



Measuring the Effectiveness of Department of Defense Humanitarian Assistance



Measures of Effectiveness
CDHAM Publication 02-03
#MDA 905-99-M-0726



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Sponsor: Office of the Assistant Secretary of Defense
Special Operations and Low Intensity Conflict

MDA 905-99-M-0726

This program is in collaboration with the Henry M. Jackson Foundation
for the Advancement of Military 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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Executive Summary

The global community of humanitarian assistance providers, both military and civilian, is addressing the urgent need for more effective activities. Although military and civilian providers of humanitarian relief often face similar challenges in delivering effective relief, there are distinct differences in their approach, constraints, resources, and areas of expertise. Some differences may have delayed the development of close working relationships in some instances. Despite differences, civilian and military providers share the common goals of relieving suffering and improving health and other conditions for mankind. Civilian and military providers also currently have parallel efforts aimed at developing and ensuring more effective humanitarian assistance, particularly through information sharing. This report, from the military perspective of Department of Defense (DoD) provided humanitarian assistance, and a sister report on “other-than-DoD” providers of humanitarian assistance, reviews the current convergent evolution of measuring the effectiveness of humanitarian assistance.

While all elements of DoD are involved in providing international humanitarian assistance, perhaps no forces find themselves more fully engaged than medical personnel. This phenomenon is not unique to DoD, as many allies are similarly engaged in providing medical disaster relief worldwide (Leitch 1999, Santana 2000, Wong 2000). Scenarios in which military personnel provide medical humanitarian assistance range from deliberately planned theatre engagement activities, now termed security cooperation, to contingency operations such as deployments in complex human emergencies, and military operations other than war. Although the authority and funding for different forms of humanitarian assistance are separate, such distinctions may become blurred in the fog of ongoing operations. A common planning and evaluation process is recommended for all forms of DoD humanitarian assistance, whether medical or otherwise, and whether under the OHDACA - Overseas Humanitarian, Disaster, and Civic Aid programs such as humanitarian assistance (HA), humanitarian and civic assistance (HCA), excess property donations (EP), or other programs. In fact, a common process for planning and measuring humanitarian assistance in itself will likely increase effectiveness and might readily be shared among both military and civilian providers, with resulting more effective global humanitarian relief. This process should include the following:

- 1 Development of specific, written project purposes, evaluation criteria, and specific quantifiable measures of effectiveness early in the planning and approval stage of each project.
- 2 Coordination of project purpose(s), criteria, and measures of effectiveness not only through the DoD network, from country team to program manager, tasked unit, and project leaders; but also with local host nation officials and other providers of humanitarian assistance.
- 3 Incorporation of measures of effectiveness into a mandatory after action reporting system, ideally in an electronic format.
- 4 Development of an information management system that would facilitate regular follow-up with host nation beneficiaries and other humanitarian assistance providers after project completion to determine outcomes.

CDHAM has developed and tested criteria for planning and evaluating humanitarian assistance projects using a suite of diverse military medical humanitarian assistance projects with which the senior author of this report has had first hand experience. Coupling these criteria with a public health-based conceptual model derived from military humanitarian assistance experience provides a pragmatic framework for DoD personnel to design, plan, prioritize, and evaluate health-related humanitarian assistance activities. These criteria, combined with the logical framework approach, which has been successfully used by many organizations outside DoD, could be readily adopted or adapted to increase effectiveness of humanitarian assistance, regardless of whether the provider is military or civilian.

Summary of Recommendations

- 1 Promulgate joint doctrine, implementing regulations, training, tactics, techniques and procedure manuals for humanitarian assistance, including planning criteria and methodologies for measuring effectiveness.
- 2 Continue implementing comprehensive training programs, both general and medical specialty-specific, in humanitarian assistance.
- 3 Ensure DoD funded projects are thoroughly coordinated with other health care providers, including host nation representatives and non-military humanitarian assistance workers, early in the planning stages, throughout project execution, and after completion.
- 4 Implement mandatory after action reporting for all humanitarian engagement activities using a standardized but flexible format. This system would include documentation of post-project outcome measures and quantitative analyses of effectiveness as measured against the stated purpose, intended end-state, and internationally recognized performance standards for humanitarian assistance.
- 5 Do not allow indicators of the process of providing relief to be confused with measures of effectiveness, e.g. number of immunizations given vs. disease prevention.
- 6 Employ measures of effectiveness as a condition of project approval and funding, and directly link project results, including specific humanitarian, training, and/or political values for the U.S. and the host nation, to project approval and completion.
- 7 Continue to explore the utility of the Civil-Military Operations Center (CMOC) process for better coordination on humanitarian assistance among all interested parties, military, civilian, and host nation.

Background

The focus of this study is the humanitarian assistance provided by DoD during theatre engagement and stability operations under what is known as the OHDACA - Overseas Humanitarian, Disaster, and Civic Aid program. This includes several different kinds of humanitarian assistance, each of which is defined in specific sections of U.S. Code, Title 10. These are described in the companion report in this series titled: *Overview of Overseas Humanitarian Assistance, (HA), Humanitarian and Civic Assistance (HCA), and Excess Property (EP) Programs*. Although a wide range of different forms of humanitarian assistance is provided by DoD, one of the more commonly employed forms involves some form of health care. The term 'medical humanitarian assistance' is broadly defined to include all aspects of patient care provided by any medical specialty, including dentistry. The donation of excess medical supplies and equipment, as well as public health interventions such as preventive and veterinary medicine, are also included.

Engaging globally for humanitarian, training, and political values, DoD annually conducts over two hundred major humanitarian assistance projects worldwide under the HA, HCA, and EP programs. While many projects involve patient care others include elements relating to health, from infrastructure improvement (i.e. construction and renovation of clinics and hospitals) to donation of excess medical supplies and equipment.

Medical humanitarian assistance is the cornerstone of the Combatant Commanders theatre engagement programs worldwide, constituting a large percentage of the more than 200 HA, HCA, and EP projects conducted annually by DoD. Expanded medical humanitarian assistance is also an essential element of joint contingency operations in military operations other than war and complex humanitarian emergencies worldwide. Today, medical humanitarian assistance is a commonly used means to 'show the flag'. In the past, DoD may have sent a show of force but today military medical personnel are likely to be sent to provide humanitarian relief.

A brief comment on definitions is in order as the many acronyms and terms, some of which overlap, can be confusing. For example, the term 'humanitarian assistance' generally refers to a broad range of activities, medical and otherwise, undertaken for the relief of human suffering and the betterment of mankind (see *Overview*). This general use is not to be confused with a narrow use referring to a specific section of the enabling authority, i.e. 10 U.S.C. section 2551 'Humanitarian Assistance', (which was re-designated as section 2561, Oct 30, 2000). To avoid confusion, throughout this report the commonly used abbreviation "HA" refers to this specific statutory program, while the words 'humanitarian assistance' denotes general acts of helping mankind. A more complete discussion of terms and the other two statutory programs discussed herein; 'humanitarian and civic action' 'HCA' (section 401), and 'excess non-lethal supplies: humanitarian relief', also known as 'excess property' or "EP" (section 2557) may be found in the companion Overview report noted above.

Additional acronyms arise when some organizations apply new terms to specific humanitarian assistance activities within their organizations. For example, the 'MEDFLAG' program, operated for more than a decade by Headquarters, U.S. European Command (EUCOM) refers to military medical humanitarian assistance activities conducted as HA, HCA, and EP projects throughout Africa, while 'MEDCEUR' refers to EUCOM's medical humanitarian assistance activities in central Europe.

The historical precedents of today's military humanitarian missions are summarized elsewhere (see Overview report) but militaries, especially their medical elements, have always played vital roles in humanitarian assistance and overseas engagement. In most of the developing world, where access to health care remains limited, military medical humanitarian assistance might well be described by the phrase, "If you build it, they will come". In other words, as soon as a military unit arrives anywhere in the world to provide humanitarian relief, it is invariably and quickly swamped with those seeking care.

Study Methods

Information was gathered from throughout DoD, especially in the offices of all the geographic Combatant Commands and all of the Services' Medical Departments. Interviews, briefings and meetings were held worldwide including, but not limited to, the Office of the Surgeon General, U. S. Air Force, Army, and Navy, Chief Medical Officer of the U.S. Marine Corps, Headquarters, U.S. Pacific Command (PACOM), European Command (EUCOM), Southern Command (SOUTHCOM), Central Command (CENTCOM), and Joint Forces Command (JFCOM), Offices of the Command Surgeon, Humanitarian assistance program managers, and other key staffs. Myriad other agencies and organizations outside of DoD were also contacted, ranging from the Pan American Health Organization to the U.S. Agency for International Development (US AID). In addition to DoD humanitarian assistance program managers and numerous other DoD personnel, a number of foreign officials were contacted. These included the Surgeon General of the Thai Army, the Deputy Surgeon General of the Mexican Army, the Senior Medical Officer of the Bahraini Defense Forces, as well as senior medical officers from Australia, England, Singapore, Canada, and others with significant experience in providing military humanitarian assistance¹. Information gathering was not limited to senior government officials however, as data was also collected from health care providers of all specialties; physicians, nurses, administrators, veterinarians as well as patients and humanitarian assistance providers in Bosnia, Botswana, Dominican Republic, Honduras, Malawi, Thailand, Trinidad, Yemen, and Zimbabwe.

In addition to interviewing currently serving personnel directly involved in planning or providing humanitarian assistance, a wide variety of other sources of information were also utilized including published and unpublished literature, both medical and military journals, the Army lessons learned (CALL) and joint universal lessons learned (JULLS) systems². Over one hundred recent after action reports on a wide variety of medical humanitarian assistance projects were reviewed. Telephone, Internet, and personal interviews of 165 participants and 50 managers of military humanitarian assistance projects were obtained. Interviews included past and present humanitarian assistance program managers at all of the geographic Combatant Commands, and members of their supporting staffs such as logistics, legal, surgeon, and operations sections. Of the many contacted, these 215 completed one of two standardized questionnaires, -of either 63 or 130 questions for participants and managers, respectively.

Questionnaires were specifically designed in consultation with the Medical Staff Officer, Assistant Secretary of Defense, Special Operations / Low Intensity Conflict (SO/LIC), to include multiple choice, scaled response, and free text replies designed to gain insight into the experiences of U.S. servicemen and women in providing and managing humanitarian assistance. Collectively, these responses represent the opinions, experiences, and observations of military personnel of all Services, ranks, and a wide variety of health care specialties who had prior experiences in nearly 1,000 military medical humanitarian assistance projects conducted recently in over 100 countries worldwide (see *US Participants Perspectives on Military Medical Humanitarian Assistance*).

Additionally, other organizations involved in international relief including representatives of PVOs, NGOs, IOs, and faculty and researchers at other Centers and Universities were consulted. Notably, these included several meetings with the Directors and staffs of the Center of Excellence in Disaster Management & Humanitarian Assistance, (COE) and the Center for Disaster Management and Humanitarian Assistance (CDMHA).

¹This study involved participation and presentations at the following conferences: U.S. Army Force Health Protection, U.S. Navy Preventive Medicine, U.S. Air Force International Health Specialist, 10th Asia Pacific Military Medicine, (Singapore), Gulf States Council First Annual Military Medicine (Bahrain), Headquarters, U.S. Central Command Surgeon, and Special Operations Medical Association.

³ CALL and JULLS are Service and Joint (multi-service) information repositories on lessons-learned from prior military operations.

Finally, this report is based on first-hand experience in planning and conducting a wide variety of medical humanitarian assistance projects supporting unified combatant command humanitarian assistance programs. Ideas and insight also arose from developing and teaching a new graduate course (PMB #0640, 'Current Topics in Military Medical Humanitarian Assistance') at the Uniformed Services University of Health Sciences (USUHS).

In these many venues there were opportunities for wide ranging discussions on current issues in military medical humanitarian assistance from the differing perspectives of leaders, providers, participants, and beneficiaries. While the ideas contained in this report draw freely from these discussions, errors remain the author's responsibility.

Study Limitations

One limitation of the aforementioned information sources is a low response rate of voluntary surveys, which is expected. For example, despite face-to-face meetings, posting the survey on the worldwide web (www.tmed.usuhs.mil/mmhap/), and official SOLIC message traffic soliciting support, only two currently serving humanitarian assistance program managers completed the written survey questionnaire. Similarly, only two medical staff officers supporting humanitarian assistance program managers completed the written questionnaire. The principal reason cited for failing to complete the comprehensive questionnaire was "not enough time." As is discussed in this report, the majority of military personnel involved in medical humanitarian assistance do so on a limited, part-time basis. Humanitarian assistance is just one of many other duties and responsibilities for many service members. These manpower and staffing concerns probably negatively impact the effectiveness of DoD humanitarian assistance projects.

Cross-cultural considerations and difficulties in obtaining DoD country clearances also limited our survey of foreign citizens who were recipients of U.S military medical humanitarian assistance. Understandably, some foreign citizens were not inclined to complete a DoD questionnaire, even if voluntary and anonymous. Nevertheless, host nation information on military medical humanitarian assistance projects was collected from citizens of Bosnia, Botswana, the Dominican Republic, Malawi, Mexico, Thailand, Trinidad, Yemen, and Zimbabwe.

Despite limitations, this study probably represents the largest available database on DoD overseas medical humanitarian assistance activities. Interpretation of the U.S. survey information should be made with the understanding that the sample is not random. Only individuals with sufficient interest to complete lengthy surveys were included. Thus, this is a targeted survey, principally of military personnel, officer and enlisted, (active-duty, Guard and Reserves). Many others who had participated in military humanitarian assistance projects and programs, were interviewed, but did not complete the survey. This study includes reports from the formal survey responses as well as information and opinions obtained via interviews of participants, managers, and others involved in military medical humanitarian assistance.

Health Care-Stability Operation of Choice

Medical projects are among the most frequently used form of overseas humanitarian assistance. For FY01, some 237 HA, HCA, and EP projects were approved for execution in 108 different countries (ASD, SOLIC), message, 2000). The most common project was donation of excess DoD property. Other medical projects included short-term patient care (with surgeries ranging from ophthalmology to urology) and long-term projects such as establishing or improving public health and medical laboratory networks for epidemic reporting, and rebuilding clinics and hospitals destroyed by conflict.

In addition to the many projects that involve direct patient care, many more are also health-related. For example, medical readiness projects provide support during and after disasters. Many of these are the top priority projects for several commands including: Pacific Command, (PACOM), European Command (EUCOM), and Southern Command (SOUTHCOM). Similarly, projects listed as engineering or 'infrastructure improvement' can also have a substantial medical element, as through the building or repair of clinics and hospitals. Although clearly of great importance medically, these have sometimes not been tracked by command's medical staff or medical representative for civil affairs. Perhaps this was due to their categorization as 'engineering' despite their profound importance to host nation medical infrastructure.

The predominance of medical projects, especially donation of excess medical property, is not unique to any one fiscal year. For FY'00 the pattern was similar to FY01, i.e. 254 HA, HCA, and EP projects were approved of which 72 were medical, and additional 57 involved donation of medical supplies and equipment (see *Overview* report). Many of these projects, both medical and disaster response, were undertaken on a regional basis and involve several countries. Among the geographic Combatant Commands, SOUTHCOM in particular has embraced a regional approach with projects that are "Caribbean-wide" or for the "Andean Ridge." For regional medical projects, DoD thus has the opportunity to demonstrate substantial influence in international health care.

While medicine is a large component in all of the geographic Combatant Command security cooperation programs, each may make unique applications of HA, HCA, and EP programs, sometimes with quite different approaches. The diverse ways in which geographic humanitarian programs are implemented is due not only to major differences in economies, health issues, and host nation medical needs and capabilities, but to political priorities, the occurrence of complex human emergencies, and a number of other factors. Combatant Command humanitarian assistance programs also differ by reflecting the interests, experiences, and priorities of the respective commands and the individual staff officers involved. For example, some commands operate programs that are largely 'medical' without the benefit of medical staff support, while others simply task medical projects and programs to component commands.

As an example of the manner in which humanitarian programs have been variously implemented by different commands, consider the seemingly straightforward question: *is building or renovating medical treatment facilities in developing countries an effective means of DoD humanitarian assistance?* From two geographic Combatant Commands come completely opposite perspectives on this seemingly simple question. In the past two years, the EUCOM humanitarian assistance program proposed the construction of thirty-five new, and the renovation of an additional forty-one hospitals and clinics in the Balkans. This will clearly have a major impact on host nation medical infrastructure. SOUTHCOM, however, neither constructed nor renovated a single MTF under this program despite the recent and complete demolition of many such facilities in the aftermath of Hurricane Mitch. (During this same period CENTCOM proposed construction of 6 new MTFs, while PACOM built 5 and renovated 1.) What measures of effectiveness were utilized by the respective humanitarian assistance program managers in decisions to undertake massive construction / renovation programs in one case but to avoid such actions in another even in the face of a substantial bona fide need? While such major differences in the approaches to humanitarian assistance as implemented by different commands could complicate the application of performance metrics, it also points out the need for measures of effectiveness. If clinic or hospital construction and renovation are effective DoD humanitarian assistance, then why did SOUTHCOM not undertake to rebuild the many health treatment facilities destroyed by Hurricane Mitch, while EUCOM imple-

mented an extensive program in the Balkans? Besides determining the effectiveness of individual humanitarian projects, performance metrics can also help address fundamental policy questions such as whether construction and renovation overseas clinics and hospitals is effective theatre security cooperation. Performance metrics needed at the individual project level also provide the opportunity to evaluate programs and provide an evidentiary basis for fundamental policy decisions.

Regardless of the varied nature of geographic theatre engagement programs, medical humanitarian assistance projects, whether patient care, hospital construction, or excess property donations, DoD humanitarian projects conducted under OHDACA programs are justified by their humanitarian benefit, training value, or for political reasons ('showing the flag'). Actually, it is rare that any project will have just one of these values as its sole justification. Often, varying combinations of all three values are cited in justification statements and after action reports.

While humanitarian projects typically have a unique combination of all three of these purposes: humanitarian, training, and political, the effectiveness of each aspect should be measured separately. This begins with a clear purpose(s), planning criteria and performance metrics stated at the outset in the mission statement and project planning documents, which begins with the respective geographic Combatant Commands.

Assessment of Regional Combatant Command Humanitarian Assistance Programs

The best sources for understanding how humanitarian projects and programs operate are the experiences and opinions of the personnel directly involved. To this end, interviews were conducted with current and former personnel at all Regional Combatant Command headquarters. An overall observation from these interviews is the very different manner in which programs are interpreted and implemented by various commands. In some cases U.S. civil service personnel fill authorized positions as functional experts, each managing EP, HA, and HCA programs under the oversight of the humanitarian assistance program manager, who is often a mid career line officer that may or may not have prior humanitarian experience or training. In another command, these three diverse programs are the responsibility of a single staff member. Thus, staffing may vary from full-time, long-term civilian personnel responsible for one specific program to military personnel, active and reserve who have responsibility not only for multiple different programs, but other duties as well.

In addition to manpower and staffing, major differences exist in the tools and support available to manage humanitarian assistance initiatives. One command uses sophisticated contractor supported software³. Other organizations use a less formal process, responding to requests from country teams, who may not be well versed in the nuances of OHDACA programs and have myriad other duties and responsibilities besides humanitarian assistance. Some humanitarian assistance program managers actively engage other staff resources such as medical elements, while others do not, -often planning health-related humanitarian projects without the benefit of medical input or review.

During the interviews there was a widespread, if not universal perception that medical support to theatre humanitarian assistance was not commensurate with the workload involved. Medical projects are often the leading form of engagement activity, directly accounting for from one-third to half of all projects and indirectly involved in many others that are otherwise categorized (such as 'infrastructure improvements' involving hospital and clinic construction as discussed previously). This perception of less than adequate staffing for medical humanitarian assistance programs was shared by both line officers seeking medical staff support for their projects and programs, and by the medical community being tasked with trying to provide such support.

A typically lengthy process for project approval and funding was also widely if not universally reported and considered by some as an obstacle to the effectiveness of humanitarian assistance programs. This finding related to conditions existing in the late '99-early 2000 time frame, and is perhaps now resolved. Subsequent to these observations increased automation of the project submission and approval process have served to streamline annual OHDACA project submission and approval cycles.

³This software is known as the Theater Engagement Management Planning Information System (TEPMIS), from which, unfortunately, indicators of health conditions in the host nation have been inexplicably excluded (see report Information Management for More Effective Humanitarian Assistance, Appendix A)

Defining the Context of Humanitarian Assistance

“humanitarians first and combatants second.... saving a life while wearing one of America's armed services uniforms is more courageous and honorable than taking one”

S.D. Welch, U.S. Marine Corps

“...apply the following test...Recall the face of the poorest and the weakest man whom you may have seen, and ask yourself, if the step you contemplate is going to be of any use to him...Will he gain anything by it? Will it restore him to a control over his own life and destiny?”

Mahatma Gandhi

These diverse views, military and civilian, illustrate current and classic perspectives on humanitarian assistance. The perspective of a provider of humanitarian assistance varies with the individual's experience, including education and training, as well as the context of the particular situation. This is key to measuring or even determining what is considered effective. The key to improving or even measuring the effectiveness of complex, multi-faceted humanitarian assistance projects is not a standard checklist or “go-by” instructions. It would be impossible to develop a single document that would apply across the extremely broad spectrum of humanitarian scenarios. Also, a checklist, no matter how thorough, cannot replace critical decision making skills often in extremely dynamic or even dangerous situations. Instead, improving the effectiveness of DoD humanitarian assistance projects and programs will occur through the education and training which changes the mindset and broadens the perspective of leaders and participants in humanitarian projects. Promulgating a new checklist or procedures will not effect such fundamental changes, although such measures could be one small part of a larger evolutionary process of improving effectiveness.

A standard checklist for measures of effectiveness, however, should assist in improving outcomes of DoD humanitarian projects. Checklists can provide guidance for conducting HA, HCA, and EP projects, but each project and its context within the host nation is unique. Even with the same project purpose at the same location, situations change over time. A check list or “cookie-cutter” approach in which humanitarian projects are sometimes conducted in the same manner, country after country, year after year is likely ineffective at some point.

With the assistance of checklists as reminders, DoD humanitarian assistance projects will become more effective when missions, planning criteria, desired end-state, and providers and beneficiaries mutually develop performance metrics. This collaboration must be done early in the planning process, as part of the initial defining and shaping of a project. These details should be clearly stated and to the extent practicable, mutually agreed upon, then applied consistently through project planning, execution, and completion. Assumptions, limitations, and decision points need to be understood by the many different interests involved, as differing perspectives provide alternate views on what constitutes effectiveness. As shown in Table 1, even the perspective of U.S. participants may vary depending on one's perspective. Clearly, the perspectives on what constitutes effective humanitarian assistance vary among U.S. and host nation participants. Medical humanitarian assistance must be designed planned, and its effectiveness evaluated from the diverse perspectives of the sponsoring command, executing unit, and the beneficiaries within the specific cultural and health care setting of the host country. Using the three dimensional model of humanitarian, training, and political values of military humanitarian assistance (see *Overview of Overseas Humanitarian Assistance, Humanitarian and Civic Assistance, and Excess Property Programs*), planners of DoD humanitarian assistance should determine which of the many possible humanitarian activities best fit a particular situation. In many cases, projects that are developmental in nature are often considered more effective, but this may vary. For example, is 'effectiveness' measured in terms of positive, long-term health impacts in the host country, or political and training values to the U.S?

Even short-term projects can have long-term effects. Consider, for instance, the surgical repair of a congenital cleft palate, a common procedure in medical humanitarian assistance (also see the section on Honduras in the report in this series titled *Host Nation Participants Perspectives on Military Medical Humanitarian Assistance*). From the perspective of the health care provider, there is presumably training benefit in performing the surgery. The humanitarian value may be considered short term— surgery is performed and the patient's condition is improved—but this can have a lasting benefit throughout the individual's life. From the perspective of political value, the benefit to the U.S. may also be both long and short term. There may be immediate satisfaction with the surgical outcome, and the patient's family, relatives, friends, and entire village may well recall for generations to come, the year the American's provided needed surgical care.

Since there are varying perspectives on the reasons for humanitarian engagement activities, and differing values, there must also be different measures of effectiveness that should be applied at different levels. For example, at the level of the Combatant Command humanitarian assistance program manager, a measure of effectiveness might be the percentage of all approved projects that were executed on schedule and within budget. A member of the country team might consider their efforts effective if their country's project is ranked highly on the Combatant Commander's approved list. For the host nation, a measure of effectiveness might be maximizing the number of their citizens who receive free health care, (of any nature) or the maximum amount of donated medical supplies as a result of the project. For the parents of the cleft palate patient, effectiveness is in their child's ability to now lead a normal life. Measures of effectiveness need to be defined from the context and perspective of the person asking the questions or conducting the evaluation. Thus, there should be multiple approaches on multiple levels to defining the effectiveness of a humanitarian project.

Table 1. Some examples of differing viewpoints on the effectiveness of humanitarian assistance: Unified Combatant Commander, U.S. Ambassador, U.S. military health care provider, U.S. military unit commander, host nation beneficiary, and PVO / NGO health care provider. Sample representative criteria and measures of the effectiveness of military humanitarian engagement activities are shown as examples. 'Effectiveness' varies widely with perspective, and the purposes of a given engagement activity. These are examples only and not intended as a complete list of all applicable criteria, measures, or perspectives.

Perspective	Criteria	Measure of Effectiveness
Unified Combatant Commander	Consistent with theatre engagement plan?	Increased access by U.S. corporations / interests as evidenced by ____ % increase in business travel over ____ time period
	Provide component readiness training?	____ training man-day OCONUS accomplishing mission essential tasks
U.S. Ambassador	Project consistent with plan?	____ number of, or productivity of, diplomatic staff meetings on issues of concern to U.S.
	Project improves sector contacts? and/or opens door in other sectors?	____ number of cultural, scientific, educational or other exchange visits in ____ period due to project.
U.S. military healthcare provider	Medical needs of the individual patients?	____ number of patients exhibited the following improvements: ____ as direct result of care for the following conditions / diseases
	Health needs of the local populations?	Incidence or prevalence of the following diseases or health conditions (____) were reduced by ____ % or ____ number of cases out of a population of ____ as a direct result of care provided over ____ period.
Host Nation Official	Benefit to local, regional, or national economy?	____ number of local workers that were returned to duty as a result of care
	Provides direct benefits to receiving citizens or infrastructure?	____ % increase in popularity in local political poll as a result of foreign aid
	Political cost of foreign intervention?	____ % decrease in local popularity in polls as a result of foreign intervention
U.S. military unit commander	Successful mission accomplishment	____ specified and/or implied tasks accomplished on time ____ ,under budget ____
	Force Protection	No injuries, accidents or lost duty days during project
PVO / NGO healthcare provider	Impact of military's efforts on ongoing health project	____ additional supplies, equipment, training, or other resources obtained from military
		Competition for ____ number of patients with military providers

Different Missions & Different Requirements

Whether during contingency joint operational deployments or deliberately planned theatre security cooperation projects, humanitarian assistance requires skills that are often far different from those required of DoD personnel in other missions. In military medicine, for example, emergency trauma skills constitute much of DoD's medical response capabilities and training programs. Patients are typically young, physically fit, predominantly male, and have benefited from preventive health measures designed to maximize their wellness and potential human performance. In contrast, during humanitarian assistance missions the requirements for emergency trauma capabilities may be less and the patients (of all ages) require medical and dental care, as well as public health measures for entire populations, especially the special case of refugees, displaced persons, and asylum seekers. Often health care beneficiaries in humanitarian assistance situations include subsets of the population that are at particular health risk, e.g. the very young, the elderly, and unaccompanied females. Patients may be severely malnourished or suffer from a wide variety of chronic debilitating diseases and conditions, and have likely had inadequate medical or dental care much of their lives. In many cases, patients are unlikely to gain access to comprehensive health care after the mission is complete. Thus, military medical humanitarian assistance must try to address not only the needs of patients, but also shortfalls in medical and public health infrastructures of the host region or nation.

Just as mission requirements and perspectives differ, so do criteria for success and performance metrics in humanitarian assistance. Given the nearly unlimited demand for medical care worldwide, and the constrained resources of humanitarian care providers, including military medicine, DoD's priority in providing humanitarian assistance should arguably shift from costly, short-term, direct patient care, towards projects that collaboratively build host nation health-care capacity and capability long-term. Rather than seeing as many patients as possible in a short amount of time and then departing, a more effective strategy would focus on training and equipping local providers to furnish the needed care.

The differing requirements for medical humanitarian assistance have probably hindered the implementation of performance metrics. Again, it is a matter of perspective: the primary mission of the military health system has been and remains the saving of life and limb on the battlefield. The emphasis is rightfully on evacuating and treating wounded or sick patients, then returning them either to duty or definitive care as quickly as possible. Medical and operational planners take great care to ensure that every aspect of the required medical support system is in place prior to undertaking a military operation. Outcomes are patient focused, as evidenced by commonly used measures of the process such as bed occupancy or average length of patient stay in the hospital.

Effectiveness is traditionally measured on the speed and extent of individual patient recoveries. Except in preventive medicine and research units, military medicine typically does not specifically deal with the information gathering over long periods of time or across populations to determine outcomes such as is required in measuring the effectiveness of humanitarian assistance. Thus the traditional performance metrics of clinical practice in the U.S. would have to be modified to be adapted to humanitarian assistance projects. Medical humanitarian assistance requires different performance metrics, - those simple enough to be readily used, even in difficult field situations, which provide information that answers specific questions of interest.

While the complexities of international health care cannot be reduced to simple checklists, there is utility in reducing what can seem like voluminous information to an evaluation process, key questions (Table 2), and corresponding measures of effectiveness. As a guide, simple lists of things to "do" and "not to do" in planning and conducting military humanitarian assistance were developed (Table 3). This approach is offered as a starting point, recalling that many DoD personnel find themselves tasked with executing humanitarian missions that address long-standing, complex societal issues in a culture with which they often have no familiarity, in situations ranging from natural disasters to economic collapse, to ethnic cleansing. In executing these missions, many individuals do so without the benefit of any prior training or experience specific in the field of humanitarian assistance. Until specific training can be made available, whether class room or on-line, simple check lists of questions and "do and don't" lists can provide preliminary guidelines, however these should not substitute for comprehensive planning and evaluation.

Table 2. Twenty questions for humanitarian assistance pre project planning and post project evaluations. The following example questions, based on combined experiences representing decades of international humanitarian experience, may not appear within a formal evaluation report but are important nevertheless. Those undertaking a humanitarian assistance project, for example, would be well advised to attempt to the answers these questions to the fullest extent possible. The same questions should be answered to the best of one's ability before the project is undertaken (i.e. in the planning stages) and again upon project completion, in the after action report.

- 1 What are/were the perceived and real needs of the population and how appropriate was the response in terms of those needs? Were most urgent needs met first?
- 2 Were interventions appropriate for the target populations? (foods, means of providing health care, etc)
- 3 Was there consideration of competition from local providers, markets and merchants when supplies and services of any kind (food, medicine, fuel, etc) were brought in from another region or country?
- 4 Were any particular groups excluded from the services provided (health care, lodging, resettlement services etc)?
- 5 To what extent did the project deal specifically with the most vulnerable populations such as the elderly, the disabled, pregnant and lactating mothers, children, orphans, ethnic or religious minorities, single women?
- 6 How accessible were the project activities to the target populations? What impediments (time, distance, or administrative procedures) were imposed that restricted access to services?
- 7 Were all project activities carried out in a sustainable manner wherever possible?
- 8 How were local resources and capacities strengthened in order to be able to respond more effectively in the future?
- 9 Were the interventions appropriate to the internal policies, cultural and medical practices?
- 10 How well project activities co-coordinated with other agencies? Were the activities appropriate to their capacity?
- 11 What methods were used to collaborate and co-ordinate with other players, particularly those who were not represented at any of the main co-coordinating bodies?
- 12 Did the purchasing policies ensure the best and lowest prices? Were distribution policies and practices equitable? What were the constraints to these mechanisms?
- 13 How close were the original planned parameters (costs, personnel and material, schedule, scope) to the actual costs?
- 14 Were there adequate personnel and supplies? If not, how did this deficiency impact on the achievement of the project? Or, were resources deployed in excess capacity?
- 15 Were the project purposes achieved? What extraneous activities contributed additionally? What activities proved extraneous?
- 16 What were the unforeseen circumstances or effects of the project? How quickly were they identified, and how were they resolved?
- 17 How likely is it that the project contributed to the overall achievement of an improvement of the health of a population?
- 18 Have there been any perceived or real negative effects on the population as a result of the intervention?
- 19 What has been the actual cost (total and per beneficiary) compared to the planned costs?
- 20 Were the logical framework and Sphere Minimum Standards used in this project? How were project results documented and shared with others?

Table 3. List of “must do’s” and “don’t do” for more effective humanitarian assistance:

Do	Don’t
Follow established Criteria for Effective Humanitarian Engagement Activities, e.g. the proposed humanitarian engagement activity must be:	1 allow, “mission creep” Maintain the stated, approved mission plan, as situations change (as they will), coordinate possible alternative courses of action, and obtain formal approval of any changes prior to assuming any new missions or functions.
1 First, <i>foremost, and always, fully consistent with the mission, Commander’s intent, Ambassador’s Country plan, and the Combatant Commander’s theatre engagement plan.</i> ⁵	2 try to do anything half way , untested, or something that you would not be proud to offer in your own hometown.
2 <i>Adequate, Feasible, & Acceptable</i> ⁶	3 ‘Shoot from the hip’ , go it alone, or think you know it all, or what is best for someone else.
3 <i>Thoroughly coordinated at all levels inside and outside the chain of command</i> , e.g. from local recipients and leaders in the host nation, to the country team at the US Embassy, and with PVO /NGO organizations operating in that region, and other U.S. government agencies.	4 ‘gold-plate’ it. (To be of any benefit, it has to work without continuing outside input, funding, supplies, or management. Keep it simple.)
4 <i>An appropriate level of technology, fully self sustainable locally after withdrawal</i>	5 assume it is ‘your’ project , or that ‘they’ work for you. (You are a guest, having been lucky enough to have been granted the privilege of working for and with ‘them’ to help facilitate THEIR project.)
5 Capable of <i>generating local ‘buy-in’ or ownership, to build local capability or capacity</i>	6 try anything that you would not personally use or to which you would not send a member of your own family.
6 <i>Quality services that consider unintended outcomes.</i>	7 assume everything will always work exactly as you plan. (Think outside the box and through all possible “what if” situations including worst-case scenarios.)
7 <i>Of lasting impact with significant benefits.</i>	8 forget to ask yourself, “So what?” (i.e. after you are done with your project and have returned home, what difference will your efforts have made? Will people be better off a year from now, or will it be a matter of “so what”?)
8 <i>Synergistic, building upon prior or other engagement activities, (or, if not at this time,</i>	9 plan stand-alone projects that fail to relate to what else is going on locally, now or in the future.
9 <i>offer the potential for future follow-on projects)</i>	10 assume you are done when you think it is time to go home. (How do you know when you are done? You must have clearly stated, measurable objectives. You must also be flexible as humanitarian assistance rarely follows an exact script, regardless of how well planned.)
10 <i>Evaluated against stated measures of effectiveness, and include follow up</i>	11 fail to follow up. (Plan the project to include your return visit, using written criteria to ascertain how well the project turned out (measure your effectiveness.) If physically returning is not possible, you can follow up by phone, mail, and/or email

⁵ Courtesy RADM Dennis Wright, MC USN, former Command Surgeon, HQ U.S. Pacific Command, personal communication May, 2000.

⁶ adapted from: CJCSM 3113.01A THEATER ENGAGEMENT PLANNING (TEP) 31 March 2000 Review Criteria. The review for **adequacy** determines whether the scope and concept of planned activities are capable of satisfying taskings and objectives stated in national-level policy documents. The review for **feasability** determines whether, in the aggregate, the activity can be accomplished using available resources and whether additional resources are required to meet proposed levels of engagement activity. The review for **acceptability** determines whether the proposed engagement activity is worth the cost in manpower, material, and time involved; is consistent with the law of war and other international law; and is militarily and politically supportable. The criteria of feasibility and acceptability ensure the proposed humanitarian engagement activity can be accomplished with assigned or available resources.

Partnering with Civilian Groups

Although military medical personnel provide humanitarian care to thousands of foreign patients annually, DoD provides a small fraction of the worldwide humanitarian relief effort. With the great number and diversity of organizations involved in humanitarian relief, it is necessary to have a means of coordinating efforts. Effectiveness would be increased by having well-coordinated humanitarian efforts rather than relief being provided by multiple organizations not in communication with one another. In many contingency operations the civilian military operations center (CMOC) process has proven successful in matching the capabilities and requirements of military and civilian providers (Seiple, 1996). Even a seemingly straight-forward question such as “who can best provide health care for local nationals?” is best addressed through the collaborative CMOC process. Trained to a high degree of readiness with a ‘can do’, take charge approach, military leaders often assume, without coordination, and sometimes incorrectly, that only they are able to perform the mission. This is also true of medical units providing patient care. Providing health care for host nationals is both a demanding mission and a slippery slope. Once care is provided, it is extremely difficult to extricate one’s self from patient care for local citizens in humanitarian operations. With a longer-term presence, civilian groups may be able to provide care more effectively, even more efficiently, than military units. DoD could contribute in other functions such as security, communications, and transportation, where civilian groups typically have less experience, capability, or training.

There are also important policy considerations that must be considered in planning for effective humanitarian assistance. In the past there has not necessarily always been a stated requirement that humanitarian assistance needed to be effective. In many cases, conditions were so bad that almost anything that could be done was a tremendous improvement and was thus deemed effective. Today, with the increased complexities of international humanitarian relief and with ever increasing global relief requirements in the face of stable or declining resources, there is often stated guidance, or at least an implied assumption that humanitarian assistance activities must accomplish something and this should be done effectively. It should not be assumed that military units and personnel worldwide, especially those that are untrained or inexperienced in humanitarian assistance, can independently determine what constitutes effective humanitarian assistance.

Many important policy decisions are involved in providing humanitarian assistance. For example, in a medical project, does direct patient care by foreign militaries unintentionally prolong host nation dependency on external medical services? When external providers assume responsibility for patient care, are planned improvements in host nation self-sufficiency unintentionally delayed? Health care providers should focus on building the medical capacity of the host nation to provide the care required by her citizens. Implementing performance metrics would certainly help in knowing what is required and what can reasonably be accomplished. This would maximize effectiveness by improving the health of entire populations long after foreign healthcare providers depart. Such programs are effectively formulated and executed using the CMOC process.

Neither military nor civilian humanitarians can alone resolve the myriad humanitarian requirements for health care or any other sector of relief. In past contingency relief operations, the CMOC has repeatedly proven successful in linking and employing military and PVO/NGO assets to solve complex problems. This proven process could also find effective application in deliberate planning for humanitarian assistance. A kind of ‘standing CMOC’ could be used for many humanitarian assistance activities, including those involving health care as well as HA, HCA, and EP projects. The communications and coordination between military personnel and the many other providers of humanitarian assistance would enhance the effectiveness of everyone’s work.

For example, a CMOC could determine the right combination of health care providers for each situation (i.e. some project-specific combination of military, civilian, and host nation medical personnel). Just as each project includes a unique combination of humanitarian, training, and political values, each DoD humanitarian assistance project could actively engage different health care providers rather than relying exclusively on military medical personnel. An example of this creative new collaborative approach to medical humanitarian assistance is the successful effort recently executed by U.S. Navy and civilian ophthalmologists working side-by-side in Guatemala (Blanchette, 2001, Morton, 2001).

Adopting the CMOC process to deliberately planned military humanitarian assistance can also identify other readily available resources. These can be 'effectiveness multipliers' for DoD humanitarian assistance projects. For example, Tissue Banks International was prepared to donate corneal transplant tissues valued in excess of \$100,000 to a humanitarian demining project in Yemen (Richards, 2000). Similarly, the American Christian Veterinary Association donated animal rabies vaccines valued in excess of \$30,000 to the military humanitarian project to reduce the serious threat of urban rabies in Port-au-Prince during U.S. operations in Haiti. Many organizations, corporations, and even private citizens are very interested in contributing to humanitarian assistance causes. The military community could be a catalyst for well-planned, novel approaches to improve the effectiveness of humanitarian assistance. This can readily be implemented by partnering with others interested in providing or supporting international humanitarian relief.

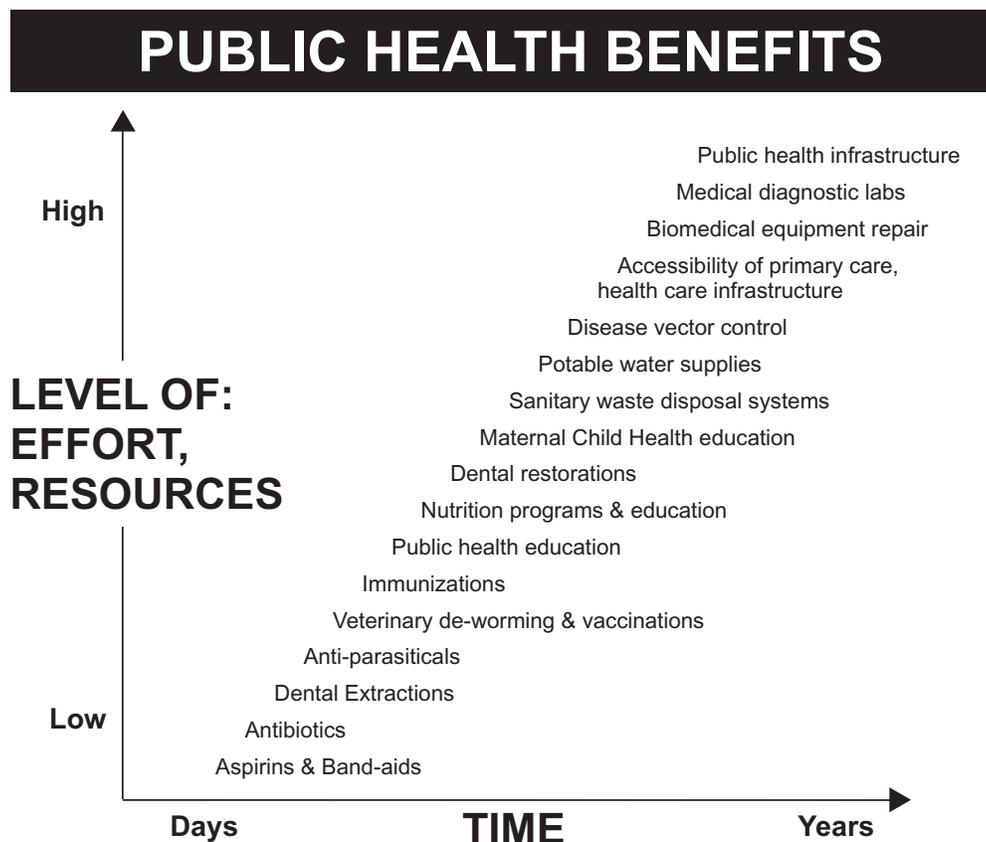
Public Health: Key to Effective Medical Humanitarian Assistance

A public health approach to humanitarian assistance would be most effective if based on collaboration between civilian and military providers. In this manner the greatest impact on health could be achieved for the largest numbers of citizens. Currently much of DoD’s medical humanitarian assistance has focused on patient care. Surgically intensive combat-ready trauma units have been sent to handle cases of malnutrition, parasitic infections, pre- and peri-natal care, or vaccine-preventable diseases, all of which are interventions of a public health nature and do not require costly surgically intensive resources. In these cases, the right tool is not being used for the job.

Developing performance metrics for humanitarian assistance should provide a process to allocate scarce resources; both DoD and others, to help nations solve their health care needs. Each project must be planned within the context of the specific scenario and in accordance with host nation needs and preferences, the standards of quality care and performance, balanced by the resources available. A conceptual model to this effect, based in part on Carns and Huebner (1989), and shown diagrammatically in Figure 1, leverages limited medical resources against health requirements. Resources available (from whatever source and defined in the broadest sense, i.e. planning effort, time, money, medical personnel, etc.) relate directly to outcomes. Within this overall concept, specific performance metrics can be constructed. Medical humanitarian assistance can and should be an investment in improving host nation health, thereby stabilizing uncertain complex human emergencies, consistent with U.S. national interests abroad. This can best be obtained via humanitarian assistance based largely on public health measures.

Figure 1

Planning context for humanitarian interventions (after Carns & Hubner, 1989), e.g., given varying levels of resources, and different timelines, a continuum of health interventions are possible. Long-term developmental projects offer the opportunity for lasting benefits. A key to effective humanitarian relief is to optimize resource use within the time constraints.



Criteria for Military Humanitarian Medical Projects

Although few existing measures of effectiveness currently exist for DoD humanitarian assistance, there is widespread recognition of their importance. Because the interest and motivation are already present, and only the tools and techniques by which effectiveness can be measured are missing, this should make the challenge of implementing measures of effectiveness for DoD humanitarian assistance simpler. Both DoD personnel and participants in DoD humanitarian projects of several different nationalities have pointed out this need (see reports *US Participants Perspectives on Military Medical Humanitarian Assistance* and *Host Nation Participants Perspectives on Military Medical Humanitarian Assistance*), as have independent government investigative reports (GAO, 1993). To further this effort, we developed a set of straightforward criteria (See Table 4) that have widespread application to planning and evaluating humanitarian projects and programs. We do not suggest in any way that any list of criteria can be universal, nor that a 'checklist' approach should be embraced. Instead these criteria are intended as reminders of some things that must be considered in planning humanitarian assistance. One could also readily construct a conceptual framework in which criteria can be viewed to rank possible alternative projects or courses of action, at least subjectively, for their relative effectiveness. Using a straightforward, pragmatic operations methodology familiar to DoD personnel everywhere, a simple: 'red, green, amber' scoring method could be used to evaluate projects against these criteria.

This list of criteria is a starting point for illustration and discussion, and should not necessarily be considered final. In fact, the addition of other criteria is invited, as no single set of criteria will fit all possible scenarios. Other providers with different humanitarian experiences or challenges may freely contribute or alter as the nature of a project or the needs and interests of planners and donors dictate. Resource managers could readily add cost or other fiscal indicators as criteria for humanitarian project evaluations. Addition of cost data could enable determination of a kind of crude project cost / benefit ratio. Thus, economic efficiency might be added to medical and health considerations as another means of measuring project effectiveness. Additional testing in multiple applications is needed to explore this approach, especially the possibility of an economically driven model of international humanitarian assistance. Such an economic analysis, however, is far beyond the scope of the current study. There is no attempt to suggest that a managed care approach be applied to humanitarian assistance, with cost efficiencies driving the type of care provided or missions undertaken. Caution is further indicated in that an economically driven study could easily miss such intangibles as the economic value of productive, healthful years of life expectancy extended by the humanitarian care provided, and the societal values ascribed to a human life.

Table 4. Minimal Planning Criteria for effective military humanitarian assistance

Coordination	Has the project been fully coordinated with, and approved by all parties concerned, including the country team at the U.S. embassy, the host nation authorities at the local, regional, and national levels, as well as PVO, NGO, IO and other health care providers operating in the area?
Appropriate	Is the level of technology, resources, and project design suitable for the social, economic, political context in which it will be conducted? In the case of medical projects, is it suitable within the medical and public health infrastructure of the host nation, including societal, religious and other beliefs regarding Western vs. indigenous medical practice?
Sustainable	Are local people, using locally available resources, able to continue the project after U.S. resources are withdrawn? If the project is only going to make conditions better for the short time during which DoD personnel are present, has anything (other than possible training of U.S. personnel) been accomplished? Are hopes and expectations falsely raised, only to return people to the pre-project state?
Buy-in	Do locals demonstrate a sincere interest and plan to take over the project as their own?
Capacity building	Does the proposed project build capabilities, capacity, or infrastructure? Will the project have impacts beyond the immediate results during the deployment?
Quality control	Are the services to be provided or activities to be undertaken of the quality equivalent to what you personally would want for your community or family?
Evaluation	Are performance metrics included? How will outcomes be measured and documented? Without looking at a calendar, how will one know when the project is “done”?
Unintended Consequences	Have unanticipated events been fully considered? In the case of medical projects, consider liability and political outfall if there is an unintended outcome to a surgical procedure? Consider alternative courses of action and the associated liabilities.
Appropriate use of DoD assets	This refers not simply to avoiding fraud, waste or abuse, but does the proposed activity make wise use of DoD assets and resources? (e.g. is the road through the jungle being built because it is truly needed, perhaps as an emergency airstrip, or is it being built as a ‘road to nowhere’ because a unit happens to be present with bulldozers, fuel, and manpower?)
Impact and Duration	Is the proposed activity going to make a difference? If so, for how long? When it is time to redeploy, will an external reviewer wonder, “so what?”

Measures of Effectiveness

In any humanitarian assistance project or program one should ask, what will actually be accomplished? Without information feed back, outcomes remain unknown or at best subjective. Even if pre and post-project comparisons are based on crude measures, fraught with inaccuracies, there will at least be comparable information upon which decisions can be made. Subjective comments do not provide the detailed, timely information required to make evidence-based decisions about funding or priorities. Quantifiable standardized information that supports measures of effectiveness must be routinely collected. It should be consistent over space, time, and by multiple providers.

In order to measure the effectiveness of humanitarian assistance, there must first be context for the action taken. The following example from a recent after action report illustrates the importance of measuring outcomes, and not simply the process of providing relief.

“The vaccination sites included selected orphanages, schools, and churches within and outside the city...over 18,608 vaccinations were administered to 5,621 ... (host) nationals.”

While the tremendous workload of the immunization staff is documented, this is not a measure of effectiveness. Although 18,000+ immunizations is a considerable effort, did it make any difference in the health of the recipients? What was the immunization status prior to this project? More importantly, what were incidence and prevalence rates for vaccine-preventable diseases for which immunizations were given, before and after this effort? i.e. were 18,608 vaccinations effective?

Similarly, is 5,261 the total population needing immunizations, or some percentage of a much larger population? While the number of immunization, surgeries, or other procedures (numerator data) is important and often reported, denominator data is likewise very important. Both the population served and at risk is needed so that any change can be expressed as rates, allowing comparison with conditions elsewhere and over time. Unfortunately, rate based information is not available in most project reports. Other valuable information that should be recorded includes which vaccines were provided, the prior immune levels, and the endemic disease risks to ensure that the undertaking is needed and effective.

With tremendous unmet medical needs worldwide there is always an opportunity cost in providing humanitarian relief. Was it more effective to undertake the immunization program or might other actions have had a greater health impact? Should relief have been provided in one location or another? Without information on conditions before and after any humanitarian assistance activity, there is no objective means to draw conclusions about the outcome of a project.

In this example, the process measure could be restated as a measure of effectiveness as, *“The project will have been deemed successfully completed when; the immunity of ___ local populace of ___ (location) against the following diseases, ____, ____, and ___ is raised from ___ % to ___ % over the following time period, ___ to ___.”*

Performance metrics must be quantifiable and record at least at two points in time, -typically before and after a project. Additional data points during project execution help measure progress and are highly recommended, but the cost of gathering information must be evaluated in each specific scenario.

Evaluation can also be a means to improving interagency communication and collaboration on humanitarian assistance projects. Discussion about what needs to be quantified and how change is to be measured seems of particular value when undertaken, not in isolation, but in open dialogue as might occur during planning or work group sessions, or meetings in a CMOC. In such venues, diverse organizations or even competing interests have opportunities to determine whether and where they have common ground or goals. Once interests are known, parties may mutually support one another, or agree to respectfully disagree. Should the organizations involved have no common ground or fail to agree (as can be expected in difficult situations such as complex human emergencies), the attempt to define measures of effectiveness would at least make the interests of all parties known to one another. Even if there is not specific agreement on the strategy, approach,

or implementation measures between organizations, by at least knowing what other organizations are proposing or doing, all parties will be informed and reduce confusion or redundancy in the field.

DoD has repeatedly found that the CMOC process of talking through needs and plans for relief to be a highly effective way to bring required aid to bear in a timely manner in the midst of very difficult and dynamic situations. This process which has measurably improved the effectiveness of humanitarian assistance in repeated contingency operations might also be successfully applied to deliberately planned humanitarian assistance, such as OHDACA programs. This could be as a 'standing CMOC', where day-to-day pre-project coordination between military and civilian providers of humanitarian assistance could occur. Our survey of over two hundred leaders and participants in military medical humanitarian assistance projects showed that they are not inclined to consult with many people, if anyone, outside of the DoD chain of command (Drifmeyer & Llewellyn, 2002c). A standing CMOC for medical and other kinds of humanitarian assistance could benefit all parties and provide a means of improving the effectiveness of individual and combined humanitarian activities.

Another reason for using measures of effectiveness is that they provide at least two points in time over which to quantify change. In many past military humanitarian projects there has unfortunately been little or no follow up. This is in part due to the absence of any provisions for funding follow up actions under current program authorities. Without follow-up, critics of military humanitarianism have questioned, and in some cases with some validity, the effectiveness or even appropriateness of some DoD actions. Without information on what was accomplished, such claims can be hard to refute. Despite substantial levels of DoD effort and resources, in some cases over prolonged periods of time in a given country or region, there is unfortunately very little data indicating any change in health status of the host nation population being aided. Presently, there is no means to ensure that future military humanitarian projects will be undertaken with any different outcome.

Consistent use of measures of effectiveness would also ensure that the frequently changing units, commands, and personnel involved in humanitarian projects remain focused on the defined goal. This is particularly applicable in humanitarian efforts in contingency operations so that as units redeploy, the replacements units and personnel maintain the same mission focus, and outcome measures to attain the desired end state. Without defined measures, unit rotations may, either deliberately or inadvertently, change policies, procedures, and priorities as they redefine their own concept of the situation. This can contribute to confusion, less effective resource use, and sometimes result in the phenomenon known as 'mission creep.' Various factors such as a health care provider's training, Hippocratic oath, and human inclination to help one's fellow man can quickly lead to ever-expanding humanitarian commitments and workloads.

We do not suggest that each organization use the same measures of effectiveness; each should use what makes sense for their project or part of the operation. Ideally, information could be shared with others providing relief. However, for political, security, and other reasons this may not be fully realized. Taken together, the various measures should define the overall end state, -even if different participants have different visions of what the end-state should encompass, and make varying contributions towards that end.

With timelines ranging from days for military operations to years for some PVOs, when is a humanitarian assistance project deemed completed? This is best answered by establishing criteria, measuring effectiveness over time, and making decisions based on feed back of information. Mission completion depends not on the passage of time but on the attainment of specific objectives that define change, such as the reduction of childhood malnutrition by a certain percentage. Results-oriented information, ideally expressed as a rate or percentage change, is much more meaningful than raw numbers.

Measuring effectiveness also has direct applications to ongoing humanitarian assistance projects, and is not only about defining when a humanitarian assistance projects is completed. For example, quantifying the impact of feeding programs can be the basis for additional orders or shipments of needed commodities, or further funding appeals to donors. Measuring results regularly during operations allows adjustments to be made in time to improve effectiveness or to respond to dynamics of the situation.

Defining measures of effectiveness need not be made more complex than necessary. In fact, there is elegance in simplicity. What is readily understood and easily implemented will, in fact, be used, while that which is too complex, cumbersome, or not of immediate value to those tasked with collecting the information will soon be discarded. For example, efforts to control an epidemic might be considered effective when the number of new graves each week reaches some normal rate prior to the disease outbreak. Obviously, population vital statistics, laboratory confirmations, and age-specific mortality rates by cause would be preferred. However, such detailed information is rarely available reliably in most humanitarian situations.

Recognizing the limitations, readily available information should be used in developing performance metrics applicable to each situation at hand. Basic information, recorded consistently over time and geographic areas, is better than no information. Even information of a sophisticated nature can be of less utility if it is either overwhelming or so limited in scope or time to be of little value. Consistency over time provides the basis for measuring effectiveness.

To cite a non-medical example, in a famine or food embargo situation, a process measure often cited by military and civilian relief agencies alike is 'tons of food transported.' While this gives some information about transportation requirements, it provides little real understanding of whether starvation continues or is reduced. How many tons of food commodities remain in warehouses in a port city, awaiting local truck transportation, clearance by customs officials, or other delays not uncommon in feeding programs? The measure of effectiveness is the reduction in malnutrition, morbidity, or mortality due to starvation as a result of feeding programs. A measure of effectiveness for use by medical personnel in such a scenario might be the reduction in life threatening childhood malnutrition over time, as specifically measured by the simple measurement of upper arm circumference in children (Lynch et. al. 2000). This technique integrates the many process measures involved in getting food to the point of consumption and provides a simple, direct indicator of the impact of feeding programs on recipients. A straightforward, easily obtainable medical measure of effectiveness can thus have utility in evaluating the effects of non-medical processes like food shipments.

Evaluation Training

Measures of effectiveness should be defined for each specific scenario and subject of interest. This will not happen without specific training for personnel in the use of techniques applicable to the situations they will face in lesser developed countries, whether contingency operations or planned humanitarian assistance. These situations are far different from the experience or training of DoD health care providers in their clinical practice or in training for battlefield trauma care. Thus, both general military training, and specialty specific medical education and training is required in order to prepare deploying DoD personnel for the challenges they will face in providing effective humanitarian assistance.

Any common health statistic can make a good measure of effectiveness if it is tailored to the specific scenario and the relief effort. For example, the US AID has been incorporating performance metrics in their developmental relief in Africa and elsewhere. Two indicators, crude mortality of vulnerable populations (infants, young, especially orphans, and the elderly) and the nutritional status of under 5 year olds, are proving effective in quantifying the long term results of developmental relief projects (Renison, 2001). Both of these measures are comparatively easy to obtain, do not require sophisticated technology, and only require short-term training of those tasked with gathering the information.

Implementing performance metrics to monitor and evaluate medical and other kinds of relief efforts should not become an all-consuming task, and not limited to Western 'experts.' Specific essential elements of information, linked to measurable outcomes, gathered consistently over time, provide the means to measure the effectiveness of humanitarian engagement activities. Locals who know the language, culture, and area can collect such information quite inexpensively, often blanketing the area of interest far more efficiently than foreign visitors. Locals can also sustain the data collection effort, and need not be as limited in number, duration, and mobility as outsiders who may not be able to function as effectively in a foreign culture. This approach was successfully demonstrated in an epidemiological database of victims of blast injury from land mine accidents in Yemen (Richards, 2000).

For maximum effectiveness, medical humanitarian projects should be designed to provide the greatest positive health impact for the largest number of people. While this may not always be possible, the health of the population served is an important, overall measure of effectiveness. Additional measures of effectiveness are specified for a given scenario, country, medical condition, and military operation or project.

Learning by Example

DoD is by no means alone in working to implement measures of effectiveness of humanitarian efforts (see report *Measuring the Effectiveness of Humanitarian Assistance other than Department of Defense Providers*). As mentioned, The U.S. Agency for International Development (US AID) is actively working on key indicators, particularly for their developmental projects. They find that even a few key statistics such as child hood mortality, or under 5 malnutrition, are instructive in helping gauge whether developmental programs are effective. Besides governmental agencies, PVOs and NGOs are also actively developing better means of evaluating the effectiveness of their efforts. This is not only good management, but also is increasingly important in an era where global humanitarian needs far outstrip resources available. Resources are limited regardless of whether funds are private donations, military budgets, government appropriations, or other sources. Given the multiple agencies and organizations tackling similar problems of measuring effectiveness of humanitarian programs, it is instructive to briefly review their progress, with an eye towards possible applications or adaptations to DoD programs.

The American Red Cross, for example, has utilized a formal procedure in a variety of activities supporting humanitarian operations. While many staff officers planning a humanitarian assistance project may use a mental checklist process, having the thought process formalized and documented in a written guide is recommended. For example, by referring all parties involved to a standardized process, there is less likelihood that important factors might be forgotten or that confusion might arise between who had responsibility for which elements. This extends beyond specific checklists, to an organized approach to the overall planning of relief missions, termed the 'Logical Framework' process. This requires planners to formally state: goals, objectives, outputs, activities, and inputs, or what Oxfam terms, the "vertical logic" of a project. This directs planning through a system analysis approach to targeted beneficiaries and indicators. The process includes a verification phase (information feed back), and lists assumptions involved.

As an illustration, the following example applies the logical framework approach to the not uncommon problem of diarrheal-associated morbidity and mortality in the lesser-developed world – a serious health concern common to many lesser-developed countries but an issue not addressed in a single after action report on any DoD humanitarian project reviewed in this entire study (Drifmeyer & Llewellyn, 2002a,b). Using the logical framework methodology, the overall **goal** would be to reduce diarrhea associated morbidity and mortality in children under 5 in the upper East region of Ghana. The **objective**, or verifiable indicator would be the actual measured decrease in under 5 mortality and morbidity from diarrhea-related symptoms in this specific region from baseline (initial) survey to final (end state). The **means of verifying** essential indicators might include standardized epidemiological survey data collected by trained health outreach workers (preferably local indigenous peoples), and/or morbidity and mortality data collected systematically by health care providers at facilities throughout the region, including the local office of vital records. Sources of data may also include indirect measures of diarrheal associated morbidity and mortality such as the number of mothers trained in maternal child education or other health outreach classes. Another indirect measure might be the percentage of mothers able to identify safe sources of drinking water. Some **assumptions** in this example, would include that morbidity and mortality data are accurate and consistently reported over the time period from initial to final survey, and that no external events (such as floods or disease outbreaks) occurred in the same time period which might affect the rate of diarrheal morbidity and mortality. **Outcome measures** at the end of the project would be specific and quantifiable, such as the incidence and prevalence of diarrheal morbidity and mortality among the target population of the area in which the project was conducted. With this logical framework process and the systematic, routine collection of standard data, the staff would have the information required to definitively evaluate the project's effectiveness.

Using the logical framework approach, one also has timely information that can be used to keep the program operating effectively. If for example, a certain geographic area or aspect of the program is showing results inconsistent with other areas, and then timely intervention can resolve issues, thereby contributing to project success while time and resources are still available and can be effectively used to make improvements. Reports

of data outside the norm could be investigated to determine if they represent a program failure or simply different conditions. Without specific measures of effectiveness and information feed back, time and other resources may be exhausted before any bona fide impact on health conditions surfaces. This is likely the case in many military humanitarian projects as conducted today. The short term nature of many military deployments, the lack of specified outcome measures, the often limited and/or late contact with anyone from outside DoD, and an emphasis on collection of process measures, all result in humanitarian projects being 'completed' by checking the calendar rather than any demonstrable measure of project effectiveness.

The utility of the logical framework approach is evidenced in its use by a number of PVOs, and NGOs. For example, Oxfam uses this approach in its comprehensive report, on measuring effectiveness in humanitarian relief entitled, "Impact Assessment in Emergencies: A Practical Approach to Monitoring and Evaluation of Emergency Projects." The logical framework approach, coupled with international consensus standards such as those widely promulgated in the Sphere project, offers excellent possibilities for adoption or adaptation by DoD. The Sphere project would be particularly applicable if the focus of military humanitarian assistance activities shifts from short-term patient care, to longer-term developmental and capacity-building projects as recommended.

Evaluation: A Case in Favor of Humanitarian Assistance

In evaluating humanitarian relief activities, there has been a great deal of criticism directed at specific projects, both military and civilian, because of the inability to demonstrate value, results, impact, or outcomes. Surprisingly, in many humanitarian assistance projects conducted by many different organizations, there is no documentation of results. Although effectiveness might have been an implied mission, without a specific statement to this effect, some in the past, may have felt that all that was necessary was to 'do good work.' In some cases in the past an assumption was made that this was all that was required.

In today's high stakes international environment, and with finite resources, doing good work is not enough. All involved in humanitarian relief, military and civilian, should be able to clearly and concisely explain and demonstrate whether their efforts make a difference. This would apply at both the individual project level, as well as at the program management level both at the unified combatant command headquarters and DoD.

Generally, problems with less than effective projects arise for a variety of reasons, chief among them: weakness in project design, failure to conduct needs assessment, lack of data, indicators, or clear objectives; and weak or no analysis after completion.

The Evaluation Process

The following steps are needed to develop an evaluation process:

- 1 Identify why the evaluation is required, whose questions will be answered, and how the results will be used.
- 2 Define the questions for evaluation, and select priorities. In selecting priorities attention should be given to feasibility and resource constraints (recall the purpose of the project is not to collect data)
- 3 Identify the information required, the sources and methods of collection and resources needed to carry out the evaluation.
- 4 Collect information consistently and reliably from various sources, beginning before the proposed project is undertaken, continuing throughout the duration of the project on the predetermined frequency (daily, weekly, monthly, quarterly?), and continuing through completion of the project
- 5 Analyze and interpret the results objectively
- 6 Make informed, impartial judgments about the relative success of each specified criteria. Provide information feedback of findings to allow mid-project adjustments
- 7 Document the findings and results, and share this information not only within DoD and military medicine, but as appropriate, with other providers involved in the project be they host nation representatives or other health care providers operating in the area or region and impact assessments rely on subjective or anecdotal tidbits of information that are not part of a systematic data collection and evaluation system.

The Logical Framework Approach

As mentioned previously, many non-governmental humanitarian organizations are adopting the 'Logical Framework' to build evaluation processes into their projects and programs. Based on system theory, the logical framework is useful and appropriate across a broad spectrum of different types of humanitarian interventions, scenarios, and organizations. An underlying supposition in the logical framework is that all programs do something. They may not do what was intended, but the expectation is that for all actions there are observable changes. In the context of medical humanitarian assistance this may be understood in general terms as follows. When DoD medical assets set up patient care facilities virtually anywhere in the world, they quickly become quite busy providing care. The local nationals, regardless of the country in which the project is undertaken, come for miles to obtain health care. Often patient workload far exceeds capacity even when personnel extend duty hours and days, seeing as many patients as humanly possible, often for mere minutes each. This pattern recurs in many DoD projects until the providers redeploy. This likely occurs in some humanitarian projects conducted by other-than-DoD providers as well. Thus, in such a scenario health care has been provided, DoD personnel presumably received training, (although the value of such training might be questioned) and there has been a political interaction of an undetermined nature between the host nation citizens and representatives of the United States government. Again, all projects do something, the question is what specially has been accomplished, and does it meet predetermined goals?

Unfortunately, in the present mode we often do not know the outcomes of these multi-faceted activities or if the results matched intended goals, whether improved health, better training, or positive political gains resulted. The key point and reason for using the logical framework process is to ensure that intended outcomes are achieved. Better planning of projects, including incorporating performance metrics in a logical framework is essential to improving effectiveness of humanitarian assistance. This is applicable to medical and non-medical humanitarian assistance projects, conducted by military or civilian providers.

The benefit of planning and executing humanitarian assistance projects within the logical framework is that the program defines the variables to be measured and their relationship to each other. The internal evaluation process links the activities of a program with the effects of the activities. Organizations that have made a concerted effort to improve humanitarian project performance, learn from past lessons, and embraced accountability; have adopted the logical framework as central to their operations. Since the logical framework approach has already demonstrated its utility in a variety of humanitarian situations by diverse organizations, the process is worthy of full consideration, if not adoption by DoD. One could argue for a pilot program or beta test, limited in scope or time, but the process is so straightforward and intuitively logical that there are no foreseeable reasons why DoD-wide implementation should not occur.

The logical framework approach includes clearly articulated goals, from which derive quantifiable objectives. Given these and sufficient inputs, (resources of all kinds) then certain outcomes or results are forthcoming, given specific activities as evidenced by indicators of performance. While this systems approach is logic-based, it is also flexible and allows anyone to establish indicators specifically applicable to their situation. While the presumption is that all participants, whether military or civilian, do their best, there remain varying interpretations of what constitutes a successful project. Thus, medical and other humanitarian assistance should comply with some widely-recognized consensus standards, against which performance in humanitarian assistance can be measured.

Sphere Project Standards

Application of internationally recognized consensus standards is not a moot point. At the heart of the issue is the question, what (or who) defines success? The SPHERE project represents internationally agreed upon performance standards by which medical and other humanitarian assistance should be conducted.

To date, many humanitarian assistance projects whether conducted by the military or civilian organizations, have not defined desired end states nor even recorded the specific results or undefined 'successes'. There is a wide diversity of opinion on which projects were successful and what constitutes 'good' performance in the field of humanitarian medical care. Occasional highly published failures of relief efforts point out the need for measures of performance. The tragedy of genocide in Rwanda spawned a large scale effort not only to determine accountability but to implement mechanisms for formal evaluations against internationally recognized standards so that, through effective humanitarian relief, such failures are not repeated.

Consensus standards for performance in international humanitarian assistance have been under development for several years in a broad-based effort by the international relief community. This important work, commonly referred to as the 'SPHERE Project,' establishes valid indicators or standards of performance for several functions of humanitarian assistance, including health care. Initiated in 1997, the SPHERE Project developed a set of universal standards in core areas of humanitarian assistance to increase effectiveness and to make humanitarian agencies more accountable for their actions in the field. It is a result of inter-agency collaboration using a broad-based, global network of experts, and the recommendations are well grounded in international humanitarian law. Presently, there are guidelines dealing with minimum humanitarian performance standards in:

- 1 water supply and sanitation,
- 2 nutrition,
- 3 food aid,
- 4 shelter and site planning, and
- 5 health services.

Most of the standards, and the accompanying indicators, are not new, but consolidate and adapt existing professional knowledge and best management practices in each sector. Overall, they represent a remarkable consensus across a broad spectrum of agencies, and mark a new determination to ensure that humanitarian principles based in international law are realized in practice. The current indicators put forth by the SPHERE Minimum Standards are output oriented, and potentially very useful in the kinds of humanitarian assistance operations in which DoD is involved, including both short term and longer term complex human emergencies.

Despite its potential applicability to DoD medical humanitarian operations, the SPHERE Project has limitations. For example, it does not attempt to deal with the entire spectrum of humanitarian concerns such as security and protection from armed conflict, factors that typically form a major part of the reason for military intervention in humanitarian operations. Despite this limitation, DoD in general, and military medicine in particular, should consider adopting both the logical framework approach to planning and executing its humanitarian projects and the SPHERE Project consensus standards, where applicable, to its overseas humanitarian assistance projects. Adopting the logical framework approach to measure effectiveness and applying the SPHERE Project minimum standards to these measures will afford DoD more effective projects. It also places DoD on a firm ground as regards international humanitarian law, and an equal footing with the myriad other providers of health care in humanitarian relief. This is important in the information campaign, public relations information spin, and "CNN factor" that typically whirl about humanitarian operations.

Summary

With the world's finest deployable medical system, an outstanding record of emergency relief following disasters, and the very uncertain new world order, DoD finds itself heavily engaged in providing international humanitarian assistance. Scenarios range from theatre engagement activities or stability operations to operational deployments in response to disasters, complex human emergencies and military operations other than war. Although funding authorizations for different forms of military humanitarian assistance are separate, such distinctions often become blurred in the fog of ongoing humanitarian operations. After a decade of explosive growth in overseas humanitarian engagement activities, and with limited specific joint doctrine, training, tactics, techniques and procedures, Combatant Commander humanitarian assistance programs have evolved independently, varying geographically, over time, and with the different experience and interests of personnel involved.

Medical personnel, from senior officers with many humanitarian deployments to comparatively junior personnel with no experience or specific training, execute complex humanitarian projects with medical units designed, equipped, staffed, and trained for battlefield trauma care. Although projects range from constructing and renovating clinics and hospitals to specialty-specific training for host nation counterparts, the most common forms of medical humanitarian assistance are direct care of foreign national patients by U.S. military medical personnel, and donation of excess medical supplies and equipment.

While the excellent care provided, often under very difficult conditions, has helped hundreds of thousands of patients, medical humanitarian assistance offers additional possibilities to positively impact population health through capacity-building developmental projects. Tremendous unmet global demands for health care and finite resources argue against the continued reliance, almost exclusively, on direct patient care as the principal form of DoD medical humanitarian assistance. Short-term deployments for patient care often prove unsustainable after redeployment of military personnel and such projects have an effectiveness limited to the comparatively few patients lucky enough to have been treated. Patient care should not be eliminated from military humanitarian assistance, of course, as it provides direct training benefit for U.S. military members, but it can and should be limited to specific scenarios, and should be complimented by other approaches such as public health based initiatives.

The emphasis in military medical humanitarian assistance, especially in deliberately planned projects funded under Title 10, should focus on longer term developmental and capacity-building projects, many of which are public health oriented. Currently, there is focus on patient care because military medical humanitarian projects use existing deployment capabilities that are designed, equipped, staffed, and trained for combat trauma patient care--not humanitarian relief. Rather than relying heavily on surgically intensive units, a range of other medical capabilities, from preventive medicine to veterinary, to medical logistics, and biomedical equipment repair could provide the diverse capabilities required for effective support of humanitarian aspects of global theatre engagement plans and stability operations. This would also extend the training benefit of participating in humanitarian missions to a broader range of DoD units and personnel.

Just as the right mix of direct patient care and population-based public health projects is important, so is the right combination of civilian and military health care providers of humanitarian assistance. This can best be attained by planning and executing projects and programs within the context of the logical framework approach, and implementing evaluation processes to ensure that performance standards, such as those of the SPHERE Project, are consistently met or exceeded. The civil military operations center (CMOC) process that has been used successfully by DoD in a number of complex human emergencies and humanitarian relief contingency operations might well be utilized as a standing information clearinghouse, supporting day-to-day activities including deliberately planned stability operations such as medical humanitarian assistance. Such coordinating centers should be regionally based, at least one per geographic Combatant Command, and would bring to a single focal point the myriad information and issues involved in planning and providing effective humanitarian assistance.

Humanitarian assistance is far too complex and the international stakes too high to be left to individual initiative or to operate without the benefit of an institutionalized evaluation process. DoD requires smoothly functioning humanitarian assistance programs with documented performance metrics in compliance with internationally recognized consensus standards. Military medicine and its many international partners in humanitarian relief, PVOs, IOs, NGOs, and the host country, all would benefit from the application and sharing of established criteria and measures of effectiveness in the logical framework process before medical humanitarian assistance projects are undertaken, throughout their execution, and in subsequent review and analysis. Development of joint medical doctrine for global medical humanitarian assistance that includes performance metrics and information management will facilitate well-planned projects that improve host nation health, provide valuable training to U.S. military personnel, and help shape world events towards a desired end state consistent with U.S. national security interests.

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