Cuban Medical Internationalism: El Salvador, as a Case Study

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"That degree of solidarity which has been generated by the Cuban medical personnel [...] that unquestioning support which they have shown to our people—these are qualities which we would like to see spread to all our countries in Latin America".

Dr. María Isabel Rodríguez, Minister of Public Health of El Salvador, Personal Interview, February 25, 2010.

In terms of medical internationalism, Cuba's role is stunning, as can be seen from a quick summary of some of the major public health achievements. At present there are over 37,000 Cuban medical personnel working in 77 countries, and in all some 120,000 have served abroad in this capacity since 1960. More than 25,000 victims of the 1986 Chernobyl nuclear meltdown have been treated in Cuba at no charge. Medical schools have been established with Cuban medical staff in twelve countries in the developing and underdeveloped world. Following horrendous damage to Central America in 1998 in the wake of Hurricane Mitch, the Cuban government established the Escuela Latinoamericana de Medicina (ELAM), the largest medical school in the world, from which over 8,500 doctors from 30 nations had graduated by 2010. (A further 50,000 students from Latin America and the Caribbean are currently studying in Cuba and Venezuela to be doctors, with the goal of producing 100,000 for the region within a decade). In addition the Henry Reeve Emergency Contingent (formed in 2005) has sent medical brigades on 12 missions, helping countries facing natural disasters. The largest was to Pakistan (with some 2,500 members of the contingent), but others have been sent to Guatemala, Bolivia, Belize, Peru, Mexico, Ecuador, Haiti, El Salvador and Chile. Most recently Cuba has taken a lead role in the disastrous Haitian earthquake of early 2010 and, together with Brazil and Venezuela, is restruc-

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turing the public healthcare system there. There are currently some 1,500 Cuban or Cuban-trained medical personnel working in that troubled country. Finally, by 2010 some 1.8 million people, mainly from Latin America and the Caribbean, had received eye surgery at no charge under the auspices of "Operation Miracle"—including Mario Terán, the Bolivian soldier who had executed Che Guevara in 1967. Former Foreign Minister Pérez Roque summed up well this exemplary human solidarity approach: "No damos lo que nos sobra, sino que compartimos lo que tenemos" (Forteza, 2007, para. 6).

To date, together with other academics, we have examined specific aspects of the practical applications of this policy of medical internationalism (See Kirk and Herisman, 2009; Kirk and Jiménez, 2009; Kirk and Huish, 2009, 2007). It is an extremely ambitious programme for such a small (pop. 11.2 million) country, since in essence Cuba has more medical professionals working abroad than all of the G-8 countries combined. This chapter focuses on one significant example of this policy, studying the role of the Cuban medical brigade in El Salvador since its arrival in November 2009. As will be seen, this case study is an important example of the broad picture of over five decades of this larger programme of medical internationalism. It begins with an analysis of the actions of Cuban medical personnel in the face of the natural disaster caused by tropical storm "Ida"-the original motivation for the arrival of the brigade. Clearly the extraordinary record of the "Brigada Médica Cubana Salvadoreña Mons. Oscar Romero" as it came to be known is itself worthy of study, since in its first three months it saw some 50,000 patients, of whom half were visited in their homes-following the time-honoured Cuban fashion. But the multifaceted nature of the work undertaken once the immediate health needs in the wake of the emergency had been met are also exceptional, and the second half of this article analyzes the evolution of this work. As will be seen, the Cuban commitment to stay in El Salvador as long as the medical staff were needed, and in whichever way their services could be best employed, continues. Recent visits to Cuba by the Salvadoran vice-president and president illustrate the profound appreciation felt by the government for the Cuban solidarity-which promises to continue, and indeed to expand. The objective is to analyze and evaluate the importance of the Cuban hands-on approach to both emergency medicine and public health needs in this country, and to understand this recent operation as a microcosm of a much larger level of cooperation that has been in effect since 1960–throughout the developing and underdeveloped world.

Origins and Evolution of Cuban Medical Internationalism

Cuban medical internationalism can be traced back to 1960-just a year after the revolutionary government came to power. A major earthquake in Valdivia, Chile in May 1960 was the first time that a medical delegation was sent by Havana. In 1963 a larger group of medical personnel was dispatched to newly independent Algeria, to help restructure the medical system there. It is worth pointing out that in 1959 there were 6,000 doctors on the island, but that two years later this had dropped to about half that number, as most of Cuba's middle class left for Miami. Despite very limited resources, however, the Cuban government has maintained the goal of supporting less developed countries with medical and educational personnel. At that time Cuban Minister of Health Machado Ventura summarized the Cuban position in Algeria in the following manner: "Era como un mendigo ofreciendo ayuda, pero sabíamos que el pueblo argelino la necesitaba incluso más que nosotros, y que la merecía" (Gleijeses, 2002: 28). It is also worth noting that Cuban medical cooperation often occurred when there were poor bilateral diplomatic relations, or indeed at times when there were no diplomatic relations-as in the case with Somoza's Nicaragua, or indeed with Honduras and Guatemala, where Cuba sent hundreds of medical staff after Hurricane Mitch in 1998, and has since maintained a strong medical presence. Affinities of political ideology have clearly not been an obstacle to medical internationalism a la cubana-as was seen in 2005 when the Cuban government offered the support of 1,500 medical personnel to the United States (together with 30 tons of medical supplies) following the devastation of Hurricane Katrina in New Orleans. Sadly, the Bush administration preferred to play politics instead of saving lives, and so rejected the Cuban offer.

In the 1970s Cuba also undertook major civilian aid programmes in Africa, where it set up several medical schools, and agreed to train medical students in Cuba. This corresponded to a period generally referred to as the "institutionalization" of the revolution, a time with extremely close economic ties developed between Cuba and the Soviet Union. Since then Cuban doctors have served in over thirty African countries, and are working in a variety of manners—often providing the basis for national health programmes in impoverished countries. Nelson Mandela has lavished praise on Cuba's humanitarian contribution in Africa, and rightfully so, referring to "la gran deuda que hemos contraído con el pueblo de Cuba ... ¿Qué otro país tiene una historia de mayor altruismo que la que Cuba puso de manifiesto en sus Relaciones con África?" (Gleijeses, 2002: 458).

In the late 1990s Cuban medical internationalism increased dramatically. The horrible impact of Hurricane Mitch in Central America in October 1998, with the death of tens of thousands, resulted in Cuba replying to requests for help from the region's leaders and sending hundreds of medical personnel to help. At its peak, the Cuban medical response in Central America numbered about 2,000 people. The following year Cuba introduced a revolutionary concept-taking students from the region most affected, and training them (at no cost) to become doctors. The idea was to seek "revenge" on the hurricanes by forming new doctors to give life to the region-in essence turning the traditional "brain drain" of medical personnel to industrialized countries into a "brain gain". Accordingly the national naval academy in Havana was converted into the Escuela Latinoamericana de Medicina (ELAM). Hundreds of Central Americans registered, as well as scores of students from throughout Latin America and Africa. These students were mainly from poor backgrounds, students who normally would not have been able to pay for a medical education in their home countries. In return for six years of medical training at no cost to them they were requested solely to return to help their own impoverished communities and, when this was not possible, to work in other underserved communities. In addition a new hands-on model of teaching was introduced in Cuba in 2005, the objective of which is to train (in Cuba and Venezuela) 100,000 doctors for the region within a decade. At present about 50,000 are studying in Cuba and Venezuela in a new "hands-on" approach to medical training, working in small groups with physician mentors.

The special relationship between Havana and Caracas has resulted in a great number of initiatives, many of which are in public health. In return for subsidized oil, Cuba has provided substantial medical support to Venezuela–and currently there are about 30,000 Cuban health professionals working there, of whom some 11,300 are doctors. (This particular programme–Barrio Adentro–had only 53 when it started in 2003). The impact on public health has been enormous. By 2009 over 566,000 people had had their sight restored, and 24,000 young Venezuelans were being trained to become doctors in their country by Cuban professors. Almost 300,000 Venezuelan lives had been saved by Cuban doctors, who by September 2010 had undertaken 432 million medical consultations (Cubadebate, 2010). By April 2010 7,711 clinics had been built, as well as 504 Centros de Diagnóstico Integral, 557 Salas de Rehabilitación Integral, and 27 Centros de Alta Tecnología—all since 2003.

¹See Cubadebate (2010, September 14). Destaca Chávez contribución de médicos cubanos a la salud venezolana.

Commenting on the Cuban public health role in Venezuela, President Hugo Chávez put this in context: "No tiene precio lo que nos ha dado Cuba... si nos ponemos a sacar cuentas, centavo a centavo, el aporte de Cuba es 10 veces más de lo que cuesta el petróleo que nosotros enviamos a Cuba".²

This commitment to improving the health of tens millions of people around the world can be seen in dozens of examples. To provide a concrete example, this chapter examines one case study-the Cuban response to a major natural disaster in late 2009 in El Salvador. It is a relatively recent and small-scale operation, but one which has produced significant results, and promises to provide badly-needed medical support to impoverished Salvadorans throughout their country. It is a model of cooperation in healthcare delivery-efficient, cost-effective, and sensitive to the needs of both the local population and government health promoters. In addition it uses the appropriate level of technology, and employs a people-to-people approach. The author spent two weeks in March/April 2009 accompanying the Cuban medical brigade, and draws upon interviews with Salvadoran and Cuban medical personnel, as well as Salvadoran government officials. This analysis of one of the most recent examples of medical internationalism is intended as a microcosm of the enormous outreach programme of Cuban medical personnel, since its multifaceted nature reflects on the broad thrust of many related Cuban programmes throughout Latin America and the Caribbean.

The Cuban Response to Tropical Storm Ida

Tropical Storm Ida hit El Salvador in the early morning of November 8, 2009, leaving a trail of massive destruction in its wake. The following day, newly appointed Cuban ambassador Pedro Pablo Prada visited the area most visibly affected (the communities of San Vicente and Verapaz). In Verapaz alone some 355mm. of rain fell in just 4 hours—approximately the same amount that fell when Hurricane Mitch devastated Central America in

²See the report by the Agencia Bolivariana de Noticias, "Chávez: Aportes de Cuba suman 10 veces más del costo del petróleo que envía Venezuela," April 17, 12010. See also J. C. Martín, (2010, April 17), "Condecora Chávez a médicos de Barrio Adentro", *Granma*. Speaking in November 2010, Chávez developed this analysis: "en el programa Barrio Adentro, llevado a cabo en el país con el apoyo de Cuba, se han realizado 439 millones de consultas gratuitas, se han salvado 295 mil vidas, se han hecho 61 millones de consultas odontológicas, 61 millones de obturaciones, se han entregado 19 millones de lentes y se han llevado a cabo 2 millones de intervenciones que han devuelto la vista y la calidad de vida a muchos venezolanos. No hay una operación humanitaria de esta magnitud que se conozca". Véase el informe en Cubadebate (2010, November 7). Presidente Chávez anuncia relanzamiento de Convenio Cuba-Venezuela 2010-2020. Retrieved from: http://www.cubadebate.cu/noticias/2020/11/07/presidente-chavez-anuncia-relanzamiento-de

1998–and this at the end of the rainy season, when the ground was already sodden, and therefore incapable of absorbing more rainwater. Some 12 rivers overflowed their banks, 200 mudslides occurred, over 2,000 homes were destroyed or severely damaged, 77 bridges and 117 schools were destroyed or severely damaged, crops were devastated, and over 200 people were killed (some bodies were never recovered). Others were swept 20 km away by the force of the rivers. Damage was estimated at \$2.5 billion, and some 14,000 people were forced to seek refuge in schools and churches. Walking through the disaster area three months later, one could still see signs of the ravaged area. The naked sides of the mountain for miles showed where massive boulders had poured down onto the village below, destroying everything in their way.

The Salvadoran government immediately declared a state of national emergency, and appealed for international support. Following the report from the ambassador, Cuba responded within days, sending a brigade of 18 medical specialists in disaster medicine (all members of the Henry Reeve contingent formed in 2005). Their medical background was a microcosm of the training needed for natural disasters of this kind, involving specialists in epidemiology, pediatrics, obstetrics and gynecology, internal medicine and public hygiene. They arrived on November 13, and headed directly to San Vicente. Just two months later the devastating earthquake in Haiti (claiming more than 230,000 lives) resulted in the head of the Cuban mission in El Salvador being sent there in a supervisory role, while one of the epidemiologists in the contingent was seconded to the Salvadoran Ministry of National Public Health and Social Assistance as an adviser to the national dengue programme, since at that point the country faced a potential epidemic. The rest of the Cuban delegation remained based in San Vicente (about 1.5 hours from the capital), where they continued to work-both tending on a daily basis to patients, but increasingly involved in other public health activities. The Cuban medical brigade set up a field hospital in one of the principal town squares of San Vicente the same day that they arrived, and received their first patients that afternoon. By the end of the day they had seen 215. They remained working in the town square for months afterwards, seeing approximately 250-300 patients a day. The team consists of 4 general medicine specialists, 3 epidemiologists, a pediatrician, a gynecologist, 2 hygienists, 3 nurses, a laboratory specialist, a logistics technician, a coordinator, and the head of mission. At the time of the visit to San Vicente three months later, they were still providing these medical services in the square, where scores of people would seek their assistance every day.

The Henry Reeve Contingent

All of the Cuban medical personnel based in El Salvador were members of the Henry Reeve Brigade. In September 2005 Cuban President Fidel Castro announced the formation of the Contingente Internacional de Médicos Especializados en Situaciones de Desastres y Graves Epidemias -specifically around the time of Hurricane Katrina. The brigade (named after an American volunteer who served in Cuba's first War for Independence from Spain, 1868-1878) originally consisted of 1,500 medical personnel, but now consists of several thousand members, all of whom are specialists in public health needs when natural disasters occur. They receive extensive emergency medicine training in locally supervised programmes, and in the case of the 2009-10 mission to San Vicente, all but one had already been involved in a variety of other emergency missions abroad. Cuba has in fact been sending this type of brigade abroad since its first mission to Chile following a massive earthquake in 1960. Recently they have sent large disaster relief teams abroad to help victims of flooding (Guatemala in 2005 with 688 members) and earthquakes (Pakistan in 2005 with 2 573 brigadistas, including 1 481 doctors, and Chile in 2010 with 36 medical personnel). Following the massive earthquake in Haiti on January 12, 2010, Cuba responded rapidly. There were already some 350 Cuban medical personnel there, because Cuba had maintained a large medical presence since Hurricane Georges in 1998. By late March of 2010 there were 1,504 medical personnel in the Cuban contingent, including 546 Haitian graduates of the Latin American Medical School (ELAM) in Havana, and 184 medical students from their 5th and 6th years. Significantly scores of ELAM graduates from throughout Latin America came to assist the Haitian population.

Cuba's prompt response to the request for international assistance by the Salvadoran government, as well as the length and nature of the mission, was summed up with clarity by Ambassador Prada, who noted that Cuba had responded to the request of the Salvadoran government, and was prepared to collaborate until the President of the Republic, Mauricio Funes, decided otherwise. Healthcare was thus to be provided at no cost to the Salvadoran people, Cuban medical staff were to be located wherever the government of El Salvador indicated the greatest need, and they would remain for as long as the government wanted them to stay. Sadly, in an extremely polarized society such as that of El Salvador (where the first leftist government was elected in March of 2009 after decades of right-wing military administrations), there was initially some criticism of Cuba's medical role in the right-wing media.

It is important to remember that diplomatic relations with Cuba were only normalized after the FMLN government was elected in early 2009. The media are still largely controlled by extremely conservative forces, and lost no time in criticizing the Cuban role, forcing the ambassador on several occasions to clarify the strictly humanitarian goal of the mission. Fortunately the reaction by Salvadorans to the role of both the Cuban staff and the hundreds of Cuban-trained medical graduates from El Salvador has been a telling response to media manipulation.

The Initial Tasks of the "Brigada Médica Cubana Salvadoreña Mons. Oscar Romero"

The primary objective was to help the tens of thousands of displaced people directly affected by the natural disaster. During the first phase of the Cuban operation, several steps were taken simultaneously. The field hospital (stocked initially with medicines made in Cuba, soon to be supplemented by medical supplies from the Salvadoran government) was the clearest and most obvious symbol of Cuban cooperation. All were welcome to seek (free) medical treatment, and significantly the first patient was the mayor of the town, a member of the political opposition, ARENA. He and other local authorities and the Cubans went out of their way to emphasize the medical and humanitarian objectives of the Cuban brigade's role, and in general this message has been successfully communicated, in no small degree because of the exemplary conduct of the Cuban brigade and the satisfaction of the Salvadoran patients who have been in contact with them. The common theme emphasized by Cuban medical staff was their focus on medical cooperation, and their desire to serve the people. Meanwhile diplomatic and medical leaders met with local officials (hospital and clinic directors, functionaries of the state government, the mayor and members of the council, and local directors of health) to emphasize their commitment to serve wherever they were needed. By the second day of their arrival, together with local officials they had drawn up an integrated health plan for the affected regions. Later as their medical mission intensified, they widened the circle to meet with officials from other states and the national government. Significantly at all times the Cuban medical personnel worked where they were requested to by local health officials-usually where the healthcare needs were greatest. As noted later, Cuban medical personnel were ably supported by many Salvadoran colleagues-and in particular by graduates of ELAM. This notable cooperation resulted in the decision

by all involved to choose as the name for their combined humanitarian efforts that of the assassinated Archbishop of San Salvador, Oscar Romero, a fitting symbol of the extensive medical collaboration.

One of the key tasks undertaken by teams of Cuban and Salvadoran medical staff was a detailed diagnosis of health needs in the affected areas. It soon became clear that there was a potential danger of a major dengue outbreak. Dengue has long been a problem in El Salvador, and in fact in September 2000 when there had been a major outbreak of dengue (with almost 3,000 cases being diagnosed and 32 people dying of hemorrhagic dengue), 37 Cuban specialists flew to El Salvador to participate in a massive national campaign. They stayed for two months (See Lemus, Estévez and Velázquez, 2002: 231-252). (It is worth noting that at the time there were particularly strained diplomatic relations between the two countries, and initially there existed a reticence in government circles to inviting the Cubans to assist. Again, however, the Cuban medical personnel did not let politics interfere with their humanitarian mission). Almost a decade later, their expertise was again called upon—this time with the full support of the new FMLN government.

While the majority of the Cuban medical staff remained working at the San Vicente field hospital, others fanned out to visit the affected areas, offering healthcare wherever it was needed. Accompanied by Salvadoran health promoters and volunteers (including dozens of Salvadoran doctors trained in Cuba at the Latin American Medical School) medical staff visited the homes of all affected by the storm. This extensive, door-to-door visitation (which took place in 23 communities), for which a detailed checklist of the living conditions and health concerns of every family was taken, formed the basis for this comprehensive diagnosis of the people in the affected region (See Solórzano, 2009). It is worth noting that this proactive, detailed survey is widely used by Cuba in such situations as a means of understanding the extent of the problems caused by the impact of the natural disaster. Cuban medical staff also carried a large backpack, full of the most common medications, in order to provide immediate relief where it was needed among the affected population.

Cuban medical training emphasizes the need for an integrated approach to treating patients, who are seen as unique socio-psycho-biological beings. It is thus crucially important to understand fully the patient's environment in order to determine an accurate diagnosis. This means that everything—from their diet to family relationships, from the level of domestic hygiene to alcohol consumption—is useful information. The home environment is thus

carefully observed and analyzed. In the case of the medical survey in San Vicente, detailed questions were of course asked about medical conditions of the people, but other elements such as sewage facilities, garbage disposal, access to water and food, and the presence of vectors were also assessed. This proved an invaluable instrument for Salvadoran officials, helping them to understand the nature of challenges awaiting them in the region—and thus prepare an appropriate strategy.

In addition to visiting each of the homes in which survivors of the muds-lide remained, Cuban medical officials, together with their Salvadoran counterparts, also became involved in visiting on a daily basis the emergency shelters where local inhabitants whose homes had been destroyed, were now living. Approximately 1,000 people were evacuated, of whom some 600 chose to stay in local emergency shelters (mainly schools), while the others moved in with friends and relatives. There were different health challenges for these people, and the Cuban medical personnel visited to provide first aid and ongoing medical care, as well as assessing everything from access to latrines to food preparation. A major concern was the need to avoid the spread of infectious diseases, particularly with hundreds of people sharing such cramped living quarters. Some three months later they continued to visit these shelters regularly twice a week, and also when needed. Temporary housing is almost complete in Verapaz, which will reduce the crowded conditions.

Cuban personnel are trained to maintain rigorously detailed records. In terms of the role of the activities of the Henry Reeve Brigade in El Salvador this is also clearly the case, and an analysis of their data below illustrates well the widespread extent of their medical collaboration. The detailed data provided are for the three-month period from November 13, 2009 until February 22, 2010, and were obtained from the interim Brigade leader, Dr. Eduardo Ojeda by the author. It is particularly interesting to see the number of medical consultations undertaken in the patients 'homes.

³In February 2010 I was fortunate enough to visit this community, where I met with the mayor of Verapaz and members of the town council to discuss both the extent of the tragedy and the role of the Cuban medical brigade. All were fulsome in their praise of the Cubans, emphasizing their willingness to do all that was requested of them, their hands-on practical approach to the medical challenges facing the community, their energy (since they slept only a few hours in rudimentary conditions before continuing their health functions on a daily basis), and their human, down-to-earth approach with the people affected by the tragedy.

Table 1

ACCUMULATED DATA ON THE WORK

OF THE CUBAN MEDICAL BRIGADE IN EL SALVADOR

Medical Consultations	<15 years	>15 years	Total
No. of cases seen	16,234	33,036	49,270
(Of these, the no. seen at home)	10,249	15,035	25,284
Pediatric consults	16,233	0	16,233
(Of these, < 1 year old)	1,144	0	1,144
Obstetric patients	5	272	277
No. of lives saved	13	11	24

Source: Brigada Médica Cubana en El Salvador, February 22, 2010.

A useful point of comparison can be made between the medical cooperation of Cuban personnel and their U.S. counterparts. The international response to the Salvadoran crisis was rather minimal, often consisting of token gestures. The Canadian government, for example, which has a rapid response team for emergencies of this kind (DART), decided not to send it to El Salvador at the time of "Ida," but instead offered \$40,000 to the International Red Cross Federation, and \$50,000 through the Canada Fund for Local Initiatives at the embassy (DFAIT, 2009). Medical delegations from Guatemala and Spain came to offer short-term help, according to CNN (2009). The U.S. military also assisted: 45 members of U.S. Southern Command's Joint Task Force Bravo, located at the Soto Cano airforce base in Honduras, sent four helicopters, a medical assessment team and engineers. In terms of their Medical Civil Action Programme (or MEDCAP), this was scheduled to run from November 19 to 23, with 10 U.S. doctors, and their goal for this four-day operation was ambitious indeed: "Our main focus is going to be primary care and preventative medicine," noted their liaison officer (Thompson, 2009, November 19). This, it must be remembered, was to be accomplished in just 3-4 days. By contrast the Cuban medical presence stayed throughout the disaster, and will continue to provide medical support for years to come.

It is interesting to compare the medical contribution of the Cuban approach (Significantly Cubans refer to this as "cooperation" or "collaboration" between equal partners) with the "aid" of U.S. forces. The paternalistic approach can be seen in one of the U.S. military bulletins: "The first stage of medical care provided during the MEDCAP was health and hygiene education where all 2,987 people learned proper hand-washing techniques and received multi-vitamins" (Thompson, 2009, November 25). In all, some 2,987

patients were seen by the MEDCAP team over four days. Dental hygienists also provided 416 dental screenings, and children were given "preventative dentistry instruction to teach them proper brushing techniques". Finally, about 60 children received vaccinations. One brief reference in an online newspaper summarizes well the differences between the Cuban and U.S. approaches to disaster relief: "La brigada cubana que atenderá consultas en albergues de las comunidades de Verapaz y Tepetitán, estará 'por tiempo indefinido' hasta que la situación haya sido resuelta [...] En tanto la Fuerza de Tarea Bravo del Comando Sur de Estados Unidos brindará atención por tres días junto a personal local en el municipio de Guadalupe, también en San Vicente" (Eco-Diario, 2010, January 4). Sadly, as is so often the case with natural disasters, foreign NGOs and governments arrive to help, but often stay for a short while before moving on to the next "hot spot". Cynics could be excused for seeing this as disaster tourism. By contrast, the Cuban medical brigade has made it abundantly clear that they are there to provide medical support for as long as the host government regards it as being necessary-and nearly two years later remain in El Salvador.

The breakdown of medical conditions of the almost 50,000 Salvadorans treated by Cuban medical staff during the initial three-month period is largely what one expect from such a natural disaster, particularly in light of the massive quantities of mud and boulders being displaced, forced miles down the mountainside into the nearby plains, and soil being whipped around by the wind. A visit to the site even three months later reveals the widespread extent of the disaster. The denuded side of the nearby volcano that stretches for miles to the plain below, the line showing the height of the mud (almost 5 feet in height) in those houses that were not swept away in Verapaz, the clearly changed river courses flowing through San Vicente and for miles in the surrounding countryside, all speak volumes of the unbridled natural forces. The impact upon many neighbouring communities was disastrous. Described by one villager as "the perfect storm," the combination of a massive storm off the Pacific coast of El Salvador, heavy rainfall amounts in San Vicente and surrounding area, and flooding of rivers in the southern flatland coastal area, combined to form a raging torrent. In those circumstances the most common medical conditions as noted by Cuban medical staff in the initial weeks were the following. The Cuban medical personnel, accustomed to working in other areas of the world with the victims of natural disasters, saw this profile as being rather typical.

PRINCIPAL MEDICAL CONDITIONS	
OF PATIENTS SEEN BY CUBAN MEDICAL BRIGADE	3

Medical condition	<15 years	>15 years	Total
Acute Respiratory Infections	5,871	5,043	10,914
Acute Diarrhea-related Diseases	353	20	557
Dermatitis	271	483	754
Arterial Hypertension	3	2,705	2,708
Urinary Tract Infections	247	1,490	1,737
Intestinal Parasites	1,471	674	2,145
Other Infections	591	1,252	1,843
Gastritis and/or Ulcers	71	1,559	1,630
Damage to Skeletal Structure	127	3,713	3,840
Psychological Trauma	114	983	1,097
Other diseases	6,035	11,488	17,523

Source: Brigada Médica Cubana en El Salvador, February 22, 2010.

Cuban-Salvadoran Medical Cooperation

From approximately a dozen interviews with a variety of Salvadoran hospital managers, local politicians, and provincial public health directors, it is clear that the Cuban medical personnel worked extremely closely with local hospitals. As a result, while the Cubans were often the first line of medical contact with people affected by the tropical storm, any patients requiring diagnostic services such as EKX, Xray or USG, were sent directly to the hospitals. The medical cooperation, however, worked in both directions, and members of the Cuban medical staff were called in as consultants by local hospitals. The medical cooperation, according to information provided to the author in interviews by three provincial health directors, the head of the hospital in San Vicente, and by El Salvador's Minister of Public Health and Social Assistance, Dr. María Isabel Rodríguez, was exemplary.

The contribution of Salvadoran volunteers was an extremely important factor in the success of the Cuban medical mission. The day after the Cuban brigade began its work, they were joined by six Salvadoran doctors (graduates of ELAM in Havana). A further eight joined the following day, and soon there were 34 working alongside the Cuban medical staff. Some left after volunteering to work in Haiti following the earthquake there, and in January most of the 2009 graduates from ELAM left in order to start their obligatory year of Social Service in the public health system of El Salvador. Other Salvadoran doctors who had graduated locally also volunteered their time, coming to

help after finishing their shift at local hospitals and clinics. Cooperation among these various groups of medical professionals, and mutual respect, were commonplace—and was very noticeable to the author in site visits.

In their earlier work on the 1990 dengue campaign in El Salvador, Cuban doctors summarized well the basic premises for their work in that country, concepts which continue as the philosophical basis for medical internationalism around the globe by Cuba. Of essential importance was the need for Cuban humanitarian cooperation, respecting at all times local customs, ideology, religion and institutions. The means to ensure that these goals could be realized can be summarized in the following manner according to Lemus, Estévez and Velázquez (2002: 16):

- To be assigned to the most difficult areas, where the need was greatest.
- To work together in order to ensure unity
- To utilize scientific methods as the principal tools of their trade
- To exchange knowledge and experiences.

As can be seen, the theme of cooperation runs throughout these goals, and the very name chosen for this combined medical team speaks volumes of the determination to ensure that the modest efforts of the 18 Cuban staff would be multiplied with the support of their Salvadoran counterparts. The level of mutual support was noticeable indeed, with Salvadorans and Cubans alike working together in closely integrated missions. As one health promoter in San Ildefonso noted, "When I heard that Cubans were participating, I expected something quite different—a form of supervision or control by them. I did not expect to find a team in which we were all fully integrated, working side by side as we went door to door together advising people about the means of eradicating dengue" (Health Promoter, 2010).

Of particular note is the extremely important role played by Salvadoran graduates of the Escuela Latinoamericana de Medicina (ELAM) in Havana. The medical school had been formed directly after the devastation caused in Central America by Hurricane Mitch in 1998, and the largest contingent of

⁴From my own experiences in El Salvador in February 2010, visiting communities affected by the "Ida" tropical storm—the Platanillos cantón in Quezaltepeque, Las Moras community in the southern coastal area, Verapaz, San Vicente and San Ildefonso, it was obvious that Cuban and Salvadoran medical teams were extremely comfortable working together, and that there was a natural confluence of shared ideas and effort. For the purposes of this research project I interviewed members of all these communities, as well as Salvadoran health promoters (with whom I participated in an anti-dengue project, visiting members of the San Ildefonso community), doctors (including graduates from both the National University of El Salvador and ELAM), public health directors, and elected government officials.

the first intake year a few months later were Hondurans, Guatemalans and Salvadorans. This first cohort graduated in 2005, and since then 515 had graduated, while 742 more are currently studying at ELAM (See Quintero, 2009; Díaz Ruiz, 2010; and Sanchez, 2009). Under the previous right-wing (ARENA) government, several obstacles had been placed in their way following graduation. The medical associations, protecting their own interests, had criticized the value of the ELAM graduates' professional qualifications from Cuba. It had even proved difficult to receive a posting for the obligatory Social Service, without which their medical degree was invalid. Fortunately the election of the FMLN in 2009 has facilitated the reintegration of ELAM graduates, and their track record in Salvadoran hospitals following this service requirement has been exemplary.⁵ ELAM graduates have been particularly active in the frequent "Jornadas de Acción Social", where they arrive on weekends at a traditionally underserved community in order to provide basic medical care to the community. (The author participated in one of these, on February 20, 2010 held in a rural Lutheran church in Cantón Platanillos, Quezaltepeque. A dozen medical personnel-almost all of whom were ELAM graduates-spent approximately 5 hours tending to some 250 patients). Some of these doctors also worked with the Cuban medical brigade following their own shifts at local hospitals, and there was a clear synergy in both medical approach and philosophy between the ELAMistas and their Cuban colleagues.

This cooperation between Salvadoran and Cuban personnel was particularly noticeable in the campaign against dengue, which soon became a focus of significant public health concern after the immediate medical needs of the natural disaster had been met. Door-to-door campaigns took place throughout the affected areas with Cuban and Salvadoran medical staff visiting homes to ensure that standing water (ideal breeding ground for the aedes aegypti mosquito responsible for the disease) had been treated properly. People were also advised on the appropriate treatment of garbage disposal, and in general the need for hygienic norms was emphasized. The Cuban strategy in El Salvador was relatively straightforward—to present to the Salvadoran government a general overview of the public health situation, and to offer their experience and services in any way that Salvadoran officials requested it.

⁵Several interviews were carried out with approximately 20 ELAM graduates in El Salvador, and all spoke to the gradual acceptance of their qualifications and experience by the medical establishment. Significantly in an interview with the Minister of Public Health and Social Assistance, Dr. María Isabel Rodríguez, she criticized the "mechanical" nature of medical training in her country, and the advantages of training at the ELAM, where the ability to relate to patients, to develop a "truly humanitarian" spirit of communication was consciously developed. Interview with the Minister, San Salvador, February 25, 2010.

The participation of the Cubans in the campaign against dengue was noticeable—in the 3-stage fumigation process to kill mosquito larvae, four Cuban personnel participated, with the bulk of the work being carried out by Salvadorans. On the weekends their efforts were visibly strengthened by the support of the ELAM graduates.

The Goals of the Cuban Medical Brigade in El Salvador

The essence of the Cuban approach to public health, both at home and abroad, is the need for prevention rather than the application of curative medicine, a strategy which is both cheaper and more effective. In Cuba, massive public health campaigns, with the use of media, and support from schools, NGOs, government agencies and mass organizations are commonplace, and welldeveloped. Some of this experience was implemented in the large information campaign undertaken by members of the Cuban medical team to make Salvadorans aware of public health challenges. In the first three months some 49,137 face-to-face meetings took place (mainly in home visits), and an estimated 22,017 people participated in public presentations, which ranged from round-table discussions in public fora to presentations at church services. In addition, 11,984 flyers were distributed, advising people on public health concerns. The objective was to encourage Salvadorans to become protagonists of their own development process, turning the disaster of the tropical storm into an opportunity for a fresh approach to longstanding health challenges. Cuban medical staff also participated in many sessions with local high school students, training them (in a "multiplier" effect) to provide practical health information to Salvadorans.

What was also noticeable in the affected communities was the role of Cuban medical personnel in supporting local members to develop more fully their potential, particularly in terms of public health issues. For instance, the small coastal community of Las Moras (73 dwellings and 231 inhabitants) was badly affected by the floods that swept ashore when tropical storm "Ida" struck. A low-lying region bordered by the Pacific coast, and with several rivers nearby, it saw flood waters rise to a height of over 4 feet when tropical storm Ida hit. A massive storm in the Pacific, combined with torrential rain, caused the river to overflow its banks, where it joined the sea, driven by the storm. The end result was a major flood with waters rushing several kilometres inland. Farm

 $^{^6\}mathrm{Information}$ provided in the document: Brigada Médica Cubana en El Salvador, February 22, 2010.

animals were lost, all their homes were flooded (although fortunately nobody died), and they were forced to flee the community within a 2-hour period.

The assistential role of the Cuban medical contingent started as soon as the flood waters receded. Invited by the Salvadoran government to participate in restoring hygienic conditions in the community, and aided by the significant support of ELAM-trained medical graduates, Cuban staff started the long process of helping the community to return to normalcy. Dr. Mayra Fontes, a Cuban epidemiologist, played a major role in this transformation, visiting every home on several occasions to offer advice on domestic and personal hygiene, appropriate living conditions, natural medicine, and avoidance of vectors-in addition to providing medical consultations when needed. In particular she worked with women in the community, and was instrumental in forming a youth group. Certificates were awarded to those homes which showed the greatest improvement in hygiene and cleanliness, and follow-up visits by Dr. Fontes provided ongoing support to the community. Perhaps more than anything else, this support from Cuban medical personnel had resulted in the community organizing-to deal with the need to maintain hygienic living standards, to prevent the spread of disease, to work cooperatively, and to be prepared for potential natural disasters. In mechanical terms the Cuban presence had acted as a spark plug, allowing the community-the engine-to fire on all cylinders.

This crucial role of the Cuban medical delegation in the community was summed up well by Dr. Eduardo Ojeda, interim director of the Cuban Medical Brigade. Referring to the noticeable change in mentality of the communities in which the Cubans worked, he summarized the Cuban role: "We came here not to bring material goods to the affected communities, but rather to accompany them as they rebuilt". In this regard the combination of Salvadoran graduates of ELAM and Cuban medical personnel has been remarkably successful by any stretch of the imagination, helping impoverished communities to overcome old habits, developing new (more hygienic) ones, fumigating areas to kill areas where mosquitos bred, and in general supporting local inhabitants as they gradually took control of their shattered lives. As these communities develop a sense of self-confidence, Cuban medical staff visit

⁷Interview with Dr. Eduardo Ojeda, San Vicente, El Salvador, February 21, 2010.

⁸It is important to bear in mind the depth of Cuban support for the entire gamut of their activities–from providing medical treatment to public health education, from visits to homes to fumigation of mosquito breeding grounds and destruction of rodents. Dr. Eduardo Ojeda, interim director of the Cuban Medical Brigade, calculated that by mid-March more than 250,000 Salvadorans had benefited directly or indirectly from Cuban medical support.

less-although they continue to monitor the situation, working with local health promoters, and offer advice where needed.

It is clear that the 17 members of the Brigada Médica Cubana Salvadoreña Mons. Oscar Romero had a strong multiplier effect, much more than one would imagine from such a modest medical contingent. From emergency relief (the initial goal after the natural disaster), they became involved in a variety of activities, including support for the Salvadoran government in its dengue campaign, ongoing medical treatment for the communities affected by the natural disaster (most visible at the field hospital in San Vicente), monitoring the health of evacuees in temporary housing, developing public health campaigns throughout the affected areas, and providing widespread support for activities undertaken by the communities as they seek to recover from the ravages of "Ida". Again the significant role played by dozens of Salvadoran doctors, mainly graduates from ELAM, has been extremely important. Both as trained doctors, fully knowledgeable of the Cuban approach to public health, their contribution has been crucial in supporting and furthering the initiatives of Cuban colleagues, and the synergy has been remarkable.

There are two other important Cuban public health initiatives in El Salvador that deserve to be mentioned. Neither is related to the efforts of the Henry Reeve Brigade, yet both also illustrate the commitment of Cuba to improve the public health of the Salvadoran people. In the Lower Lempa area of El Salvador there is an extremely high morbidity rate resulting from acute renal failure, possibly due to high rates of pesticide use. Dr. Carlos Manuel Orantes, a Salvadoran medical graduate from ELAM, has taken the lead in analyzing the causes of this pathology. He specialized in nephrology in Cuba, and brought several Cuban specialists to the region in order to work with Salvadoran medical students in order to discover the cause. In all over 8,000 people were studied, and 971 samples taken. It was discovered that over 600 suffered from chronic renal conditions, with a further 103 from moderate conditions. The significance of this is that these cases represent three times the normal profile for inhabitants of similar rural communities.⁹ Research into the high incidence of acute renal failure in the region continues in Havana at the Instituto de Nefrología, while preventive measures and an active public education campaign involving Cuban and Salvadoran medical personnel continue in the Lower Lempa region, as illustrated by the March 11, 2010 celebration of the World Kidney Day, complete with workshops on kidney care, early detection of acute renal conditions, and factors contributing to kidney deterioration. The motto for the day's activities -"from stu-

⁹Interview with Dr. Elsy Guadalupe Brizuela, NEFROLEMPA, Lower Lempa, February 25, 2010.

dying molecules to applying this knowledge to our society"— is a fitting summary of the campaign's objectives.

The other Cuban initiative has to do with "Operation Miracle," a programme initiated by the governments of Cuba and Venezuela in July 2004, and with the objective of restoring sight to 6 million people in Latin America, the Caribbean and Africa by 2016. As noted earlier, to date 1.8 million people from 36 nations have been operated on by Cuban ophthalmologists. In the case of El Salvador, 6,106 patients were operated on between June 19, 2006 (when the programme started) and June 6, 2009 (Brigada Médica Cubana, 2009, June 12). At the same time patients are also seen in neighbouring Guatemala, where the "José Martí" hospital in Jalapa receives busloads of Salvadoran patients on three days each week for eye surgery. Moreover on March 18, 2010 the first of a planned 14 flights took patients from El Salvador to Venezuela, where they were operated on (Juventud Rebelde, 2010). The possibility is also being studied of opening an ophthalmology clinic in El Salvador, similar to the four already in existence in Guatemala. In total, more than 10,000 Salvadorans have had their sight restored by Cuban medical personnel -and at no cost to the patients. It is also worth noting that this programme started when there were no diplomatic relations between El Salvador and Cuba- again illustrating the profound humanitarian commitment of Cuba.

By late 2010 the role of Cuban medical cooperation in El Salvador had continued to evolve in different directions, largely because conditions in San Vicente had improved. In addition there was a fresh crop of ELAM graduates to support local needs. Most of the Cuban medical personnel from the Henry Reeve Brigade for natural disasters had by now returned to Cuba. There was, however, an increased interest in supporting the campaign against kidney diseases (since this clearly affects a large sector of the country's rural population), with greater Cuban cooperation. In addition, following the visit of President Mauricio Funes to Havana in October 2010, a major agreement of cooperation in medical terms was signed. This has resulted in technical assistance of Cuban public health administrators, both in five geographical regions and in the Ministry of Health, where some 20 Cuban officials are helping the Funes government to reform radically a public health system that has been traditionally neglected by previous governments. Primary healthcare, social participation, health promotion, intersectoral cooperation and an emphasis on preventive healthcare, will be the key points of advice provided by Cuban public health specialists.

Lessons about the Cuban Public Health Role

There are several themes which came across from interviews with a number of people from various walks of life during the course of this research projectthemes which are useful in evaluating the role and importance of Cuban medical internationalism in general. The most obvious was the extremely thorough manner in which health concerns were addressed by the Cubans (in conjunction with Salvadoran colleagues) in an integral, highly practical, manner. All of the affected areas were visited by team of Cuban and Salvadoran medical personnel, and a comprehensive study made of their needs and their challenges, thus allowing a clearer evaluation of the appropriate strategy to be taken by health officials. The level of cooperation was obvious—in the Verapaz area, for example, there were six teams of up to ten people (including many ELAM graduates) working in the affected zone. The multiplier activities of a concerted programme of public education and preventive medical campaigns were particularly effective, reaching an estimated 500,000 people. These activities are well documented, and the impact was clearly visible-with almost 50,000 people being treated for medical conditions in the first three months alone.

But there were also significant intangible benefits from the contribution of the Cuban medical brigade. For instance, the assistential role of the personnel, the humanitarian way in which they worked alongside the population, the campaigns to illustrate practical ways of improving people's living conditions, all had a major impact upon the affected regions. One of the obvious common threads of the Cuban medical presence in El Salvador has been the ability to show local communities that they had the potential to change their circumstances, to become protagonists of their history. Whether it be in Lower Lempa or in the community of Las Moras, it was obvious that Salvadorans were cooperating to change their circumstances.

In an interview on February 25, 2010 with Dr. María Isabel Rodríguez, the Minister of Public Health and Social Assistance of El Salvador, the question of the Cuban role in the affected zone was discussed in detail. The Minister (a cardiovascular physiologist by training, and the former president of the National University of El Salvador), emphasized the solid scientific basis of the Cuban medical system, and the high quality of public healthcare in Cuba–which she had studied in depth. ¹⁰ She also dealt in some detail with

¹⁰In an earlier interview, the Minister noted that the Cuban public health system was one of the best in the world, ensuring medical coverage of 100 per cent of the population, and at no cost to the patient. She praised the advanced level of scientific research and technology, the production of vaccines and quality pharmaceutical products, and the medical training found in Cuba. She

the significant impact that Cuban medical personnel had caused in El Salvador, and not just in terms of public health. Referring to the outbreak of dengue in 2000 and the support of Cuban medical professionals at the time, she noted how "the Cubans showed us a new form of medical commitment... Not only do they have an enormous amount of medical ability (which clearly has a major influence on the public health situation), but they also have a major impact on the community members who come in contact with them–and in whom we see a clear change of attitude". In Dr. Rodríguez also praised the very different medical training provided in Cuba, and the manner in which patients were treated by Cuban medical personnel: "The Salvadoran people realize that the Cubans treat them as individuals, recognizing their human quality, and spending time with them. Their medical training is different—the Cuban doctors respect their patients, and listen to them". This opinion was confirmed by interviews with approximately three dozen Salvadoran graduates of Elam, and by patients treated by the Cubans in several locations.

In just three months of medical cooperation the "Brigada Médica Cubana Salvadoreña Mons. Oscar Romero" was extremely successful by any measurement employed, and the Cuban contribution is widely appreciated by patients and government alike. The new phase of Cuban cooperation—as advisers to the national healthcare system—also promises to be extremely challenging, but absolutely necessary. The pragmatic approach employed, the emphasis on respecting and supporting Salvadoran policies and priorities, the cooperation with local authorities and medical professionals (particularly the ELAM graduates), the extremely hard work and exemplary behaviour of the Cubans (who live in simple and spartan conditions, and observe strict discipline), have all contributed to the success of the mission. This has clearly resulted in closer ties of medical cooperation. Finally, a cost-benefit analysis of the intensive stage of this operation is pertinent, and extremely revealing. According to Salvadoran and Cuban sources, the entire cost of the first three-month res-

concluded by noting "Tenemos mucho que aprenderle a Cuba, de hecho, podemos inspirarnos en la experiencia cubana", C. Solórzano (2009, December 9). "El Ministro de Salud Pública retomará las buenas experiencias del sistema de salud de Cuba para la próxima reforma de salud de 2010", *Diario Co Latino*. Retrieved from: http://www.simpatizantesfmln.org/blog?p=4358.

¹¹Interview with Dr. María Isabel Rodríguez, Minister of Public Health and Social Assistance, Government of El Salvador, San Salvador, February 25, 2010.

¹²In December 2009, Vice-President Salvador Sánchez Cerén visited Cuba on the first official government visit. (See the Radio Habana Cuba report of December 4, 2009 entitled: "Agradece vicepresidente de El Salvador a Cuba ayuda médica," and *Diario Co Latino* [2009, December 4]. "Vicepresidente de El Salvador afirma intención de cooperar con Cuba". Retrieved from: www.diariocolatino.com/es/20091204/nacionales/74445/?tpl=71.] The visit by President Funes in October 2010 was covered in M. Guerrero (2010, October 5). "Mauricio Funes; impresionado y agradecido con la ELAM", *Granma*.

ponse for the Cuban Medical Brigade (including transportation, maintenance, and all public health activities) for their emergency support had been less than \$60,000. However, the value of the impact of these many medical interventions in terms of benefits and outcomes on the population is approximately half a million dollars, while of course the most important aspect is the support for tens of thousands of Salvadorans.¹³ This clearly proves the thesis that, despite limited resources, much can be achieved when there is political will, combined with appropriate medical training, a high degree of solidarity and commitment. In the case of the post-Ida situation in El Salvador, several key conditions came together fortuitously: the health reform strategy outlined in the electoral campaign of the newly elected FMLN; the clear need for change in a public health system (which, despite notable professionals, had borne the brunt of a series of neoliberal policies under previous governments that had dismantled hospitals and clinics, increased drug costs, and left medical personnel unemployed); the successful experience of the Cuban medical brigade; and the solidarity of Salvadoran and Cuban medical personnel, working to improve public health conditions. The notable success of the mission in just a few months reveals well the potential of this medical cooperation in El Salvador, and indeed in other countries where conditions allow.

The case history studied here reveals clearly that Cuban medical cooperation has enormous potential for less developed countries-as has been shown for over fifty years. It is probably one of the world's best secrets, putting the rest of the industrialized countries to shame-since Cuba has more medical personnel working in developing and underdeveloped nations than all of the G-8 nations combined. There are many reasons for this extensive policy, which is based on strategic thinking along domestic lines (allowing medical personnel to earn significantly greater salaries abroad), although there are several other reasons, including international diplomatic priorities, historical cooperation received by the Cuban revolutionary process, and genuine altruism. Critics of the Cuban policy of medical internationalism often see it as an approach to exercise "soft power", and winning key votes in the United Nations. To this claim, Dr. Yiliam Jiménes, the Cuban director of the medical internationalism policy responded with clarity in an interview with the author in May 2007: "Y si aun aceptamos la perspectiva más cínica-o sea que Cuba manda médicos a países pobres para ganar votos en la ONU, ¿por qué los países industriales no hacen lo mismo? Lo más importante es salvar vidas-y eso es precisamente lo que hace nuestra política".

¹³Confidential correspondence with appropriate authorities, April 12, 2010.

Medical internationalism a la cubana has been both a major factor of Cuban foreign policy and a major contributor to the wellbeing of the Third World, for over fifty years. At present Cuban medical personnel are looking after the wellbeing of some 70 million people in over 70 countries, as well as responding to natural emergencies around the globe, training 50,000 doctors for Latin America and the Caribbean, and providing free eye surgery in dozens of ophthalmology clinics throughout the region. How can they do this? In part it is because of a firmly rooted political will on the part of the Cuban leadership, for whom access to quality medical care is the most important human right for the people of the developing and underdeveloped world. But it is also because of the development for over five decades of political conciencia, the awareness of the need for these essential services-and the moral commitment to protect those who cannot protect themselves. The objective for this commitment is well defined in the very Constitution of Cuba, which states a belief in "el internacionalismo proletario, en la amistad fraternal, la ayuda, la cooperación y la solidaridad de los pueblos del mundo, especialmente los de América Latina y del Caribe". It is summarized more concisely in just three words of José Martí, the mentor of the Cuban revolutionary process: "Patria es humanidad". This is a sentiment taken seriously to heart in Cuba, and as the case study of Cuban medical personnel in El Salvador shows, it illustrates this commitment well.

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Referentes

Brigada Médica Cubana (2009, June 12). Cooperacion cubana en Guatemala. Misión Milagro–Un pueblo saliendo de la oscuridad. Preentation/PowerPoint. Guatemala

CNN (2009, January 3). Floods, Mudslides Kill Scores in El Salvador. Retrieved from www.cnn.com

Díaz Ruiz, O. (2010), "Canciller salvadoreño orgulloso de formación de médicos de su país en Cuba", *Granma* (March 13).

- EcoDiario (2010, January 4). Brigadas médicas de Cuba y EEUU atienden a damnificados en El Salvador. http://www.ecodiario.eleconomista.es/internacional.noticias/1695922/11/09/Brigadas-medicas-de
- Foreign Affairs and International Trade Canada (DFAIT) (2009, November 12). Canada Offers Condolences and Support After El Salvador Floods. *News Release 342*.
- FORTEZA, F. (2007), "Canciller cubano: No damos lo que nos sobra. Compartimos lo que tenemos", World Data Service Repor, June 27.
- GLEIJESES, P. (2002), Misiones en conflicto. La Habana, Washington y África, 1959-1976. Havana, Editorial de Ciencias Sociales.
- Health Promoter (2010, February 23). Presentation/PowerPoint. San Ildenfonso, El Salvador.
- Juventud Rebelde (2010, March 20), "Beneficiados miles de salvadoreños con la Operación Milagro".
- KIRK, M. J. y M. Erisman (2009), Cuban Medical Internationalism: Origins, Evolution and Goals. Nueva York, Palgrave MacMillan.
- y R. Jiménez (2009), "Cuban Medical Internationalism: Central America, A Decade after Hurricane Match", *Journal of Iberian and Latin American Studies*, 15(2), pp. 83-101.
- y R. Huish (2009), "Cuban Medical Internationalism in Africa: The Threat of a Dangerous Example", *The Latin Americanist*, 53(3), pp. 125-129.
- y R. Huish (2007), "Cuban Medical Internationalism and the Development of the Latin American School of Medicine", *Latin American Perspectives*, 34(6), pp. 77-92.
- LEMUS LAGO, E. R., T. G., Estevez y J. C. Velázquez (2002), Campaña por la esperanza: La lucha contra el dengue, Havana: Editora Política.
- QUINTERO, M. (2009, December 4), "La salud, una prioridad para El Salvador", *Juventud Rebelde*.
- SANCHEZ, C. (2009, December 5), Coro infantil y estudiantes de medicina dan bienvenida a Vicepresidente Sánchez Cerén en Cuba. Retrieved from: http://www.sanchezceren.com
- SOLÓRZANO, C. (2009, December 17), Médicos cubanos atienden más de 20 mil personas, *Diario Co Latino*. Retrieved from: http://www.diariocolatino.com/es/20091217/nacionales/74864/?tpl=71
- THOMPSON, C. (2009, November 19), U.S. Military Team Delivers 370,000 lbs. of Aid, Begins Medical Treatments in El Salvador, *United States Southern Command News Bulletin*.
- _____ (2009, November 25). U.S. Military Docs Treat Nearly 3,000 People in Storm-Ravaged El Salvador, *United States Southern Command News Bulletin*.