MEDICAL TEAM EXPERIENCE WITH MISSION JAMAICA

REPORT TO MISSION JAMAICA COMMITTEE
GOOD SHEPHERD LUTHERAN CHURCH
MADISON, WISCONSIN

Jeffrey M. Jones, M.D.
(Revised June 2, 2001)

1. Purpose of this report:

Good Shepherd has fielded two medical teams for short-term missions to the Penwood Health Clinic in Kingston, Jamaica. One team visited the clinic in June of 1999 and the other in January of 2001 as part of Mission Jamaica (MJ) outreaches. The purpose of this report is to describe briefly our experience in preparing for and conducting these mission trips, identify some areas where we might improve the organization of our future mission teams, and identify areas where we might enhance the clinic physical plant or other programs of the clinic.

2. Description of the Penwood Health Clinic:

This facility is located in a poor area of Kingston, and services patients from the neighboring area as well as some patients who bus fairly long distances to get to the clinic. The clinic is affiliated with a Seventh Day Adventist Church, which is located directly across the street from the clinic. As is often the case in Jamaica, the church is an important social hub for the neighborhood. Mr. Neville Henry, a member of this church, has taken a strong interest in the development of the clinic. The regular clinic staff includes an L.P.N. a nurse midwife, an individual who has received some training in medical technology, and about four other individuals. We found the staff a delightful group with whom to work. When MJ is not using the facility, I understand the clinic is visited about one afternoon weekly by a physician. The clinic schedules time dedicated to childhood immunizations. There also appear to be scheduled clinic blocks for prenatal care and for contraceptive care.

Near the front door of the clinic, there is a room that functions as a dispensary for pharmaceuticals and contains a photocopy machine. It faces a large waiting room, occupying most of the front of the building. The clinic has two patient restrooms, where urinalysis specimens can be obtained, and a staff rest room. There are two patient care rooms adjacent to the waiting area along the front of the building. One of these is used as a procedure room, where wounds are sutured and dressings are done. This room has a commercially manufactured examination table. The other is used as an examination room; however, a reclining chair, which could be used for performing dental work is typically located in this room. This chair is in moderately good repair. I am not certain how adequate lighting is for dental work. Along the rear of the building there are four rooms. Three of these are used as examination rooms—two of these are subdivided to contain a desk area and an area where there is an examination table (this is my best recollection—one room may be subdivided to have two examination tables and a desk). These examination tables are homemade affairs constructed from lumber and a mattress. They have dimensions more like a cot. They are

elevated about four feet off the ground. Since they do not have stirrups, performing a pelvic examination on them is somewhat awkward. A third room is much smaller, and has an examination table located along the back wall of the room, and a smaller desk. This is a manufactured examination table; however, space in this room does not allow positioning for a pelvic examination. The fourth room is used primarily as a laboratory.

3. Experience preparing for the mission trips and in arrival at Jamaica:

In the "ramp up" to each trip, two or three meetings of the medical team were held to discuss the nature of the supplies required and strategies for preparation. In preparing for the first trip, we received lots of good advice from Dean Loss (CRNA), who had gone on previous MJ medical mission trips. Dean was also a member of our team during the first trip. During the second trip, the Good Shepherd medical group was on its own in preparing for the trip.

We needed to collect information on each member of the medical team. In the ideal world, this would be used to complete two Jamaican government forms, a temporary work permit for voluntary service and a certification form for a temporary healthcare volunteer in Jamaica. For the second trip, I tried to take this to its logical fulfillment, namely, I obtained a notarized copy of either physician's or nurse's license for each member of the team and filled out the appropriate forms. I made photocopies of all of this and then sent it by FedEx to Mr. Henry. Mr. Henry said he encountered a morass of "red tape" in trying to get these forms processed. In fact, the Nursing Board of the Health Ministry was the most difficult to get through. Basically, everybody wanted fees. In the last analysis, it appears the best course of action is to work under the umbrella of the Penwood Clinic and have appropriate documentation readily available with the team. Having backup copies at St. Andrew's could be useful as well, particularly for individuals who make repeated MJ visits.

A large amount of donated drug samples was collected for the first trip. Probably two-thirds of this material was prescription medication. The other third was over the counter (OTC) product. The donated material posed some real logistic problems. Virtually all of it was delivered to the church as received from drug detail people. Thus, there was lots of cardboard packaging in the submitted material, and almost all the pills were in bubble packages. Some of the material was outdated and was discarded. To make transportation of the medications feasible, and to make dispensing practical at the clinic, it was necessary to discard all the cardboard packaging and remove nearly all the pills from their bubble packages, placing them in resealable ziplock bags. This took many man hours (I estimate >100 man hours). Much of this work was done by my wife Cindy and me. We did enlist some help from friends. One friend's teenager did community service for her school by taking Tylenol tabs out of individual wrappers and placing them in bags. This was an all day (8 hour project) to obtain about 1500 Tylenol tablets (one wonders if this is a reasonable time expenditure given the cost of generic acetaminophen). One volunteer had obtained a supply of ibuprofen in 50 count bottles. This proved easier to pack and was a popular item to dispense during the trip. With the cooperation of a neighborhood pharmacist, I also purchased some bulk prescription drugs, including common, low cost antihypertensives and hypoglycemics(in 100 count or 1000 count bottles), some antimicrobials in smaller amounts, and a two day supply of anti-HIV medication (to be used as prophylaxis in the event we had a high risk injury to a worker during the

trip). The latter was quite expensive. I was able to obtain mission packs from Interchurch Medical Assistance (IMA) at a nominal cost. Also, I was able to obtain a case of ketoconazole pills (100 count bottles X24) from Janssen Pharmaceuticals at no charge by contacting the company directly—this medication is particularly useful in treating cutaneous fungal infections (common in Jamaica) and *Candida* vaginitis.

In preparing for the second trip, less drug sample material was submitted. There was still appreciable time spent spent repackaging pills—this process gets "very old very fast." We again encountered some medication which was right at the expiration date. Also, the pediatric antimicrobial powder (to be reconstituted with water to produce a suspension), although a very useful drug, was present in what amounted to two to four dose bottle, so it took a fair amount of space. We were able to post a request for OTC products in the church bulletin; however, the lead time and publicity were probably not sufficient to maximize what we obtained. Individual team members purchased OTC supplies. I again purchased bulk prescription drugs, and some smaller amounts of antimicrobials. I was able to get the anti-HIV medication donated by the pharmacy of the hospital with which I'm affiliated. Again I also obtained mission packs from IMA and the ketoconazole pack from Janssen.

An additional problem with the donated prescription drug samples was that they were expensive drugs, which it appeared would be unlikely to be obtainable by out patients after we left. Also, the total duration of therapy one could give out was limited to perhaps a month. These considerations are very important when one is treating a chronic problem such as hypertension or diabetes. To make a better impact, one could argue that dispensing sufficient drug for several months would be important. Similarly, the alpha blocker drugs being provided for symptomatic treatment of prostatic hypertrophy require titration, may involve side effects such as postural hypotension in up to 3% of patients (thus require monitoring), and would only provide treatment for a brief period of time. This raises the question as to whether a more holistic, herbal approach, could be useful in treating BPH, e.g. use of saw palmetto.

Putting aside all the logistic issues associated with drug samples, we know that there is controversy about the relationship between practitioners and the companies whenever anything of significant value changes hands. Some practitioners think that if a company is truly interested in donating for mission work, as opposed to influencing individual practitioners, the company would be willing to provide a mission pack with medication packaged in bulk. For this reason, I tend to think that we may be better off purchasing prescription drugs that match our needs or getting true "mission packs" from companies directly, as was the case with Janssen. Matching up our needs so that we do not over purchase certain drug classes becomes important when we look at purchasing our prescription drugs and selecting mission packs.

We were able to collect spectacles to distribute at the clinic as well. For the first trip, one of the volunteers had managed to get an entire suitcase full of eyeglasses. For the second trip, we had fewer pairs (about 50 pair), donated by an optometrist with whom we are acquainted. We need a more reliable way to obtain a good supply of these.

We attempted to provide disposable thermometer covers for the electronic thermometers used at the clinic for the second trip. But, even though we had telephoned the clinic, and thought we had

accurate information, the tips we obtained were maginally useful, because they fit imperfectly one of the two thermometers the clinic was using. Our volunteers didn't feel comfortable just wiping the thermometers off with alcohol wipes between patients as the staff normally does.

We were anxious about what would happen when we went through Jamaican customs with all this stuff. In preparing for both trips, I prepared a tabulation of all the drugs we were planning to bring to Jamaica (needless to say, we had some last minute additions which were not in the tables). I faxed these listings, along with a cover letter identifying who we were and how we were to use the medications, to the Jamaican Health Ministry, asking for permission to bring all the medications into the country. For the first trip, Denny Kiel was able to pick up approval papers at the Health Ministry and bring these to the airport. This was fortunate since it turned out that customs opened nearly all of our medication suitcases. We were all wearing our MJ apparel, which may have helped some. The paperwork also undoubtedly helped us get the drugs through (as did some side negotiations held by Denny). But there was still haggling about the possibility of paying customs on the material and one customs worker was attempting to go through the entire inventory and match it to the approved list until her supervisor simply waived us through. For the second visit, I again sent a list to the Health ministry asking for clearance. This time the request appeared to go into a bureaucratic "black hole," and Denny was unable to get any approval paperwork from them. We had a smaller group when we went through customs. When asked about whether or not we had "prescription drugs," I replied that we had "no controlled substances." After a couple of exchanges of this, and my telling him the names of some OTC products, we were waived through without having our suitcases opened. A controlled substance is a scheduled narcotic, and so my statement was legally correct, but didn't truly answer the customs official's question. We may have had answered prayers, a sympathetic official, or just a good day. In any event our second entry went much more smoothly. I also gathered from this interchange that customs is much less concerned about OTC supplies than with prescription items, hypodermic needles, etc.

4. <u>Description of the service periods at the clinic</u>:

For the first trip, we had 12 members on the team, which included two physicians, four nurse practitioners (one of whom was a certified R.N. anesthetist), a physician's assistant, three nurses, and two students. We essentially completely filled the shelves of the dispensary with our mediations. Cindy and I and the students busied ourselves during the first part of the first day of service getting the pharmacy set up. For the second trip, we had one physician and five nurses. It did not seem to take as long to set up the pharmacy, perhaps because our formulary was more simplified compared to the first trip.

During the first trip, one of the physicians staked out one of the examination rooms, two NP's formed a team to deal with women's health and children's issues, and an NP each occupied the remaining examination rooms. Nurses helped with intake and where needed, and one physician rotated where questions arose. During the second trip, we relied much more heavily upon the nurses for history taking. This began with intake, where during the early part of each day, we had two nurses doing intake and vital signs. The physician rotated room to room seeing patients. Each nurse or physician dispensed his/her own medications once treatment plans were devised. This

actually worked quite well, demonstrating that widely differing configurations of medical personnel can provide good service in this environment.

We were greatly helped during the second trip by the availability of clinic forms which we had devised with the help of Denny, Gail Olsen, and our experience during the first trip. The form (Screening Registration Form) provided a place where the intake nurses could record history. There was space for vital signs, physical examination findings, assessment, and plan. A subsection dealt with women's health issues. There was a small area in which routine laboratory tests, including U/A, could be quickly recorded. We found this form very useful in intake and processing patients, particularly since we were depending much more on our nurses during the second visit. Our team was the first one in for the 2001 cycle, and I hope subsequent groups found the form useful. The form was in triplicate, so we could provide a copy to each patient (with the hope the patient could bring it with him/her on return visits so we could see what had happened in the past), and retain a copy which could be used for analysis later.

"Crowd control" is a recurring issue at the clinic. During the first trip's service time, we had given stickers and small prizes to children. We were advised against this during the second visit and did not do so. This was to discourage people showing up just for some small tangible benefit and to keep order. We did leave stickers, children's bandaids, etc. behind for the clinic staff to give out on vaccination days. We found patients to be very well behaved and quite patient during both visits. There was some frustration in people not seen at the end of the second day, who had to return the following morning. And on the morning of the third day we tended to encounter more people sneaking in for a "curbside" visit since it was known we were going to be finishing up. During the first visit there was a tent set up outside the clinic, but most of the intake actually occurred in the clinic waiting room. This produced a fairly noisy environment. During the second visit, for the first two days of service, we set up card tables in the courtyard of the church, and had people congregate there for intake. We moved these tables to the area just outside the clinic so that patients on the final morning of service. By using this approach, patients could have their initial histories and vital signs taken there and could later be called into the waiting room. This produced a more controlled situation. We also found that it was well worth taking extra time in the intake process to identify who was truly going to be seen. For example, a mother might appear with three children and say that one child needed to be seen. Then there would be other problems identified in the other members of the family. In my opinion, one is better off getting a medical record sheet going for everyone who may need to be seen before they enter the clinic proper. We noted that the Penwood staff was giving a screening registration form only to the person who initially identified to be seen. Often, our nurses would then be approached during the initial intake about including another individual. A better approach, particularly during the start up of intake each day, would be to have a nurse take vital signs on all individuals reporting. Arranging for this may take some interaction and negotiation with clinic staff. At the time vital signs are being taken, the person primarily seeking service could be identified; however, if someone else where identified who truly needed to be seen, that person could be added in as appropriate. Also, an initial triage cut could be made right after vital signs are taken. For example, if vital signs identified a child with fever, that child could be "fast tracked," rather than having mother sit for several hours waiting. Someone with a very high blood pressure or obvious severe injury (open wound requiring suturing) could be given priority service. For other patients, initial history taking could occur at the intake area after the vital signs were taken. This will facilitate entry of patients to appropriate practitioners or rooms

in the clinic with some reasonable prioritization. We found that the mere act of taking vital signs had a calming effect with respect to crowd control. Just doing this and thereby showing interest was gratifying to these patients. This was particularly important during the last morning of service, when we had to cut off intake into the clinic proper at about 10 A.M. One nurse stayed at the table outside the clinic taking blood pressures and listening to presenting complaints. She reassured those who could not be seen and described the other teams who would be arriving in subsequent weeks from Mission Jamaica.

As noted above, service time each trip was about 2.5 days. The morning of the third day was a bit difficult to manage in terms of having good productivity. We had Mr. Henry come by early in the afternoon of each trip for a brief closing ceremony.

I want to make a few comments about the problems we encountered. More detailed information can be found in <u>Appendix A</u>. We saw a lot of degenerative joint disease and general aches and pains. Certainly simple medications, such as ibuprofen and acetaminophen, are highly valued by a patient population with little disposable income. We encountered several lacerations. Unfortunately, patients would often put off getting medical care for a number of hours. I assume this is either because of the cost of an ER visit or chaotic waiting periods at ER's. One gentleman waited over a day before presenting with a very significant laceration of his hand; we were unable to suture this because of the high likelihood of infection. I was surprised we did not see more hypertension in this predominantly black population. Dealing with the complaint of "asthma" was somewhat frustrating. Patients tended to use this term rather generically. In many instances they seemed to be referring to congestion and cough in a child. On the other hand, an occasional child has the real thing, so that there is a history of trips to the ER, inhalation treatments, etc. We were somewhat frustrated in dealing with children less than 2 years of age with this problem. One has to fly a little blind with respect to use of oral medication, and one wonders how effective metered dose medications will be. Ideally, availability of nebulizer therapy at the clinic or in the home would be useful for these kids.

One of our first patients during the first visit was a woman who was evolving a stroke. We were able to control blood pressure, but getting her into the hospital was a big problem. We were told that although hospitalization is "free," there is an entry charge. We had to send out runners to contact family members and arrange for transportation. All of this took hours. This was of interest given the tremendous time constraints we face in the states to get such a patient imaged radiographically and undertake fibrinolytic therapy if indicated.

We were frustrated when we encountered cases of external otitis. We did not have any topical agents to use for this. We wrote prescriptions, but we are not optimistic that these ever got countersigned by a Jamaican physician visiting the clinic or were filled by patients.

Perhaps the most dramatic problem our teams encountered was a particular presentation of open leg ulcer. I saw one of these during our first visit involving the pretibial area of the leg. The ulcer was about at the midportion of the leg and went all the way to bone, producing an obvious osteomyelitis. I was told that the ulcer, which measured about 10 cm in diameter and was tender, had been present for months (at least). The presence of the ulcer was enigmatic, because the patient had excellent pedal pulses, was not diabetic, and no signs of varicose veins or stasis

dermatitis. There was really nothing we could do for this problem except to continue local care. At our second visit, we encountered a woman with a similar problem. Although her ulcer did not go to bone, it was otherwise even more dramatic. There was complete loss of skin with exposed, only moderately healthy granulation tissue extending from about 5 cm below the knee to 5 cm above the ankle. This ulcer was circumferential, involving essentially the entire calf and pretibial area. The patient spoke poor English, but it was clear that the ulcer had been present for months. I was curious about what these ulcers represented and spent some time going through our medical library to find something that matched up. I think that both of these patients have what is called a "tropical ulcer." I have attached some photocopied reprints describing the presentation and treatment of these ulcers. They tend to occur after minor trauma to the skin when a patient has contact with water or mud. A combination of anaerobic bacteria and a spirochete bacterium enter through a break in the skin and set up a synergistic infection that produces exuberant necrosis of the skin and subcutaneous fat. The sad feature is that if encountered early enough, even large ulcers (generally <20 cm) in diameter may respond dramatically to treatment with an oral antimicrobial, metronidazole. However, when they are left unattended, one ends up with situations like we encountered. Effectively treating an osteomyelitis of the leg such as this could easily cost $10-20,000 without guarantee of complete success. The literature indicates that for very large ulcers, such as the one the second patient had, even following successful treatment of the infection, the resultant hard scar tissue will strangle vital structures. Thus, the common final pathway for advanced cases of tropical ulcer is amputation. Obviously, one would like to be able to identify patients with this condition early in the course of infection. A key factor might be educating patients visiting the clinic so that they can encourage family members or friends who develop this to get care expeditiously.

A much more trivial illness was the "id reaction," characterized by a fine papular rash on face, neck, and/or body seen mainly on children. The papules are not pruritic and the patients have no complaints other than the rash. This rash is in response to a tinea infection (usually of scalp), which can be difficult to detect. So approach is towards treatment of tinea capitis with oral or topical antifungal shampoo.

We did not encounter scabies in Kingston, but I undrstand this was encountered in Montego Bay among patients and some missionaries. So we need to be prepared to detect this and treat it.

We did not have dentistry available in either of our teams. I would welcome advice from MJ staff about issues related to providing this service. I am sure that the demand for dental services (even simple extractions) would be endless.

5. Areas where we could improve in our preparation:

Getting together the information on the medical team members so that we could look as "official" as possible was somewhat frustrating and time consuming. It is clear that submitting these materials to the Health Ministry is pretty much wasted energy. On the other hand, the process of getting appropriate data could be simplified. With this in mind I have drafted several sheets for prospective members of the medical teams to complete. The sheets, which I think are self explanatory, will gather all the information that would normally be put onto the documents that

would go to the Jamaican government. It also includes information which could be useful in advertising the composition of each team or identifying other activities in which team members could provide help. The sheets are entitled: Mission Jamaica Information Sheet—Physician, Mission Jamaica Information Sheet—Dentist, Mission Jamaica Information Sheet—Nurse, and Mission Jamaica Information Sheet—Allied Health Professional. Draft copies are attached to the report. The sheets, along with the notarized copies of the licenses, could be photocopied. Originals could accompany the teams and be held by a team member or the church between mission trips. Photocopies could be kept at St. Andrew's.

We had 99 patient record sheets available from our second visit. I suspect we may have seen about 110 to 120 patients. I used these sheets to record information about the patients seen in Appendix A. I was also sent sheets showing the activity of a mission group from Trinity Lutheran Church, Eau Claire, WI. This team had about 150 sheets. Their experience appeared to be similar to ours with respect to the kinds of problems encountered. I was able to use the summary in Appendix A to construct a worksheet (Appendix B) where I listed possible medications and supplies and sorted the medicines as either prescription or OTC. The information listed in Appendix B applied to supplies we could expect to require to care for about 100 patients. If I assume that a more productive group might see around 150 patients, I can use the information in Appendix B to create a checklist of medications and supplies to cover about 2.5 days of service at the clinic. I have done this, and created two checklist drafts: Checklist—Prescription Medications and Supplies, and Checklist—Over the Counter Medications and Supplies.

When I went to a pharmacy in Jamaica, I determined that Jamaica seems to parallel the United States in terms of what medications are available OTC and what medications require prescriptions. In some ways this is very good. It will help prevent the high prevalence of microbes which are resistant to multiple antimicrobials (a very big problem in the third world). It will also prevent lots of life threatening complications from medications that typically require a prescription. On the other hand it complicates our provision of prescription medications at the clinic. We have several ways to deal with the prescription medication problem. First, we can pack the prescription drugs we think are reasonable and hope we get them through customs each trip. Second, we could try to locate a practitioner in Jamaica and a pharmacy there who could cooperate in providing these drugs and purchase them on the island. Lastly, we could pack our own drugs, and if they are confiscated try to have a physician and pharmacy who would be willing to help us in this event. I will need to discuss the possibilities with MJ staff.

6. Areas where physical plant or programs might be improved:

The present configuration of examining tables is not good for performing pelvic examination. The quarters are cramped, and more compact examining tables would be helpful. Ideally examination tables with stirrups would be very helpful indeed. We also might benefit from having the desks in the patient care rooms not quite as large. This is particularly true of the smallest of the examination rooms. The examination table in the procedure room, where suturing is done, is showing significant wear. The laboratory appears to be adequate. Use of microscopes is problematic in

terms of time and their optics. Urinalysis dip sticks are very useful. Blood glucoses and capillary hematocrits can be done.

Intake procedures continue to be refined (see "crowd control" discussion under section 4).

We could probably think of a variety of educational sheets we could devise to give out. I would be particularly interested in developing one on tropical ulcer. We see lots of fungal skin infections and vaginitis. These are obvious ones as well.

I have had interest in teaching about sexually transmitted diseases, and I've been able to give slide presentations in the evenings during my visits. Perhaps we could consider others doing educational venues to enhance clinic activities.

7. Recommendations relevant for the medical portion of our Mission Jamaica team:

With all of the above, I'd like to offer some recommendations. I assume that these will be discussed with Pastor Franson and our MJ Committee and with MJ staff and revised as needed.

A. Medical team members should be provided with informational packets which include:

- Information sheet describing general aspects of team organization and some key processes to follow (draft cover sheets are attached).
- Information sheets to complete (for convenience, packets could include a sheet for each discipline). The leader for the mission group should take original copies of the sheets and notarized licenses with him/her on the trip. The originals could be kept with the leader or at Good Shepherd between mission trips. Photocopies could be kept either at Good Shepherd or St. Andrew's.
- Copies of checklists for OTC and prescription drugs.

B. Defined processes for donating prescription samples are needed.

- Outdated samples should not be donated.
- If samples are used, we need a better process for repackaging them (removing from bubble packages, etc.). Possible solutions are (a) having the individual who has received the samples repackage them or (b) organizing volunteers from the church who could do repackaging. [(a) is the present option presented in the draft cover sheet.]
- To the extent possible, samples should fit needs implicit in the draft checklist.

C. Create of a fund at Good Shepherd which could be used to support MJ medical team activities.

- The fund could be used by a lead team member or other designated team member to purchase prescription medications or OTC medications and supplies. Provision of these would be a priority for the fund. We should be able to estimate costs more accurately with time and then perhaps plan for more strategic purchases of items for the clinic physical plant.
- With approval by the committee or Pastor Franson, major purchases of clinic furniture, instruments, or equipment could be made (perhaps $200 for an item might be a threshold).

D. Develop a more reliable method to collect OTC supplies and eyeglasses.

- A box could be set up for collection of OTC medications and eyeglasses. Perhaps this could be just adjacent to the food pantry box. Copies of the OTC checklist could be attached to help the congregation know what would be most useful to contribute.
- Perhaps every couple of months a brief temple talk could be given. If done with appropriate panache, these might help keep congregational interest up in MJ activities as well. For example, one of the most poignant pictures I have from our visits shows Daphne the L.P.N. watching an elderly patient try on eyeglasses. I could have this blown up and use it as a prop. Surely, we ought to be able to do something with a "Percy with Mercy" story and "The Rough Side of the Mountain."

E. Obtain further information from MJ staff pertinent to experience of medical teams.

- We need information about dentistry experiences.
- We need information about MJ containers being assembled. Mike Staudenges, one of the student members of the Christian Medical Association gave me the name and telephone number of a ministry which collects medical office furniture, etc., when hospitals close (Wendall Mettey 513-774-9444, Matthew 25 Ministries). This ministry could be contacted.