Private Sector Response against the Cholera Threat in Trinidad and Tobago

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During the first half of 1992 the threat of cholera to Trinidad and Tobago prompted a strong health education effort by public authorities and the private sector. To help assess the private sector effort, the cost of cholera-related advertisements and private announcements placed in the country’s two leading newspapers during January–June 1992 were reviewed. The review indicated that an estimated TT$540,660 was spent on these ads and announcements, that they contributed strongly to keeping cholera prevention continuously in the public eye, and that most of the messages published were accurate, specific, and safe.

The strength and success of the private contribution to cholera prevention in this case suggests that similar approaches could be applied to other health problems and to the cholera problem outside Trinidad and Tobago. Overall, the lesson appears to be that if one can find congruence between private sector motives and public health interests, then the potential prospects for a successful partnership are great.

Following cholera’s arrival in Venezuela (1), on 31 January 1992 Trinidad and Tobago’s Minister of Health (the Hon. Mr. John Eckstein) informed his nation’s Parliament that “cholera is staring us in the face.” His statement also noted the spread of the disease from the first cases in Peru in January 1991 to epidemics in Ecuador, Colombia, Chile, Brazil, and thence to Mexico, to the Central American countries of El Salvador, Guatemala, Honduras, and Nicaragua, to Bolivia, and eventually to Venezuela, where 58 cases had been recorded by 30 January 1992 (Trinidad Guardian, 4 February 1992).

Noting that Venezuela is in Trinidad and Tobago’s “back yard” (a mere seven miles away) and that there is frequent travel (legal and illegal) between the two countries, Mr. Eckstein cited expert opinions that introduction of the disease was inevitable. He therefore placed the nation on a cholera alert and focused his ministry’s attention on containing the spread of the disease.

The ministry’s plans to confront the situation called for:

1. intensifying the ministry’s surveillance of diarrheal illness, so as to improve the chances of early case detection;
2. improving the clinical management of cholera cases by educating the clinical staff members and updating their knowledge;
3. strengthening the inspection of food offered for sale; and

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(4) providing public education and heightening public awareness via any opportunity afforded by the media.

To facilitate the ministry's work and help prevent the spread of cholera, the Cabinet allocated TT$ 508,665 to the Intersectoral Cholera Committee. TT$ 99,392 of this was earmarked for informing and educating the public.

In this area of education and information, the private sector collaborated with the Ministry of Health and played a very noticeable role. Indeed, on several occasions this private sector involvement drew the attention of international cholera experts who visited Trinidad and Tobago and the Caribbean Epidemiology Center. This article reports the results of an effort to assess and quantify part of that private sector participation.

**METHODS**

Issues of the two daily newspapers, the Guardian and the Express, that appeared from 1 January through 30 June 1992 were reviewed for information about cholera. Advertisements, letters to the editor, news briefs, and other informative articles were noted. The cost of paid advertisements was estimated by determining the size of each advertisement, the numbers of times that it appeared, the days when it appeared, and its placement. Costs obtained from the publishers were then used to estimate the costs of all the advertisements found.

The companies placing the ads were classified into 10 broad groups, according to the types of services or products offered (see Table 1), and the cost of all the advertisements placed by companies in each category was calculated. An effort was also made to relate the advertisements to major events and periods of public alarm about cholera. Finally, the factual content of the advertisements, the extent of their agreement with ads placed by other companies, and the quality of their health education messages were assessed.

It should be noted that besides the articles and advertisements studied, the private sector made a number of other significant contributions. Among other things, the banking community in some areas supported government efforts by examining sanitary facilities in nearby schools and making repairs where needed. Cost data on these efforts were not available; nor were they available for the frequent radio and television commercials, including ones using especially produced jingles such as "Check What Yuh Drinkin'" and "Cholera Go Jam Yuh" made for the purpose of launching products. In addition, there were significant efforts by nongovernmental organizations such as parent-teacher associations and civic, professional, and religious groups directed at holding seminars and forums for educating the public about cholera.

**Table 1.** The estimated costs of cholera-related advertisements published in the two newspapers studied from 1 January through 30 June 1992, by type of sponsor.

<table>
<thead>
<tr>
<th>Type of sponsor</th>
<th>Estimated advertisement cost, in TT$*</th>
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<tbody>
<tr>
<td>Bleach/soap companies</td>
<td>234,858.87</td>
</tr>
<tr>
<td>Cleaning and refuse collection companies</td>
<td>10,829.15</td>
</tr>
<tr>
<td>Food and beverage processing companies</td>
<td>135,500.89</td>
</tr>
<tr>
<td>Insurance companies</td>
<td>17,468.80</td>
</tr>
<tr>
<td>Newspapers</td>
<td>67,431.62</td>
</tr>
<tr>
<td>Pest management companies</td>
<td>4,600.00</td>
</tr>
<tr>
<td>Pharmaceutical companies</td>
<td>3,465.32</td>
</tr>
<tr>
<td>Plastic companies</td>
<td>9,960.97</td>
</tr>
<tr>
<td>Supermarkets</td>
<td>40,841.68</td>
</tr>
<tr>
<td>Water treatment companies</td>
<td>15,702.27</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>540,659.57</strong></td>
</tr>
</tbody>
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*TT$ 5.75 = US$ 1.
RESULTS

While advertisements and informative articles about cholera were found throughout the study period, their rate of occurrence was highest on three occasions:

(1) immediately after the health minister's speech of 31 January;
(2) after a cholera scare caused by isolation on 10 February of nontoxigenic *Vibrio cholera* 01 El Tor from a spring water supply for a suburban hillside locality (Petit Valley) with an otherwise unreliable public water supply;
(3) immediately before the annual Carnival which occurred on 22–23 February.

During the first 2 months of the study period (January and February 1992), each newspaper devoted at least one page per day to the latest cholera-related developments in Trinidad and Tobago. However, most of the cholera advertisements noted in the study period were published during the February–March period, when approximately five advertisements per day appeared in the *Express* and three per day in the *Guardian*.

Generally, the advertisements were of the following two types:

(1) Ads offering services or products that could conceivably contribute directly or indirectly to cholera control (these were typically placed by firms such as waste disposal companies, vector control agencies, and the makers or distributors of bleaches, antiseptic soaps, bottled water and other drinks, rehydration salts, septic tanks, and water storage and purification systems);
(2) Announcements informing the public about the risks of cholera, how such risks could be avoided, how to recognize the disease, and appropriate measures to take in the event of its occurrence. These ads were placed mainly by civic-minded organizations such as insurance agencies, banks, supermarket chains, and the newspapers themselves; public utility companies such as the water and sewerage authority; and nongovernmental entities such as the Red Cross and the national medical association.

The costs of all advertisements of the first and second types that were published during the study period were estimated at TT$ 414 350 and TT$ 126 309, respectively. As indicated in Table 1, over half the cost of the latter was covered by the newspapers themselves. The ads' total estimated cost at retail prices was thus TT$ 540 660.

Examination of the content of the messages conveyed revealed some minor differences in those issued by different companies. For example, there were minor differences in the detailed instructions given by different bleach companies for treating drinking-water. Nevertheless, all the advisories said to let the water stand for 30 minutes after treatment and before use, and all the dilutions listed would have achieved a free chlorine concentration of at least 1.0 ppm, sufficient to kill *V. cholera* organisms (2).

With respect to instructions about boiling water, many nongovernmental organizations recommended boiling the water for 1 minute, while the health ministry's official recommendation was to bring the water to a rolling boil and keep it boiling for 5 minutes.

A substantial number of advertisements, including ones with messages like "Watch what you drink," were nonspecific. Most, however, contained specific messages such as the need to wash one's hands after using the latrine or toilet, and the importance of boiling drinking-water. Others provided guidance to consumers about buying food from street vendors.
(e.g., the vendor should display a food badge, use serving tongs, have a clean insect-free booth, and have easy access to clean water).

Regarding treatment information, most articles and advertisements accurately recommended use of oral rehydration salts and rapid reporting of illness with cholera-like symptoms to a doctor or health facility. However, a small minority of such messages were inaccurate and even dangerous—notably one series from an herbalist recommending "hot fomentations to the bowel and length of the spine, high enemas and green pigeon peas juice and honey."

DISCUSSION

The estimated TT$ 540 660 invested by the private sector in the two study newspapers’ cholera-related advertisements from 1 January through 31 June 1992 easily surpassed the $TT 99 392 earmarked by the Cabinet to develop a public awareness program. Moreover, this TT$ 540 660 figure did not include the cost of other private sector contributions such as cholera-related radio and television commercials or repair of school sanitary facilities, nor did it relate to regular media coverage of the cholera problem.

These findings confirm that the private sector played a major role in keeping the need for cholera prevention measures before the public, especially during potentially vulnerable periods such as the annual carnival, a time when tens of thousands of visitors were arriving and health standards might be compromised.

Also, assessment of message content showed most of the articles and ads to be accurate and specific in terms of the advice offered. Although minor inconsistencies in certain messages from different sources had a potential for fostering confusion, nearly all the messages (except for the herbalist’s) were safe with respect to recommendations for water treatment, food handling, and disease treatment.

This informal partnership between government agencies and the private sector in addressing the cholera threat effectively demonstrates the benefits that can accrue to all parties through such collaboration. Among them:

1. augmentation of limited government and health ministry funds and other resources;
2. improved corporate images for participating firms;
3. possibly increased sales;
4. enhanced prospects for successful cholera prevention by a better-informed public.

In dealing with many other issues, there is often a potential for conflict between the public health sector and private business. In response to the cholera threat, however, there was an unusually striking mobilization by the private sector in support of the Government’s efforts, one that has been publicly recognized by the Ministry of Health.

As far as we know, this involvement of the private sector in cholera control is an unusual phenomenon in the literature. A computerized search of MEDLINE from 1989 onwards revealed 236 articles containing the phrase “private sector” in their titles or abstracts. No references were found to “cholera” and “private sector” in either the titles or abstracts. A search on “private sector” and “public health” revealed only eight articles, two of which were indirectly relevant to this paper (3, 4).

What are some of the lessons emerging from this experience? To begin with, the Intersectoral Cholera Committee seems to have successfully convinced various different sectors that responding to cholera was not just a task for the Ministry.
of Health, suggesting that this general approach could be effectively pursued in the future. Also, the experience shows how the private sector can be a very valuable partner in responding to a public health problem. It should be noted, however, that cholera prevention with its emphasis on clean water and personal hygiene is a generally noncontroversial matter, unlike certain other subjects—such as AIDS prevention with its attendant controversies regarding information about sexual behavior. In addition, many private companies have products that are appropriate for cholera and diarrheal disease prevention—e.g., bleach and soap companies, refuse collection firms, etc. The lesson, therefore, appears to be that if one can find congruence between private sector motives and public health interests, then the potential prospects for a successful partnership are great.

No cases of cholera have yet been confirmed in Trinidad and Tobago, despite intensive surveillance and investigation of suspected cases. This has led to skepticism in some quarters, and a typical media question is “Can we relax now?” The answer is obviously “No,” because cholera is continuing to sweep Latin America (some 350,000 cases were reported in 1992) (5).

Furthermore, a wide range of enteric diseases, including hepatitis A and salmonellosis, still prevail in the Caribbean, and access to safe water is not yet universal (6, 7). Certain key cholera prevention measures—including provision of safe water, extension of health services to the whole population, and promotion of good personal hygiene—can greatly reduce the impact of such diseases, a matter that is especially important for countries with tourism-dependent economies. Moreover, since the arrival of imported cholera cases seems inevitable, it is only through such measures that avoidance of cholera can be assured.

There also seems a clear need to move the public education effort from the crisis response phase, where disease prevention receives the major emphasis, to a more prolonged phase where perhaps the focus should be on behaviors that help prevent the spread of cholera and other diseases. This could be part of a broader “healthy lifestyle” initiative.

At the same time, within and beyond Trinidad and Tobago, pressure needs to be maintained on governments and other agencies to invest in the water and sanitary infrastructure, as Western Europe and the United States of America did in the latter half of the 19th century, largely in response to cholera. This challenge of providing water and sanitary services for all has been taken up by the Pan American Health Organization (8). Clearly, the private sector everywhere has a role to play in what seems certain to be a sustained long-term effort, one where, it is hoped, the partnership begun between public and private sectors in response to a common threat can continue to bear fruit.

Acknowledgments. We are grateful to Dr. D. Sack of Johns Hopkins University for suggesting the study reported here.

REFERENCES

Optic Neuritis in Cuba

The epidemic of optic neuritis that started in Cuba last year is virtually over. Although experts are still uncertain of the cause of this epidemic, they have ruled out infectious disease and believe that a combination of a nutritional problem and another, as yet unidentified factor (perhaps a toxic substance) may be responsible.

Of a total of 50 670 cases reported since the start of the epidemic, 52% were optic neuritis proper and 48% were cases of a more general peripheral neuropathy. Victims also experienced fever, pains in the arms and legs, and weight loss. Approximately 800 people have suffered serious sequelae of the disease, 95% of the cases involving a loss of visual acuity and the remainder involving hearing problems or sensory neurological complications.

Since the first evaluation mission by a WHO team last May, several countries—including Canada, Spain, Sweden, the United States of America, and the United Kingdom—have responded to the appeal for aid made by the Cuban authorities by sending research teams. A particularly detailed study has recently been conducted by Cuban researchers and a team from the U.S. Centers for Disease Control and Prevention, the results of which will not be available for another 6 months.

Although the epidemic is under control, the entire population of Cuba will continue to receive vitamins as a preventive measure until the exact causes of the disease have been determined. Since 1 May 1993, almost 1.5 billion vitamin tablets have been distributed at a cost of US$ 6 million, over half borne by Cuba and the rest coming from international aid.

PAHO and WHO will continue to provide the necessary technical support to preventive and curative activities. In addition, in 1994 they will sponsor a conference in Cuba, together with the Ministry of Health, on epidemic neuropathy, in order to pool available information from the international scientific community.