Getting the Handle off the Proverbial Pump: Communication Works

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Health Promotion, Communication, Education, and Community Participation: A Theory-Based Framework

During the last decades of this century, we have come to recognize that human and social development are affected by the health status of the population and that medical care alone cannot fully address all the determinants of health. Health promotion strengthens primary health care and contributes to public health by enabling people to become involved in community action for health while working to maintain healthy lifestyles and behavior. Health promotion is part of the communications effort involved in the prevention and control of emerging infections.

Health promotion, as defined by various international and regional health promotion conferences (Ottawa 1986, Adelaide 1988, Sundsvall 1991, Bogota 1992, Port of Spain 1993, and Jakarta 1997), enhances intersectoral action by increasing the focus on community involvement and action for health, placing healthy public policy on the agenda, creating supportive environments, and developing personal health skills. Health promotion is one of five policy directives of the Pan American Health Organization (PAHO) Strategic and Programmatic Orientations for 1995-1998. The PAHO/World Health Organization (WHO) Regional Plan of Action for Health Promotion includes the following objectives: 1) promote social development based on principles of equity and the right of citizens to health and well-being; 2) strengthen the concept of a health culture based on healthy environments, behavior, and lifestyles; and 3) develop the health sector's capacity to recognize, support, and lead intersectoral processes for promoting health.

To fully meet the goals of health promotion and disease prevention, programs must inform and guide policies, plans, and activities for health. Health education, communication, and community participation have a wide range of theoretical frameworks. Among the more important are 1) participatory community development political theories that explain capacity building, democratic organization, and management styles; 2) community-based social support networks that facilitate interpersonal communication and consensus around healthy lifestyles; 3) learner-centered cognitive theories that describe and explain the process of acquiring and updating values, knowledge, and skills; and 4) the behavior change framework, especially persuasion theories that describe and explain the process of adoption of healthy lifestyles, both individually and collectively. These theories create supportive environments, strengthen community action, develop personal health skills, and sustain positive behavior change.

Diarrhea Prevention through Point-of-Use Disinfection and Safe Storage of Water: The Need for Innovative Interventions to Change Behavior

In many parts of the developing world, drinking water is collected from unsafe sources and is further contaminated during storage in household vessels. Simple, inexpensive disinfectant generators, better storage vessel designs, and community education allow families to disinfect drinking water immediately after collection and to store treated water in narrow-mouth, lidded vessels designed to prevent recontamination. This three-component prevention strategy has been field tested in Bolivia and Guatemala with remarkable success. Urban and rural families readily accepted the vessels and disinfectant, operated disinfectant generators, reliably obtained adequate levels of free chlorine in stored water, and produced from contaminated sources potable water that met WHO standards for microbiologic quality. One study showed that the intervention reduced diarrheal disease episodes in children and infants by 44%. Guatemalan street vendors added a soap dish beside the water vessel to produce safer drinks and attract more customers. In Bolivia, water vessels and disinfectant are now commercially produced and marketed. Although the intervention costs less than US$1.00 per person per year and water vessels have been well accepted, in several projects the use of chlorine disinfectant has decreased over time. Health communication and initial adoption of water vessels alone has not changed the long-term water treatment behavior in a large percentage of the population. Formative research is needed prior to implementing these projects, and innovative behavioral techniques are needed to motivate and sustain behavioral change.

Lassa Fever Prevention In Endemic and Epidemic Situations—Sierra Leone

Lassa fever, a viral disease prevalent in West Africa, was first described in a village called Lassa in northern Nigeria. The disease affects healthy persons of all ages and both sexes and results in severe acute illness with a 16% death rate. The virus is transmitted from rodents to humans and from person to person. The disease is a major cause of illness and death in disease-endemic areas in Sierra Leone.

In 1976, the Lassa Fever Research Project was established as a collaborative effort between the Centers for Disease Control and Prevention and the Ministry of Health in Sierra Leone. The mandate was to study all aspects of the disease including epidemiology, diagnosis, treatment, prevention, and control. In the intervening years much has been learned about the virus and the disease it causes. Ribavirin, a drug effective against the disease, is not easily accessible, and no vaccine is available; therefore, prevention of endemic Lassa fever is vital. A multidisciplinary strategy for prevention and control has been developed and includes three components: clinical therapy, public education, and rodent control. Physicians at regional hospitals and village health workers have been trained to recognize the disease and its symptoms and to isolate and treat Lassa fever patients. Public education and communication activities have helped the general population recognize the disease and prevent transmission. Additional education and training provided information on how to reduce contact between humans and rodents. These promising approaches were disrupted by civil war.

A January 1996 outbreak lasted until April 1997. Of 664 reported cases, 427 were confirmed Lassa fever cases; 82 patients died. In response to the outbreak, an isolation and referral network was established and an emergency training workshop on surveillance, case management, prevention, and control of Lassa fever was organized for 40 health-care workers in two districts in Eastern Province. Lassa fever continues to be a major health problem in Eastern Province of Sierra Leone.

Healthy Islands and Emerging Infectious Diseases

In March 1995 in Yanuca Island, Fiji, the Western Pacific Regional Office of WHO introduced the Healthy Islands program. This program recognizes the peculiar character of island settings and seeks to reorient health and developmental planning in a manner that addresses this character. This approach to health promotion, which takes into account the setting of a particular health problem, has become prevalent since the Ottawa Health Promotion Conference in 1986.

Island states have contributed to the epidemiologic study of infectious diseases in areas such as the delineation of area-species or population-disease relationships and the history of infectious disease. This contribution stands to repeat itself as many modern island nations exhibit the factors that have been linked to the emergence of infectious disease, including economic vulnerability; unsustainable resource use; substantial internal migration; breakdown of water, sanitation, and public health services (especially in areas of rapid urbanization); and large inflows of tourists. Healthy Islands projects aimed at holistic solutions to these problems have addressed, for example, malaria control in the Solomon Islands, environmental health protection in Fiji, and water supply and sanitation in Tonga. These projects have included health communication with community development approaches directed at the peculiar problems of the island setting.

The Internet helps promote some of the principles of the Healthy Islands approach. The Internet promises to be an excellent tool for overcoming professional isolation, a major shortcoming of the island setting, and providing authoritative and timely access to information. Two projects demonstrate this approach: The SYNAPSE is a network of health-care professionals in the Mediterranean island of Malta, and Pacnet is an electronic mailing list run by the Secretariat of the Pacific Community as a forum for public health practitioners with an interest in the Pacific. The Internet also serves to illustrate the "small-scale syndrome." The logistic problems that render small economies vulnerable increase the cost of bandwidth per head of population in small isolated communities. The skills to effectively use the technology are scarce and the cost of introduction great. Solutions like the Internet, appropriate in larger countries, are relatively costlier and may be less appropriate in smaller contexts.

The Internet is a good metaphor for Healthy Islands programs that seek to apply technology imported from larger countries and adopt it within cost-effective, holistic frameworks for health promotion. These solutions are relevant to the small isolated context, address issues that cut across sectoral and health service boundaries, and tend to be potentiated by concerted regional action.