Advocacy and Resource Mobilization for Rubella Elimination in Guatemala

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This review describes the advocacy efforts to mobilize resources for the campaign to vaccinate men and women aged 9–39 years, with a goal of eliminating rubella and congenital rubella syndrome in Guatemala. The country’s investment in health has been historically low (0.9% of gross domestic product), and there has been a wide gap between the availability of economic resources and the need for economic resources for the immunization campaign. The review contains a summary of the investment made, the results of advocacy and resource mobilization, the vaccination coverage attained, and the campaign’s impact on the disease.

In light of the successful elimination of rubella in Cuba (1983) and the English-speaking Caribbean countries (1998), in 1997, the Pan American Health Organization (PAHO) Technical Advisory Group (TAG) on Vaccine-Preventable Diseases recommended the implementation of a regional initiative for accelerated control of rubella and congenital rubella syndrome (CRS) [1]. In September 2003, a report on the impact of the rubella elimination initiative was submitted to the 44th Directing Council, composed of the Ministers of Health of the PAHO Member States, who unanimously accepted the goal of eliminating rubella and CRS by the year 2010 in the Region of the Americas. By September 2006, 97% of the countries and territories of the Americas had implemented the recommended strategies and substantially reduced the incidence of rubella and CRS. Despite major progress throughout the region, Guatemala’s inclusion as one of the countries implementing the regional initiative was still pending in January 2007 [2] because of the lack of financing to support the vaccination of men and women aged 9–39 years (representing 56% of the total country population) with MR vaccine. However, thanks to the country’s resource mobilization and advocacy efforts, Guatemala implemented a national MR vaccination campaign from 13 April through 28 May 2007, successfully vaccinating 99% of the target population. After the campaign, results from epidemiological surveillance revealed that the country has been free of endemic rubella virus circulation. This article outlines the advocacy efforts required to mobilize sufficient resources to plan and implement a successful national rubella vaccination campaign.

BACKGROUND

Integrated measles and rubella surveillance revealed endemic circulation of the rubella virus (587 cases reported during 1999–2006) [3]; the cyclical behavior of the disease; the prevalence of cases among school children, adolescents, and adults; and the ensuing exposure of pregnant women.

In 2005, a retrospective study was conducted at 5 Guatemalan hospitals. A total of 210 suspected CRS cases were identified during 2000–2004; 45 of these cases were compatible with the clinical symptoms of CRS, and 5 were laboratory confirmed. The actual figure may be higher because ~40% of the clinical records could not be obtained [4]. Furthermore, 2 seroprevalence studies yielded data similar to the data reported by developed
countries in the prevaccination era [5, 6]. One study was conducted among adolescent students, and results revealed that 15.0%–18.0% of the population who had samples obtained were susceptible. The other study was conducted among persons aged 10–39 years from 5 provinces. Results revealed that 34.2% of persons aged 10–14 years, 18.2% of persons aged 15–19 years, 10.6% of persons aged 20–24 years, 11.2% of persons aged 25–29 years, 10.4% of persons aged 30–34 years, and 9.6% of persons aged 35–39 years were susceptible.

In compliance with the measles elimination and accelerated rubella control initiatives, the country implemented the first MR follow-up campaign in 2002 (target population was children <5 years of age). However, to attain the rubella elimination goal, 56% of the total country population had to be vaccinated; this endeavor required an important investment that surpassed the financing of the Ministry of Public Health and Social Welfare (MSPAS). It should be taken into account that, historically, the country invested little in health (0.9% of the gross domestic product); therefore, a broad gap existed between the financial resources that were required and that were available for the mass vaccination campaign. Despite the financing limitations, there was a clear political decision to implement the campaign, the understanding that rubella and CRS were serious public health problems in the country, the evidence of the cost effectiveness of the intervention, and the opportunity to gain greater ground in achieving the Millennium Development Goals and completing the unfinished agenda of rubella elimination, and the MSPAS requested technical support from the PAHO and World Health Organization (WHO) for resource mobilization efforts.

**METHODS**

First, an economic analysis was conducted to evaluate the cost effectiveness of the campaign. PAHO-WHO then began contacting donors and agencies of the United Nations that have traditionally supported vaccine-preventable disease initiatives. It was suggested that the MSPAS convene the Interagency Coordinating Committee and other governments and donors who understood the importance of the campaign. In addition, it was recommended that a technical commission to support resource mobilization and advocacy efforts be established. In January 2007, the MSPAS issued a Ministerial Agreement declaring the campaign a national priority and created the National Technical Committee (NTC), which would be responsible for advocacy and resource mobilization activities. This commission recommended several activities for consideration by health authorities from MSPAS, including the following: 1) create an advocacy strategy; 2) identify potential donors; 3) work in partnership with governmental and nongovernmental organizations, the private sector, and the general public; 4) oversee negotiations; and 5) disseminate announcement. Advocacy packets, which included epidemiological data and the results from the economic analysis, were created and disseminated to various groups, including entrepreneurs working on social responsibility projects, trade associations of the mass media, private foundations, and nongovernmental organizations, in the hopes of mobilizing additional resources for the campaign.

The NTC revitalized the advocacy process by engaging the Legislative Assembly, the Office of the Defender of Human Rights, private companies, churches, the media, scientific societies, and professional associations of physicians and nurses. Special considerations were given to the following: (1) the prevention of partisan politics from tainting the campaign (the country was involved in a pre-election phase; to this end, the NTC focused on the real benefits, including the prevention of the reintroduction of measles and solidarity with the rest of the countries of the Region in eliminating rubella); (2) support from the United Nations agencies; (3) establishment of different collaborative mechanisms to improve efforts for intersectorial participation; and (4) involvement of the Guatemalan Social Security Institute and other agencies that could compensate for the limited infrastructure and lack of human resources for extramural work in health services networks. Advocacy efforts at the subregional and local levels, emphasized by the NTC, included activities that underscored the positive impact of the campaign for all populations, the benefits to entrepreneurs, and the economic and human development benefits for every family and citizen. Several informative meetings were held to enlist the participation of representatives from all sectors; each institution and/or sector contributed to the campaign.

To document progress in resource mobilization activities, a database was designed to register and classify contributing donors and institutions into categories and to record the amount of the donation by category or by technical component of the campaign. Financing was divided into 2 categories: supplies and operating expenses. Each category was further subdivided and analyzed by funding source.

During the vaccination campaign, a daily monitoring system was established to document the number of vaccinated persons per district. In addition, during and after the campaign, rapid coverage monitoring activities were conducted to identify districts that had not reached coverage ≥95%. Aligned with the PAHO-WHO guidelines, epidemiological integrated measles and rubella surveillance was established in 2007 and has been maintained to present time.

**RESULTS**

**Results of Economic Analysis**

The total cost for treatment and rehabilitation for projected cases was estimated at US $151 million. Compared with the cost of the campaign (US $9.3 million), the study yielded a cost-benefit ratio of 1:16 (ie, each dollar spent on the campaign would imply a savings of US $16 in treatment and rehabilitation costs).
Results of Advocacy and Social Mobilization

All parties that agreed to support resource mobilization efforts were divided into 16 categories (Table 1). The mobilization of financial resources focused on external agencies and governments, which complemented MSPAS’s contribution. All actors engaged in advocacy either at their institution, with their users or clients, or among the general public. Municipalities, non-governmental organizations, and universities contributed human resources (1748 volunteers total). A special contribution was made by some professional, ethnic, religious, and community-based organizations and institutions, which participated in varying degrees with different but complementary focuses and in different geographical zones in the area of crisis management.

Results of Financial Resource Mobilization

Financing was divided into 2 categories: supplies and operating expenses. Each category was further subdivided and analyzed by funding source. National efforts mobilized 57.5% (US $5.3 million) of the total investment (US $9.3 million), 90% of which was allocated to purchasing supplies and paying taxes, whereas 5% was earmarked for mass communication activities.
The mobilization of external resources accounted for 42.5% of the total investment, 66.7% of which was allocated to procuring vaccines; 11.3% to mobilizing immunization brigades; 10.1% to technical assistance, supervision, and rapid coverage monitoring (RCM) for coverage certification; and 6.4% to mass communication.

Of the total investment in supplies, 64.7% came from national sources and 35.3% from external sources. The country financed 56.2% of the 9 million doses of the MR vaccine; donors funded the remaining 43.8% (Canadian International Development Agency accounted for 25.6% of the total; the Centers for Disease Control and Prevention and the Swedish International Development Agency, 5% each; and the Bolivarian Republic of Venezuela, 4.3%).

With regard to investments in operating expenses, external sources predominated by funding 98% of technical assistance, supervision, and RCM for the verification of coverage and the certification of municipalities, and 77.9% of the mobilization of vaccine brigades. Mass communication was similarly funded by the 2 sources (Figure 1).

Impact of Vaccination Activities
From 13 April through 28 May 2007, 717,847 men and women aged 9–39 years (99% of the target population) were vaccinated [7]. Poor-performing municipalities that did not reach the vaccination goal were identified, and the campaign was extended to ensure high coverage. A total of 7,270,856 persons were vaccinated by the time the campaign ended. Since the campaign, no confirmed measles or rubella cases have been reported in Guatemala.

DISCUSSION
Without significant efforts to mobilize resources through the international community, Guatemala would not have obtained the financing necessary to implement the campaign. However, one limitation of the present report is that it does not include the contributions of local health authorities, nongovernmental organizations, municipalities, and the private sector that contributed to operating expenses.

The Interagency Coordinating Committee was fundamental for mobilizing the education sector, especially the universities and local educational establishments, and the media and the private sector. A registry documenting the outcome of resource mobilization efforts was not available for the local level, as was done in Paraguay, where 13% of the total cost and 64% of the operational costs were covered by the communities and by regional and local governments. The majority of countries that implemented rubella elimination campaigns financed 90% of regular campaign activities, with the exception of Haiti, Bolivia, and Nicaragua (GAVI-eligible countries). In the case of Guatemala, external financing covered 42.5% of the total investment and 35.3% of the provision of supplies. However, the country financed almost all expenditures related to mass communication and operation. The cost per vaccinated person was US $1.29, which is greater than what was originally estimated but similar to the costs from rubella elimination campaigns in other countries.

Political commitment for the campaign was apparent through the creation of ministerial declarations and the involvement of the high-level government officials, including the president of the Republic. This positioned the campaign as a priority on the political agenda, which attracted further cooperation and collaboration of governments and the private sector that translated into financial or in-kind donations.

After understanding the country’s needs, the donors provided sufficient funds to purchase the required quantity of vaccines. Additional donors remained flexible and followed the PAHO-WHO recommendation to allot funding to the key components for a successful campaign. In this regard, the following processes were prioritized: trainings for micro-planning and the identification of effective vaccination tactics that were aligned with the characteristics of the municipalities and communities they were targeting; the implementation of supervisory activities before and during the campaign; and the execution of rapid coverage monitoring to confirm the high, homogeneous coverage in all municipalities; timely laboratory support; and monitoring of the women unknowingly pregnant at the time of vaccination.

Institutions were selected based on their primary function and element of social responsibility and their field of expertise to take advantage of their strength, the types of resources they could contribute, and their sphere of influence. These details are described in Table 1.

Among the lessons learned, one of the most prevalent was the creation of an opportunity for negotiation and consensus building through the work of the Interagency Coordination Committee in external resource mobilization efforts with cooperation agencies. Additional lessons include the achievement of political commitment at the highest level as motivated...
through economic aspects (ie, evidence of cost-benefit and cost effectiveness) and political aspects (ie, the magnitude of the target population, the innovative strategy to vaccinate adults who represent the electoral mass, and the prestige that accompanied the successful completion of the campaign); the dissemination of a social communication through personal contacts with the private sector; the emphasis on economic aspects of the campaign, including results of the economic analysis and the prevention of absenteeism in labor institutions; the promotion of local initiatives in preparation for micro-planning and related activities; the development of institutional, private sector, and civil society initiatives; the involvement of local governments that overlooked partisan differences to spin the campaign as a national health policy; the recognition of partners at all levels through the delivery of certificates to involved institutions and organizations and ceremonies to recognize mayors in municipalities that achieved high vaccination coverage; and, finally, the fundamental role played by PAHO-WHO as campaign sponsor, in light of cooperating parties and donors.

Intense advocacy efforts, namely, the launching of a multidimensional social mobilization approach among the 16 key players, allowed Guatemala to overcome funding gaps to support campaign implementation [8]. Contributions from international corporations and governments were fundamental to ensuring the availability of funds, which secured the procurement of necessary vaccines, the mobilization of vaccination brigades, and the implementation of rapid coverage monitoring and the municipality high-coverage certification process. Overall these efforts facilitated the success of the campaign, which resulted in the interruption of endemic rubella virus circulation in the country and included Guatemala in the group of countries that achieved elimination. This model for advocacy and resource mobilization can be adapted and applied to new challenges in the control and prevention of vaccine-preventable diseases and can serve as an example for other world regions that seek to eliminate measles and rubella.

References