Host Nation Participants Perspectives on Military Medical Humanitarian Assistance

Measures of Effectiveness

CDHAM Publication 02-05
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Center for Disaster and
CDHAM
Humanitarian Assistance Medicine

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A world center advancing medicine in humanitarian and disaster relief

The mission of the Center for Disaster and Humanitarian Assistance Medicine (CDHAM) is exactly what its name implies—to be the focal point for *medical* aspects of disaster relief and humanitarian assistance. Other centers—namely United States Pacific Command's Center of Excellence in Disaster Management & Humanitarian Assistance, based in Hawaii, and the Center for Disaster Management and Humanitarian Assistance, based at both Tulane University and the University of South Florida in support of United States Southern Command—operate within the realm of humanitarian relief. However, they are focused on the broader issue of disaster management. By specializing in medicine and health-related topics worldwide, CDHAM compliments the work of these centers, as well as many other organizations that are improving the provision of relief and international health care.

The origin of CDHAM (pronounced "SID-am") predates the current emphasis on military medical support of operations other than war by more than a decade. The CDHAM is organized within the Department of Military and Emergency Medicine at the Uniformed Services University of Health Sciences (USUHS). The Department Chair, along with the Dean, the President, and key faculty at the University, recognized early on the evolving role of military forces in shaping an uncertain world. CDHAM was formally established at USUHS by the Defense Appropriations Act of 1999 as the Department of Defense's focal point for medicine in the non-traditional military operations and missions that have become more common in the new millennium.

The role of CDHAM extends beyond simply conducting studies. Our goal is to analyze, develop conclusions, determine lessons learned, and translate these into learning opportunities and improvement. Publications, lectures, symposia, and other media developed as a result of this work will become tools for educating graduate and medical students at USUHS, as well as advancing the broad spectrum of military medicine. CDHAM uses training, technology, and best management practices to improve military medicine capabilities and readiness for humanitarian missions, especially in partnership with the inter-Agency process, the international medical community, and the host nations' medical infrastructure and beneficiary populations.

Comments and questions are invited.

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Contents

Table

Executive Summary

While each humanitarian assistance project is unique, similarities are found in the perspectives of both providers and recipients, particularly in recognizing what is required to increase the effectiveness of DoD humanitarian assistance projects and programs. Recipients, including host nation officials, health care providers, and patients, largely view DoD humanitarian projects favorably. They also independently identify many of the same basic issues, concerns, and ideas for more effective humanitarian assistance (also see report in this series, U.S. Participants' Perspectives on Military Medical Humanitarian Assistance). The fact that these observations have been repeatedly, independently identified by participants ranging from U.S. service members (of many specialties) to foreign citizens (of diverse backgrounds from several countries) lends weight to their importance. These observations include:

- **inadequate U.S. - host nation coordination.** (15 of 38 foreign respondents reported not having met DoD personnel before the project began, and 11 indicated no contact whatsoever post-project.)
- **host nation representatives were often passive participants rather than active partners.** (14 of 38 host nation respondents reported being asked for suggestions, 12 had the opportunity to influence the projects, and 12 were asked to 'approve'; however, 25 of 38 reported being told by U.S. personnel what the humanitarian assistance project would constitute.)
- **need to evolve to more effective projects.** (23 of 38 foreign recipients of military humanitarian assistance would gladly do another project with DoD. However, unanimously, they would conduct future projects differently than the way that projects have been conducted in the past. Unfortunately, given present procedures for project planning, there appear few means for incorporating their input or lessons learned from prior projects from either the U.S. or host nation perspectives.)
- **inadequate pre and post project assessments.** (Only 1 respondent reported "any information or data (was) collected on health conditions before the project and compared to health conditions after project completion." 30 of 38 responses indicated "no" or "n/a" to this query on whether any data was collected pre and post project.)
- **less than effective excess property donations.** (Among the 15 foreign respondents who received donations of excess medical supplies and equipment; only 9 reported that the donated items were of use to them, 6 reported being trained on the proper use of donated items, 2 were provided copies of maintenance or instruction manuals in their native language, 2 received instructions on calibration requirements, 1 was given spare parts and tools, and 1 the name of someone to contact in case of difficulties in using the donated items.)

In addition to these observations, an unanticipated, but important benefit of DoD humanitarian assistance was identified in our survey of host nation providers, i.e. the vital morale boost provided by DoD assistance to members of PVO & NGO organizations already providing in-country humanitarian health care. This we discuss as a kind of 'synergy of collaboration.' For example, a British expatriate orthopedic surgeon operating in Malawi describes his experience with a European Command (EUCOM) sponsored military medical HCA: *"a major morale booster for me, for my staff, and for the theatre team as a whole. It helped everyone …when we worked with the U.S. Army'….*

This important 'synergy of collaboration' benefit of DoD humanitarian assistance may be the key to a new, no-cost means of planning and conducting more effective medical humanitarian assistance projects. For example, given the many coordination requirements, and the short-term nature of the vast majority of DoD humanitarian assistance projects, the effectiveness of DoD humanitarian assistance projects could be improved by increasing coordination with other humanitarian providers rather than continuing to attempt to operate DoD humanitarian assistance projects largely independent of the many other organizations already involved in similar functions, often at the same location. With the less than adequate time for host nation coordination that is available prior to short notice deployments, the effectiveness of DoD humanitarian assistance could be improved by having DoD projects conducted collaboratively with experts already in-country, whether host

nation resources, expatriates, or multinational members of civilian PVOs and NGOs. This kind of coordination has been effectively implemented in several cases to date; e.g. JTF-Bravo in Honduras (Avilez 2002, Blanchette, 2002), with a British orthopedist in Malawi (Singer, 2001), and during recent ophthalmic projects by the Navy in Yemen and Guatemala, (Richards, 2001, Morton, 2001). In every instance it has proven highly successful, yet these projects have not yet been marketed or modeled outside the immediate organizations that conducted the projects. We recommend that these and other successful projects in which local and other resources and information was fully integrated with DoD efforts become models for more effective humanitarian assistance projects. This can and should be done beginning in the planning stages, and entails no additional costs other than the time required to effect coordination.

Voluntary surveys of host nation and third-party providers of humanitarian assistance as well as recipients or beneficiaries of such projects and DoD personnel (see report, *U.S. Participants' Perspectives on Military Medical Humanitarian Assistance*), reveal that all, generally and widely, hold DoD humanitarian assistance projects and their participation therein in high regard. All are also quick to offer observations and suggestions on how to make the projects more effective. Often their diverse perspectives independently arrive at similar or identical recommendations. Host nation citizens and representatives of private organizations working along-side military personnel highly value these opportunities, particularly for their training and professional benefits, and often want to be even more involved. Their comments and those of U.S. military personnel offer insightful suggestions for improving the execution and effectiveness of humanitarian assistance projects. The fact that similar observations have been independently offered suggests their validity, importance, and the likely comparative ease with which they might be implemented.

Summary of Recommendations

- **Shift the focus from nearly exclusively short-term DoD patient care projects to include comprehensive, integrated projects** where feasible. These should be based on host nation assessments of prioritized needs and a longer-term developmental approach, in which capacity and capability-building projects are incorporated such as public health interventions, medical training, health education, and infrastructure improvements.
- **Explore and promulgate the 'synergy of collaboration' approach** linking military and civilian resources and experts in planning and executing humanitarian assistance missions. Utilize to the maximum extent practical civilian health care providers, whether host nation representatives or expatriates, in a fully and carefully coordinated approach to providing humanitarian assistance, especially in projects involving patient care. This is not only cost effective in reducing requirements to deploy DoD care providers and other personnel, but also provides the in-country coordination and participation necessary to improving the effectiveness of DoD projects and programs.
- **Ensure that humanitarian assistance is comprehensive and complete.** In the case of excess property donations for example, medical supplies and equipment should include where applicable, validated hands-on training in proper operation, copies of maintenance and calibration instructions (in the native language), a minimum supply of essential spare parts, and a point of contact should questions arise about the donated items.
- **Establish a means for independent evaluation of proposed DoD humanitarian projects** (e.g. external review board or steering committee). Ideally this should involve the pre-project approval and funding processes as well as post project after action review of outcomes and effectiveness. This external review function might best be accomplished by including representatives from both DoD Centers of Excellence in Humanitarian Assistance and similar experts from other-than-DoD organizations, as well as academia, from both the U.S. and abroad.

Study Methods

In separate reports in this series we have discussed the very limited documentation in the published literature, medical or military, on the hundreds of humanitarian assistance projects conducted annually by DoD personnel worldwide. Even unpublished sources are limited, as many projects do not necessarily result in after action reports. In cases where reports are prepared, these are not easily accessed due to the absence of a central repository or information management system (also discussed in another report in this series, *Information Management for More Effective Military Humanitarian Assistance Projects & Programs*.)

However, even if the literature were robust and the after action reporting comprehensive, it is important to obtain the opinions, ideas, and experiences of participants directly involved in humanitarian assistance. We queried both providers of humanitarian relief, especially health care (see report *US Participants Perspectives on Military Medical Humanitarian Assistance*), and the recipients or beneficiaries of these projects. Information from these diverse sources was obtained by several means, but the primary data gathering was accomplished using survey forms. For both U.S. participants and host nation personnel, information was collected using a standard questionnaire. In this case, forty-seven multiple choice and free response questions were administered (English or Spanish) via personal interview in the host country. Additional information was gathered via telephone, email, or the internet. Responses were obtained[1] from countries in all of the geographic Combatant Command areas of responsibility (AORs), i.e. specifically, Thailand, Trinidad, Honduras, Dominican Republic, Bosnia, Malawi, Botswana, Zimbabwe, and Yemen. These foreign respondents included both health care providers who had worked with the U.S. military personnel, as well as patients who benefited from humanitarian care.

In addition to language and other cross-cultural difficulties, the collection of host nation information was limited by difficulties in obtaining DoD country clearances, and cancellation of scheduled humanitarian assistance projects and meetings. Nevertheless, a cross section of host nation representatives, ranging from providers to patients, voluntarily responded about their direct experiences with DoD humanitarian assistance projects. The experiences of host nation respondents recorded in this study spanned the globe and all U.S. military services. Respondents had participated in DoD humanitarian projects completed largely by the U.S. Army and Air Force (fifteen, and sixteen respectively), while the U.S. Navy, including elements assigned to the Marine Corps, completed five of the projects described herein. Highlights from Honduran, Bosnian, and African perspectives are discussed below.

Although the number of respondents was limited, the information gained is extremely valuable as it provides direct insight – views that are not often forthcoming through journal publications or after action reports. The views of host nation officials had simply not been previously available in the U.S. We are not aware of any prior opinion surveys of either DoD personnel or host nation representatives regarding their experiences as participants in, or beneficiaries of, DoD humanitarian assistance. All respondents had the opportunity to convey ideas and opinions that might otherwise never be voiced.

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[1] Special caution ensured survey personnel were well qualified to obtain valid results on international surveys. For example, in most cases each interviewer had specific, prior, first-hand humanitarian experience in the country surveyed. Specifically, Mr. Raul Sotomayor, a native Spanish-speaker, served a distinguished career as an Army preventive medicine non-commissioned officer in charge (NCOIC) with many operational deployments to Central and South America including humanitarian medical missions with several units including the 59th MDW (the unit conducting the three medical missions in Honduras on which information was collected). LTC Cornwell, an Army veterinarian, worked closely with host nation counterparts to reestablish livestock herds and a centralized veterinary care service in Bosnia and Herzegovina. MAJ Darrell Singer returned to Botswana and Zimbabwe to follow up on several DoD medical humanitarian projects, including humanitarian and civic assistance (HCA) projects that he had previously directed. Information from Yemen was made possible by Mr. Brant Marshall based on our previous extensive involvement with medical care for victims of blast injury (Richards, 2000). Ms. Michelle Shirley, who is quite familiar with OHDACA - Overseas Humanitarian, Disaster, and Civic Aid programs and projects, collected data from additional countries via telephone interviews with host nation representatives and U.S. country team members. The assistance of all of these experts is gratefully acknowledged.

Results & Discussion

Host Nation Representatives Experiences:

The responses from Honduras, Bosnia, and Malawi are discussed below as representative of the recipients' experiences with U.S. military medical humanitarian assistance from a variety of situations. These include lesser-developed countries, long-term U.S. military presence, post-complex human emergency scenarios, and patient care (both with host nation health care providers (Honduras) and with medical personnel from private volunteer organizations (Malawi)). In addition, one project which involved improving capabilities in livestock veterinary care in Bosnia, did not involve a common form of DoD medical humanitarian assistance, - direct patient care. The diverse means by which humanitarian assistance is provided by DoD elements in these nations is typical of these programs. While each project is unique, we find similarities across programs, space, time, and in the perspectives of both providers and recipients.

The experiences of thirty-eight foreign respondents involved in DoD medical humanitarian projects spanned HA, HCA, and EP programs, i.e. five respondents had been involved in construction projects, twenty in health care, one in veterinary, thirteen in donation of excess property, and six in other projects. Projects dated to 1998 but most were recent, thus observations and remarks are pertinent to current programs and policies. Respondents included twenty health care providers, the majority being physicians, five government officials, six military officers, four educators including university faculty, and three from scientific, engineering or other technical fields. They had a wealth of humanitarian experiences, having been involved in a total of 156 different humanitarian assistance projects involving U.S. military personnel, and 40 additional projects sponsored by organizations other than DoD. A few individuals had extensive involvement, some reporting having been involved in 20 or 30 projects, while the experience of the majority of respondents was limited to one or a few DoD projects.

A strong majority (thirty-one of thirty-eight) reported DoD personnel contacted them prior to project initiation, while three respondents reported not having been contacted at all prior to the arrival of U.S. personnel. Typically contact by DoD personnel was made a month or more prior to the project. Commonly, contacts were face-to-face meetings (twenty-one of thirty-eight), but other means included telephone, postal service, and email. On average, U.S. and host nation personnel met approximately four times prior to project initiation, but fifteen respondents reported not having met with DoD personnel face-to-face before the project began. In regards to contact with DoD personnel during and after project execution, twenty-one, and twenty-six respondents, respectively reported 'none'. It seems puzzling that a majority of host nation personnel would not be in contact with visiting DoD personnel during execution of a humanitarian assistance project. This may reflect projects largely devoid of timely host nation inputs, or it may simply reflect the roles of individual respondents who perhaps did not have a requirement for direct contact with visiting military personnel. This limited contact has pronounced impacts on project effectiveness, both as realized and as perceived by both Americans and host nation citizens. Clearly, who participates in a humanitarian assistance project and the role(s) they play can have tremendous effects on project effectiveness, an area recommended for further study.

The limited contact by DoD personnel with host nation sponsors was also borne out by answers to a subsequent question in our survey in which nine respondents indicated that they were contacted post-project, while eleven indicated no follow-up and a dozen indicated 'not applicable'. These findings from the host nation perspective agree with independent findings from DoD personnel. For example, DoD personnel are most likely to contact other DoD personnel but rarely extend their communications to networking with PVO, NGO or host nation representatives (see *U.S. Participants' Perspectives on Military Medical Humanitarian Assistance*).

The nature of the contact between the host nation and DoD personnel is quite important to project effectiveness and was addressed in a series of questions on the role that host nation personnel played in shaping the projects conducted in their countries. Fourteen respondents reported being asked for suggestions and opinions, twelve stated they were given the opportunity to influence the nature of the projects, and a dozen reported being asked to 'approve' of the project. However, twenty-five reported that U.S. members told them

what the project would consist of. Twenty-three would gladly do another humanitarian assistance project, but significantly, that same number would do the project differently than it was conducted in the past. No one stated that they would not want to do another project. Only one respondent felt that they were a "recipient" of the DoD project, while eleven felt their role was as a 'partner', and another eleven felt that they 'directed' the project.

In addition to helping define the project, in a limited number of cases host nations also provided other support that made the project successful, e.g. funds (two), manpower or human labor (fifteen), transportation services (three), and food, fuel, water, supplies, shelter, and other services (six). Thus, host nation coordination is not only about the nature of the humanitarian activities to be provided, but also entails numerous administrative, logistical and other kinds of coordination and support functions. Clearly, detailed coordination with host nation representatives in all areas is required if the project is to occur and be effective.

The host nation questionnaire also inquired about the length of humanitarian assistance projects, and the vast majority (twenty-eight of thirty-two responses) indicated that DoD projects had duration of more than one week but less than one month. About half of the foreign respondents felt that this was 'about the right length' of time, but a like number (eighteen) felt this was too short. Two respondents reported projects of less than a week, and two reported projects lasting more than a month. Eighteen respondents indicated that their needs, interests and objectives were 'fully met', while seventeen had some but not all needs met. Only three respondents reported that the project failed to meet any of their objectives. Nine respondents indicated that unforeseen consequences occurred as a result of the project, although these were neither specified nor discussed.

In terms of communications, the majority of respondents (twenty-eight) noted that military personnel spoke their language, and only four times did not (though this was skewed by the preponderance of Honduran interviews and the many DoD personnel fluent in Spanish). Seventeen respondents reported receiving written documents about some aspect of the project from the Americans, while fourteen did not. However, in many instances these documents included patient records, rather than a comprehensive report on the project. (The survey question might have been less ambiguous if it had specified the nature of the documentation that the host nation representative received, i.e. a patient record vs. an overall project report.)

Nineteen respondents indicated that the project's success was measured, although how this was measured was not specified. When asked if information on pre-project conditions was collected and used to evaluate effectiveness of the project by comparison to post-project conditions, the entire total of twenty responses was marked "not/applicable." In a later question on this same aspect, only one respondent reported that "any information or data (was) collected on health conditions before the project and compared to health conditions after project completion." A combined thirty responses indicated "no" or "n/a" to the query about pre and post data collection. The collection of assessment information both pre and post project is absolutely essential to measuring and increasing effectiveness.

Fifteen respondents reported receiving donations of excess medical supplies and equipment. However, only six reported being trained on the use of the equipment, only two were provided copies of maintenance or instruction manuals in their native language, and two were provided instructions on calibration requirements. Obviously effective utilization of donated equipment requires training not only in operation, but also in maintenance and in some cases, calibration requirements. The questionnaire did not, however, ascertain if the donated items in these cases actually required instruction manuals or calibration. One respondent indicated having been given spare parts and tools along with the instruction manual. One reported being given a name, address, or phone number of someone to contact in case of difficulties in using the donated items.

Many DoD excess property donation projects are measured by the number of items or short-tons shipped. This obviously provides little or no insight into whether the material ever made it to the end user, was something that was needed, or was accompanied by manuals, training, or maintenance and calibration support. The availability of spare parts, as well as calibration and technical support, while problematic in many remote locations, is essential to the effectiveness of EP donations. In fact, it is precisely these difficulties of remote locations and

developing infrastructures, as well as trying to comprehend a technical manual in a foreign language, that make these elements so important to the effectiveness of excess property donations. Effectiveness of EP projects would be increased if furnishing instructions, manuals, calibration requirements (in the host country language) and a point of contact for assistance became the norm rather than the exception.

The questionnaires and interviews also established that host nation health care providers expressed concern when donations of excess property that are expected are not forth-coming. Donation of medical supply items is a common occurrence in DoD humanitarian assistance projects, even those not formally conducted as EP projects. This has also been confirmed by responses submitted by U.S. personnel participating in humanitarian assistance projects and programs. Analysis of Combatant Command programs for the past three fiscal years showed the importance of excess property donations especially those involving medical items (see Overview report in this series). Thus it is prudent to ensure procedures are in place so that equipment and supply needs are identified, and recipients receive needed spare parts, tools, and maintenance and calibration instructions and manuals (in their native language). Of 15 foreign recipients of medical EP, only 9 reported receiving items that were useful to their purposes. To be effective, excess property donations must be based on a current assessment of need and host nation capabilities. To do otherwise not only wastes donated property, but frustrates rather than aids the recipients. Inappropriate EP donations could also contribute to inappropriate health care if medical decisions are based on erroneous information arising from faulty or uncalibrated equipment.

While EP activities are of great interest to beneficiaries, the kinds of projects in which host nation officials most often participated were non-disaster, patient care -typically specialty surgical and medical care (twenty-five responses). Slightly less frequent but still common were general medical and dental care, as well as immunization programs. As with DoD responses, the comments of host nation officials confirm the emphasis on direct care of foreign citizens by DoD personnel in humanitarian projects. For example, twenty-five respondents had participated in projects involving specialty care including surgery, and eight had been involved in general medical care, but none reported having had any involvement in health education such as classes on maternal child health education, or oral rehydration therapy. This may have been a function of the population surveyed, as they were supporting DoD surgical projects. Five respondents reported being involved in disease prevention and control; but only one in preventive dentistry and oral hygiene, one in nutritional evaluation, two in food or water sanitation, and two in hygiene and hand washing. Twenty-five respondents indicated that health education was ‘not applicable,’ suggesting that this is rarely part of humanitarian assistance activities. It seems that some interventions, such as those of a public health or health education nature, which may be of lower cost, are often omitted from DoD humanitarian assistance planning, yet services such as surgical procedures, which are high cost and benefit only the individual patients lucky enough to be treated, are the common foreign experience in DoD medical humanitarian assistance. This is validated by the similar but independent responses of U.S. participants.

Honduras:

Tegucigalpa and Coamaygua, where three U.S. Air Force humanitarian and civic assistance (HCA) medical missions were ongoing or had recently been completed, were visited. In all, twenty-eight Hondurans, the majority of which were patient care providers (including physicians of varying specialties, (orthopedics, urology, and plastic surgery); nurses, from chief nurse to licensed practical nurse; and hospital administrators), completed the questionnaire. A limited number of patients (or parents of pediatric patients) also responded. These Honduran responses on several medical missions represented a cross-section of the experiences of host nation providers and beneficiaries in working with U.S. military medical personnel providing medical humanitarian assistance.

Before discussing the summaries of responses on three recent HCA projects, it is important to understand these and many similar missions in the context of the unique situation of a continuing U.S. force presence in Honduras. Having U.S. military assets, including medical personnel regularly assigned in Honduras (as part of Joint Task Force Bravo, (JTF-B)), has allowed an on-going relationship to develop between U.S. and Honduran medical colleagues. It is important to understand that this situation is probably unique throughout all of DoD. We are not aware of other host nations in which HA and HCA missions are conducted with the benefit of a permanent in-country DoD presence, and permanent host nation medical liaison staffs (Avilez, 2002).

With a long-term military presence in Honduras, the medical element of JTF-B has directly hired three Honduran physicians and one dentist as liaison officers, facilitating all aspects of U.S. military medical humanitarian assistance (including medical, logistics, public affairs, etc.). These Honduran physicians play a key role in the planning, marketing, coordination, and execution of DoD projects from start to finish (Sotomayor, 2002). In addition, the liaison officers work as a direct link for the coordination of projects through the Ministry of Health (MoH). For example, they have coordinated directly with the MoH to ensure that survey questionnaires, biochemical data and household data that is being collected as part of the ongoing San Antonio Military Pediatric Center Joint Pediatric Residency Program was designed in collaboration with the MoH to ensure the information collected and obtained could be used to help design public health efforts with the rural areas. The residency field training experience was instituted to train residents on the recognition and management of malnutrition, conducting a nutrition survey and conducting medical operations in an austere environment (Kemmer, 2002). This successful use of host nation liaison officers to coordinate all aspects of humanitarian projects allowed as many as 23 HCA missions to be conducted in Honduras in 2001 alone. Thus, the host nation receives tremendous health care benefits in terms of DoD medical resources donated and health care provided.

The effectiveness of DoD humanitarian assistance projects where host nation liaison officers are employed should be evaluated relative to the more common situation where the DoD contact with host nation representatives is limited, as discussed previously. While other geographic Combatant Commands also have medical assets deployed long-term in support of military operations other than war (MOOTWs) the situation in Honduras is unique. With a record of many annual medical projects spanning the past two decades, additional study of DoD medical humanitarian assistance projects in Honduras would be useful from many perspectives, especially in identifying what has proven most effective. It is also important to bear in mind that the lessons learned from such projects could be quite different from DoD experiences in other countries where a long term military presence and host nation medical liaison officers do not occur. With its long history of many medical humanitarian missions, the JTF-B model would make an excellent case study of the effectiveness of this approach for stability operations and humanitarian assistance. While the command has expressed potential interest, we are not aware of any full study of this unique situation since the report of Hood, (1998). Certainly, an in-depth study of the JTF-B model of conducting medical humanitarian assistance projects through the facilitation of host nation medical liaison officers is warranted. Lessons learned in improving effectiveness may have DoD-wide applicability. Where a large U.S. force presence is on the ground for long periods of time, the functions performed by host nation liaison officers may help solve many of the coordination functions required in effective humanitarian assistance missions.

In the capital city, Tegucigalpa, the 59th MDW, based in Wilford Hall USAF Medical Center San Antonio, Texas, conducted two HCA missions (urology and pediatric orthopedics). On the urology mission ten Hondurans were interviewed; including two registered nurses, one of whom was the Chief of Nursing Services, three practical nurses, two physicians, a general surgeon who specialized in urology, a doctor of medicine and urology, and one patient (as well as other respondents who did not identify their specialty or title). While these missions were universally well-received, specific comments are enlightening and point out areas of needed improvements that bear directly on effectiveness. For example, the Chief Nurse had a clear grasp of the key issues,

"Personally I am very satisfied with this type of voluntary service where it is directed to alleviate pain and anguish, therefore contribution to the mitigation of a much needed population. However, I would like for planning meetings before and after action reports for HCA projects. That way we can understand the impact these HCAs have in joint operations to include the goals met at the end of the HCAs that way, they don't seem to be isolated events rather than well planned and sustainable events for the population that receives services."

This Honduran Chief Nurse describing an HCA in 2001 had essentially the same conclusions as the GAO report of 1993. Her remarks are also quite similar to many comments from the 215 DoD personnel who had completed humanitarian missions and our survey. When the perspectives of providers, beneficiaries and external review agencies, all reach the same conclusions, over the span of nearly a decade, the merits of their comments must be considered (also see Table 1.)

Another registered nurse noted, *"As the chief of the recovery and surgical wards it would be good to have meetings, not just with physicians, also with nursing staff, letting us know how many patients are coming so they can be programmed into our recovery and surgical wards...more communications with the medical and nursing staff, (so) that the visiting HCA informs us of (the) types of assistance (that) is available from their work, (and) how do they become members of these HCA teams etc."*

Similarly, another participant noted, *"In response to (the) U. S. Armed Forces, I think they <u>should conduct HCAs for longer periods of time</u>…."* The comments of host nation providers echo those of U.S. participants and raise some of the same issues of the need for close communication and coordination between U.S. personnel and host nation medical staffs.

All of the Honduran practical nurses had also previously participated in an Operation Smile humanitarian project, and all commented that there were no problems with the USAF project because *"they bring all their own equipment."* Several noted however, *"they did not give us any equipment"* or, *"in the recovery room there was no equipment donated by this HCA project."* There is an expectation, at least on the part of some, that the U.S. military will donate medical supplies as part of their humanitarian presence. Better coordination with host nation care providers is needed so that bona fide medical needs do not go unmet and that false expectations are not created.

In addition to interviewing care providers, most of who were from Tegucigalpa's "Hospital Escuela," one adult urology patient was also questioned. As one might expect, she was extremely thankful, *"The Americans were very good, I thank God for the health care they provided to me. The Americans were very friendly and respectful, the truth is that I would have had to endure months of pain and discomfort if they did not come."* Additional patients of the HCA projects in Coamaygua were similarly positive. The four pediatric cases included a one year-old male with a congenital, cleft lip/palate malformation. His mother related, *"American doctors were very kind, they explained to me medical procedures they were going to do for my son. Thanks to this U.S. forces HCA, my baby was able to undergo corrective surgery. Thanks to the Americans I will be able to feed my child and ensure he receives proper nourishment."* Clearly, Honduran patients are well satisfied with the care they receive from U.S. military medical humanitarian assistance, as anyone of any nationality would likely be grateful for free, quality health care including specialty surgery.

Eight Honduran care providers for these plastic surgery cases were also interviewed, among them four physicians, including the Hospital Director, Medical Director, and a physician for the social services department. The

latter remarked, "*I would like very much to participate in more HCA projects that benefit my community or other needy people. It could be of direct benefit, such as now, or by providing health education to improve morbidity and mortality in this area. I think each assigned area for HCAs have a limited budget by U.S. Forces. However, there are many health needs in our country that I personally believe, HCAs should last at least 3 weeks. This time around I think most objectives were met, it was an excellent work experience.*"

His comments, while indicating general satisfaction with his participation in U.S.-led humanitarian projects, also point out some of the same issues that DoD personnel have discussed. Host nation health care providers fully recognize many of the same issues DoD faces, i.e. the tremendous unmet need for medical care in the developing world, missions of sufficient duration to have an impact, the need to meet specified objectives, and opportunities to provide collaborative training for local care providers.

Other comments from Hondurans also raised issues familiar to DoD medical humanitarian assistance. For example, the hospital director/administrator, who had previous experience with HCAs conducted in Coamaygua's Hospital Santa Teresa remarked, "*Given that Americans knew the need for medical and hospital support equipment, we would liked to have some equipment donated that is urgently needed in the operating room*." The anesthesiologist of this facility was concerned about "*the use of meds that were about to expire or expired*," The surgery materials donated were not explained as to its use, expired or soon to be expired drugs." Again, the need to carefully coordinate many details to ensure understanding between donor and participant cannot be overstated.

In sum, several recent medical HCAs in Tegucigalpa and Coamaygua, Honduras offered urology, plastic surgery, and pediatric orthopedic care for local residents. Patients and their parents were universally pleased with the care provided, frequently reporting the kindness and thoroughness of explanations by American doctors and other care providers. Honduran care providers, ranging from anesthesia to urology were likewise positive about these HCAs as a means of helping their countrymen obtain care that would otherwise be unavailable. They were concerned, however, about understanding the proper use of supplies given to them by the Americans, especially expired or soon to expire medications. They were also interested in the availability of additional missions, and projects of longer duration. There was a sense that better coordination would have further improved what was universally viewed as successful medical humanitarian assistance.

Bosnia and Herzegovina:

Host nation representative comments were also obtained on a completely different kind of medical humanitarian assistance activity than the patient care projects in Honduras. In Bosnia the focus was on capacity-building veterinary assistance projects. Before discussing the specifics of this recipient's comments, it is important to understand that veterinary assistance activities are often a very effective but under-utilized form of humanitarian assistance. In many developing countries, the health of animals, whether used directly or indirectly as foods, beasts of burden, or for other vital uses, may be considered in that culture to be of greater importance than human health. While this is foreign to American thought, such ideas are prevalent in many different cultures throughout the developing world.

Animal husbandry and live stock production is often the major component of local economies, and much can be inferred about the stability of complex human emergencies or other disasters from a quick survey of animal health and marketing practices. For example, in a mass human migration if the livestock is tethered and being fed and watered, one can surmise that the situation, while difficult, is not on the verge of catastrophe. After all, people still have time and resources to tend to their animals (Vroegndewey, personal communication). Conversely, if animals of reproductive age are being shipped to market, one might surmise that their owners, in selling off their breeding stock, have little apparent hope for improved conditions in the near future.

Veterinary assistance offers excellent possibilities for highly effective, developmental humanitarian assistance projects. Animal health projects can often be conducted with one veterinarian and a few assistants, i.e. without the high costs, and large footprint of patient care projects. In terms of humanitarian, training, and political value, veterinary assistance projects would seem to be among the most efficient. However, they have not been fully utilized by DoD in the past. This should be easily changed, as it seems to be a matter of project planners simply being more familiar with the importance of livestock production in developing agrarian economies.

Our Bosnian respondent is the Senior Assistant, Veterinary Faculty, University of Sarajevo with expertise in both veterinary epidemiology and economics, and he has considerable experience working to rebuild the herds and livestock economies of his country and Herzegovina. He has worked with four different U.S. Army veterinarians on five different humanitarian projects, some of which are ongoing, and an additional approximately twenty humanitarian projects with other-than-DoD organizations. His responses to the questionnaire were based on his current work assisting U.S. Army veterinarians in developing a centralized livestock healthcare system for Bosnia. He spoke with the Americans more than fifty times in the planning stages of the project and on a daily basis during its execution. He felt he was a 'partner' in the project rather than a 'recipient' and he describes his many opportunities to inject suggestions, opinions, and ideas that influenced the scope and nature of the project. He felt the project fully met his needs and expectations. Before it was undertaken he had the opportunity and responsibility to approve a written final draft on the project ("Initiation of a Program for Enhancement of Veterinary Service in Bosnia and Herzegovina"). He concludes, *"It is proven that these types of projects definitely help the economy of this country. There is a need for a U.S. military veterinarian to be involved in similar projects to help develop sound animal health programs in this country."*

In this case, a well-organized, long-term engagement plan has been formulated in which the role of DoD has been to facilitate and assist local experts in obtaining their objectives. The project is a true partnership of DoD-provided subject matter expertise and local knowledge, interest, and need. It is proving successful and highly effective. While we did not track or compare costs of specific projects, the technical assistance of DoD veterinarians even over longer periods of time, is likely to be only a fraction of the cost of a single short-term patient care humanitarian assistance project that provides relief only for those comparatively few patients who are lucky enough to be treated during short deployments.

Malawi:

With DoD humanitarian assistance from both EUCOM and U.S. Central Command (CENTCOM), the African continent has been the site of many military medical projects. A full discussion of these programs warrants a separate contribution, but highlights are discussed below. For example, like the JTF-Bravo humanitarian assistance program discussed previously, EUCOM's MEDFLAG is a long-term program.

EUCOM's MEDFLAG program has been in operation for more than a decade, providing a wide variety of medical interventions throughout the continent. The issues of program documentation and sharing of lessons learned discussed previously, are also found in the MEDFLAG program. After action reports (AARs) on MEDFLAG projects could only be obtained by our copying reports from archived files in the command headquarters (access to which is greatly appreciated). Thus any lessons learned, medical and military, and other potential values of information from MEDFLAG projects are not available to others. It is hoped that a major program involving dozens of humanitarian assistance projects and spanning more than a decade might afford lessons widely applicable to DoD.

In addition to obtaining information through DoD channels on recent medical humanitarian projects in Africa, we gathered such information directly, as was done in the cases of Honduras and Bosnia discussed previously. The information from the 'host nation' perspective includes both natives as well as non-native providers of health care. This includes another view on DoD humanitarian assistance, that of the PVO or NGO, especially expatriate medical personnel. In some countries, such as discussed for Malawi below, humanitarian expatriates constitute a large portion of the country's medical infrastructure. During DoD operations in Haiti for example, it was estimated that PVOs and NGOs provided approximately 90% of the day-to-day health care available in that impoverished country. This is not uncommon in many developing countries in Africa and elsewhere.

In many regards, humanitarian expatriates, whether members of PVOs or NGOs or operating independently, have an excellent understanding of the health problems, medical infrastructure, and limitations of the countries in which they live and serve. Humanitarian expatriates offer a unique perspective to DoD on humanitarian assistance projects in their venue. They are a potentially valuable resource, which DoD humanitarian programs have not as yet utilized to any great degree at least not systematically. The first hand experience of humanitarian expatriates could offer important information to improve the effectiveness of DoD engagement activities planned for the country or region in which they operate. Although not all PVOs or NGOs are likely to voluntarily affiliate themselves with DoD, many are only too glad to do so as in the case discussed below.

In this case our respondent is a British orthopedic surgeon in Malawi*, who we identify as Dr. L. and who has participated closely in a U.S. military medical mission. According to Dr. L., as a result of the military medical project *"...75 people got major surgery of a very high quality and were left without the disability that so commonly follows injury and accident here."* Dr. L.'s remarks also indicate an additional, and although perhaps unintended, important benefit of military medical missions; namely that other medical professionals, such as humanitarian expatriates, derive support from the assistance provided by military medical personnel. Providers of humanitarian care, facing impossible situations day-in and day-out, find support in collaborative visits from DoD colleagues. Dr. L. remarks that the U.S. presence was,

"a major morale booster for me, for my staff, and for the theatre team as a whole. It helped everyone to see that high quality high volume work could be done and could be enjoyable, not only for the camaraderie but because of the pleasure of seeing people made whole again. People still talk of 'that Easter when we worked with the U.S. Army', when operations were not delayed and when the theatre buzzed."

Besides the moral support and camaraderie, DoD support of locally operating humanitarian expatriates includes supplies. Dr. L. continues,

"The equipment you donated is still being used. Working here can be depressing. Textbooks of development suggest that we professionals should go to countries where our training is in short supply and teach others our limited skills. That is so easy to say but so hard to do. It is demoralizing when things you have taught are 'forgotten' the very next day, when nurses sit and chat when casualties bleed to death in the corridor, when no one notices the dirt in which we spend every day.... Sometimes you wonder why you came, to come and teach people who don't want to learn, and quite honestly don't really care. For me, your visit was a boost, an endorphin lift that reminded me there were others in the developed world that wanted to see a change, which wanted to do something for the very poor. I, no we (as I speak for the other doctors here) all enjoyed your visit; we need more morale boosters like that to keep us going."

It is apparent that there are great benefits in this kind of collaboration in medical humanitarian assistance. DoD should attempt to implement and utilize this approach to the greatest extent practicable. Currently DoD personnel are often providing short-term care, sometimes in competition with PVOs and NGOs already operating in the area, or sometimes with insufficient time for adequate post-surgical care. DoD could greatly increase the effectiveness of its humanitarian medical programs by facilitating and supporting, to the greatest extent feasible, the provision of care by others. Not only does this reduce workload, cost, liability, and commitment of war fighting resources, it avoids many of the pre-project coordination and assessment difficulties so often mentioned by participants and beneficiaries in describing their experiences with DoD humanitarian assistance.

* as an indication of the medical infrastructure common in lesser-developed countries, at one point our respondent, Dr. L., was the only orthopedic surgeon in the entire country of Malawi, (population some 12 million.)

References

Avilez R. 2002. Personal communication. JTF-Bravo Medical Element, Honduras.

Blanchette G. 1997-2001. Personal communications. Headquarters, US SOUTHCOM, Miami FL, and Headquarters, Pan American Health Organization, Washington, DC.

Drifmeyer JE, Llewellyn CH. 2002f. CDHAM Report #02-06, Information Management for More Effective Military Humanitarian Assistance Projects and Programs. Center for Disaster & Humanitarian Assistance Medicine (CDHAM), Uniformed Services University of the Health Sciences (USUHS), Bethesda, MD.

Drifmeyer JE, Llewellyn CH. 2002a. CDHAM Report #02-01, Overview of Overseas Humanitarian Assistance, Humanitarian and Civic Assistance, and Excess Property Programs. Center for Disaster & Humanitarian Assistance Medicine (CDHAM), Uniformed Services University of the Health Sciences (USUHS), Bethesda, MD.

Drifmeyer JE, Llewellyn CH. 2002d. CDHAM Report #02-04, U.S. Participants Perspectives on Military Medical Humanitarian Assistance. Center for Disaster and Humanitarian Assistance Medicine (CDHAM), Uniformed Services University of the Health Sciences (USUHS), Bethesda, MD.

Kemmer TM. 2002. Personal communication. Center for Disaster and Humanitarian Assistance Medicine, Department of Military & Emergency Medicine, USUHS. Bethesda, MD.

Morton A. 21 Apr 2000. Memorandum, Subject: After Action Report, Department of the Navy, Naval Medical Center, Department of Ophthalmology, San Diego, CA 92134-5000.

Richards DT, Hagmann JH, Marshall B. 2000. The Yemen mine injury survivor assistance project. Proceedings of the 10th Asia Pacific Military Medical Conference. p 93.

Singer D. 23 Dec 1999. Memo, Subject: Executive Summary for 1 yr. follow-up HA Zimbabwe, Headquarters, 3rd Special Forces Group, Ft. Bragg, NC.

Sotomayor R. Personal communication. Special Project Officer, Center for Disaster and Humanitarian Assistance Medicine, Department of Military & Emergency Medicine, USUHS. Bethesda, MD.

Vroegindewey G. Personal communication. Assistant Chief, U.S. Army Veterinary Corps, San Antonio, TX.

Table

Table 1. Selected comments from Honduran participants in recent USAF HCA missions in Tegucigalpa and Coamaygua:

From a general surgeon and urologist:

- *"I thought the medical care was very good, not only during clinical visits but also during surgery. Medical treatment was adequate. The attitude of the American military personnel was consonant with their position and training. They were very professional with poor patients and with Honduran medical personnel. Suggestion: I'm assistant to the adult urology services; I also help out with minors. I think this population requires services from HCA's as well. Next time bring an pediatric urologist."*

A practical nurse wrote:

- *"the HCA project was very good, the only thing is that more time is needed because were not able to do all surgeries that were scheduled due to problems in the operating room. It will also be good for HCAs to take place more often. At least twice a year, because there are many people who require urology services as well as other surgeries."*

A general medicine physician with specialization in urology wrote:

- *"Excellent, we ought to have more HCAs every year, as well as invitation to medical training for Honduran doctors to military hospitals in the U.S.A. for short periods (quarterly or monthly) for special and general practitioners."*

A high school teacher captured the thoughts of many:

- *"This HCA project is of great help to the town of Comayagua and nearby communities. Because there are many people who are poor and don't have money for their health maintenance /restoration. These people cannot travel to other countries looking for medical care and the American military help a lot whether it is general medical care or surgeries. The only other thing left to do is to bring back ophthalmology HCAs."*


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