

# 1 Introduction



In the 1980s and 1990s, behavior change strategies helped bring about significant improvements in child health practices throughout the developing world. Social marketing and communication approaches played critical roles in launching new products such as oral rehydration salts and vitamin A capsules, in raising immunization rates, influencing changes in deeply held beliefs and customs regarding breastfeeding and child nutrition, and changing careseeking patterns for child illnesses. Evaluations demonstrated the impact of mass media on beliefs as well as behaviors. Community-based strategies designed to serve those hardest to reach and most vulnerable used tailored training programs and materials to empower semi-literate volunteers to

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influence health practices in their own neighborhoods.

Those decades were a period of seemingly continuous innovation in a number of the major child survival interventions. Ministries of health began to recognize the need to incorporate systematic health communication and community-based approaches in their programs, and the U.S. Agency for International Development (USAID) and others invested in “institutionalizing” some of these capacities in developing country organizations.

We are now acutely aware that those days are over. In recent years the impressive gains in child survival have plateaued; in sub-Saharan Africa and South Asia some positive trends have even reversed. Reasons vary

by country and include worsening economic disparities, armed conflict, and the human and structural degradation caused by HIV/AIDS. Worldwide attention has also been drawn away from child survival. Governments as well as donors have shifted their funding from many of the primary child survival interventions. In 2003, more than 10 million children died of causes that are largely preventable—exceeding deaths due to HIV/AIDS, malaria, and tuberculosis combined.<sup>1</sup>

The public health community is now re-examining its commitment to child survival. This reassessment should logically include a review of what we have learned about the communication challenges associated with the major child survival interventions. It should also include a re-emphasis on how behavior change and communication strategies at multiple levels can contribute to child health.

## WHAT EVERY MINISTER OF HEALTH KNOWS

Every minister of health knows that his (or her) program investments will amount to little if the public doesn't actually turn up at a campaign to vaccinate children against polio, at a health week distributing vitamin A, or at a clinic offering services to pregnant women. The budget for major program efforts often includes a line item for social mobilization or program communication—for posters, leaflets, and perhaps radio announcements or traveling theater troupes. *Demand* will be created and the public will be mobilized. People will be counted. *Results* will be measured. In the unfortunate circumstance that a rumor begins to circulate about some product or service, or an adverse event occurs in connection with the program, the minister (or the district health officer) may call on a

communication expert to find creative ways to influence public opinion and minimize the damage.

*Demand creation* and *damage control* are the two certainties of health communication. These two processes seem especially congenial to child survival programs. We already think of the child as a passive beneficiary and the family as responsible for using information and services supplied by the government on the child's behalf. The parents (usually the mother) are expected to bring the child for vaccinations, to use proven products like impregnated bednets and oral rehydration salts, to seek help when they recognize danger signs, and to comply with treatment instructions. In fact, *compliance* is still a good term for what we tend to expect of parents—unlike the complex decision-making we associate with family planning or HIV/AIDS prevention, for example.

We know every parent wants what's best for his or her child and would go to great lengths to avoid harm. So we may assume these health choices are easier than those tackled by other interventions (like condoms or abstinence perhaps). Or that our programs are not up against complex social issues (such as stigma). We may expect clear information and motivation to be enough.

Of course, child survival experts have been saying for decades now that information is not enough. Knowledge is not enough. Demand creation (and damage control) can go only so far in affecting the key behaviors associated with lowering child mortality. Nevertheless, in most child survival programs, the budget—and more importantly the planning process—still consider health communication, and even behavior change *per se*—primarily as tools for rounding up the public.

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<sup>1</sup> Black et al. 2003.

## THE CONTRIBUTION OF THEORIES— THE VALUE OF EXPERIENCE

Why is it that behavioral theory has advanced so far and some programs have achieved such impressive results, while many often seem to “go through the motions”?

One reason is that behavioral *research* can seem complex—requiring special expertise, time, and money. Translating the results into practical program decisions is not easy. Another challenge is the long lists of key practices associated with child survival and the sheer task of trying to prioritize and understand even a few of these during a typical three- or five-year project. Yet another is the difficulty of transforming pilots that were successful in limited geographic areas into strategies that are feasible, affordable, and effective at reaching large populations over the long term. Programs at scale must be lean and targeted at what makes a difference.

These pages discuss the behavioral issues and a range of key determinants for major audiences in each child survival area. They attempt to share some of what has already been learned and published about “what works,” innovations that have been tried at smaller scale, and perspectives about critical gaps and promising areas for new communication strategies. Every program must, of course, begin with its own situational analysis. But the insights we have already gained through years of field experience should also be put to use.

This document is not an exposition on the different theories of behavior change. It does not try to explain the mechanics of any state-of-the-art approaches. “Communication” is sometimes used generically in these pages to encompass a range of different methodologies that vary substantially.

Ministries of Health usually refer to those who work in any aspect of behavior change activities as their communication experts, however—or sometimes as their behavior change communication (BCC) experts. These people may be restricted to the production of materials. Or, they may become involved in managing behavioral research and designing programs to negotiate home health practices, improve health provider counseling, support the training of private or informal providers, improve product instructions, conduct advocacy efforts, or coordinate community mobilization through NGOs or local civic groups. We comment on a number of specific approaches in the different chapters. But this is not a how-to manual. A bibliography at the end of this document provides more detail on implementation approaches.

## THREE SIMPLE PRINCIPLES

### A Systems View

Several principles have emerged from this study. The first is that successful behavior change programs are based on a health *systems* view.<sup>2</sup> It has almost become a platitude that communication programs analyze multiple audiences at multiple levels. Typically we may look at the behaviors or influence of:

- Families (mothers, fathers, mothers-in-law, siblings)
- Health providers (health professionals, community-based workers)
- Private practitioners (both licensed and unlicensed)
- Product manufacturers, distributors, and retailers
- Policymakers

Programs usually start at the family level and work their way upwards as funds allow. They look at health belief systems, symptom recognition and careseeking,

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<sup>2</sup> “Systems” here does not refer to health services or the health bureaucracy, but to the need for a holistic view of child health and the many actors who contribute.

provider preferences, product perception and usage, and household decision-making. Family behaviors and their various determinants may be dissected in great detail. At the health provider level, programs may improve interpersonal skills and create helpful job aides. Advocacy activities may involve community leaders or policy makers.

Our basic assumption, however—that the family is central to the health of a child—leads us logically toward demand creation activities and sometimes no farther. The formal “lists” of key practices laid out for different interventions deal primarily with caretakers. A subset of these behaviors is often assigned the status of program indicators. We may become mesmerized by this list and miss the fact that the behaviors of another group are *central* to given health outcomes. We may fail to look closely enough at the determinants of *their* behaviors. This is evident in many of the chapters that follow.

One reason for this may be ministry or donor expectations that the job of communication is to create demand. Another may be that we often don’t understand the intervention and its gaps well enough. Communication program managers cannot always be immunization or nutrition or malaria experts, but they must make it their business to understand the challenges at different levels of the system. This credibility will also increase the chances they will be invited to the planning table.

## Working Together

In areas of highest risk, the pressures on human and structural resources are most extreme. The ability to solve problems collectively—to find transportation for a pregnant woman or to supply kerosene to maintain the local cold chain—is fundamental. Time and time again in these chapters we stumble across the need to

“improve relations” among different groups—whether between families and health workers, health workers and community volunteers, or across different layers of the health system. However, as we shift our behavioral microscope from audience to audience we can easily forget that building partnerships between them is often the most critical factor of all.

In designing programs, behavior specialists try to look at the full range of potential determinants—including both internal and external factors—to understand why people do what they do and how to influence their choices. External factors may include respectful treatment by providers. Choices can also be influenced by enabling factors such as social support (from peers or institutions). A recent HCP paper described some of these as “gateway factors” because they influence clusters of health behaviors. Client-friendly services, for example, may increase use of clinics for several health problems.<sup>3</sup>

External factors are the hardest to influence, particularly on a large scale. Many (like client-friendly services, or social support) are also hard to measure. What we don’t measure, we tend not to take as seriously.

Community development programs generally deal with some of these factors head on. Many people believe that community approaches rely on principles distinct from (or even in opposition to) individual change approaches that are designed based on audience segmentation and qualitative research. Collective action—participatory change—is motivated through a different kind of analysis and also leads to social benefits beyond those captured by health indicators. *Individual* and *collective* processes are therefore usually left to different programs. However, health behavior change programs will not succeed if they don’t find a way to cross the boundary between promoting

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<sup>3</sup> Acharya et al. 2004.

a “perception” of social support, and promoting the real thing.

### Data as an Essential Medium

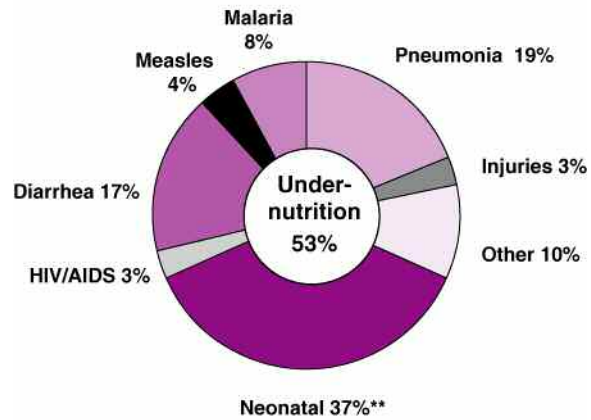
Finally, the most powerful language at a communicator’s disposal can be data. Data can educate, motivate, illuminate, and shame. Data can make the invisible (such as newborn deaths) visible. Simple numbers, when properly presented, provide communities with a mirror of their collective health, and policymakers with evidence of their responsibilities. Simple monitoring information can help district officers understand and adjust strategies to deal with coverage gaps. A few well chosen indicators can provide a feedback loop that motivates communities as well as clinics and strengthens their relationships.

Communication managers use data all of the time to inform their own decisions. They easily forget how valuable it can be for others. While it is not usually the job of communication planners to design monitoring or surveillance systems, they should find opportunities to promote their use, help refine tools, and devise ways of using the results to motivate change.

### THE INTERVENTIONS

This document focuses on interventions targeting the major causes of mortality in the 42 countries claiming 90 percent of global child deaths in 2000. These same interventions are the subject of a series of papers in the

### Major Causes of Death in Children Under 5\*



\* Yearly average for 2000-03.  
\*\* See Causes of Neonatal Mortality, p.12.  
Source: Adapted from Bryce et al. 2005

Lancet in 2003.<sup>4</sup> They include:

- Newborn/neonatal health<sup>5</sup>
- Childhood immunization
- Control of acute respiratory infections
- Control of diarrheal disease
- Malaria prevention and treatment
- Nutrition

HIV/AIDS is now responsible for about 3 percent of child deaths worldwide. Infant feeding for children of mothers with HIV is discussed in Chapter 7. Injuries (especially traffic accidents and drowning) also account for a substantial but unknown number of child deaths; however the problem has not yet received the prominence it deserves in public health agendas.<sup>6</sup>

<sup>4</sup> Black et al. 2003; Bryce et al. 2003; Cleason et al. 2003; Jones et al. 2003; and Victora et al. 2003. (The Lancet series focuses on causes of death and additional deaths that could be averted, rather than deaths already being prevented by existing programs. However, we include basic childhood immunizations here, which is an essential part of child health services and includes vaccination against measles, which is cited by the Lancet series as a major cause of death.)

<sup>5</sup> See Chapter 2 and especially page 12 for causes of death in the neonatal period.

<sup>6</sup> Bryce et al. 2005 gives the yearly average as 3 percent. This varies greatly by country. In Bangladesh (Hyder et al. 2003) a study of 8,070 children under five in two rural areas and a nationwide survey conducted in 1996-97 looked at causes of death; drowning accounted for 43 percent of deaths in the cohort and 20 percent of deaths among 1-4 year olds in the national survey. Most drowning deaths were among 12-23 month olds.

## Advocacy for Attention to Child Deaths

Certainly the first task for communication programs is advocacy on behalf of child survival itself. Governments and donors that have signed on to the Millennium Development goal of reducing child mortality by two-thirds between 1990 and 2015 will have to make radical changes even to achieve respectable progress. Strategies and funds are needed to strengthen the systems themselves.

According to the Lancet,<sup>7</sup> global coverage for most of the proven interventions is below 50 percent. An urgent case can be made for any of the major child health areas. Piecemeal advocacy for bits of a smaller and smaller pie, however, will not restore the funding necessary or make child health a priority within finance ministries, foundations, or international donors. The mortality data are powerful; every argument in support of one program should be made within the context of this greater imperative.

## The Illusion of Isolated Causes

Although the chapters that follow begin with what we used to call “vertical” slices of child health, the reality is most children die from multiple causes. Each section discusses the important overlapping disease and behavioral issues.

Neonatal health is the most explicit cross-cutting intervention. Many essential newborn practices actually take place during pregnancy. Diarrheal disease, malaria, and acute respiratory infection are linked with *environmental* health—which is often conducted as a completely separate program. Malaria is part of safe motherhood as well as child survival, but is often addressed through its own national program. Nutrition is sometimes lodged in a separate arm of the health

bureaucracy and split into separate activities (vitamin A, child feeding, fortification) because delivery channels are so different. But nutrition overlaps with *all* of the child survival areas as well as with hygiene.

At the facility level, the Integrated Management of Childhood Illness (IMCI) has replaced the vertical program perspective with a single screening and treatment algorithm. IMCI was first introduced by WHO in 1995 and is gradually being rolled out through training programs in developing countries. The protocols deal with the fact that many conditions have overlapping symptoms and also that many children have concurrent diseases. It also screens for poor nutrition as an underlying cause of illness. IMCI theoretically includes a “household and community component.” However, with the end of funding for individual child health programs, many community-based and communication programs emphasizing preventive and careseeking behaviors at the family level lost their support.

## THE PROGRAM CHALLENGE— INTEGRATION AND ROLLOUT

This is a time for redefinition and reintegration of child survival for many countries. In 2000, at a UNICEF-led meeting in Durban, South Africa, key donors and non-governmental partners agreed on 16 key family and community practices to improve child health and nutrition. (See page 7.) They divided these into four areas, which cut across the different interventions:

- Physical growth and mental health
- Disease prevention
- Appropriate home care
- Seeking care

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<sup>7</sup> Jones et al. 2003.

## KEY FAMILY PRACTICES ADOPTED BY WHO AND UNICEF

### For physical growth and mental development

- Breastfeed infants exclusively for six months. (Mothers found to be HIV positive require counseling.)
- Starting at about six months of age, feed children freshly prepared energy- and nutrient-rich complementary foods, while continuing to breastfeed up to two years or longer.
- Ensure that children receive adequate amounts of micronutrients (vitamin A and iron, in particular), either in their diets or through supplementation.
- Promote mental and social development by responding to a child's needs for care through talking, playing, and providing a stimulating environment.

### For disease prevention

- Take children as scheduled to complete the full course of immunizations (BCG, DPT, OPV, and measles) before their first birthdays.
- Dispose of feces, including children's feces, safely; wash hands after defecation, before preparing meals, and before feeding children.
- Protect children in malaria-endemic areas by ensuring that they sleep under insecticide-treated bednets.
- Adopt and sustain appropriate behavior regarding prevention and care for HIV/AIDS affected people, including orphans.

### For appropriate home care

- Continue to feed and offer more fluids, including breastmilk, to children when they are sick.
- Give sick children appropriate home treatment for infections.
- Take appropriate actions to prevent and manage child injuries and accidents.
- Prevent child abuse and neglect and take appropriate action when it has occurred.
- Ensure that men actively participate in providing childcare and are involved in the reproductive health of the family.

### For seeking care

- Recognize when sick children need treatment outside the home and seek care from appropriate providers.
- Follow the health worker's advice about treatment, follow-up, and referral.
- Ensure that every pregnant woman has adequate antenatal care. This includes having at least one antenatal visit with an appropriate health care provider and receiving the recommended doses of the tetanus toxoid vaccination. The mother also needs support from her family and community in seeking care at the time of delivery and during the post partum and lactation period.

*Source: Winch 2001 (citing list presented at the International Workshop on Improving Children's Health and Nutrition in Communities, Durban, June 2000).*

The CORE Group of NGOs has proposed a framework for "Community IMCI" (or C-IMCI) based on a slight rearrangement of this same list, and

recommends developing "packages of behaviors" that are client-centered and take into account the *places* they are performed.<sup>8</sup> For example, these clusters might

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<sup>8</sup> Winch et al. 2001.

## THE EMPHASIS BEHAVIORS

**Reproductive Health Practices** Women of reproductive age need to practice family planning and seek antenatal care when they are pregnant.

- For all women of reproductive age, delay the first pregnancy, practice birth spacing, and limit family size.
- For all pregnant women, seek antenatal care at least two times during the pregnancy.
- For all pregnant women, take iron tablets.

**Infant and Child Feeding Practices** Mothers need to give age-appropriate foods and fluids.

- Breastfeed exclusively for about six months.
- From about 6 months, provide appropriate complementary feeding and continue breastfeeding until 24 months.

**Immunization Practices** Infants need to receive a full course of vaccinations; women of childbearing age need to receive an appropriate course of tetanus vaccinations.

- Take infant for measles immunization as soon as possible after the age of 9 months.
- Take infant for immunization even when he or she is sick. Allow sick infant to be immunized during visit for curative care.
- For pregnant women and women of childbearing age, seek tetanus toxoid vaccine at every opportunity.

**Home Health Practices** Caretakers need to implement appropriate behaviors to prevent childhood illnesses and to treat them when they do occur.

### PREVENTION

- Use and maintain insecticide-treated bednets.
- Wash hands with soap at appropriate times.
- For all infants and children, consume enough vitamin A.
- For all families, use iodized salt.

### TREATMENT

- Continue feeding and increase fluids during illness; increase feeding immediately after illness.
- Mix and administer ORS, or appropriate home-available fluids, correctly.
- Administer treatment and medications according to instruction (amount and duration).

**Care-Seeking Practices** Caretakers need to recognize a sick infant or child and need to know when to take the infant or child to a health worker or facility.

- Seek appropriate care when infant or child is recognized as being sick (i.e., looks unwell, not playing, not eating or drinking, lethargic or change in consciousness, vomiting everything, high fever, fast or difficult breathing).

*Source: Murray 1997.*

include:

- Periodic preventive behaviors (such as vaccination, vitamin A, treatment of bednets)
- Treatment-seeking and care of the sick child
- Feeding, food preparation, and water use
- Safe environment

The BASICS Project developed a similar list of Emphasis Behaviors for promotion of health in communities.<sup>9</sup> (See page 8.) The behaviors are based on the idea of a Pathway to Survival that requires actions inside and outside of the home, and includes both prevention and treatment practices. These are also divided into categories:

- Reproductive health practices
- Infant and child feeding practices
- Immunization practices
- Home health practices
- Care-seeking practices

The lists are very similar.<sup>10</sup> They guide program managers in selecting behaviors that have a demonstrated relationship with morbidity and mortality and will have an impact on multiple disease areas. The problem of how to select and combine them in a programmatic context remains, however, and is reflected in the different ways people have grouped them. The problem becomes even knottier as the basic behaviors (like “provide appropriate complementary feeding” and “seek care when child is recognized as being sick”) are translated into precise, do-able actions appropriate to caretaker beliefs and environments. The total number of behaviors can quickly expand into the hundreds.

The *structure* of programs on the ground usually leads to an initial grouping of behaviors. One

intervention may also be a logical entry point to another. For example, immunization may be used as a platform for drawing families into the system and promoting other practices. Antenatal services may or may not serve as an effective “push” towards postpartum care and the first vaccination. Child health weeks and the offer of vitamin A capsules can be a focal point for promoting acceptance of other services such as growth monitoring and deworming. Catch-up measles campaigns are now playing the “piggybacking” role that polio did earlier—bednets or vouchers may be distributed at those events. Behavior and communication strategies must obviously be carefully tailored to program *structures*.

At the community level, strategies regarding careseeking and treatment behaviors for multiple illnesses are rarely well integrated. The BASICS and CHANGE Projects have been working on the cross-cutting concept of “acting without delay” in the presence of danger signs. Primary signs are described in appropriate local terms and translated into “mother reminder materials.”<sup>11</sup> The effectiveness of this approach has not yet been evaluated. At the provider level, treatment is usually fragmented, despite the IMCI ideal. A community health volunteer may have drugs for malaria, while pneumonia treatment may be available only at the government health service. A few countries are training community workers to recognize and treat multiple illnesses. Given the preferences of communities for different private providers however, the task of understanding how parents and providers interact—and how these interactions can be improved—is daunting. Programs are just beginning to address the popularity of private (including unlicensed)

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<sup>9</sup> Murray 1997.

<sup>10</sup> Both of these leave out essential newborn care practices. Note that both lists are several years old and should not be used as definitive guidelines for programs. In particular, neither list mentions intermittent preventive therapy (IPT) for pregnant women in malaria endemic areas.

<sup>11</sup> Favin et al. 2004.

providers and the impact of *their* practices on child health.

The *phasing* or rolling out of behavioral strategies and also communication *messages* over a given period of time is another challenge. In Nepal, the vitamin A program built the capacities and credibility of community volunteers into a respected cadre. The semi-annual mass mobilizations gave them high visibility. When these volunteers were later trained to assess and treat children for acute respiratory infections, they had already developed the confidence necessary to perform this more complex task, and had also earned the trust of parents. In a Madagascar program, families are introduced to the importance of multiple health actions at once, partly through the use of integrated age-specific materials. Immunization serves as the entry point; parents receive health cards that introduce them to other essential actions and help them track their performance. An extensive community mobilization program motivates sustained attention to the “essential actions” by families as well as providers.

There are no right answers to these implementation questions. Every program must be selective and focused according to morbidity patterns, health system issues, and different community realities. At the same time, the most important principle, as always, is to track what is working and what the gaps are, and continually adjust as these become known.

## THE SYSTEMS CHALLENGE— BEHAVIOR CHANGE AT MULTIPLE LEVELS

The next sections of this paper discuss the six basic child survival interventions in separate chapters. While a “vertical” discussion can be limiting, it helps highlight the unique characters of these interventions. Each has benefited from different levels of attention and funding over time and confronted different

challenges in terms of policies, protocols, and product development. Each relies to a different degree on the availability of drugs or other supplies, and imposes different requirements on families and providers.

Understanding the context and character of an intervention helps avoid a merely formulaic approach to behavior strategies. In particular, the importance of behavior change *at different levels* of the health system varies substantially for each intervention.

For example, *advocacy among policymakers*, as well as *advocacy at the community level*, is critical to the success of any newborn intervention. *Selection of feasible behaviors* for families and communities is also crucial. In contrast, a focus on improving *provider behaviors* may be the single most important contribution communication programs can make toward reducing the problem of *immunization dropouts*. Control of diarrheal disease, acute respiratory infections, and treatment of childhood malaria all involve important *careseeking* elements, and are therefore in many ways “joined at the hip” (all require symptom recognition, referral, and rational drug use). Nutrition is really a collection of interventions; but nutrition *per se* is usually a low priority in Ministries of Health. Advocacy for funds, as well as adoption of *up-to-date policies and protocols*, is usually fundamental to addressing the myriad challenges connected with family, community, and provider practices.

The typical communication expert in a Ministry of Health, or the behavioral and social change expert in an NGO, will always be expected to create demand for services and mobilize communities. However, perhaps the greatest *communication task* this person and his or her team may confront is to share the results of behavioral research effectively with stakeholders so that key behaviors—of crucial audiences and actors—can be considered systematically and in terms of their actual priorities.