

VOLUNTEER DENTISTRY  
IN JAMAICA

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## Volunteer Dentistry in Jamaica

### Introduction

The tropical island of Jamaica lies 600 miles southeast of Miami. With an area of 4,411 square miles it ranks as the the third largest Carribean island, measuring 146 by 51 miles. The country's varied geography and climate includes warm sandy beaches, lush jungle-like areas, dome-shaped limestone formations in the highlands and the cool Blue Mountains, with peaks over 6,000 feet. Jamaica has also had a diverse past, with a history of habitation by many different racial and ethnic groups.

Jamaica was first home to the Arawak Indians who were later captured as slaves when the Spanish established rule in the 1500's. When most of the Arawaks died in slavery, the Spanish imported African slaves to replace them. The British took control of the island in 1655, and by 1785, with sugar plantations flourishing, Jamaica's population consisted of 25,000 white plantation owners and 250,000 slaves. Uprisings became common, resulting in property and crop damage until slavery was abolished by Parliament in 1834. Social unrest has continued in Jamaica well into the 20th Century. Although it gained independence from Great Britain in 1962, Jamaica today remains part of the British Commonwealth.

Jamaica's current population of 2,150,000 consists of numerous racial types. The majority of Jamaicans are of African descent but citizens of East Indian, Chinese and European descent also contribute to the population. This

racial diversity lends credence to Jamaica's motto: "out of many, one people".

Tourism and agriculture contribute to the current economy as does bauxite mining. As with most third world countries, the average standard of living currently falls far below that of the U.S. or other industrialized countries. Although recent governments have made efforts to correct problems of economic inequality, the current conditions prevent adequate funding for government services. At present, Jamaica is served by a limited Public Health Service, which includes an even more limited dental component.

### Background

In February of 1985, five dentists, members of the Flying Dentists Association traveled to the Christiana area of Jamaica for the purpose of providing free dental care. The trip was sponsored and organized by the F.D.A., although most expenses were underwritten by the dentists themselves. One member of this group, Dr. Dale Lazar, was able to provide the information necessary for planning future trips.

After receiving a list of names of contact persons in Jamaica, the wheels were set in motion for establishing a larger visit in 1986 which was to include dental students from the Medical College of Virginia working side by side with faculty members. Due to the reported extent of serious decay and in order to minimize problems of transporting expensive and bulky dental equipment, it was decided to limit our dental procedures to extractions only.

After much consideration, a decision was made to take a team of thirteen. This would provide adequate staffing for all the clinic sites as well as

personnel for a planned DMF survey in the school system. All supplies were generously donated by Healthco and Patterson Dental Supply Companies, and pharmaceuticals by Lilly and Company. Extraction equipment was loaned to the team by the Richmond City Health Department and the MCV Department of Oral Surgery.

After numerous phone calls and letters, commitments were made on both sides, and dates established for a trip in early April of 1986 to Christiana, Jamaica.

### Arrival

On arrival at Montego Bay, proof of American citizenship and importation cards were presented. After passing through Immigration, we were met by the Honorable Leonard Kirby, M.P. (Member of Parliament) and Sister (Dr.) Rosalie Warpeha, Senior Dental Surgeon for Jamaica. Sister Rosalie presented all entrance documents to the Customs Agent, and after a brief inspection of all our supplies and equipment, we cleared customs and were on our way.

## Profile of Christiana

The Township of Christiana is located in the Parish of Manchester, approximately a two and one half hour drive from Montego Bay (see map). It is located in the Jamaican mountains, roughly in the center of the island. The terrain is generally that of rolling mountains with vegetation consisting of banana trees, palms and some hardwoods interspersed with other crops. The area is served by paved two-lane roads and numerous unpaved roads. Temperatures range from 50 to 80 degrees.

The political constituency in which services were provided includes an area with Christiana as the center and a radius of fifteen miles. The area has an estimated population of 80,000. Unemployment is over 20%, with an average per capita income of \$8.00 (U.S.) per week. Farming is the chief means of livelihood. The town of Christiana forms the business hub of this area, consisting of a main street lined with shops and an open air market. Without exception, we were welcomed in local shops and people on the street were friendly.

Public Health Services are very limited in the Christiana area and at the time of our visit, no dental services were being provided by the Health Department.

## Accommodations

Lodging, food and transportation were provided for the group by the Member of Parliament for the region and the Rotary Club of Christiana. Students and instructors were paired and stayed in the homes of local families, as near to their respective working sites as possible. These families extended unlimited hospitality to their visitors, including home cooked meals and use of family vehicles.

### Clinic Sites/Working Conditions

The dental personnel staffed six different clinic sites. Four clinics were operated continuously, whereas the two remaining clinics received services two and a half days each. The sites included four health clinics and two elementary schools. Two dental chairs were made available, one at a health clinic and a second one at one of the school sites. Where chairs were unavailable, treatment was performed wherever possible, including physical examination cots, a divan, a beautician's chair and in one instance, a desk top. Dental facilities were found at only one of these sites, which included one of the aforementioned dental chairs, a dental light and an autoclave. Although all clinics had electricity, running water was available at only some of the sites.

The clinics were all located near the town of Christiana, and with Christiana as base, could each be reached within 30 minutes. Time between the individual clinics however, was considerably longer, because of greater distances as well as road conditions. Many roads to the clinics were usually paved though several were dirt and varied in degree of disrepair. Patients were treated for a total of five days, which included work on Wednesday-Friday

of one week and Monday and Tuesday of the following week. A typical workday commenced at 8:30 A.M. when the participants would be driven to their respective clinics. Upon arrival, hundreds of people were already waiting for treatment, but because of obvious time and manpower limitations many were not seen. Those who were treated were extremely courteous and grateful, and seldom were protests voiced by those who were asked to return at a later time for treatment.

### Results

The results are summarized in Table 1. In all 1,043 patients were treated and 1,759 teeth extracted. The patients ranged in age from four to seventy-nine, and more females were seen than males.

### Discussion

Our trip proved to be exciting and very successful for all those involved. It was an extremely valuable learning experience for students and faculty alike, and one not easily forgotten.

Although time constraints and logistical difficulties made it impossible to conduct a DMF survey, all participants were in agreement that, at least in this part of Jamaica, the incidence of decay was among the worst we had ever seen, confirming the last DMF survey results conducted in Jamaica.<sup>1</sup>

### Prologue

During this initial visit, meetings were held with Jamaican authorities for the purpose of negotiating future visits. After much discussion and deliberation, it was felt by all parties concerned, including our sponsors in Christiana, that our services could be better utilized in the parish of Trelawny, on the north coast of the country (see map).

Demographically, the area is very similar to Manchester economically, socially, and in respect to provision of dental services. The main differences are in the terrain, which is rather flat, and higher temperatures due to lower altitude. The well-known resorts of Montego Bay and Ocho-Pios are within one hour's drive and easily accessible. Whereas on the first trip all participants were split into pairs, now all volunteers are accommodated in a large house. It is felt that this leads to greater efficiency, often leading to dynamic interactive discussions of the day's activities.

We have redirected our full efforts into this area, where a second trip in 1987 proved extremely successful (See Table II). A third trip in 1988, was postponed due to damage to physical facilities as a result of Hurricane Gilbert, and has been rescheduled for January of 1989.

Current Public Health Dental Services in Jamaica are minimal at best, and given the current dental status of the population, primarily limited to extractions. In order to provide a comprehensive program which would significantly affect the oral health of the people of the region, several steps have been taken. First, longer visits are necessary. This year, we will be working for two weeks, and hope to expand in future trips. Second, a restorative program is now in effect. This, in conjunction with extractions, insures that only those teeth clearly indicated for extraction are removed, and also serves in educating the population as to other options for decayed



teeth. Third, a preventive program, through the school system, will be established this year, which will provide education and systemic prevention via fluoride therapy. Fourth, inclusion of other interested dental schools into the program would increase the number of visits. Currently the University of Minnesota and Louisiana State University are also participating in this mission, which has literally tripled services. Fifth, an education program in the form of in-service instruction for medical personnel and dental nurses has been established. This year's topic will be sealants and will include information on indications as well as application of the material.

In order to carry out a program of this type, financial backing is of the utmost importance. An extended program requires a great deal of supplies and equipment and although dental supply companies have been generous in their contributions, a larger program can not be fully satisfied by just these donations.

### Acknowledgement

There are many people who have been instrumental in making our trips successful and enjoyable. What follows is a partial list of those who deserve special thanks.

#### Students:

Tracy Bowden-D'87	Bruce DeGinder -D'88	Gary Sumner D'88
Jeff Clifton-D'87	Jeff Londrey -D'88	Scott Parr D'88
Davis Massey-D'87	Chris Maestrello-D'88	
Kurt Pierce -D'86	Andy Norman -D'88	
Anthony Velo-D'87	Tracy Oliver -D'88	

#### Faculty/Staff

William Currie, DDS	Donald Rellins, DDS
Dave Evaskus, DDS	Tari Poorman, DDS
Louis Mercuri, DDS	M. E. Saravia, III, Dental Assistant
Amy Pittelkau, RDH	
John Robinson, DDS	

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