

**International Volunteer Dental Projects
What's It All About Anyway?
A Presentation of the International College of Dentists
and the Academy of Dentistry International
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1. Introduction

- a. Introducing the speaker**
- b. Why is the ICD and ADI interested in these activities?**

- College motto is "Recognizing Service and the Opportunity to Serve."
- "Get the word out" to more locales.
- Complimentary to the efforts of the ADA, the Dentistry Overseas Steering Committee and Health Volunteers Overseas.
- Become a go-to resource for those interested in getting involved but do not know where to start.

- c. The course- what you should expect to learn today**

- Oral health conditions around the globe- What is the magnitude of the problem?
- The nature of volunteer activities
Why volunteer?
The nature of the volunteer
The nature of volunteering- context
- Cross-cultural issues- This isn't Kansas any more.
Cross-cultural training- Bafa-Bafa
- Types of projects- service and teaching
Giving a fish vs. teaching to fish
Working with international colleagues- the challenge of "Yes."
Developing networks
- How to get started
Jumping off the cliff and landing softly
Plugging into an existing program vs. starting your own.
- Nuts and bolts of volunteering.
What to do.
Where to find out what to do.
- Volunteering opportunities
Where to find them.
Examples of service and teaching projects.
- Volunteering right at home
Mission of Mercy Clinics

Community clinics

Dental busses/trucks, etc.

- Questions, comments, wrap up.

2. Oral health conditions around the globe- what is the magnitude of the problem?

- a. http://issuu.com/myriadeditions/docs/flipbook_oral_health
- b. <https://www.fdiworlddental.org/resources/oral-health-atlas/oral-health-atlas-2015>

3. The nature of volunteer activities

- a. Why volunteer- the reasons are as varied as the volunteers

- The reasons are as varied as the volunteers are.
- Desire to give something back....or pay forward.
- Realization that there is more than going to work, driving the kids to soccer practice, catching that trophy striper, or lowering that golf handicap.
- Be part of the solution, not just part of the problem.
- Interest in traveling to new places, meet new people, and do something worthwhile at the same time.
- Support a church mission or humanitarian service organization.
- An interest in sharing knowledge, skills, and experience with international colleagues.
- The desire to participate based on experiences related by someone with volunteer experience.
- It's just a fun thing to do!!!!

- b. The nature of the volunteer- leave some of who you are at home

- Traveling vs. touring.
- Having a lasting positive impact on the community, whether at home (e.g. Habitat for Humanity, Missions of Mercy) or abroad.
- "We" projects vs. "us and them" projects.
- Leave some of who you are at home- your ego, your impatience, you know what to leave in the airport parking lot!!!!
- Remember that it isn't the first rodeo for many team members and locals, even if you are on a horse for the first time.
- Preparation- easy to be prepared for the project, more difficult to be prepared for the location.

Qualities of Dental Volunteers

- Culturally sensitive- remember, it's context
- Flexible- be prepared for the what if's....

What if the power goes out?

What if conditions are not as advertised?

- Patient
- Able to relax
- Think creatively
- Willing to share knowledge, skills, and experience with others

Challenges on the home front

- Preparing your practice for the project.

Make the project part of your practice.

- Preparing your family for the project.

It is your idea but the rest of the family has to be on board.

Could make it a family affair.

Being home but not present.

- Returning from a project.

No one will mistake you for Mother Teresa. Plenty of others have done what you have even if it is your first time.

Don't be disappointed if people aren't as interested in your adventures as you expect or you think that they should be. Those most interested are those who have walked in your shoes.

- c. **The nature of volunteering- understanding the context you are in, not the context from whence you came**

4. **Cross-cultural issues- this is not Kansas anymore and you are the one with the funny accent!**

Culture Shock

- Initial euphoria at being in and functioning in an alien environment.
- Irritation and hostility at the situation and conditions. This can be especially pronounced when tired or sick.
- Gradual adjustment and comfort with the local situation.
- Adaptation, or biculturalism, after having come to an understanding of the situation on local terms, not the volunteer's terms.

5. **Comparison of service and teaching projects**
 - a. **Giving a fish vs. teaching to fish**
 - b. **Working with international colleagues**
 - c. **Developing networks**
6. **How to get started**
 - a. **Jumping off the cliff and landing softly**

- **Decide what type of project- teaching or service, where you would like to work, how long you would like to go, and how much work you want to do preparing for the project.**
- **Look around this room, do some networking before you leave.**

b. The advantages of plugging into an existing program

7. Nuts and bolts of volunteering overseas

a. What to do

Selecting a Site

- **What is the political and social climate of the site? For example, is the location politically and socially stable? Is it friendly to Americans?**
- **Can the country be reached by reliable commercial transportation?**
- **Are special licenses, registrations, or work permits needed? For example, Jamaica requires all entering volunteers to have a temporary work permit issued by the Jamaican Ministry of Health. That requires the submission of professional credentials well in advance of arrival in the country. Treating patients without official permits falls outside the law, so a volunteer could be subject to criminal sanctions. Remember, volunteers are subject to local laws; the U.S. Embassy may not be able to assist if laws have been broken.**
- **Are there appropriate logistics such as ground transportation, housing, ability to communicate with home cell phones, Internet access, and food for the volunteers?**
- **What health alerts or restrictions are there and what vaccinations are needed?**
- **Has the dental project been developed? Have the specific dental needs been defined? It can be frustrating to prepare for a surgical project only to arrive on-site to find out that restorative services are the primary need.**
- **Are dental materials and equipment available on-site, or does everything have to be brought in?**
- **What are the customs restrictions regarding the transport of dental supplies into the country? How might materials be shipped before volunteers arrive in the country?**
- **Is there a suitable facility in which to work? Will patients or professional colleagues be available at appropriate times?**

Assembling the Team

- **Do not over reach.**
- **One person is ultimately in charge.**
- **Delegate when possible.**

- You cannot talk anyone into going. The decision to go must be personal and independent.
- Remember- you want “we” projects, not “us” and “them” projects.

Assembling the Team- Using Locals

- Organizing and registering patients. Crowd control.
- Assisting with restorative procedures and giving post extraction instructions to patients.
- Washing, disinfecting, and sterilizing instruments.
- Interpreting, cooking, and performing other tasks as needs arise.

Equipping the Project

- Service vs. teaching- some needs are the same, some entirely different.
- Checklists, checklists, checklists.
- Electricity- 110, 220, something else? Plug configurations. Reliability.
- Water- potable sources?
- Transportation- roads, vehicles. Safety first, second, and third.
- Portable equipment- what do you need? Where can you get it?
- Supplies- checklists, checklists, checklists. Checklists are at the end of the handout.
 - Where to get them.
- How to pay for it all?
 - Private donations.
 - Foundations.
 - Government grants.
 - Other.

b. Where to find out what to do

8. Volunteer opportunities
 - a. Where to find them

- Word of mouth- professional groups, church projects, friends.
- www.adafoundation.org/internationalvolunteer
Directory of volunteer organizations.
- www.hvousa.org

b. Examples of service and teaching projects

9. Volunteering right at home- you don't need a passport to make the world a better place
 - a. MOM projects- Illinois MOM
 - b. Community clinics
 - c. Churches/ civic groups

10. Open discussion

11. Wrap-up

Online Resources

- www.usa-icd.org
- www.adafoundation.org/internationalvolunteer
- www.hvousa.org
- www.travmed.com
- www.hesperian.org
- http://issuu.com/myriadeditions/docs/flipbook_oral_health
- <https://www.fdiworlddental.org/resources/oral-health-atlas/oral-health-atlas-2015>

Surgical Equipment and Supplies- Sample Checklists

*****Check carefully and modify as needed**

The necessary types of surgical equipment and supplies will depend on the scope of the project and, to a certain extent, the personal preferences of the volunteer dentists. All instruments and supplies are usually supplied from home unless they are readily available in country. In effect, an entire dental office, minus the furniture, is needed. It is the rare site that is already set up to treat patients except for the arrival of the volunteers. Sample lists of instruments and supplies for surgical and restorative projects are included next; amounts will depend on the site of the project.

Nondisposable equipment:

- anesthetic syringes
- large and small elevators—straight, Potts, East-West, Crane picks (an essential instrument)
- root tip picks
- upper and lower extraction forceps (universals, cow horns, and others)
- bone chisel, mallet, and sharpening stone
- rongeurs
- periosteal elevators
- scalpel handles and blades (no. 15)
- mouth mirrors
- Adson (tissue-holding) forceps
- needle holders and tissue scissors
- resorbable sutures
- coagulation aides- Blood Stop, Gel Foam, Surgicel
- bone files

- surgical curettes
- bite blocks
- large Kelly forceps for transferring instruments
- air drive surgical handpiece if a dental unit is available
- rechargeable electric surgical handpiece to section teeth or remove bone (This should be used only as a last resort due to the difficulty in controlling infection and pain. Electric handpieces that can be recharged using solar panels are now available from Bell Dental Products [see the products at www.bell dental.com]).
- burs for the surgical handpiece
- sphygmomanometer and stethoscope
- large plastic basins for washing instruments, disinfection, and hand washing
- flashlights or battery powered headlamps with spare bulbs and plenty of batteries. (Flashlights should be stored with one battery in backward for transport to prevent draining of the batteries if the switch is accidental pushed to the 'on' position. Rechargeable batteries are not recommended. Also, buying batteries in a local shop should be avoided because the batteries there could be spent ones that had been meant to be thrown away but were 'recycled' by the shop owner. Miners headlamps, which can be purchased at many camping supply stores or headbands that hold a small Maglite are also helpful in providing some pinpoint illumination while leaving hands free to treat patients.)
- Loupes and light with charger. Be sure to check local electricity specs as a converter may be necessary.

Disposable supplies:

- surgical hand washing soap
- disposable examination gloves in assorted sizes- non-latex if possible
 - sterile surgical gloves in assorted sizes
- towels in which to wrap instruments for sterilization
- Gelfoam or Surgicel
- dry socket paste and iodoform gauze
 - resorbable suture on a cutting needle
- 2x2, 3x3, and 4x4 gauze sponges
 - anesthetic needles (2 7-gauge long will suit most purposes)
- local anesthetic cartridges in assorted types (Drugs whose expiration dates have already passed must not be brought in-country. The World Health Organization prohibits the use of outdated medications, and many nations are sensitive about being used as dumping grounds for medications not suitable for use in developed countries.)
- sharps container
 - Cidex or other disinfectant/sterilant solution. (These solutions should be used only if there are no better forms of sterilization available. The bottles should be completely destroyed after they have been used to prevent anyone from retrieving them and using them for transporting drinking water.)
- antiseptic solution (Betadine)
- alcohol wipes and hand sanitizers
- surgical masks
- safety glasses
- plastic trash bags

- analgesics (nonnarcotic) and antibiotics (oral and intramuscular types)
- toothbrushes, toothpaste (Because toothpaste takes up a lot of room and is heavy to carry, these items should be the first ones to be left at home if space is limited. People can be taught to clean their teeth without the use of a dentifrice.)
- ammonia inhalants (In some areas and on certain days, patients or volunteers might be prone to fainting. Fainting might be caused by fear or the fact that a person has not had anything substantial to eat for an extended period of time. It is prudent to be prepared with soda, crackers, cookies as well.)
- syringes (or other delivery device such as an EpiPen) of epinephrine and diphenhydramine. (Either a patient or a team member could have an allergic reaction. Basic emergency procedures from a standard text should be reviewed before the team leaves home so they are prepared to deal with that type of medical issue.)
- paper towels or paper (copier paper is also good) on which to place soiled instruments while working
- patient registration forms- dependent on the locale

Restorative and periodontics equipment and supplies:

- mouth mirrors
- penlight (for trans illumination)
- anesthetic syringes
- cotton pliers
- spoon excavators
- cement spatula
- temporary filling material (IRM and others)
- amalgam carriers
- amalgam condensers
- triturator
- Tofflemire matrix retainers
- matrix bands. Tufflemire and mylar
- wooden wedges
- amalgam and composite placement instruments and carvers
- composite with etchant, primer, and bonding agent
- composite brushes and/or sponges
- light-polymerizing composite
- composite curing light or wand with spare bulbs and fuses
- rechargeable curing lights- check local electricity specs- converter may be needed
- sealants
- mixing pads
- rubber dam material with frame, punch, clamps, and clamp forceps
(These will come in very handy when doing several side-by-side Class III composites in the maxillary anterior.)
- pin kit
- cotton roll holders
- cotton rolls
- finishing strips and lightning strips
- polishing equipment—pumice, rubber cup, prophylaxis angles

- high-speed and low-speed handpieces with push-button chucks (Bur tools, whether they are air-driven or electric, tend to get lost.)
- assorted burs with bur block
- periodontal curettes
- ultrasonic instruments (Cavitron or piezo type)
- garden sprayer equipped with ¼ inch quick disconnect for water supply for ultrasonic instrument
- disposable prophy angles or cups and brushes
- prophy paste and plain pumice
- silver diamine fluoride
- MTA
- Vitrebond or other liner
- Glass ionomer restorative material
- Formocresol
- Stainless steel crowns
- Crown crimper
- Crown cement
- floss
- cotton pellets
- articulating paper
- patient mirror (Nothing is more rewarding than seeing a patient smile after having had some nice composites or after getting a new partial or complete denture.)
- portable dental unit with compressor or spare parts (See the sections below titled "Toolkit for repairing equipment" and "Portable air compressors.") See aseptico.com
- portable dental chair with light (This is optional, as head-mounted illumination is often sufficient.)

Complete dentures

If your project would like to do complete dentures, go to www.benchmarkdenture.com for complete information.

Several considerations must be kept in mind while planning the equipment phase of the project. One of the major challenges in providing care is sharpening diagnostic acumen without the benefit of some normally available instruments. Making radiographs may be difficult, if not impossible, especially in a mobile project. A thorough clinical examination with trans illumination using a penlight or a composite light and percussion of teeth often will give enough information to properly treat a patient. Although the services delivered will approach the quality of the services delivered in the dental office at home, as they should, there may be compromises due to the local conditions.

Disinfection and sterilization of instruments also can be problematic. Instruments can be sterilized by boiling, being placed in a pressure cooker (www.christiandental.org for pressure cooker sterilization ideas and a cardboard dental chair), autoclaved, cleaned and soaked in bleach, or placed in a glutaraldehyde sterilant or disinfectant. Although a steam autoclave is the best choice, that option may not be available on-site. In all cases,

instruments should be washed thoroughly and be free of any blood or other contaminants and then sterilized or disinfected to maximize the chance of breaking the chain of contamination. Often, local volunteers are trained to manage those tasks.

Tool kit for repairing equipment: Having more than one piece of the most essential tools, machines, and equipment can be very worthwhile, because if one machine breaks down, the second could be placed into service. When purchasing or acquiring equipment, select the simplest model that can be repaired in the field, and then get the spare parts to FIX whichever of them would be most likely to fail. Most portable dental equipment is fairly easy to disassemble and repair with the proper parts and tools. A small toolbox with the following items would be most helpful:

- flat-head screwdriver
- Phillips head no. 2 screwdriver
- mini screwdriver set
- slip joint pliers
- needle nose pliers
- Allen wrench kit (SAE and metric)
- Teflon tape
- electrical tape
- plastic tubing for the dental unit
- one of each valve in the unit, especially for the foot pedal
- assorted rubber O-rings
- assorted box and socket wrenches (SAE and metric) and an wrench and Vise Grip
- medium vice grip
- electrical voltmeter/multi tester- essential for testing local electricity. Remember- just because the electricity is supposed to be the same as the US does not mean that there will be current fluctuations that may damage equipment
- tube of grease and handpiece lubricants
- spare parts for generator (if applicable)- spark plugs, filters, extra fuel line, engine oil

Equipment that is stored on-site from year to year in tropical areas can deteriorate because of the high heat and humidity. That is especially true for O-rings, plastic tubing, and valves. Parts for dental equipment can be purchased through the original manufacturer, a local dental supply dealer, or a company such as American Dental Accessories (1.800.331.7993, www.amerdental.com) that sells virtually everything needed to build and repair a dental unit.

