm understanding of the factors that drive and facilitate handwashing in target consumers. The marketing approach means putting the needs of the target audiences at the center and having their perspective determine the nature and scope of all promotion activities.

Satisfaction of desires is at the core of marketing. According to Northwestern University Marketing Professor and author Philip Kotler, "Marketing is satisfying needs and wants through an exchange process." Marketers thus offer the consumer something that they want and that they are prepared to make sacrifices for, either through expenditure of money, time, or effort. The heart of the marketing task is thus to find out what consumers want and then to offer it to them in a way that will make it most attractive.

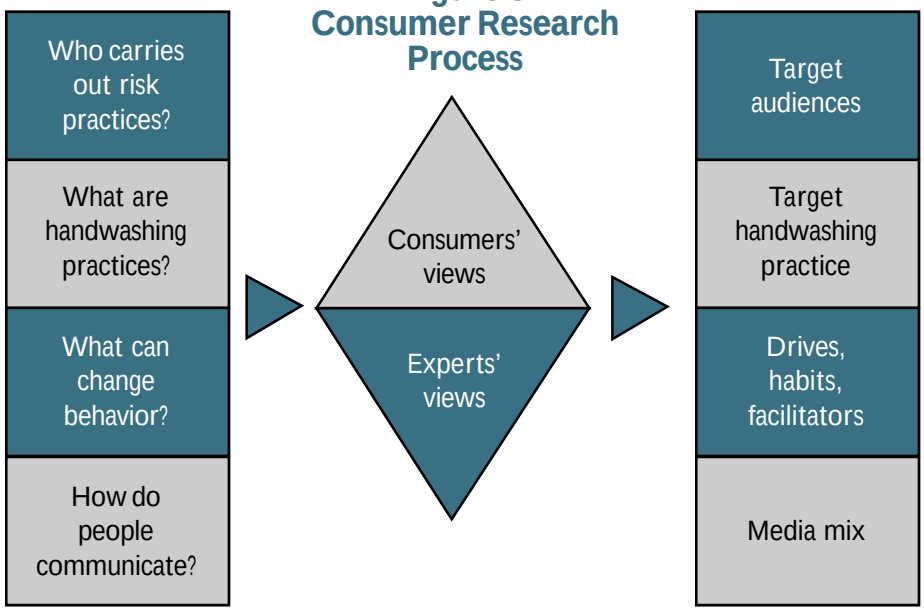
Understanding Behavior

Consumer needs are many and varied. They may include the desire to be respected, to be clean, to feel comfortable and fresh, and to provide the best for their families. While health may seem an obvious need from the point of view of the health professional, it may not be the overriding or constant concern of the consumer. Industry invests heavily in understanding consumers' lives, desires, and the ways they communicate in order to develop and deliver appropriate products and promotional messages. To market handwashing successfully, the following four questions about consumers must be answered:

- What are the risk practices?
- Who carries out risk practices?
- What drivers, habits, and/or environment can change behavior?
- How do people communicate?

The answers to these questions provide the key elements of consumer research. The process combines the insight of experts in consumer behavior, health, and handwashing with the intelligence provided by consumers (figure 2).[1]

Figure 3
Consumer Research Process



[1] Tools (such as Structured Observations and Behavioral Trials), formats, and terms of reference (TORs) referred to in this section can be found in the annex.

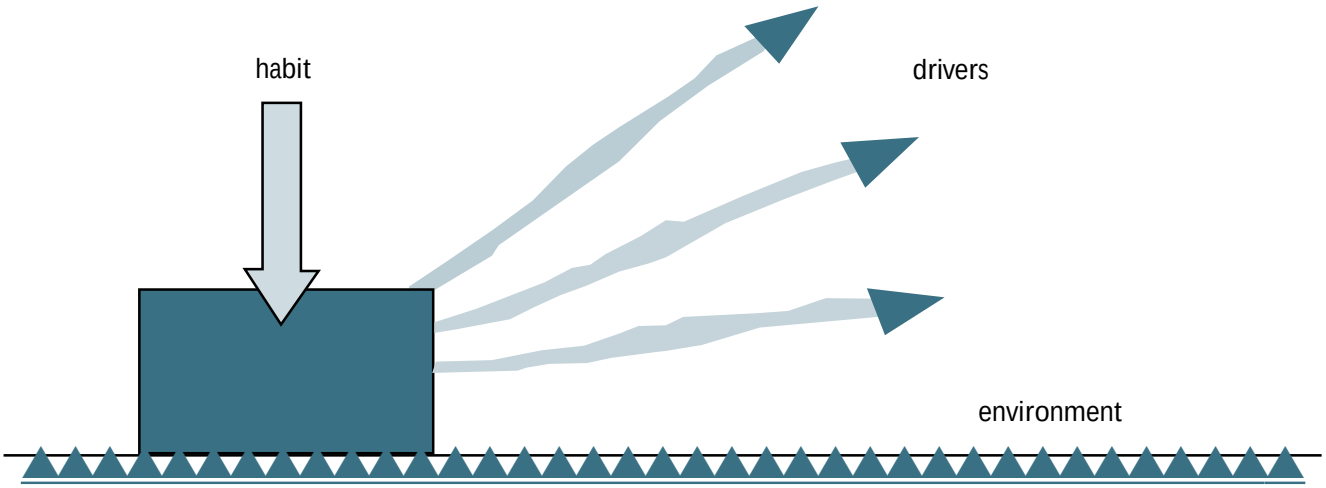


Figure 4: Environment, Habits, and Drivers

1. Who carries out risk practices? Handwashing programs target those groups whose handwashing behavior can have the largest impact on disease reduction: this is usually the caretaker who provides the child's 'hygiene environment.' In most settings the primary caretaker is the mother of the young child; however, it is important to document who else participates – grandmothers, sisters, fathers in some societies, aunts, etc. School-age children may also form a target audience, not so much because they too may provide childcare, but because they are the caretakers of the future. Furthermore, they are more susceptible to behavior change and the uptake of new healthy habits. They can also act as enthusiastic handwashing advocates. Sometimes secondary target audiences (neighbors, fathers in some societies, elder children, extended family) will also be addressed because of their influence on the primary audience. For example, in some societies husbands decide how much to spend on soap or serve as the purchaser of these goods for their household.

2. What are the risk practices? As noted, handwashing after contact with feces is usually the best way to reduce the risk of fecal-oral transmission of gastro-enteric pathogens. However, because this practice is unlikely to ever be universal and because sanitation may also be poor, it is also important to wash hands with soap before contacting, eating, or feeding food. This means that handwashing at three junctures is critical: after using the toilet, after cleaning up a child who has defecated, and before handling food. While the important junctures for handwashing to prevent respiratory infection have not been identified, more frequent handwashing is clearly protective against respiratory illness as well.

It is essential to have reliable data on actual rates of handwashing with soap in any particular setting in order to determine the scale of the problem and set quantitative improvement targets. Such baseline data also provides a point from which to measure change in handwashing habits over the life of a proposed program.

Unfortunately, actual handwashing behavior is very hard to assess reliably. Handwashing habits are generally private and are 'morally bound': people fear they will be judged harshly if they admit to a weakness in their hygiene practices. Asking people if they wash their hands with soap consistently results in overestimates of actual behavior. For example, in Ghana 75 percent of mothers claimed to wash hands with soap after toilet use when asked, but structured observation showed that only 3 percent did so. The only feasible and reliable way to obtain a valid measure of handwashing practice is through direct observation, which requires a trained observer spending several hours in the home, observing and recording events of interest in someone's home. Well-trained and supervised fieldworkers are required for consistent and reliable results.

3. What can change behavior? Three key forces are involved in behavior change: drivers, habits, and the environment, which can facilitate or hinder behavior change. As figure 4 illustrates, moving behaviors from one point to another requires one or more of three things:

- Lowering barriers in the *environment* so as to facilitate change;
- Transforming old *habits* into new ones; and
- Finding *drivers* that can create new habits.

Figure 4: Environment, Habits, and Drivers

Consumer research delves into the consumer psyche to identify the deep desires and motives that can drive behavior change, determine the source of habits and investigate how best to introduce new ones, and to explore the factors in the environment that hinder or facilitate behavior change. These can be established using a variety of tools, including behavior trials and in-depth interviews.

Environmental facilitators and barriers are factors that enable or hinder the act of handwashing with soap. Facilitators might include easy access to water and the low cost of soap. Barriers might include prohibitively expensive or unattractive soap, lack of handwashing facilities, and strong cultural prohibitions against washing on certain days. Box 4 outlines the importance of specific attributes of soap in Ghana that make it acceptable for handwashing.

Quantitative surveys provide basic information about the environment, such as availability of soap, distance to water, and access to sanitation. In-depth interviewing following behavior trials can also help reveal barriers and facilitators (see tool 1).

Barriers need to be first understood and then addressed as the communications program is developed. For instance, if distance to clean water is a barrier, the communications program can point out that a small amount or recycled water suffices. Further, while a communications campaign may not be able to directly address physical barriers such as lack of handwashing facilities in schools, public relations (PR) and advocacy activities may convince those who can help reduce such barriers. Demand from primary target audiences – mothers and children – might also encourage the installation of handwashing facilities where necessary.

Habits are ingrained and sustained behaviors, often developed in childhood. Research has shown that once people anywhere acquire ingrained and habitual behaviors, they are not easily lost. The task for handwashing promotion is not to achieve a single handwashing event, but to instill a routine and sustained habit that happens automatically with every contaminating event.

While habits are often learned at an early age, there are opportunities for change, especially at life-changing events. A key event for mothers is the birth of a baby. Many mothers report that hand hygiene did not become important to them until a baby was born and that if midwives or others involved with perinatal care recommended handwashing with soap, it would likely take hold. Another life-changing event for many mothers is moving to the husband's home after marriage and learning the habits of the new household.

Habits are best documented using structured observations (tool 2). Their origins can be explored through in-depth interviews and the process of taking on new habits understood in behavior trials.

Drivers are innate and learned modules in the brain that motivate particular behaviors. They come in the form of emotions and the feelings that people report when carrying out particular behaviors. Discovering drivers is key to successfully promoting handwashing.

As with risk practices, determining drivers can be difficult because (1) they may be buried in the subconscious (Zaltman 2003); and (2) there may be perceptions of shame or embarrassment in reporting them, for example, using soap to heighten sexual attractiveness. Zaltman suggests that at much as 95 percent of human thought takes place in the subconscious.

In-depth qualitative research into consumer motivations in many countries shows a recognizable pattern of drivers of handwashing behavior, as seen in table 4. Mothers tend to be driven to handwashing by pride, status, social acceptance, and disgust of smells and contamination. They also regard handwashing as an act of nurturance, part of loving and caring for children. Women often think that only visibly dirty or smelly hands are potential sources of ill health, and even then, explicit relationships between dirty hands, diarrhea, and disease are rarely cited.

While there appear to be some general cross-cultural motivations for handwashing and wider hygiene behaviors, their nuances and how they play out will be specific to particular countries, as will the relative importance of each motivation. This is also true of different segments of target audiences. For example, nurturance is unlikely to be a strong motivator among school-age children. Consequently, country-specific consumer research is needed to guide an effective marketing campaign. Table 5 provides a simple format for identifying and notating barriers and drivers, while box 3 illustrates mothers' reports of cultural norms influencing their soap

Box 3: Cultural Beliefs Inhibiting Handwashing with Soap in Senegal

Consumer research in Senegal captured examples of handwashing with soap that are related to habits and barriers.

Ancestral and Religious Beliefs

Although no longer widely believed, some Senegalese take a "'better safe than sorry approach" when it comes to traditional handwashing behavior. Using soap during ritual cleaning prior to praying at the mosque removes some of the purity of the spiritual cleansing because the blessed water is not compatible with soap.

Some women, especially in rural areas, still adhere to a practice of not washing a child under the age of one for fear of reduced life expectancy. They may also reduce soap use during pregnancy to avoid harm to the unborn baby. Some women also believe that handwashing with soap might reduce fertility.

Fatalism

A more common barrier is an attitude that one cannot escape one's destiny; thus, being poor is predetermined and dirtiness is simply part of poverty.

use in Senegal (note that these barriers are perceived rather than real). The barriers and drivers for handwashing with soap may be different for different key handwashing times. These can be captured in a format such as table 4.

Behavioral trials, where volunteer mothers (and/or school children) are given soap and asked to use it to practice handwashing with soap for seven to 10 days, are a good way to begin understanding local handwashing motivations. Following a trial, mothers are interviewed in-depth about their experiences, what was easy, what was hard, what was liked and disliked, etc. Focus group discussions (FGDs) with mothers and/or school children can be used to supplement these trials to better understand the social nuances of handwashing and associated motivations, as well as favored communication channels.

How do people communicate? Finally, research has to determine where the target audience obtains information; the reach of different channels of communication, both traditional and modern; which channels are trusted and believed; and the best language(s) to use. The potential effectiveness of different channels will differ among the various segments of the target audiences.

There are two main sources of information on channels of communication. The first source is existing data. In most countries, commercial entities have already collected detailed profiles of consumption of mass media, possibly even covering mothers' and children's listening and

Table 4: Drivers, Habits, and Environments for Handwashing with Soap (Four Areas)

	Ghana	Kerala, India	Senegal	Wirral, UK
Drivers	Nurture a child Disgust of contamination Social acceptance	Disgust Social acceptance Nurture family	Pride/status Disgust Nurture Seduction	Disgust Status/pride Nurture Aesthetics
Habit	New baby Taught by mother	Moving household New baby	Water only, not soap, is the habit	New baby Learned from midwife
Environment: Facilitators/barriers	Distance to public toilet	Men control soap	Local customs	Convenience Forgetting

Table 5: Identifying Barriers and Drivers to Handwashing with Soap at Key Events

	Target Behavior (for Mothers)		
	Wash Hands with Soap After Using the Toilet	**Wash Hands with Soap After Cleaning up a Child Who Has Defecated**	**Wash Hands Before Handling Food**
Barriers			
Drivers/ benefits			

Box 4: Ghana Consumers Prefer Multipurpose, Long-Lasting Soaps at Economy Prices

Women in Ghana were asked what features they favored in a handwashing soap for research purposes. In commenting on favored features for soap, they cited a range of attributes – smell, cost, texture, and durability – and its capacity to be used for many purposes.

Smell was the most important attribute. Overall, mild lemon/lime scents were most popular. However, soaps with stronger scents were favored for use after defecation, while as little scent as possible was preferred before eating: women feared a strong scent would affect the enjoyment of eating. One said, "You will not have an appetite for food if the soap lingers in it."

Cost: Overall, cheaper soaps were preferred, though women were sometimes willing to pay more if the soap was larger or they thought it would last longer.

Texture/durability: Associated with cost, women tended to prefer harder bar soaps or liquid varieties, as they thought they were longer lasting. The preference for hard soaps was so strong that many stored soap in cold or sunny places to harden them before use: "I cut it into pieces and put it on the floor of a veranda to dry and harden so that it will be long in use."

Liquid soaps, as well as being economical – only a little is used each time hands are washed – are favored for convenience "with soap in its hard state, you need to ask someone to pour water on your hands, but with this you don't need anyone's help."

So strong was the desire for the more expensive liquid soaps that some women made their own from bar soap: "I soaked it in water, mashed it, and poured it into an old feeding bottle."

Multipurpose: Because it is associated with economy, many women preferred laundry bar soaps that could be used for a variety of purposes: "That is the only soap I buy, since I can use it to wash my things and have a bathing soap at the same time."

viewing habits. Demographic and Health Surveys (DHS) also collect this information. In Peru, media houses were a great source of data on coverage and listenership.

When using existing data, however, it is important to complement it with primary research in order to learn more about local channels of communication and to determine which communication networks, traditional or modern, are most trusted and/or believed. People can be skeptical of mass media, especially where there is strong government control over them, and coverage levels can be low among women. Thus, a second information source is interviews with a representative sample of the target audiences. Such interviews focus on people's contact with different channels of communication, be they word-of-mouth, traditional, governmental, social organizations, mass media, etc. Figure 5 illustrates different channels for women in a village in Kerala, India.

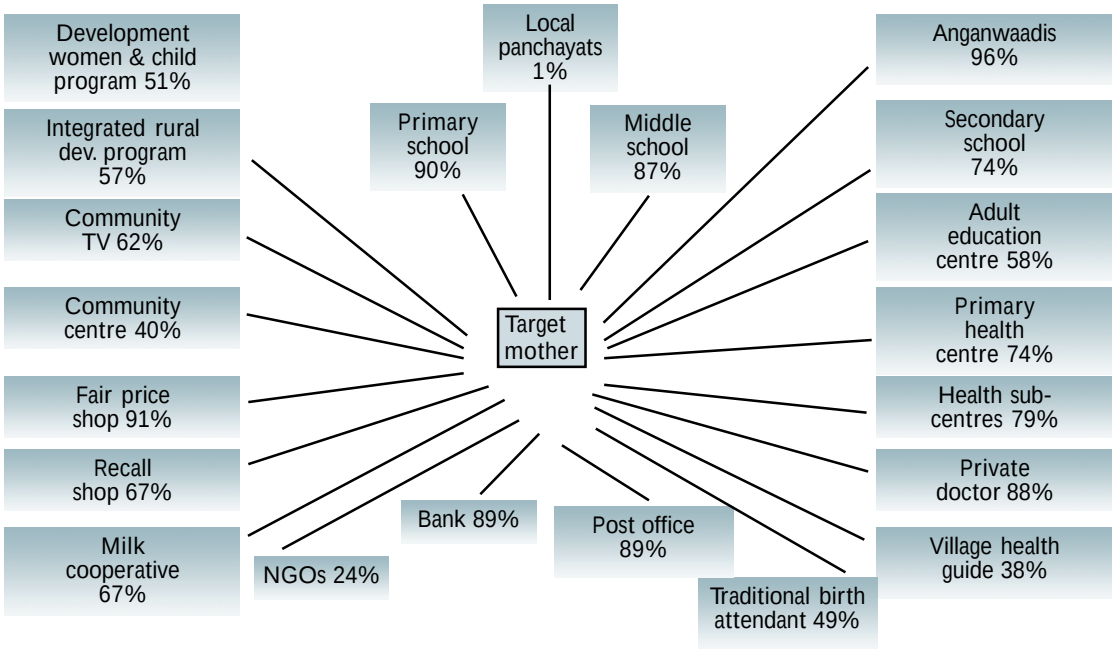
Qualitative research can help to map out channels of communications from the mothers' perspective, particularly concerning local communication channels (which may be missed in national data sets). It can explore which channels are likely to be most influential and credible for handwashing communications. For example, in Burkina Faso, it was found that though 'griots' (traditional praise singers) were good carriers of

Box 5: A Note on Schools

Because they provide a relatively easy and sustainable route to long-term behavior change, schools are a good focus of handwashing programs. Schools are a key environment, not just for learning about handwashing, but for introducing the habit in practice, so it lasts. Children are often enthusiastic proponents of behavior change, and research questions apply to school-age children, teachers, and administrators as well as they do to other target audiences.

In most countries, schools are the second places of socialization after households. Children can spend up to eight hours a day for more than eight months a year in schools and a substantial amount of time with their peers. Consumer behavior literature shows that children do not react to brands and brand communication in the same way as adults, so a separate communications strategy is needed for schools. The risk practices being carried out at school are also different than at home. Specific tools for researching school children's habits and motives are in development, and some tips on researching school-age children are in tool 4.

Figure 5: How Mothers Communicate in Kerala, India: Monthly Contact Profile



Box 6: Outline of Study Methods

Structured observations are direct observations of the behavior of interest (handwashing with soap and what communication channels most effectively transmit messages) by field workers recording what they see using a standard format. This method can be difficult, expensive, and intrusive, but provides more valid measures of behavior than any other method. Observers arrive early in the morning, sit quietly where they can see the domestic behaviors of mothers and index children, and note, for example, exactly what happens associated with a child defecation event. Behavior inevitably changes as a result of the observation, but if mothers are told the observers are recording domestic work or child health, they change handwashing behavior less. Field workers need careful training to standardize the approach and very careful support and supervision. *Consumer interviews* are standard quantitative interviews and are useful in profiling target audiences and their environment. Socioeconomic questions along with questions on water, sanitation, and handwashing facilities are asked, and observations are made on these issues. A standard set of questions about exposure to all possible forms of communication is also asked. All questions are structured and employ precoded responses. Formats need careful pilot testing to adapt them to local conditions. Consumer interviews (CIs) are best carried out with child caregivers immediately after structured observations. *Focus group discussions* (FDGs) involve asking small numbers of people to discuss a range of topics relating to the behavior of interest. As the target audience includes mothers and children, each should be separately included in focus group discussions. FGDs are probably best used to carry out ranking exercises (ranking of daily activities, most important things in life, soap use, soap types for handwashing, most effective communication channels, etc.) to allow consensus to form on issues likely to affect handwashing behaviors and to determine the proportion of people taking particular views.

Behavioral trials and in-depth interviews: In behavioral trials volunteers, usually taken from FGD members, are given soap and asked to use it regularly for handwashing. The mother is visited several times to remind her. After seven to 10 days, she is interviewed in depth with regard to her experiences using soap: what she liked and disliked, what was easy, what was hard, and what solutions she found to any problems. These trials can usefully be repeated after another seven to 10 days, as habits change. Such trials followed by in-depth interviews can reveal motives and barriers if done thoroughly. In-depth probing is essential to reach the ultimate cause of a behavior. To reach such cause, researchers repeat the question "Why?" until a subject cannot explain any further underlying cause.

Table 6: Summary Design for Consumer Research

Objective	Specific Questions (Not Exhaustive)	Methods	Suggested Minimum Sample Size
1. Who carries out risk practices?	1.1 What are the characteristics of target audiences (socio-economic, demographic, educational characteristics, etc.)	Questionnaire interview As described in text	As below
2. What are the risk practices?	2.1 How much soap is used per person on average? 2.2 What is soap used for, by whom? 2.3 What types of soap are used for what? 2.4 On what occasions and how many times are hands washed? With/without soap? 2.5 Where is soap procured? 2.6 Availability of handwashing facilities	Structured observation Questionnaire interviews after structured observation FGDs on soap attributes	Representative sample in eight clusters, total 400 households 400 households 5 FGDs
3. What can drive behavior change?	3.1 Why do those who currently (do not) wash hands with soap do so? 3.2 What are the perceived advantages and disadvantages of washing hands with soap? 3.3 What constrains soap use? 3.4 What factors facilitate/bar soap use? 3.5 Context: Characterization of locality: water sources, sanitation provision	Behavior trials In-depth interviews after behavior trials	40 volunteer households 40 volunteer households
4. How do people communicate?	4.1 Reach of existing channels of communication (e.g., mass media, government channels, nongovernment channels, traditional channels) 4.2 Appropriatencess of existing channels of communication	Questionnaire interviews, available national data In-depth interviews	400 caretakers of children Sub samples of 200 male household members and 200 school-age children 40 volunteer households as above
5. Schools survey	5.1 Existing habits 5.2 Motivations 5.3 Barriers 5.4 Key players	Focus groups with kids, in-depth interviews with key players	20 schools

Box 7: Key Points for Contracting Consumer Research

It should be made explicit from the outset and re-iterated often that handwashing promotion programs are not traditional public health projects. Rather, they are consumer-driven programs that need to determine deep consumer motivations for handwashing with soap. Simple interviews are not enough. For example, the contractor must be told that when consumers are asked whether they have washed their hands, the answer is invariably "yes." People often respond to questionnaires as if they were being tested or judged, so they tell the interviewer what they believe is the "right" answer.

A team with commercial consumer research experience is preferable to one that is accustomed to working on public health programs.

Field workers need to speak local languages.

Once recruited, agencies need detailed briefing and training to ensure that the right questions are asked in adequate detail. For example, many handwashing studies find that consumers wash their hands because they want to be "clean." However, this is not a useful finding. Understanding what "clean" means in this context and all its ramifications – physical, psychological, and social – is more important.

The research agency must stay focused on the four questions and the specific information that is needed. The agency must probe to the bottom of each question and ensure that findings are sufficiently detailed to allow the development of a sophisticated, creative strategy to promote behavior change among the target audience.

As with all contract work, the quality of work will only be as good as the client demands. The client has to understand all the issues in-depth, know exactly what is wanted, and keep the agency focused on achieving this. Clients must visit the field and make sure that field work is being carried out to specification. Unannounced visits will help ensure rigor in the field team.

Qualitative work (e.g., in-depth interviews) cannot be carried out by field workers but must be executed in the field by qualified and well-trained anthropologists or psychologists. Support from the international PPP-health worker technical team may be needed to ensure effective, quality research.

All data, both quantitative and qualitative, are precious. Qualitative interviews should be recorded on tape, translated, and transcribed; carefully labeled and indexed with date, time, and respondent details; and returned to the client for safekeeping. Quantitative data should be thoroughly cleaned and a copy of the data set given to the client.

Data analysis and reporting should focus on the questions set out in the TOR. The analysis and report should specifically answer the key questions:

- What are the characteristics of the target audiences?
- What are existing behaviors and habits?
- What are the handwashing with soap drivers, habits, and environment?
- What are the main channels of communication used by the target audiences?

When analyzing the data and writing the final report, the research agency must frame its work around the main research questions as presented above. Using table 5 to summarize barriers and potential drivers is also recommended.

Depending on the team's level of experience, the client may need to set out all of the analysis that is required of the contractor.

Box 8: Consumer Research: The Rational Bias

We know that behavior is a product of drivers or motivations. They activate when the brain receives signals from the environment (e.g., the sight of a juicy apple) or the body (e.g., low energy, hunger). Many drivers can operate at once, and the brain gives one or another priority for action. Actions that are easy (require the least expenditure of effort) will be favored over difficult ones. Actions that have been done before, or are habitual, will be favored over new, less familiar ones. Though it is often assumed that communicating the health benefit of handwashing is enough to drive it, it is only one among many potential drivers and often not the strongest, though people might attempt to rationalize and explain their behavior in health terms.

Consumer research is made difficult by the widespread tendency to rationalize and explain behavior in a way that makes an individual appear favorable to an interviewer. However, the basic drivers of human behavior are subconscious. Some of them are felt, indirectly, as emotions. Faced by an interviewer, a mother feels obliged to try to explain herself. She may feel as if she were in school again, trying to give the right answer in a test. She may try to remember lessons about hygiene, germs, and disease. Asked why she washes her hands, she endeavors to give a rational explanation: "To avoid disease." Standard health promotion programs tend to content themselves with such answers, forgetting that there may be many more, and many more powerful drivers of behavior change, than fear of disease.

Even if a respondent knows her own motives, there may be powerful social reasons for not admitting to them: Who would admit they want to look attractive to the opposite sex or that they want high status in society?

Marketers know this and ensure that advertisements contain both what they call a functional message and an emotional one. They present a rational basis for buying a product or changing a behavior, one that the consumer can claim or persuade himself or herself is the reason for doing so, but also a deeper emotional reason that probably represents the actual driver of behavior change. A major toilet paper brand in the United Kingdom gives a typical example: its advertisements claim that it is a better brand than the others and uses a cute puppy to convey the idea. The fact is, the paper is no better than many other brands and is more expensive, but the consumer is lured to it through an emotional response to the puppy (Buchholz and Wordemann 2001).

information, they were not seen as hygienic by the general population and were consequently inappropriate carriers of handwashing messages.

Designing and Implementing the Consumer Research

The objectives of the consumer research are to answer, in a valid but concise way, the four questions above: Who carries out risk practices? What are the risk practices? What can change behavior? And how do the target audiences communicate?

Table 6 presents a summary design for consumer research for a country handwashing program. This design involves: (a) 400 structured observations (SOs) of the behavior of mothers; (b) 400 questionnaire-based interviews with the same mothers after the structured observation; (c) 200 questionnaire-based interviews with other target audiences, including male heads of households and school-age children; (d) 5 FGDs with target mothers on soap attributes and communications; (e) 40 behavior trials followed by in-depth interviews; and (f) a school study module.

Structured observations are costly. The number can be reduced from 400 to about 200 if they are intended purely to inform the program and not to provide a baseline from which to measure changes. The higher number is necessary and is typically sufficient to provide the statistical power to detect a significant change in behavior. If the study is to develop a baseline, detailed calculations must be made based on estimates of local handwashing rates and the expected impact of the program. The annex provides a formula and instructions on how to do this.

These recommended quantities will provide a good overview of the country situation regarding handwashing practices and factors inhibiting, enabling, and motivating handwashing with soap at key junctures, provided that

the methods table 6 calls for professionals to provide cover with a full range of socioeconomic, geographical, and cultural backgrounds. The structured observations and questionnaire-based interviews provide a quantitative snapshot of handwashing practices, socio-demographic factors, and channels of communication. After analysis, these data are reported as proportions and percentages. The focus groups and behavior trials use a different approach: their aim is to probe a small number of individuals at great depth concerning their drivers and habits and the environment of handwashing. These data are recorded as transcripts and present key insights into the consumer's mindset in their domestic context. The methods are detailed below.

Studies typically take two months of fieldwork with a team of eight to 14 people, cover the whole target area/country, and may cost on the order of US$20,000-80,000.

Managing and Supervising the Consumer Research

The agency chosen to perform the research needs a background in consumer research and must demonstrate its ability to achieve a nationally representative sample and manage qualitative data. The study will be much improved with inputs from private sector marketing and/or international handwashing experts to help brief and train the consumer research team; support the qualitative work, if experience in this is lacking; and analyze results.

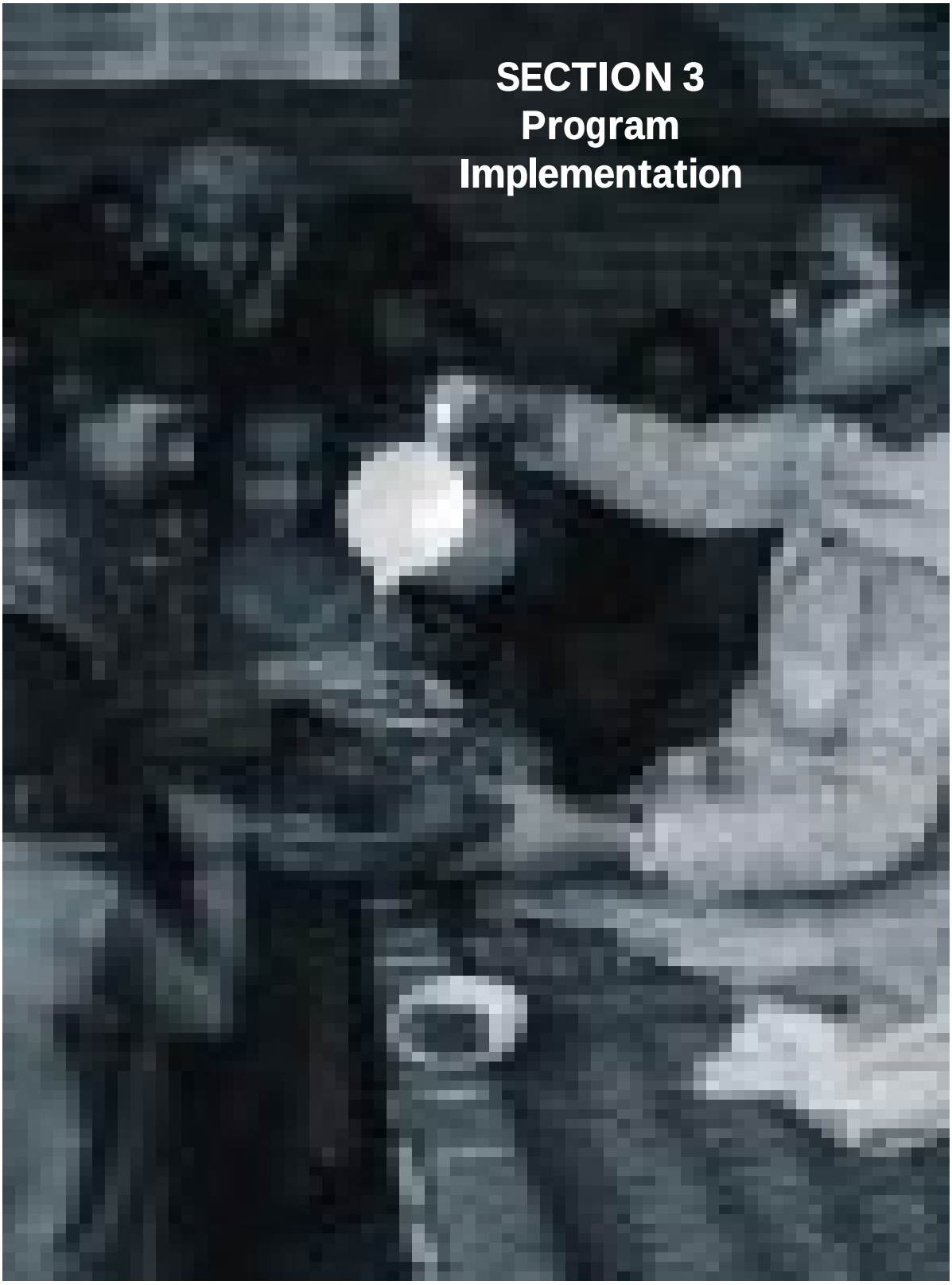
Analysis and Reporting of the Results

Once collected and cleaned, the data are analyzed by the research agency. Data are used to answer the four main questions. Quantitative data are summarized in tables, and qualitative data are coded according to the main themes: drivers; habits; and environment motives, barriers, and facilitators. Several rounds of analysis and reporting may be needed to develop a report that meets the needs of the program. Raw data and transcripts of FGDs and in-depth interviews must also be provided, as transcripts, in particular, can provide excellent raw material for the development of creative strategies.

It is essential that the steering or consultative committee includes people who can critically review the reports. Experts recommend reviewing the quantitative report, by, minimally, checking that the data set is clean and that a re-analysis of some of the descriptive and cross-tabulated variables finds the same results as the agency. With the qualitative data it is essential to read some of the raw transcripts and develop a feel for what people are saying. Interpretations can vary from person to person, so it is also possible that the research agency will miss some important nuances. In both qualitative and quantitative research, it is not uncommon for marketers themselves to re-run the analyses using the data provided by the market research agencies.

Qualitative research and analysis is difficult to do well, so it is essential that it be reviewed closely.

SECTION 3
Program Implementation



GUY STUBBS/WSP-SA

SECTION 3
Program Implementation

Designing the Campaign

With a partnership framework and research results, planning for the handwashing with soap campaign can begin. The results of the research should provide all the information needed: the key practices to target; who the target audiences are; what the barriers, habits, and environment are; and details about appropriate channels of communication. Experienced soap industry marketing professionals can provide expertise and assist with all the activities described in this section.

Applying the Marketing Mix

The marketing mix, often presented as the Four P's – Product, Price, Place, and Promotion – provides a framework for how to design a comprehensive handwashing program.

Product refers to the tangible good or service that can facilitate behavior change; it can include environmental changes or aids. Handwashing-related products include soap, water and water dispensers, and basins.

Price refers to monetary and nonmonetary incentives, such as the cost of soap and water and the time needed to wash hands.

Place refers to the distribution of products and conveniences, such as distance to a water source and availability of soap.

Promotion refers to persuasive communication and includes key messages, media channels, and environmental prompts.

While this document largely concerns the fourth P, promotion, a country program may also aim to influence product solutions (e.g., making water dispensers available in schools), pricing (e.g., lobbying a government to reduce a sales tax on soap), and place (e.g., lobbying for tap connections and soap dispensers in schools).

Developing the Promotion

Target Audiences and Segmentation

Segmentation refers to the process of dividing the target audiences into groups with similar behaviors and needs. Segmentation is done so that promoters can address the needs of each segment of the target audience. Each segment will require different marketing strategies. Primary target segments in handwashing programs include (a) mothers of children under five years; (b) other caretakers of children under five years; and (c) school-age children at school and in other settings.

Further segmentation might divide those not washing their hands at all (likely late adopters, likely less inclined to develop the habit of handwashing with soap) from those already washing their hands, but with water alone (likely early adopters, more ready to respond to handwashing messages). In some cases it might be necessary to segment the target audience according to ethnic or religious group. Other segments might include rural and urban target audiences. Regardless of how audiences are segmented, it is important to ensure that messages are appropriate to all groups.

There are also *secondary* target segments, audiences that can be expected to support and influence behavior change among the primary group. These might include (a) fathers of children under five years; (b) mothers-in-law; (c) teachers; and (d) healthcare workers.

A third segment may be the target of an advocacy/public relations campaign in support of the program. This includes 'upstream' stakeholders who can assist in garnering political commitment. They may also be able to help in such areas as installing handwashing facilities in schools or public toilets and by adding handwashing to their own programs. Such stakeholders may include (a) industry; (b) government; (c) the media; and (d) development organizations (international agencies, bilaterals, NGOs, community-based organizations).

Other examples of upstream targeting include lobbying governments to reduce import duties on soap ingredients. In addition, working with development organizations to plan infrastructure projects in coordination with hygiene promotion can ensure the *placement* of handwashing-related *products,* such as water points.

Agencies, Concepts, and Testing

Methodical and thorough planning is the key to a successful campaign, and the use of a professional communications agency is essential. Good agencies are skilled at turning

consumer insights into effective behavior change programs. However, the results are only as good as the brief (described below).

Communication agencies are responsible for turning the objectives and insights of marketers into comprehensive communications campaigns. They begin this process through a 'creative brief,' a document designed to outline the scope of the work they are expected to undertake. The brief should be presented to the communications team with time for discussion and idea generation. It should be as clear and succinct as possible and typically contain four key elements:

1. The business task.
2. The communication task: (a) Who is the target audience?; (b) What do they do/think now?; and (c) What do we want them to do/think?
3. What is the s*ingle-minded proposition*, our unique selling point? That is, What is the single focus, the one benefit we want to communicate to the target audience? (This benefit must be *believable*.*)*
4. Execution task, including the tone that communications should take.

Consumer research has provided the key elements for the brief, notably: (a) target audience profiles; (b) current habits; (c) drivers, barriers, and the environment; and (d) a map of channels of communication.

The final brief is negotiated between agency and client. Lintas Ghana Ltd has provided guidance on the 'The Perfect Brief' (see box 9). Alongside the brief, the client should provide a full report of the consumer research, including verbatim transcripts of interviews and focus groups and plenty of nuggets of insights gleaned from

The Senegal Creative Strategy

ADULTS	CHILDREN
Objectives: ● To adapt the behavior of washing hands with soap after the toilets, after having changed a child, before eating, and before feeding a child cooking ● To transfer this behaviors to children and close contacts	**Objectives:** ● To adapt the behavior of washing hands with soap before eating and after using the toilet ● Convey this example to others
Target Audience: Mothers and guardians of children under five years of age	**Target Audience:** Children 6-12 years old
Benefits: ● *attractiveness*, cleanliness, to smell good, and to be in good health ● to avoid the disease, dirtiness, bad smells, and shame	**Benefits:** ● coolness and being accepted by the group ● ***feel good*** (physically and mentally)
Tone: jovial and positive	**Tone:** cool, 'in', encouraging
Desired reaction: For the well-being of myself and my family, I wash my hands with soap	**Desired reaction:** I wash my hands with the soap, and I have a good sense of myself and it is cool. If I do not wash my hands with the soap I will not fit in with my peers
Sources: ● Consumer research carried out in Senegal at the end of 2003 ● Experiences from handwashing programs in other countries	**Sources:** ● Structured observations in primary schools in Dakar ● Experiences from handwashing programs in other countries ● Consistency with adult strategy

Box 9: The Perfect Brief

During preparation of the Ghana Handwashing Initiative, the advertising agency Lintas was selected to design the campaign materials. It soon became clear to the client, Ghana's handwashing initiative steering committee, that the successful development of the materials was due to the well-designed creative brief. Lintas-Ghana shared its guidelines for designing *The Perfect Brief* during a global handwashing technical workshop in 2003.

The Purpose of a Brief
- To create good advertising
- Create/communicate a common understanding of the task
- Inspire
- Develop a tool for measuring the results

Client/Agency Relationship
Preparing the brief is a team process that includes:
- Collaborating with the agency
- Receiving a draft document early on, then re-working it
- Getting sign-off from all stakeholders
- An effective team (small, consistent)
- Defining roles and empowering a leader
- Creating a shared vision
- Effective, enjoyable meetings with clear, commonly understood objectives

Risk versus Safety
- "If you don't get noticed, you don't get anything": Bill Bernbach, legendary copywriter and founder of DDB Worldwide
- Anodyne, unoriginal, and uninteresting advertising is ineffective
- Advertising that stands out carries risk
- A small, well-led team has the courage to face/manage that risk and create communications that are surprising, interesting, and memorable

Planning and Research
Know what you want to achieve
- Change of mind
- Behavior change
- Quantify (how many, by when)
- Pinpoint, then know the target – demographic and psychographic – relevant, insight, golden nugget, drivers, barriers. How they find information they trust
- Communication strategy

Team Leader
- The most experienced marketer on the team
- The driver
- Empowered to make decisions on behalf of the rest of the team
- In from the start, there at every milestone, and there to make the final decision
- Not a gatekeeper but an initiator

Content
- Simple: one page; no jargon
- Objective
- Who are we talking to?
- What do they think now? What is their need?
- What do we want them to think? A single-minded proposition that it's important to the target's life
- Why should they believe us?
- Executional guidelines/requirements

The Briefing Session
- Present the brief face-to-face with the creative team
- Be creative, make it an interesting and memorable experience
- Be flexible in the face of concerns voiced by the team
- Make it fun

Evaluating Advertising
- Measure against brief: Does it say it? Did it communicate?
- Does it have a single idea that links all the executions across media?
- Is it surprising?
- Is it interesting?
- Is it memorable?

An imperfect brief
- A verbal brief (it isn't worth the paper it isn't written on)
- Is full of jargon, acronyms, and options
- Is unclear on budget or timing (that is, ASAP)
- Is non-negotiable
- Asks for miracles, that is, overambitious objectives despite logistical barriers
- Has a double-barreled single-minded proposition

Source: Colin Charles, Lintas Ghana (August, 2003)

the research. This will contribute to the agency's understanding of the behavior of interest, target audiences, and communication channels.

Following initial briefing meetings, the agency account manager will produce internal briefs for the creative team. Thereafter, the creative process is iterative with regular agency-client meetings. It is important to be as clear and directional as possible throughout this process. Industry's experience is invaluable, so it is essential that private sector expertise is used throughout development of the communications strategy. A core team familiar with all aspects of the research

Table 7: Advantages and Disadvantages of Different Approaches to Communication

Approach	Description	Advantage	Disadvantage
Mass media	Messages crafted to be transmitted through an optimized mix of radio, TV, billboard, and other channels	Low cost per capita, can be highly memorable, can raise the political profile of handwashing, easy to monitor	Needs high saturation (6+contacts) to affect behavior change Audience cannot interact Difficult to fund
Direct consumer contact	Events organized by professional event management agencies, held in schools, public places, community groups	Good audience interaction, high impact, memorable	High cost per capita Uncertainty about impact and optimal size of audience
Public channels	Using the ability of government agencies to deliver handwashing messages through schools and health centers	Potentially highly sustainable, if handwashing promotion becomes part of curriculum, job description of health agent, promoted at ante- and post-natal contact	Hard to control Low staff motivation Contact with target audiences may be infrequent, resulting in low coverage Low ability to monitor activities

and the approach should be maintained throughout this process, which often takes several months.

First, the results of the research are used to develop a number of platforms or concepts. These are developed and tested by an independent research agency in order to determine which message direction is most likely to drive behavior change. The most promising concepts are then further developed into miniature stories for TV and radio ads and into outline poster designs. The advertising stories are illustrated in drawn storyboards, which are also then tested with target audiences for believability, attractiveness, and potential behavior change power, again by an independent research agency. The processes for testing concepts and storyboards are similar, as outlined in box 7.

It is essential that time is allowed in the creative process for the testing and retesting of concepts; storyboards; and, ideally, draft advertisements, as it is this fine-tuning that will maximize the campaign's success.

Multiple Strategies for Behavior Change

Handwashing programs rely on a variety of communication channels such as mass media and direct consumer contact activities. As described in table 7, mass media might include television, radio, and billboard advertising. Direct contact with consumers includes activities carried out by event management organizations and existing organizations, such as local government, schools, health authorities, NGOs, commercial retail outlets, churches, mosques, etc. The more appropriate the mix of communication channels to the local situation, the more effective the campaign will be.

Mass communications (TV, radio, billboards): When channels such as TV, radio, the Internet, billboards, leaflets, and posters are employed, they can reach large audiences at a low cost per capita. They may thus appear cost-effective. However, the downside is that mass media contacts are thought to be less effective in achieving behavior change than group or individual contact due to the lack of opportunity for audience interaction.

Direct consumer contact: Public meetings, street theater, mobile cinema, and other special events run by professional direct consumer contact (DCC) organizations, as well as educational sessions in schools and health facilities, can reach large numbers of people, if enough events are held. The effectiveness of this approach has not been greatly studied, and group health education has had uncertain

effects on behavior. However, industry believes that while DCC is much more costly per person reached than mass media, in the longer term its power to change behavior is greater due to the greater intensity of the communication and opportunity for audience interaction.

Government and partner agency communication: In an ideal world, all government health employees, hygiene staff, school teachers, and outreach workers would introduce handwashing at every contact opportunity with target audiences. However, such employees have other priorities, and special strategies will be needed if handwashing is to become their priority. The key to the success of these communications is the creation of a cadre of motivated, well-trained agents. This is as difficult to achieve in handwashing efforts as in any public health program. However, efforts to include handwashing promotion in the job descriptions of teachers and health workers may be one route to long-term sustainability. A mass media campaign may help motivate government employees to take on the handwashing message. Particular events in health facilities, such as the distribution of free soap in 'bounty packs' for new mothers, also enhance health worker motivation and provide stimuli for mothers to take on new behaviors for the good of their infants.

The use of *commitments* can increase the likelihood of behavior change. Clinics can be encouraged to give mothers a 'certificate' honoring their commitment to wash their hands with soap at key junctures.These certificates could also be distributed to mothers and children at community events (see 'Direct consumer contact,' above) and to children through schools. Rewarding people as they continue to practice a new behavior, even with small tokens such as stickers or badges, or simple praise, can also be important in moving people from a one-time trial of handwashing with soap to developing the habit.

School children could have monthly hygiene prizes, while clinics might reward new mothers for continuing to wash their hands as their baby grows.

Product labeling: Ensuring that the handwashing message is carried on handwashing-related products can provide a good prompt/reminder to wash hands with soap at key times. Food companies could be encouraged to carry the message or logo on food items to remind people to wash hands before eating or preparing foods, while soap companies could put the message on soap packaging. For example, one soap company in Ghana intends to introduce a new in packaging that has the same colors as images from handwashing campaign. This need not involve additional cost but may require advocacy and PR (see below).

Public Relations and Advocacy

While the mass media and direct consumer contact activities seek to change handwashing behavior in mothers and children, public relations and advocacy aim to create and maintain support for these efforts from the broader stakeholder groups – the third target audience mentioned above in 'Target Audiences and Segmentation.' If used to its full potential, PR can be a powerful marketing tool that develops and maintains interest, anticipates and deals with negative publicity, and helps maximize the campaign's impact.

Handwashing programs need concerted initial advocacy to bring all key stakeholders on board, but advocacy is not a one-time activity. During early stages of a program, it may be helpful to have international experts visit to raise the profile of handwashing and add credibility: not everyone may see what a serious issue handwashing is. Advocacy is also needed throughout the life of the program to keep stakeholders on board and to brief new partners experiencing staff turnover. The leading targets for advocacy are key decision-makers as identified in the stakeholder analysis. Often, it makes sense to target the highest possible level: Prime Ministers and Ministers as well as chief executives and country representatives. It may also be vital to identify potential dissenters and to keep them well informed and in the loop. Misunderstandings about the nature of the program can lead to bad press, which can seriously damage or even sink handwashing programs (see box 10).

PR targets stakeholder groups that can leverage publicity, funds, and expertise. Such groups include:

- The press, which develops news and features that highlight research findings, campaign events, and accomplishments, and reinforce key handwashing messages;
- Government agents, who lobby officials to support and promote the program within their institutions and budgets and to improve the operating environment;
- The private sector, which engages the soap industry and other private sector entities to provide expertise and financial support for the design and execution of the handwashing campaign or to carry handwashing messages and logos on their products to remind people to wash hands at key junctures; and
- Support agencies, which create interest and commitment in the development community to set up financial support, networking, technical assistance, and the inclusion of handwashing messages in programs and projects.

The PR Plan

The purpose of PR is to create and maintain awareness and support. This is accomplished through various tools, such as press releases, speeches/presentations, and events. Key points when planning a PR campaign are:

Know the target audience: What type of stories will the media be likely to print? What are the favored media outlets and venues used by specific stakeholders? What are the current 'hot' issues with stakeholders that could be exploited or could potentially detract from handwashing? Who can address handwashing barriers raised in the research, such as high import tariffs on raw materials that lead to high soap prices or lack of handwashing facilities in schools? Like all areas of the handwashing initiative, local knowledge of each stakeholder group is essential when developing appropriate messages.

Encourage networking among target audiences: Put different organizations in touch with each other. Independent support will leverage the handwashing messages, increase credibility, and stimulate problem solving.

Start early: PR is the first mass communications step of a handwashing initiative. Many of the informal stages of partnership formation will form the basis of the PR plan.

Box 10: A Lesson in Public Relations: Handwashing in Kerala, India

As part of the Global Handwashing Partnership, a handwashing program was started in Kerala, India, in early 2001. Facilitated by the World Bank and the Water and Sanitation Program, the government of Kerala partnered with the Indian Soap and Toiletries Manufacturers' Association (ISTMA) to develop a handwashing promotion program across the state. Hindustan Lever Limited, the largest private soap manufacturer in India and a key member of ISTMA, played an active role in developing the public-private partnership. UNICEF, the London School of Hygiene & Tropical Medicine (LSHTM), and a number of NGOs were also involved.

As the handwashing program design and business plan began to receive public attention, environmental and anti-globalization activists began criticizing the program through the print media. They were soon joined by other high-profile groups, including doctors, local newspapers, and opposition politicians. The main points of criticism were: (a) the choice of Kerala for the program in view of its already high human development indicators; (b) unclear linkage between handwashing and health improvement; (c) the potential adverse effect on the indigenous and local soap industry by increasing the market share of multinational soap companies; and (d) the suggestion that the state government was capitulating to World Bank pressure. In the face of mounting media attacks and after a long period of inaction, the state cabinet decided to abandon the program in August 2003.

Could the problems in Kerala have been avoided or handled better? The ideal combination of an interested donor, an interested soap company, and initial demand from the government for a handwashing program evaporated under widespread media criticism. A PR plan could have contributed to:

Better media management: The only response to press criticism was an official, lukewarm statement that came six months too late. Regular briefings and updates could have helped build media support.

Better informed stakeholders: Not all key stakeholders felt included, as the program was designed and business plan developed.

Small business involvement: Though local and small soap companies were involved and participated, this was not widely known and led to the perception that multinationals would take over the market.

Better informed stakeholders: A perception developed that the campaign was designed to sell only one company's soaps and that the whole initiative was being driven by one donor. In reality, the campaign was not promoting any particular firm or brand, and more than one internationally recognized organization was highly involved.

At the same time a politician claimed it would be better for the government to spend money on providing safe water and sanitation infrastructure rather than handwashing. This argument was buttressed by the assertion that safe water and sanitation initiatives are "tangible and based on hardware," while a communication-based initiative like handwashing is "largely ephemeral, intangible, and therefore prone to wastage and misuse." Even doctors were skeptical about the health benefits of handwashing with soap. Information of the benefits of handwashing and the monitoring and evaluation frameworks could have been regularly disseminated to policy makers, constituents, and health professionals with forums encouraging the exchange of views.

Initially, PR can convey the importance of handwashing with soap. With research results in hand, PR can highlight country-specific handwashing needs.

Align the PR plan with broader communications efforts: As the communications strategy is developed, PR activities will need to align with the mass media and direct consumer contact campaigns. This will improve impact through message clarity, timing, and campaign identity (logos, colors, etc.). In short, PR should fit with the communications brief, whether or not professional PR expertise is engaged.

The Media Mix

Modeling the impact of different communications routes on target audiences is the next step. With finite resources it is essential to work out which mix of communications channels will be most cost-effective. This is a science well understood by industry. Models of media consumption and contact patterns in the target populations are built by professionals. The capacity of TV, radio, and other channels to reach the whole target audience is calculated. Assumptions are then made about the costs and effectiveness of different channels, and finally a mix of channels is selected to maximize cost-effectiveness.

When designing the communications strategy and apportioning budgets to various different communications channels, it is essential to ensure that all are utilizing the same promotional messages and materials as used in the mass media channels. Hence, before designing the direct consumer contact and district-level programs, it is essential that mass media messages are finalized.

This does not, however, mean that the same company should be used for every communications approach. Agencies that specialize in both advertising and direct consumer contact will have to be recruited.

Finally, there are many activities that could promote handwashing in any country. However, since resources and management time are limited, each activity must be justified in terms of the time and resources it would take away from other efforts. Many small agencies may wish to be involved, for example, but may take far more time to bring on board and convince of strategies than their likely impact would warrant. Strategic planning is essential: for each activity, managers have to decide how much they can expect in terms of impact and concentrate on those with expected high returns.

Monitoring and Evaluation

The object of monitoring and evaluation (M&E) is to ascertain the extent and effectiveness of the program. Monitoring serves to diagnose and help fix problems during program execution. Evaluation is the process of measuring outcomes both during and after the intervention, to determine how successful the program is, or was. M&E involves three broad steps: a baseline survey, ongoing monitoring of program activities, and a post-intervention survey.

In industry it is standard to run a communications program in six-month phases, with three-month gaps between each phase to review and adapt content. This enables evaluation of the reach of the message, its content, and the target audience's understanding and interpretation of it. The media mix is revised to give better coverage of target audiences, to reflect what channels reach people, and which channels are most influential. Interim evaluations can gauge the degree of saturation of the message and provide the information for minor or complete revision, if needed. However, in early stages one cannot expect to detect significant behavior change and must rely more on qualitative assessment of people's understanding and appreciation of the messages and indicators of the propensity to change behavior.

Baseline Survey

Initially, the team needs to understand local handwashing practices and local determinants of regular handwashing with soap. A single baseline survey, which can be carried out along with the consumer research, can provide both, with advanced planning by the initiation team. Marketing companies tend to choose convenient populations to explore attitudes and motivation. A baseline survey to assess the impact of a program, however, requires a carefully drawn representative sample. Having the people conducting the baseline evaluation and the handwashing determinants investigation work in a single team or at least closely enough together is economical, as they would identify and work with the same population. In addition, their results would have more explanatory force, because a sophisticated understanding of people's motivations can be directly linked with their handwashing behavior.

The handwashing baseline survey should be conducted among a random sample of people who are the target of the handwashing promotion program. Thus, when the baseline survey is commissioned, the handwashing promotion team needs to be clear on who comprises the campaign's target audience. For example, is the campaign a national campaign striving to reach all

households or is it focused primarily on urban, rural, or low-income households? Once the campaign target has been identified, a strategy is developed to identify a random sample of persons within the target audience. A cluster-randomized design, similar to an immunization coverage survey, where communities are randomly selected with the probability of selection proportional to the population, is generally the most efficient and practical approach. The survey team visits 30 randomly selected communities and evaluates 10-30 households in each.

The primary indicators for the baseline survey include:

- **The presence of soap** in the home, presence of hand soap in the home;
- **The presence of a handwashing station** (that is, a place where water and soap are readily available for handwashing);
- Structured observations of **handwashing behavior at key times**, specifically recording the proportion of family members who wash their hands with soap before preparing, eating, or giving food; after defecation; and after cleaning up a feces-soiled infant; and
- **Diarrhea occurrence** among each family member in the last 24 hours, which may need to be measured in countries where key stakeholders are unconvinced of the link between health and handwashing or demand direct measurement of health impact.

Monitoring

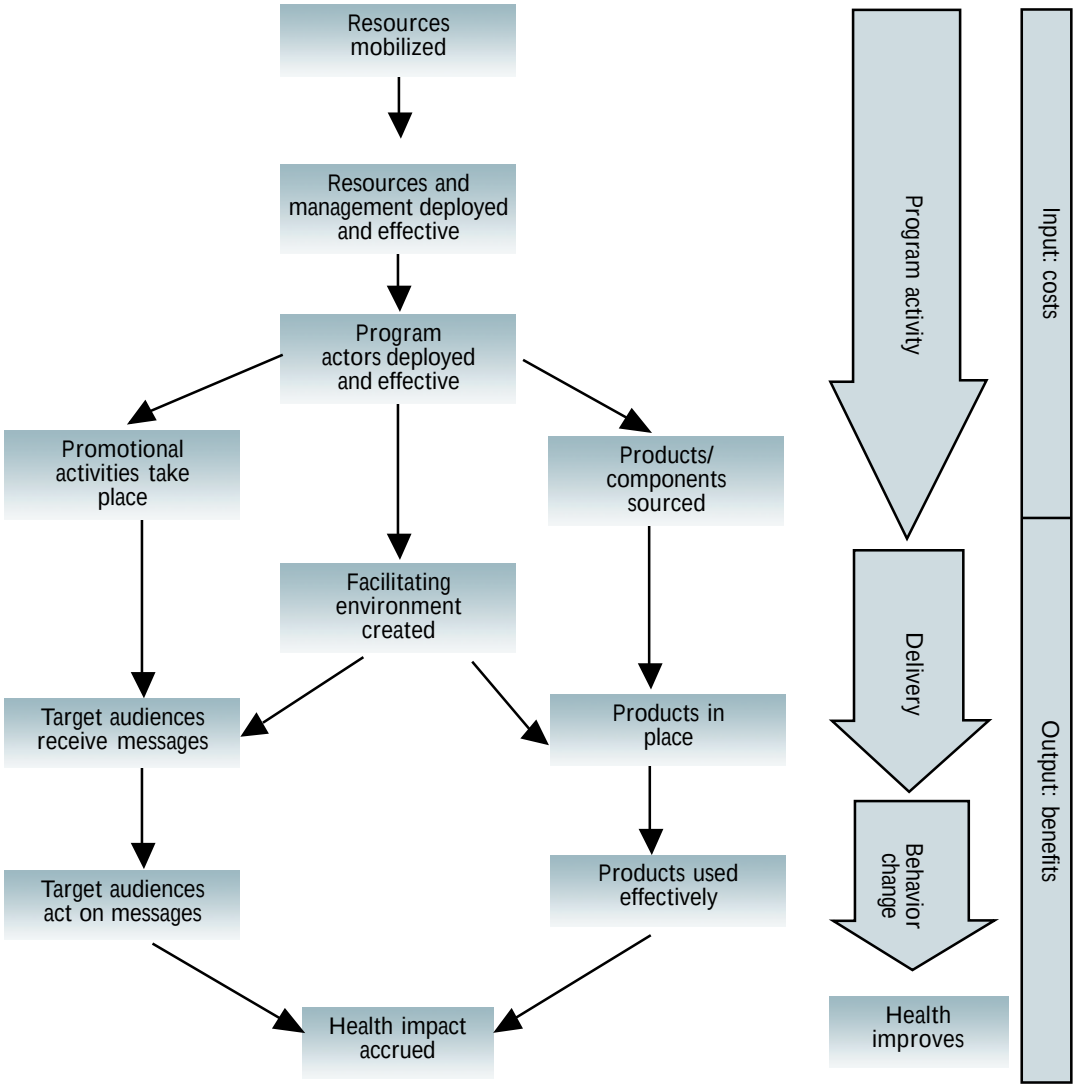
The second requirement for evaluating a handwashing promotion program is an ongoing process to monitor the implementation of planned activities and ensure that messages are reaching their target audiences.

Information from a well-designed monitoring system can serve to reorient programs and make them effective. As with any large-scale program, managers need to set up systems to follow the progress of activities and gather data on achievements. Such information can be supplemented with periodic random sample surveys to document the reach of the program via the different channels of communication. In essence, a simple survey, representative of the target audiences, documents how much contact each actor has had with the program. Audiences report their recall of contact and content and indicate if this has led to any changes in belief or behavior. (As mentioned, this does not prove behavior change, but is a general indicator of progress in the right direction.) Qualitative work concerning how well the audience is reacting to the media presented can provide insight to reorient programs.

Table 8: The Ghana National Handwashing Initiative: Phase 1 Evaluation Results (in Percentages)

Handwashing with Soap Juncture	Reporting HW before Campaign	Reporting HW since Campaign	Change in Reporting
Women			
After defecation	76	89	+13
Before eating	14	55	+41
Before feeding a baby	6	25	+19
Before preparing food	11	26	+15
After eating	53	31	-22
Children			
After defecation	76	89	+13
Before eating	14	76	+62
After eating	61	41	-20

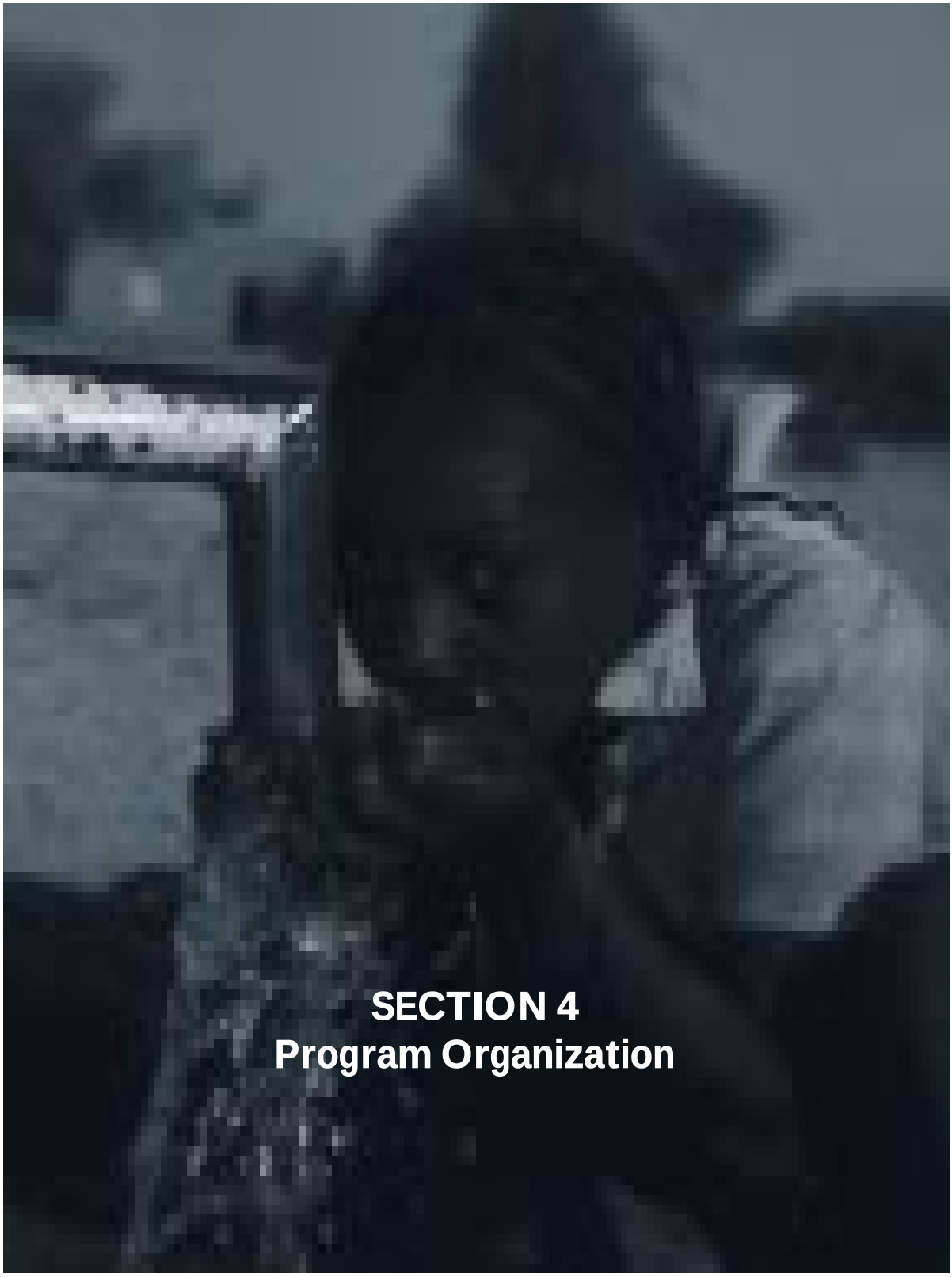
Figure 6: Monitoring and Evaluation: Program Activities and Impact



Evaluation

Final evaluation compares handwashing behavior with the baseline in order to determine the outcomes and impact of the program. During evaluation, a new random sample is drawn from the target population. Thirty new communities are identified, and 10-30 households approached in each. The same instrument that was used to collect the baseline data is administered to collect the post-intervention data. The in-depth determinants of handwashing behavior investigation do not need to be repeated. The data from the final survey are analyzed and compared to the first survey to assess changes in behavior (see table 8).

Detailed program evaluation, including the final outcome, health impact, is expensive to do well and requires special epidemiological expertise. The prevalence of diarrhea is highly variable, so two one-day measurements years apart in two populations of 300-900 households is insufficient to demonstrate a direct effect attributable to the handwashing promotion program. However, these data can be used to model the prevalence of diarrhea and its association with observed handwashing practices. This can then be used to model the impact of the improved handwashing on diarrhea. However, since the impact on improved handwashing behaviors on disease is known, it usually suffices to look for impact on behavior as proof that the program is achieving its objectives. Health impact can then be extrapolated.



SECTION 4
Program Organization

SECTION 4
Program Organization

The Partnership Mix

Putting together a country team with the commitment, resources, and skills to set up, support, and run a national handwashing program takes time and effort. When partners from different backgrounds are not accustomed to working together, it takes time to build common aims and mutual trust.

Public-private partnerships (PPPs) provide an effective model for handwashing programs because they combine the health objectives of the public sector with the marketing expertise of the private sector. As noted, the private sector stands to gain from joining such a partnership primarily through market expansion, by being seen as contributing to social goals, and by networking with development partners and international experts. The public sector gains from the marketing expertise and resources of industry. They are thereby able to produce public health campaigns that rival, or surpass, industrial marketing efforts.

A General Partnership Model

The experience of previous handwashing campaigns in Central America, Ghana, Nepal, and Senegal suggests that a coordinator-committee model for PPPs is an effective way of managing a program with a diverse group of partners.

The coordinator: The coordinator manages day-to-day operations, keeps stakeholders engaged and informed, and ensures that the whole initiative is moving towards its objectives. The coordinator is responsible for developing and fulfilling the project business plan through the engagement of partners and resources. A sample TOR, contained in the annex, outlines a coordinator's duties, qualifications, and skills.

The steering committee: The key stakeholders that provide resources – technical, financial, and management support – make up the steering committee. They communicate with each other and the coordinator regularly and take the lead on specific business plan components. The benefits of having many members must be weighed against the transaction costs, which rise geometrically with every additional member.

The consultative committee: The consultative committee comprises stakeholders who have a specific interest in the program but do not expect to be engaged on a daily basis. Its members might be asked for occasional feedback and approval on specific issues. This committee may include government officials, members of the press, community groups, the wider scientific community, and senior institutional managers. They may also represent organizations, such as regional or nongovernmental organizations, that will be extending the campaign to specific geographical areas.

Meeting formally or informally, the consultative committee helps the coordinator organize stakeholders at the appropriate level of inter-action and helps keep stakeholders engaged and enthused. Subgroups on communications, consumer research, and the press may be useful.

Box 11: Handwashing in Action: The Handwashing Partnership in Peru

Identifying the right partners, building a relationship of trust, and then maintaining their involvement and willingness to compromise at high levels, are probably the most challenging, frustrating, and at the same time rewarding tasks the coordinator must achieve and sustain during the initiative. Once the PPP is believed to be solid, a coordinator must never rest on his/her success, because there is always the risk that a pending threat may affect or interrupt the consolidated equilibrium among partners.

Peru's initiative started on the right footing. A mission of the Global Committee visited Peru at the end of 2003 to identify opportunities for the implementation of a handwashing initiative there. Public and private institutions were invited to evaluate the project and showed interest from the beginning.

The mission planted a seed, and a few months later, the Ministry of Health, the Swiss Development Cooperation, the Water and Sanitation Program of the World Bank, and USAID, joined the handwashing steering committee with a well-defined agenda for the first year of operations.

Steering committee meetings were held regularly, and building a strong partnership became a priority. Close to 20 institutions were identified and visited with two objectives in mind: to provide handwashing information by way of a motivated and persuasive speech and to gather quality information about the partner-to-be: its profile; its institutional objectives; the assets it would bring to the partnership; and its potential for providing professional advise and clout, for bringing along new partners, and for becoming financial partners at some point.

Steering committee members in Peru participate in a global technical workshop

The first year: The steering committee evolved into a sound, well-defined executive committee, with new members joining from the private sector: Radio Programas del Perú, a national radio broadcaster engaged in social responsibility, and the international NGO CARE with experience in handwashing promotion in rural areas. Their professionals participated in and followed closely the planning process and activities that concluded in a business plan at the end of the first year.

Other private partners, such as Colgate-Palmolive and Alicorp (the leading national producer of laundry soap), members of a broader body, and the consultative committee were key members in the communication task force, organized to draw the communication program structure of the business plan.

Slowing pace: The beginning of the implementation phase was marked by uncertainty. Financial sources previously identified as strong possibilities fell through, forcing the initiative to move more slowly, and momentum was lost.

Changes took place within almost every institutional member of the executive committee. Partners' roles were not fully understood by incoming members: Should the initiative be made public? What responsibilities should executive committee members assume once funding was received?

A window of opportunity opened when USAID decided to fund the first activity of the implementation phase: the creative process, which brought with it the opportunity to rebuild the executive committee around a well-defined action plan. The process had to start again.

The ability to communicate and build trust among a wide variety of institutions; the capacity to promote partners' participation and commitment, strengthening their ownership rights over the initiative; to know when to push and when to stop; to be alert for changes and able to discover opportunities and manage risk as they appear, are all necessary tools for a coordinator.

Box 12: Private Sector Handwashing Activities

The private sector engages worldwide in handwashing promotion and educational activities that can link and coordinate with country handwashing initiatives to leverage program scope and help to ensure sustainability by tying handwashing messages to expanding soap brands. These excerpts from the promotional material of three large soap producers illustrate private sector approaches to handwashing activities.

Colgate-Palmolive: Clean Hands, Good Health

Health experts recommend handwashing as a key tool in protecting the public health. It's a mainstay in infection control. Yet surprisingly, promotion of handwashing to the general public is not always visible. Research on habits of the general public reveals a gap between practice and the ideal. This is true in industrialized and developing nations as well. To address the need for handwashing promotion and education, Colgate-Palmolive launched a global education initiative, Clean Hands, Good Health℠. The initiative began in 1998 with a poster campaign entitled Lather Up for Good Health™, designed to promote and raise awareness of proper handwashing through outreach to U.S. public health professionals and the community at large. In 2000 the program was expanded with the introduction of a school education program designed to help educators teach school-age children in an engaging way. Since its U.S. launch, millions of children have been reached in the U.S., Asia, Latin America, and Africa. The program consists of both a structured school curriculum as well as community programs. Children, parents, educators, and health professionals work together to make handwashing an important component of hygiene education and practice. Studies show that young children exposed to the curriculum can easily grasp the how and why to wash, making it a great companion in teaching self-protection.

Procter & Gamble:
Mexico Handwashing Program

Mexico's Safeguard bar soap has been running a multi-element campaign to promote handwashing among children. Handwashing has been demonstrated to have a significant impact in helping to reduce diarrhea and infectious diseases. The program operates as a partnership, with Safeguard providing expertise and materials while counting on its media, government institutions, and education partners to reach people. Nationally known newscaster Lolita Ayala, who has a foundation for underprivileged children, endorses the overall campaign.

Safeguard donates a portion of sales to the Solo por Ayudar Fund. The campaign employs these partners:

- Mexico's Institute of Social Security, which is using its infrastructure to distribute materials on handwashing. The goal of this segment is to reach more than two million rural residents during the first 12 months. If Safeguard can reach this goal with good results, it plans to expand the program to reach 11 million people.

- More than 2,000 Mexican radio stations, which have been running information on handwashing.

- Mexico City's Children's Museum is featuring an interactive computer game about bacteria that children can use at its main site and also in its traveling show.

- A puppet show promoting good hygiene to more than 80 percent of first-grade students in three cities, as well as in Merida's most popular plaza.

Unilever: Lifebuoy Swasthya Chetna
(Awakening to One's Health)

This program was borne out of a need for personal hygiene practices like using soap everyday for handwashing as well as bathing in India. It's a campaign in multiple phases and touches every member of the community – children, parents, influencers, and young mothers – at all possible places of interaction, with every possible media.

Lifebuoy Partnership

The program uses an innovative tool, the 'Glow Germ demo,' to demolish the myth, 'Visible clean is safe clean' and demonstrate 'Water is not enough.' Apart from this, stories, skits, quizzes, rallies, health checkup camps, posters, newsletters, and stencils are used to deliver the message.

The campaign is now in its third year, and the response has been very encouraging. Villagers speak very highly of it and consider it to be their campaign. Lifebuoy Swasthya Chetna is currently covering close to 18,000 villages across eight states, in keeping with the vision of contacting 100 million people by the end of 2005.

The Business Plan

Setting up a handwashing partnership is an iterative and, in many cases, entrepreneurial process. While a general vision can be set out early on, objectives become more detailed and activities crystallize as the project progresses. Holding this process together is the business plan (box 13), which provides potential stakeholders with the justification for contributing and shows them where resources are needed.

The business plan evolves with the initiative. As the partnership grows, the business plan will help participants consolidate ideas and reach consensus. The first draft outlines the vision for the partnership. Updated versions will reflect the participation of new partners and the completion of components, such as consumer research and the communications strategy.

Business plans are usually limited to about 15 pages with a one-or two-page executive summary. Interested parties can be invited to review more detailed documents, such as consumer research results or the communications strategy. The business plan should be drafted in a simple attractive format that is easily disseminated.

Box 13: Elements of the Business Plan

This outline provides a starting point for a business plan that captures and promotes a handwashing program.

Executive summary: A one- to two-page summary of the business plan, usually written last.

Vision, needs statement, and brief initiative description: These brief documents answer such questions as: What will the project achieve? What needs will it fulfill? Who are the partners?

Sector summary: This document summarizes current and projected development flows into the country that could be used for handwashing campaigns: MDGs and Poverty Reduction Strategies – sanitation and child mortality, etc. – show numbers and trends. Is this a growing area? It also describes the country's soap market: Who are the players by sales revenue and volume? What are the trends?

Analysis of health burden and cost of disease

What handwashing with soap can do: This document is a summary of the scientific evidence for the importance of handwashing, its feasibility, and effectiveness. It forecasts the likely impact of the partnership on health and the economy.

Handwashing in country X provides consumer research results and a summary of needed behavior change.

The communications strategy summarizes the communications strategy, setting out precise, measurable objectives, for example: "Double the rates of handwashing with soap among mothers of children under five after using the toilet or cleaning up a child" or "Fifty percent of new mothers in the country will receive a free bar of soap and instruction on the importance of handwashing." It sets out strategy, approaches, and the main elements of the communications plan.

The communications campaign describes mass media, direct consumer contact, government programs, public relations, and any other components.

Monitoring and evaluation describes the M&E strategy: What data will be collected, how, and when?

Management structure of the PPP: This is a record of existing and desired committees and their responsibilities, who will coordinate and what the coordination tasks will be, and a justification of the choice of participants.

Timing and milestones indicates the amount to be funded and accomplishments to be completed by stipulated dates. Financial position and funding needs show operating costs by component and activity and includes sources of financing. It also provides secured and needed support.

Component	Description	Time Line	Estimated Cost or 'in Kind' if Support is Secured and Amount	Source of Funds (if Secured)
1. Situation assessment and initial consensus				
2. Program establishment				
3. Consumer research				
4. Strategy development				
5. Materials development and testing				
6. Campaign implementation				
7. Monitoring and Evaluation				

Conclusion

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Conclusion

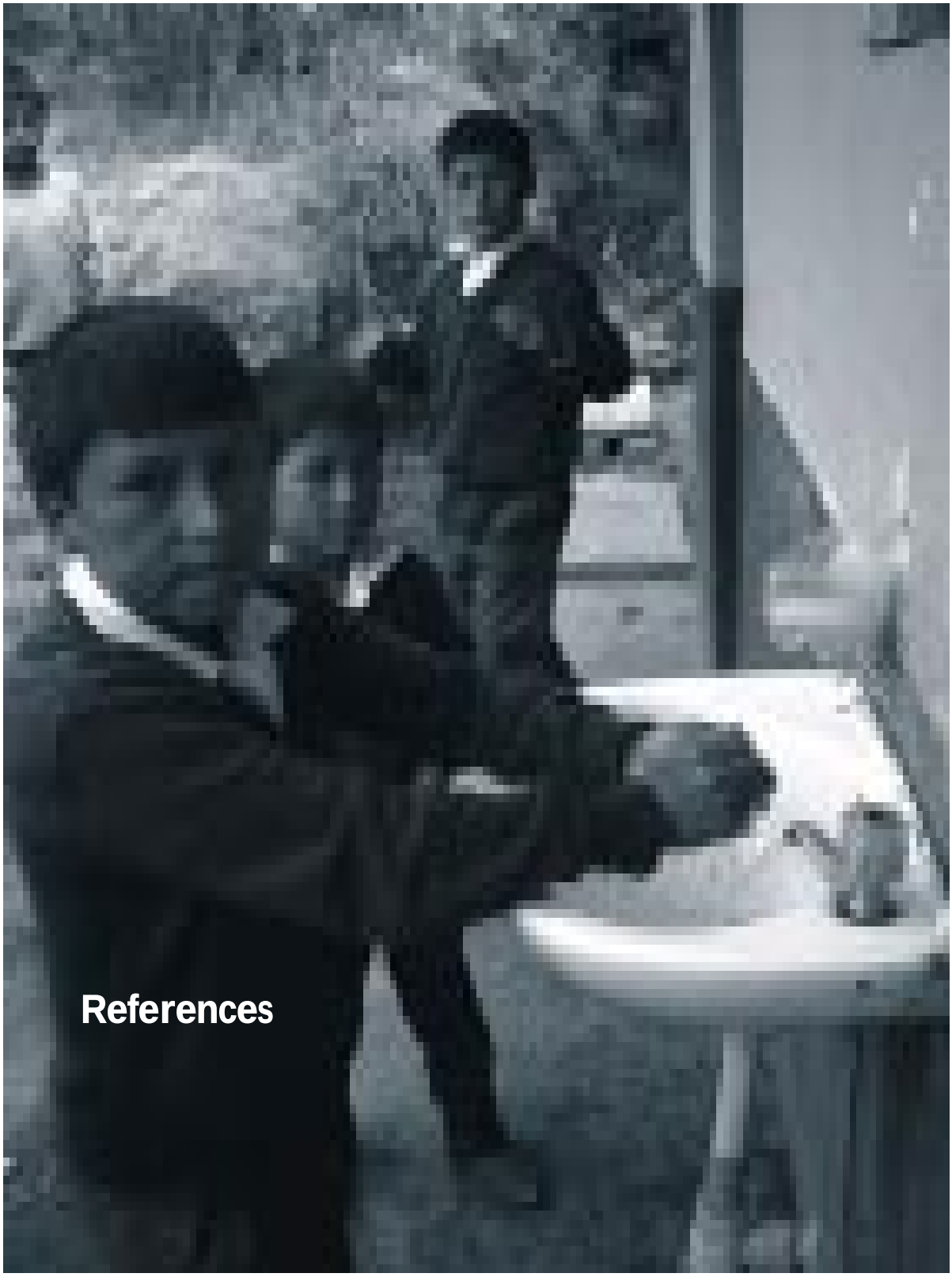
This handbook outlines an approach to the promotion of handwashing with soap, an approach that will continue to develop.

Many issues remain to be resolved. More work, for example, is needed to demonstrate cost-effectiveness. In addition, public-private partnerships can be slow to build and be even slower to show results. This is not surprising, since communication between groups with different traditions, aims, and ways of doing business are difficult. Furthermore, personnel changes frequently require that bridge building be repeated, as the Peru example shows. Nevertheless, as handwashing with soap programs demonstrate their effectiveness, and documentation of experiences is applied, momentum and efficiencies will grow and stimulating partnerships should become easier.

Anther key issue PPPs face is that hygiene does not have a single institutional home. In the many programs, such as Ghana, funding came from the water and sanitation sector. However, for handwashing to be widely accepted and sustained, such programs also need ownership in Ministries of Health and of Education.

Greater evidence on the importance of handwashing to public health will also help improve acceptance. In particular, rigorous trials of the impact of handwashing on infectious disease are needed. The evidence for the impact on acute respiratory infections, specifically, is still weak and needs more investigation. In addition more research on comparing the effectiveness of different approaches to generating behavior change will help optimize implementation.

Available evidence is sufficient to enable public health to act on issues that, on balances of probability, look the most promising. From this perspective, making handwashing with soap ubiquitous is a key challenge for public health in the 21st century. Government, industry, support agencies, and academia all have important roles to play.



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Tools and Terms of Reference

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Tools and Terms of Reference

Tool 1: Behavioral Trials and In-depth Interviewing

Information and Instructions for Fieldworkers

What Is a Behavioral Trial?

A behavioral trial introduces a behavior to individuals and assesses their experiences with trying to carry out that behavior over a period of seven to 14 days. It gives insight into how easily that new behavior is adopted, things that facilitated its practice, and those that hindered it. In this case a soap is given to each participant, who is asked to use this soap ONLY for handwashing with soap, focusing particularly on handwashing after contact with feces (after defecation, after wiping a child's behind, and after disposing of stools), and before feeding a child. After a period of time an interviewer visits each woman and carries out an in-depth interview with her to learn about her experiences between the two visits.

The key practice we are interested is handwashing with soap, what motivates women to carry out this behavior, and what hinders them. In particular, we are interested in handwashing WITH SOAP after defecation, after wiping a child's behind, after disposing of a child's stools, and before feeding a child.

In the course of the interview you are to probe into the reasons, likes, and dislikes for each separate handwashing occasion, noting whether soap is used or not and why. It is just as important to learn from those women who did not use the soap given to them as those who experienced positive experiences. Often informants will refer to subjective concepts such as cleanliness and dirtiness. It is important that you probe into what people mean by such terms and how they are indicated, noting especially what sensory cues (touch, sight, smell, etc.) are involved.

The Post-Experience Interview

- Last week I left a soap with you and asked you to use it specifically for handwashing, did you use it?
- ASK TO SEE THE SOAP AND NOTE HOW MUCH THE PRODUCT APPEARS TO BE USED AND WHERE IT WAS KEPT: RECORD ITS CONDITION: _____

_____

WHERE SOAP WAS KEPT:_____

_____

- Before we begin, may I get some basic sociodemographic information from you?

	How old are you? Under 24 = 1 25-30 = 2 31-35 = 3 36-40 = 4 41+ = 5	
	Where do you live? Place Name: _____ Place Type: Urban = 1 Peri-urban = 2 Rural = 3	
	What is the highest level of education you have attained?	
	What is your occupation?	
	What is your husband's occupation?	
	Does your husband work at home or away? Home = 1 Away = 2	
	How many children do you have? One = 1 Two = 2 Three = 3, etc.	
	How many of these are under five years? One = 1 Two = 2 Three = 3 etc. IF NO CHILD IS UNDER FIVE YEARS, TERMINATE INTERVIEW.	

	How old is your youngest child? 0-6 months = 1 7-12 months = 2 1-2 years = 3 3-5 years = 4	
	Have you moved to work or live in another town/city in the past 12 months? Yes = 1 No = 2 Place:_____	
	Where do you defecate? WC = 1 Private ordinary pit = 2 Private VIP = 3 Private pour-flush = 4 Public = 5 Bush = 6 Other = 7 _____	
	Where do your children defecate? Pottie = 1 Wrapper = 2 Floor = 3 As above = 4	

Now conduct the interview covering the topics below:

General Soap Experiences (Each time a handwashing is mentioned, clarify whether soap is used or not and why hands are washed with or without soap.)	Before being given this soap, for what did you use the soap and why? Usual handwash occasions and reasons. IF THEY MENTION DIRT OR CLEANLINESS, ASK THEM WHAT THEY MEAN AND HOW THEY CAN TELL IF SOMETHING IS CLEAN OR DIRTY (I.E., CAN YOU BE DIRTY EVEN IF YOU CANNOT SEE, SMELL OR TOUCH THE DIRT?). Water source for handwashing. Any shortages in water supply? Does this affect handwash practice? Is soap ever used for handwashing? If so, when and why? What cues drive the use of soap? If not, then why is soap not used? Type of soap: Toilet or multipurpose. REASONS. Soap source and storage. Availability of soap. What happens when soap is unavailable? How do women feel when soap is not available, how do they get over this? Key benefits to using soap for handwashing AT EACH JUNCTURE. Key dislikes/problems associated with handwashing with soap. Most important times to wash hands with AND without soap. Reasons. Other uses of soap and reasons.
Soap Usage	Was the soap given to the woman used? What was it used for and where was it kept? (Get woman to show you, if she hasn't already. Note soap condition and place of storage.)
Non-Soap Users/ Little Use	Why was the soap not used? Are these reasons general or specific to the brand given? What would have aided/encouraged soap use? Was a different soap used for handwashing? IF ANSWER IS YES, CARRY ON AS BELOW, IF NOT TERMINATE INTERVIEW.

Soap Users	If not already answered, for what purpose was the soap used for and why? PAY PARTICULAR ATTENTION TO HANDWASHING WITH SOAP. BE SURE TO NOTE THE REASONS FOR EACH SEPARATE HANDWASH INCIDENCE (THE REASONS ARE LIKELY TO BE DIFFERENT). Did other people in the household use the soap, if so which members, for what purpose and why?
Soap Use Experiences	Likes and dislikes about the soap given. Feeling after handwashing with soap – at each juncture. Differences between using soap and water alone – at each juncture. Difficulties associated with handwashing with soap. How difficulties were overcome. Was handwashing with soap ever forgotten, if so why and what was done to remember. Best things about handwashing with soap. Worst things about handwashing with soap. Benefits of handwashing with soap, both absolutely and as compared to using water alone.
Soap Attributes	If a person has not been asked about likes and dislikes of soap in above section ask now. Was soap given a good one, or is there one on the market that is better. If so, which one and why? Most important attributes of a soap for handwashing. (Probes: cost, smell, color, multipurpose, skin care, size, lather, etc.) Reasons.
FINAL	Having experienced handwashing with soap does the participant think it is good? Will she continue to handwashing with soap once this bar has finished? Will she continue to buy soap? From where, which one? What will she use it for? How would she persuade someone else to take up the habit of handwashing with soap? Ask "If I returned in a month, or a year, would I still find you washing your hands with soap?" And "At what junctures would you be washing your hands with soap?" THANK YOU VERY MUCH FOR TAKING THE TIME TO TALK TO ME, I HAVE LEARNED A LOT FROM YOU. OUR CHAT HAS BEEN VERY INTERESTING. DO YOU HAVE ANY FINAL COMMENTS?

Tool 2: Structured Observations

Format to be Adapted for Behavior Study and Baseline for M&E

Objectives: to Determine:

- The proportion of times mothers wash hands with soap (WHWS) after using the toilet.
- The proportion of times mothers WHWS after cleaning up a child.
- The proportion of times mothers WHWS before feeding a child.
- The proportion of times school-age children WHWS after the toilet at home.
- The proportion of times school-age children WHWS before eating at home.

Instructions

Arrive five minutes before start of observation time (05.55).

Greet politely and ask for a seat in the yard. Place the seat where you can observe domestic activity.

Sit quietly and keep conversation to the absolute minimum.

When an event of interest occurs, watch closely what happens, then fill in the relevant section of the form.

After completing the observation period, move on to the survey form (questionnaire).

Before leaving, check that an answer has been filled in to every question. This will prevent your having to come back again.

Always use a blue biro. Any other colors or writing instruments will be refused.

Put a ring round the correct response. If you make a mistake, cross it through once and ring the correct response.

Only one response is allowed for each question.

Only supervisors can fill in 9 or 99.

Notes

Format designed for analysis with EPIINFO: 5-letter codes are unique identifiers.

Structured Observation of Childcare Practices

Section 1. Identification

1.1	Identification number of mother |__|__|__|__|		IDMOT
1.2	Identification number of observer |__|__|__|__|		IDOBS
1.3	Name		NMEMO
1.4	Address		ADDMO
1.5	Name of the index child <5		NMECH
1.6	Sex of the child M=1 F=2	9.	SEXCH
1.7	Date of visit |__|__|.|__|__|.|__|__|		DAVIS
1.8	Arrival time |__|__|.|__|__|		ARRTI
1.9	Observation start time |__|__|.|__|__|		STATI
1.10	Observation complete time |__|__|.|__|__|		FINTI

Section 2. Index Child Defecation

2.1	Did the index child defecate while you were present? Yes, I saw = 1 Yes, I'm sure s/he did = 2 No s/he didn't = 3	9	ICDEF
	ONLY FILL IN THE NEXT SECTION IF THE INDEX CHILD DEFECATED		
2.2	What time did the child defecate? |__|__|.|__|__|		TIDEF
2.3	Where did the child defecate (first time)? In a nappy/pants/wrapper = 1 On the ground/floor in the yard/house = 2 In a potty = 3 On the ground outside the compound = 4 On a paper = 5 In the toilet = 6 Other (write in) = 7……	9	WHDEF
2.4	Did someone clean the child's bottom? Nobody = 1 Mother = 2 Sister = 3 Grandmother = 4 Other = 5	9	CLBOT
2.5	Did someone clear up the child's stools straightaway? No = 1 Mother = 2 Sister = 3 Grandmother = 4 Other = 5	9	CLST1
2.6	Immediately after completing stool contact, did the person . . . Carry on as before = 1 Rinse one hand with water = 2 Rinse both hands with water = 3 Wash one hand with soap = 4 Wash both hands with soap = 5 Rinse hands in soapy water = 6 Take a bath = 7 Unable to see = 8	9	ICWH1
	If 2.4 and 2.5 were different, for the second person fill in:		
2.7	Immediately after completing stool contact did the second person . . . Carry on as before = 1 Rinse one hand with water = 2 Rinse both hands with water = 3 Wash one hand with soap = 4 Wash both hands with soap = 5 Rinse hands in soapy water = 6 Take a bath =7 No second person/Unable to see = 8	9	ICWH2
2.8	Did someone clear up the child's stools later on? No = 1 Mother = 2 Sister = 3 Grandmother = 4 Other = 5	9	CLST2
2.9	Immediately after clearing up stools did the person . . . Carry on as before = 1 Rinse one hand with water = 2 Rinse both hands with water = 3 Wash one hand with soap = 4 Wash both hands with soap = 5 Rinse hands in soapy water = 6 Take a bath = 7 Unable to see = 8	9	ICWH3
2.10	Where did water for handwashing (first person) come from? Hands not washed = 1 From a container in the compound = 2 Laundry water = 3 A tap = 4 Unable to see = 5	9	ICWAT
2.11	Where did soap for handwashing come from? Soap not used =1 Soap kept near water source = 2 Soap distant from water source = 3 Unable to see = 4	9	ICSOA

2.12	What brand of soap was used? Soap not used = 01 Duck = 02 Imperial Leather = 03 Sunlight = 04 Canoe = 05 Rexona = 06 Lifebuoy = 07 Key = 08 Medimix = 09 Geisha = 10 Sweetie = 11 Johnson's Baby = 12 Ayu = 13 Safeguard = 14 Sa = 15 CB = 16 Guardian = 17 Harmony= 18 Village Fresh liquid = 19 Tempo = 20 Fa = 21 Premier =2 2 Lux = 23 ….. List Soap powder = 64 Unidentified liquid soap = 65 Unidentified brown soap = 66 Unidentified colored soap = 67 Unidentified local soap = 68 Other = 77 Specify_____ Unable to see = 88	9	ICBRD

Section 3. Feeding Index Child

3.1	Did a carer feed the index child during the observation period? Yes, I'm sure = 1 Yes, I think so = 2 No = 3	9	ICFED
	ONLY FILL IN THE QUESTIONS BELOW IF THE INDEX CHILD WAS FED		
3.2	For the first item of food or meal, who fed the child? Mother = 1 Sister = 2 Grandmother = 3 Other = 4…….	9	ICWFD
3.3	What was the food and how was it served? 'Meal' food served with an implement = 1 'Meal' food served with hands = 2 Liquid food served with an implement = 3 Liquid food served with hands = 4 Snack food served with an implement = 5 Snack food served with hands = 6	9	ICFOO
3.3	Immediately before feeding did the person . . . Not wash hands = 1 Rinse one hand with water = 2 Rinse both hands with water = 3 Wash one hand with soap = 4 Wash both hands with soap = 5 Rinse hands in soapy water = 6 Take a bath = 7 Unable to see = 8	9	ICFWH

Section 4. Mother's Defecation

4.1	Did mother go for defecation/toilet during the observation period? Yes, I'm sure = 1 Yes, I think so = 2 No = 3	9	MODEF
	ONLY FILL IN THESE QUESTIONS IF THE MOTHER WENT FOR DEFECATION		
4.2	Where did mother go for toilet? To a public toilet = 1 To a toilet outside the compound = 2 To a toilet in the compound = 3 To a toilet inside her house = 4 To the bush = 5 Used a paper = 6 Not sure = 7	9	MOWHE
4.3	Immediately after completion, did she . . . Carry on as before = 1 Rinse one hand with water = 2 Rinse both hands with water = 3 Wash one hand with soap = 4 Wash both hands with soap = 5 Rinse hands in soapy water = 6 Take a bath = 7 Unable to see = 8	9	MOWHS
4.4	Where did water for handwashing come from? Hands not washed = 1 From a container in the compound = 2 A tap = 3 Unable to see = 4	9	MOWAT
4.5	Where did soap for handwashing come from? Soap not used = 1 Soap kept near water source = 2 Soap distant from water source = 3 Unable to see = 4	9	MOSOA
4.6	What make of soap was used? Soap not used = 01 Duck = 02 Imperial Leather = 03 Sunlight = 04 Canoe = 05 Rexona = 06 Lifebuoy = 07 Key = 08 Medimix = 09 Geisha = 10 Sweetie = 11 Johnson's Baby = 12 Ayu = 13 Safeguard = 14 Sa = 15 CB = 16 Guardian = 17 Harmony = 18 Village fresh liquid = 19 Tempo = 20 Fa = 21 Premier = 22 Lux = 23 ….. List Soap Powder = 64 Unidentified liquid soap = 65 Unidentified brown soap = 66 Unidentified coloured soap =67 Unidentified local soap = 68 Other = 77 Specify _____ Unable to see = 88	99	MOBRD

Section 5. School-Age Child Defecation

RECORD FIRST SCHOOL-AGE CHILD SEEN

5.1	Did you see a school-age child going for defecation during the observation period? Yes, I'm sure = 1 Yes, I think so = 2 No = 3	9	SCDEF
	ONLY FILL IN THESE QUESTIONS IF YOU SEE A SCHOOL-AGE CHILD GO FOR DEFECATION		
5.2	Where did the child go for defecation? To a public toilet = 1 To a toilet outside the compound = 2 To a toilet in the compound = 3 To a toilet inside his/her house = 4 To the bush = 5 Used a paper = 6 Not sure = 7		SCWHE
5.3	Immediately after completion, did the child Carry on as before = 1 Rinse one hand with water = 2 Rinse both hands with water = 3 Wash one hand with soap = 4 Wash both hands with soap = 5 Rinse hands in soapy water = 6 Take a bath = 7 Unable to see = 8	9	SCWHS
5.4	Where did water for handwashing come from? Hands not washed = 1 From a container in the compound = 2 Under a tap = 3 Unable to see = 4	9	SCWAT
5.5	Where did soap for handwashing come from? Soap not used = 1 Soap kept near water source = 2 Soap distant from water source = 3 Unable to see = 4	9	SCSOA
5.6	What make of soap was used? Key = 01 Duck = 02 Imperial leather = 03….List brands Unidentified brown soap = 66 Unidentified colored soap = 67 Unidentified local soap = 68 Unable to see = 88	99	SCBRD

Section 6. School-age Child Seen Eating

NOTE: RECORD FIRST SCHOOL-AGE CHILD SEEN EATING, MAY BE DIFFERENT FROM SECTION 5

6.1	Did you see a school-age child eating during the observation period? Yes = 1 No = 2	9	SCEAT
	ONLY FILL IN THESE QUESTIONS IF YOU SEE A SCHOOL-AGE CHILD EATING		
6.2	Immediately before eating did the person Not wash hands = 1 Rinse one hand with water = 2 Rinse both hands with water = 3 Wash one hand with soap = 4 Wash both hands with soap = 5 Rinse hands in soapy water = 6 Take a bath = 7 Unable to see = 8	9	SCEWH
6.3	What was the food and how was it eaten? 'Meal' food eaten with an implement = 1 'Meal' food eaten with hands = 2 Liquid food eaten with an implement = 3 Liquid food eaten with hands = 4 Snack food eaten with an implement = 5 Snack food eaten with hands = 6	9	SCFOO

Structured Observation at Public Toilet

Objective 1: Record total number of users and total number of users who wash hands with soap.

Objective 2: Record conditions in public toilets.

Instructions

Arrive at 05.55.

Sit in a place where you can see people entering and leaving and where you can see handwashing, if any.

Carry out the observations.

At 09.00 use the toilet and then fill out section 3.

Section 1. Identification

1.1	Identification number of toilet |__|__|__|__|		IDTOI
1.2	Identification number of observer |__|__|__|__|		IDOBS
1.3	Name of toilet		NMEMO
1.4	Address		ADDMO
1.5	Date of visit |__|__|.|__|__|.|__|__|		DAVIS
1.6	Arrival time |__|__|.|__|__|		ARRTI
1.7	Observation start time |__|__|.|__|__|		STATI
1.8	Observation complete time |__|__|.|__|__|		FINTI

Section 2. Public Toilet Conditions

Note: After completing observation, ask to use the toilet and fill in this section.

Questions refer to the main part of the toilets used by the general public.

2.1	How many male cubicles does the toilet have? 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20	99	TCUBM
2.2	How many female cubicles does the toilet have? 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 (If no M&F, fill in just 2.1) Is there a separate facility for VIPs? Yes = 1 No = 2	99	TCUBF
2.3	What is the price of using the toilet for an adult? |__|__|__|__| Cedis		

2.3	What is the price of using the toilet for an adult? |__|__|__|__| Cedis		
2.4	What is the price of using the toilet for a child? |__|__|__|__| Cedis		
2.5	What is the additional cost of toilet paper? |__|__|__|__| Cedis		
2.6	What is the additional cost of washing hands? ||__|__|__|__| Cedis		
2.7	What is the condition of the superstructure? Overall, well maintained, roofed, recently painted = 1 Reasonable, some cracks, painted but not recently = 2 Tatty, dilapidated = 3	9	
2.8	What is the condition of the floors? Solid and very clean = 1 Cracking, unswept = 2 Dilapidated and dirty = 3	9	
2.9	What is the condition of the cubicles? Solid and very clean = 1 Cracking, unswept = 2 Dilapidated and dirty = 3	9	
2.10	What is the condition below ground? Sewer connection/septic tank (WCs) = 1 Pit, not full = 2 Pit, visibly nearly full = 3 Pit full = 4 Pit overflowing = 5	9	
2.11	Subjectively, how did you find using the toilet? Extremely smelly and disgusting = 1 Smelly and disgusting = 2 Reasonable = 3 Very clean and free of smell = 4	9	
2.12	Any other remarks (insects, flies, dangerous structure, feces on ground, etc.)		
2.13	Is there some means of washing hands inside the toilet building? Yes = 1 No = 2		
2.14	Is there some means of washing hands immediately on exit from the toilet building? Yes = 1 No = 2		
	If no to 2.13 and 2.14 skip to Q		
2.15	Source of water for handwashing None = 1 Basin with tap water (functioning) = 2 Handwashing stand with water = 3 Bowl or container to put hands in = 4 Container of water, water given to clients = 5 Other…. Describe = 6……..	9	

2.16	Is soap available for handwashing? Yes = 1 No = 2		
2.17	What sort of soap is available? What make of soap was used? Soap not used = 01 Duck = 02 Imperial Leather = 03 Sunlight = 04 Canoe = 05 Rexona = 06 Lifebuoy = 07 Key = 08 Medimix = 09 Geisha = 10 Sweetie = 11 Johnson's Baby = 12 Ayu = 13 Safeguard = 14 Sa = 15 CB = 16 Guardian = 17 Harmony = 18 Village fresh liquid = 19 Tempo = 20 Fa = 21 Premier = 22 Lux = 23 ….. List Soap Powder = 64 Unidentified liquid soap = 65 Unidentified brown soap = 66 Unidentified coloured soap = 67 Unidentified local soap = 68 Other = 77 Specify…….. Unable to see = 88		

Section 2. Observation Of Clients Leaving Facility
Instructions: Complete for all people leaving. If you miss whether they washed their hands, indicate "didn't see."

It is very important that you record all people leaving. (WH = washed hands; WHWW = washed hands with water; WHWS = washed hands with soap).

Person		Tick One				Office Use
	Exit time	Didn't WH	WHWW	WHWS	Didn't see	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						

Tool 3: Focus Groups

Handwash Behavior Study Instruments
Focus Group Discussion Guide

Instructions for Fieldworkers:

The key practice we are interested is handwashing with soap, what motivates women to carry out this behavior and what hinders them. In particular we are interested in handwashing *with soap* after defecation, after wiping a child's behind, after disposing of a child's stools, and before feeding a child.

In the course of the focus group, you are to probe into reasons, likes, and dislikes for each separate handwashing occasion, noting whether soap is used or not and why. It can be difficult in transcripts to distinguish whether people are talking about bathing, handwashing with water alone, or handwashing with soap. It is therefore important that you are make clear which of these the participant is talking about on each occasion. While women's bathing behaviors can be interesting and inform us about motivations for more general hygiene behaviors, the focus of interviews should always be *handwashing with soap*.

Often informants will refer to subjective concepts such as cleanliness and dirtiness. It is important that you probe into what people mean by such terms and how they are indicated, noting especially what sensory cues (touch, sight, smell, etc.) are involved. Often habit will be mentioned, or women will not be sure as to why they hand wash with soap: try to probe into when they started the practice, who taught them, why and when. Whenever someone gives a reason for a behavior, especially handwashing with soap try to probe as deeply as possible, often the original answer is a means to achieving a higher goal, and we want to know what this final goal is. What are the most important benefits of hand washing with soap?

In focus group discussions it is common that certain participants dominate, while others keep quiet. We want to hear everyone's views, so try to encourage everyone to contribute. It is also important to allow women to guide the shape of exercises and discussion themselves. While you are a facilitator, you must not take over too much: Women should feel in control of what they are doing/discussing.

The Discussion

Before beginning, explain to women that there are no right or wrong answers and that you just want to learn from them and hear what they think.

Begin with a round of introductions. Each woman should introduce herself (she may use an alias), what her occupation is, what her husband's occupation is, how many children she has, and how old they are.

We are going to focus the discussion on a series of exercises to encourage group interactions: the basic content of each exercise is described below.

The Exercises

1. Daily Activities/Life Values

- Ask each woman to outline what they do each day, noting the key activities on separate pieces of paper.
- When each woman has summarized her day, ask them to rank these activities in order of their importance and the satisfaction and enjoyment each activity provides. They may shuffle the pieces of paper around, as this helps the thought processes and discussion.
- Ask the women to explain the reasons for the ranking they have chosen.

2. Soap Use Ranking

- Ask each woman to note what she uses soap for, noting each use on a separate piece of paper.
- When each woman has summarized the main uses of soap, ask them to rank these in order of importance, discussing while they do this and the reasons for the order they are choosing.

3. Handwash Junctures Ranking

- Ask the women when they wash their hands, noting each handwashing occasion on a separate piece of paper. For each juncture ask whether soap is used and note this on the appropriate piece of paper.
- Lay the pieces of paper out in two categories: with and without soap.
- For each category ask women which junctures are most important for handwashing and why handwashing is practiced.
- In the case of water only, ask why soap is not used.
- In the case of with soap, ask why soap is used.
- *Note – in discussion of reasons for handwashing (both with and without soap), deep probing is necessary to understand what cues are most important. Terms such as cleanliness and dirtiness are not reasons in themselves: How is the reason to wash hands perceived? Sensory cues, feelings of contamination, other people watching, protect child, etc.*

4. Personification Exercise

- Ask women to describe the profile of the following two people:

1. A person who washes their hands with soap regularly.
2. A person who never washes their hands with soap.

Probes: Appearance, hobbies, music preference, educational level, position in society, condition of compound, what people think of them, etc.

- What do women feel about the two people they have described?

5. Concepts Ranking

- Read out each concept (social acceptance, status, health, nurture/children, cleaniliness/contamination, thrift) to the group one at a time.

- After each concept ask the women to discuss how they feel about that concept and its importance to them.

- When each concept has been discussed, present each one on a separate piece of paper and ask the women to rank them in order of:

  - Importance
  - Relevance
  - Interest
  - Disgust

- Ask them to explain their reasons for each ranking.

- Finally ask them which concept affects them the most and which concept they think would be most useful in trying to persuade someone to adopt a new habit such as handwashing with soap before 'Name a Juncture.'

6. Communication Channels

- Ask women what their main sources of information are for:

  - Local
  - National
  - International news
  - Health issues

- How often do they have contact with each of these channels?

- Which of these channels do they like the most? Why?

- Which of these channels are most credible/do they believe or trust the most?

- Which ads have they seen/heard and liked lately? Why did they like them? Do they make them want to buy the products?

Tool 4: Tips on Researching School-Aged Children

School toilets are not just used for practical issues of hygiene. Adolescent girls may meet to apply make up, discuss boys, and make plans for after school, and boys may smoke a cigarette. Children may have different motivators for using the toilets, mainly to gossip and to have some private time with their friends, far from the watchful eye of the teachers. Children may be reluctant to wash their hands in school, because being a good student is associated with having chalk all over your hands. Another very important feature of schools is the fact that children do not want to lose one minute of play with their friends. These aspects need to be kept in mind when researching kids.

Tips:

1. Segmentation: Think like a Child. Children have their own agendas that are important to them. While the onset of puberty for a 12-year-old, adolescent girl may be a motivation towards hygiene, a six-year-old boy's playful nature may need a different appeal. If segmentation of different age groups is not appropriately done, promotion is unlikely to be effective.

2. Be creative. The conventional methods of focus groups and questionnaires may never find the truth. For children under the age of 10, interviews should if possible be based on observation and play. Research methods that include stimuli (video clips, drawing, photography, local games) generate more insight. Knowing all the local songs and games that are in fashion is very helpful.

3. Children evolve in groups. Children love being in groups and do not like time away from their playmates. Research methods that include play groups and friendship pairs (interviewing two friends at the same time) can facilitate finding useful insights. Questions can be redirected so that the children talk to each other.

4. Separate adults and children. In schools there are risk practices carried out by adults (teachers and head teachers) that children know and may be scared to report during research carried out in the school settings (for example, teachers may systematically take the soap home). Different research methods will be needed to gather insights from different groups. The school

watchman in certain contexts is highly respected and is an important figure amongst children.

5. Children can be the lead researchers. Children can play a role as the senior researchers carrying out the research on their peer groups. They are likely to distinguish the differences between the truth and fantasy. The spirit of competition often motivates children to express themselves. Organizing a competition to get children to express their frustrations about the poor hygiene in their schools and then identify some of the key features that keep reappearing. Try asking children the same thing in different ways in order to find the truth; for example, ask them to draw, write, come up with words, and create comics and collages.

6. Start with the head teacher. The head teacher sets the tone for his or her school and decides if hygiene is going to be an important subject. Interviewing the head teacher and then providing him or her with the study report will ensure that you have the educational authorities' blessing.

7. Identify 'Leaders of the Pack.' Leaders of the pack or opinion leaders are key in school settings. Children model themselves after a few leaders in the school. To know what is cool, what is in, and how best to address the other kids, identifying these opinion leaders is crucial. Teachers may know who they are. Consider training identified leaders to run your focus groups.

Things to avoid:

1. Taking up recess time with questionnaires. Children love their recess time. If you take it, their answers will not be much use, as kids will rush though so as to get out and meet their friends. If you plan to carry out research during that time, make sure it is a group activity and that the children enjoy it.

2. Making children feel younger than they are. If there is one thing that children dislike, it is being made to feel younger than they are. Children hate to be babied. Knowing what is acceptable to each age group is crucial.

3. Breaking the confidence vow. Researching children is no different from adults in respect to keeping information in confidence. Children expect it.

4. Taking what children say for granted. The key to research with children is to investigate what they would not say. Children have a clear idea of what they think a researcher wants to hear.

Terms of Reference 1: Consumer Research

1. Background

Diarrhea kills about two million children every year. Human excreta is the source of most diarrheal pathogens and probably the most important moments at which hands should be washed with soap are after contact with human excreta and before handling food. A recent review of all the available evidence suggests that handwashing with soap could reduce diarrhea incidence by 42-46 percent and save at least one million lives worldwide.

The World Bank and the Water and Sanitation Program (WSP), the London School of Hygiene & Tropical Medicine (LSHTM), the Academy for Educational Development, and the private sector, in collaboration with USAID, UNICEF, and the Bank-Netherlands Water Partnership are implementing a global initiative aimed at promoting the use of handwashing with soap in developing countries. Partnerships were established in two pilot locations in 2001: Ghana and Kerala, India. During FY03, the initiative will expand in at least two additional countries.

In [*country*], the *[country lead agency]*, the Water and Sanitation Program (WSP), and the World Bank in collaboration with other public and private partners, proposes to develop a Public-Private Partnership Handwashing Initiative (PPPHW) with the overall objective of improving the health of populations at risk of diarrhea through a public-private partnership promoting handwashing with soap.

Note: this document concerns formative research only. Separate monitoring and evaluation (M&E) studies will be executed for the purposes of documenting the impact of the program.

2. Rationale for handwashing in [*country*]

The rationale for proposing such an initiative in the country is:

Diarrheal diseases are one of the most important causes of morbidity and morbidity in [*country*] in children under five years old (source).

Reliable data on handwashing with soap after using a toilet or after cleaning up a child are [*not available*] in [*country*]. However,…

Informal discussions with community women and men revealed that…

It is now recognized that handwashing is a much more cost-effective means of lowering diarrheal incidence than the more

costly infrastructure building programs (that is, water and sanitation). Nevertheless, hygiene promotion initiatives in the country have in the past focused on the provision of water and sanitation facilities, good storage methods, and water treatment but not on handwashing. Little is therefore known about the availability, affordability, and desirability of soap, especially for use after contact with excreta in rural and semi-urban areas. There is a need to make a connection between hygiene promotion/provision of water and sanitation facilities on one hand and the production and distribution of affordable soap on the other. Industry stands to gain by selling more soap through an expansion of their market into more households and by better market penetration towards poorer households. Public agencies stand to gain by involving soap manufacturers in their programs aimed at improving the quality of life by reducing morbidity related to improper hygiene practices. [to update/drop as required]

3. Objectives of the assignment

This formative research will enable the partners to design an appropriate handwashing campaign. Therefore, the main objective of this research is to develop the insights needed to design an effective communication program to promote handwashing with soap.

The specific objectives of the assignment are:

to record current handwashing practices and their context;

to understand what drives and facilitates handwashing in communities;

to identify target audiences; and

to document current channels of communication.

4. Methods

The study requires the employment of both quantitative and qualitative research techniques and may include focus group discussions, behavior trials, structured interviews, and structured observations for data collection (as set out in the table in section B of the annex), as well as the compilation of available routine data.

Detailed study designs will be proposed by the contracted agency and finalized in collaboration with the technical advisor (that is, the lead agency's consultant recruited for the program) and with the technical support of the partnership.

A methodology for formative research techniques is explained in the booklets 'Happy, Healthy and Hygienic' (UNICEF/ LSHTM 1998).

5. Responsibilities of the contracted agency

The agency will be responsible for the following:

Detailed study design in collaboration with [*lead agency*] (that is, the client) and their technical advisors.

Set up and manage the study.

Logistics arrangements, that is, travel, accommodation, allowances, communications, and stationery.

Quality Assurance.

Analysis of the results.

Production of a final report in 10 copies

It is the responsibility of the agency to recruit, train, and supervise a suitable team of field workers.

The Global Partnership will provide technical support to the agency at key stages of the assignment, which may include: the appraisal of technical submissions; review of proposed detailed study designs and guidance from prior experience; assistance with the training of field workers during piloting of instruments, fine tuning and finalizing of proposal; monitoring of the quality control system to evaluate progress and refocus if necessary; review of first draft report and recommendations for production of the final report.

6. Qualifications and selection of the contracted agency

The contracted agency will be a professional consumer or market research organization with track record of at least five years of consumer studies in [*country and/or region*].The team will need to demonstrate their members' experience both in quantitative and qualitative research techniques. Commercial/industry sector experience is essential.

The qualifications of the proposed study team will make up a part of the submission and should be as follows:

One statistician and one social scientist or anthropologist with:

Track record on qualitative and quantitative surveys;

Familiarity with industry;

Experience in cleaning products; and

Knowledge of the local language.

Field workers should:

have at least one year of experience of field work;

be female; and

be fluent in local languages (as appropriate).

The firm will provide a detailed plan for the management and quality assurance of the study and justify the proposed staffing.

7. Final products

The final products include:

Cleaned and fully referenced *electronic data sets* in an agreed format with copies of the original data collection forms.

Full transcripts of all in-depth interviews and focus group discussions in an electronic format.

A *50-page document* in 10 copies with detailed findings.

An *eight-page illustrated summary document* suitable for general consumption and an *electronic version* of the summary document suitable for posting on websites.

A *presentation* of results at stakeholder workshop.

The main report will include the following chapters:

I. Approach

II. Methods

III. Implementation schedule

IV. Results set out using the framework of table in section A of the annex

V. Conclusion and recommendations

The report will contain graphics when needed. Annexes will contain all relevant background information for the study that is not necessary in the body of the report.

8. Time schedule

It is expected that the work will last about 13 weeks from appointment to final report. The schedule for each phase is set out in the table below:

Activity	When
Set up and training	Week 1
Inception report with refined methodology and pretested materials	Week 2
Field survey	Week 3 to 10
Analysis	Week 10
Draft report and stakeholder workshop	Week 11
Final report	Week 14

Section A: Framework of variables and data collection techniques

The following sets out the framework for the formative research on handwashing and is intended as guidance for the agency in designing and conducting the research.

Issues	Data Source/Method	Notes
1. What are current handwashing practices?		
1.1 What are the handwashing practices of child caregivers (at key junctures)? 1.2 What are handwashing practices of other family members (at key junctures)? 1.3 What soap (laundry versus beauty soap) or other agent is being used? 1.4 What is the source of water? 1.5 What is the immediate placing of soap? 1.6 How do people dry their hands after washing?	Quantitative representative sample on handwashing practices using Structured Observation	Note 1: Refer to M&E framework. Note 2: The specific occasions for handwashing to be recorded depend on the exact objectives of the handwashing program. Note 3: Structured observation needs to be designed to capture *all* handwashing events at key junctures.
2. What drives and facilitates handwashing?		
2.1 *Drivers* What motivate domestic hygiene, bathing and handwashing with soap? After what is handwashing practiced? – With/without soap? Specific cues and occasions for people to wash their hands. Reasons for not using soap at key handwashing junctures? that is, psycho-social inhibitors to soap use – cost, smell, drying of skin… How and when was handwashing learnt? Who taught it? What are the attributes of a good handwashing soap? Brand ranking of both soaps and their attributes for handwashing (ask why ranked like this) and of handwashing practices. Ranking of hypothesized drivers/concepts (status, nurture, disgust, aesthetics, attractiveness). Images/beliefs concerning cleanliness/ dirtiness, healthy/non-healthy person, hygienic/non-hygienic… Rules for soap use within the household.	Behavior trials In-depth interviews including with school kids (about 12 years old) Focus group discussions (FGDs)	Note 4: *A driver* is a psycho-social motivator or inhibitor for hygiene behaviors and can be either positive or negative. Note 5: When noting drivers for hygiene behaviors it is necessary to note motivators for – general hygiene, bathing, handwashing (without soap) and handwashing with soap separately, paying particular attention to handwashing with soap. Note 6: Probe meaning of 'clean' and 'dirty' – are these defined visually, by feel, smell, or concepts of moral purity? *The environment* refers to the external conditions that facilitate or hinder handwashing with soap. See the annexed note on *Handwashing Motivation* (Annex 3). Training on handwashing motivation and concept ranking needed.

2.2 *Environment* *Water supply*: Where, Type, Access (cost, distance, who), Storage. *Sanitation facilities*: Where, Type and Access (including for children), Presence of fecal material in the yard? *Handwashing facilities*: What is it? (probe) Where is it?/availability – Distance from toilet, Storage place of soap, State, Access.	Household survey Structured observations In-depth interviews FGDs	
3. Who are the target audiences?		
3.1 Who buys the soap? 3.2 Who decides about soap buying? 3.3 Who influences the buyers and decision makers?	FGDs In-depth interviews Household survey	
4. How do target audiences communicate? Exposure and reach of all channels of communication including modern and traditional.		
4.1 Time spent and media consumption moments (quantitative data).	Household survey FGDs/In-depth interviews (IDIs) Commercially available media data	Note 7: Allow costs of consulting commercial databases.
4.2 Reach of all traditional channels of information? 4.3 Reach of government channels of communication? 4.4 What programs do they like and why? What do they remember? (qualitative data) 4.5 Which adverts do they know and like, and why? 4.6 Which communication channels do they find the most credible?	Households surveys FGDs/IDIs	Note 8. Traditional channels may include churches, social organizations, women's groups, markets, local events, etc. Government channels include contact with health services (e.g., vaccination coverage, maternity and post-natal care), schools, agricultural extension, local authorities, etc.

Section B: Definitions of Research Tools

Household Survey: Designed for a representative sample of mothers/care givers and children under five.

In-depth Interview: Qualitative one-to-one interview with fully recorded transcript using a discussion guide.

Behavior Trials: Volunteers asked to adopt handwashing with soap over a two-week period and then interviewed.

Structured Observation: Systematic technique for observing and recording particular practices in order to quantify them directly and monitor the impact of the program. It requires careful planning, detailed piloting, training, follow-up and quality control.

Checklist Observation: A list of all behaviors putting children at risk of diarrhea. The list should note behaviors (who, what, when, where) observed in the household. Results are used to design study instruments.

Focus Group Discussions: Interviews with small groups of relatively homogeneous people asked to reflect on the interviewers' questions, provide their own comments, listen to what the rest of the group has to say and react to their observations. It requires a skillful facilitator guiding the discussion, cross-checking each participant's comments, and ensuring an even participation from all members.

Note: All instruments should be translated, back translated, piloted, and tested.

Reference: 'Happy, Healthy and Hygienic' (UNICEF/LSHTM 1998).

Section C: Note on Handwashing Motivation

Previous research suggests that handwashing behavior is motivated by psychological drivers, habits, and the environment (Curtis 2001). Drives can be both positive and negative.

Positive drivers usually include:
Nurture: The desire to care for children. This is often related to health, as outlined below.

Status: A wish to appear clean for the sake of social status and dignity.

Aesthetics: A desire to look and smell good, to be attractive to others, and please oneself.

(Note: These last two drivers in particular can be considered as linked.)

Disgust: An instinct to avoid and remove anything disgusting, which includes sensory cues (olfactory, tactile, visual: such as the sight of stains, feeling of stickiness on hands, bad smells, or a feeling of contamination, both actual or imagined). It is important to know which of these cues plays the greatest role in the disgust instinct in order to direct handwashing promotional messages. There appears to be a strong correlation between the objects of disgust and the sources of infection and disease faced by our ancestors, thus the disgust instinct may be closely linked, according to Curtis (2001) to:

Health: Consumers often explain handwashing as a desire to avoid germs and disease. However, the usefulness of this explanation in behavior change programs is not clear (see note). Often concepts of good health are linked to the nurture instinct and the desire to protect one's children from disease.

Note that the underlying motivator may be more to create an ordered, balanced life that leads to success and well-being, rather than behavior calculated from an intellectual understanding of the mechanisms by which particular microbes cause specific diseases. Germs are also thought of as invisible beasties that are disgusting and so need removal.

Negative drivers include laziness, a desire to do something else that conflicts with handwashing, a wish to avoid soap because of the perfume, beliefs surrounding links between sensory cues, and the presence of 'germs' and disease-carrying agents.

Habits are behavioral routines that are laid down often early in life and are semi-automatic. The external environment can facilitate or hinder handwashing. For example, where soap and water are readily available, handwashing with soap is more likely, whereas if the toilet is situated far from the house and handwashing facilities, handwashing after the toilet may be less likely.

1. Curtis, V.A., S. Cairncross, and R. Yonli. 2000. Domestic hygiene and diarrhea, pinpointing the problem. *Tropical Medicine and International Health* 5(1): 22-32.

2. Curtis, V. 200l. Hygiene: how myths monsters and mothers-in-law can promote behavior change. *Journal of Infection* 43: 75-79.

3. Curtis, V., and A. Biran. 2001. Dirt, disgust and disease-Is hygiene in our genes? *Perspectives in Biology & Medicine* v.1: 17-31.

4. Luby, S.P., M. Agboatwalla, J. Painter et al. 2004. Effect of intensive handwashing promotion on childhood diarrhea in high-risk communities in Pakistan, a randomized controlled trial. *Journal of the American Medical Association* 291(21): 2547-54.

Terms of Reference 2: Handwashing Coordinator

Public-Private Partnership Handwashing Coordinator in Peru

Terms of Reference

1. Background

The Government of Peru, with support from the Water and Sanitation Program (WSP) and others, is initiating a new intervention to promote handwashing with soap under a public-private partnership (PPP) with the objective of reducing diarrhea morbidity among children below age five. A documented PPP experience in Central America has demonstrated the positive impact on handwashing behavior and on the incidence of diarrhea. The World Bank, WSP, UNICEF, and USAID at the global level have formed with the three major soap producers a Global Initiative for PPP in Handwashing. Two pilots in Kerala, India, and Ghana are implementing a local PPP. Peru is another candidate for expanding this PPP handwashing initiative. A local coordinator for this new, promising activity is needed.

Rationale for a Handwashing Initiative:

- Diarrheal diseases kill two to three million children globally every year, are the third most important cause of morbidity and morbidity in Peru and account for 35 percent morbidity in children under five years old.
- Most diarrheal diseases are caused by fecal-oral contamination.
- Diarrhea can be prevented by stopping excreta from reaching the environment through proper sanitation and handwashing.
- Handwashing with soap alone could reduce reported cases of diarrhea by 35 percent.

Reliable data on handwashing with soap after using a toilet or after cleaning up a child is not available in Peru. Hygiene promotion initiatives have focused on the provision of water and sanitation facilities, good storage methods and water treatment but not on handwashing, so little is known about the availability, affordability, and desirability of soap, especially for use after contact with excreta, in rural and semi-urban areas. There is a need to make a connection between hygiene education/provision of water and sanitation facilities on one hand and the production and distribution of affordable soap on the other. Industry stands to gain by selling more soap through an expansion of their market into more households and by better market penetration towards poorer households. Public agencies stand to gain by involving soap manufacturers in their programs aimed at improving the quality of life by reducing morbidity related to improper hygiene practices.

2. Objectives of the Consultancy

To assist DIGESA, WSP, and the partners in establishing an effective public-private partnership for a successful handwashing initiative. The coordinator will be expected to co-ordinate all activities of the partnership and manage the planning and implementation of agreed activities during the initial phase of the process. The end result of this first phase is the submission of an approved business plan and communications strategy.

3. Scope of Services

The consultant will perform the following services:

- Promote effective partnership relations between the private, public, NGOs, and external agencies on the handwashing initiative, with a special focus on establishing credibility and mobilizing technical input from the private sector.
- Liaise with the global team to obtain information and expertise of the global and other country initiatives.
- Conduct a background study on existing hygiene studies and reports on hygiene promotion (particularly handwashing practices) programs in Peru.
- Collect additional information on the market situation, with particular reference to the poorer segments of the population.
- Identify potential research firms and co-ordinate the planning, consultant recruitment, and implementation of the consumer study.
- Complement the situation analysis by integrating the results of the three studies (background, market, and business).
- Develop a draft business plan and communications strategy as an iterative process, seeking input from the partners.

- Raise funds to cover activities of the business plan.

- Solicit comments and submit final approved plan and budget.

4. Approach

The consultant will work closely with key WSP and DIGESA staff and other partners to build consensus on the direction and scope of the PPPH Initiative through participatory arrangements. Initially the consultant will build trust with the stakeholders by embarking on one to one contacts. Appropriate strategies have to be adopted to generate and sustain the interests of all stakeholders in the PPH Initiative.

5. Output

The consultant is expected to:

- Deliver a situation report on the soap market and hygiene promotion programs targed to the poor, conducted by private, NGO, and public sectors in Peru;

- Organize meetings and coordinate PPPH Steering Committee (formation will be the responsibility of WSP and DIGESA);

- Provide oversight to ensure the quality of the consumer study;

- Deliver a draft business plan; and

- Deliver a final business plan that considers partner comments and commitments.

6. Client Input

WSP will provide the consultant with office space and the necessary communication tools to perform the job. The consultant is expected to provide their own computer. WSP and DIGESA will introduce the consultant to the relevant network of contacts and provide continuous backstopping to strengthen inter-agency relationship building.

7. Reporting

The consultant shall report to the WSP Country Program Coordinator and work closely with the Director of DIGESA and his staff. All reports should be copied to DIGESA. The consultant will submit brief monthly progress reports and the following month's workplan.

8. Level of Effort and Duration of Assignment

The consultant shall initially be engaged for six months of work over a 10-month to completed the first phase of the PPP process. The assignment could be extended to the next phase of work based on performance and funding availability.

9. Qualification

The consultant shall have a solid experience working in the private sector in the area of marketing and /or business development preferably with fast-moving consumer goods. The consultant should have proven expertise in developing marketing plans and communication strategies aimed at behavioral change. Familiarity in dealing with market research and communication agencies is a must. Additionally, the consultant should have excellent inter-personal skills and ability to work with all partners in order to act as an effective catalyst. It would be extremely advantageous for the consultant to be conversant in English.

10. Selection process

Short-listed consultants who meet the qualifications criteria will be invited to an interview with WSP and DIGESA staff. The final selection will be based on the consultant's qualifications, the proposed approach to the work, and the financial proposal.

ABBREVIATIONS

BASICS	Basic Support for Child Survival Project
CI	Consumer interviews
DALY	Disability Adjusted Life Year
DANIDA	Danish International Development Agency
DCC	Direct consumer contact
DFID	United Kingdom Department for International Development
DHS	Demographic and Health Surveys
EHP	Environmental Health Project
FGD	Focus group discussion
IRR	Internal rate of return
ISTMA	Indian Soap and Toiletries Manufacturers' Association
LSHTM	London School of Hygiene & Tropical Medicine
MDG	Millennium Development Goals
M&E	Monitoring and evaluation
NGO	Non-governmental organizations
NPV	Net present value
PPP	Public-private partnership
PPPHW	Public-Private Partnership Handwashing Initiative
PR	Public relations
SDC	Swiss Development Cooperation
SO	Structured observations
TOR	Terms of reference
UNICEF	United Nations Children's Fund
UNICEF/WES	United Nations Children's Fund/Water and Environmental Sanitation
USAID	United States Agency for International Development
WES	Water, environment and sanitation
WSP	Water and Sanitation Program
WSSCC	Water Supply & Sanitation Collaborative Council

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