



Measuring the Effectiveness of Humanitarian Assistance other than Department of Defense Providers



Measures of Effectiveness
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Jeffrey E. Drifmeyer, PhD, MPH
LTC (Ret) MS USA

and

Craig H. Llewellyn, MD, MPH
COL (Ret) MC USA

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.

Center for Disaster and Humanitarian Assistance Medicine (CDHAM)
Dept. of Military & Emergency Medicine (MEM, Room C-1080)
Uniformed Services University of Health Sciences
4301 Jones Bridge Rd.
Bethesda, Maryland 20814-4799 USA

COL (Ret) Craig Llewellyn, M.D., MPH,
Director

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Executive Summary

The global community of humanitarian assistance providers, both civilian and military, are both currently addressing the need to develop more effective strategies and means for planning and conducting humanitarian assistance. Although these two different groups often face similar challenges in delivering effective humanitarian assistance, there are also distinct differences in the approaches, constraints, resources, and expertise of civilian and military humanitarian assistance providers. Greater sharing of information on successes and the challenges remaining would be mutually beneficial and seems particularly applicable to collaborative improvements in measuring, documenting, and evaluating the effectiveness of various means of providing humanitarian assistance.

This report is from the perspective of civilian organizations providing humanitarian assistance, i.e. “other-than-DoD” providers. A companion report addresses the military perspective or DoD providers of humanitarian assistance. From these different perspectives, there appears a kind of ‘convergent evolution’ in the strategies and tools used by military and civilian providers. This process and increased civil-military collaboration will further the implementation of more effective humanitarian assistance.

The logical framework process has been successfully and widely used by humanitarian organizations ranging from the American Red Cross, European Union, to the Australian government, as well as many PVOs, and NGOs. The logical framework approach offers a straight forward, proven means to formulate and apply measures of effectiveness in humanitarian assistance projects and programs. While this analysis focused on health-related humanitarian assistance, the planning criteria, logical framework process, and SPHERE standards have broad applicability to all forms of humanitarian assistance whether provided by military or civilian personnel. The logical framework process should be consistently applied across humanitarian assistance projects of a wide variety of types and not limited to medical projects or healthcare. The logical framework process is equally applicable to individual military humanitarian assistance projects such as the humanitarian assistance (HA), humanitarian and civic assistance (HCA), or excess property (EP) projects of DoD (Drifmeyer & Llewellyn, 2002a). It is also applicable and has repeatedly been used successfully in many humanitarian situations involving PVOs, NGOs, and IOs in which the military does not participate. The logical framework process is also applicable to entire humanitarian assistance programs, military or civilian, in which the effectiveness of multiple relief projects over time and geography are to be evaluated. For example, major PVOs, NGOs, and IOs as well as DoD, all of whom operate large international programs, should utilize the logical framework not only for evaluating individual country-specific projects but analysis of broad functional areas and programs.

The logical framework approach provides specific, quantifiable measures of effectiveness, which can be directly linked to internationally recognized consensus standards. This will ensure humanitarian assistance that at least meets the minimum performance standards of the Sphere project.

Combining improved information management, performance-based minimum consensus standards, and the logical framework approach will result in more effective humanitarian assistance, whether provided by civilian or military organizations or a combination thereof. The greatest single improvement to be made in the execution of humanitarian assistance programs today, whether by military or civilian providers, would be to quantitatively measure the effectiveness of humanitarian assistance efforts and use this information in planning, conducting, and evaluating humanitarian assistance.

International humanitarian assistance, whether by civilian or military providers, is highly complex. Just by being present at a site where humanitarian assistance is needed, providers ‘take sides’ despite great efforts to maintain neutrality or impartiality. The bona fide international need for humanitarian assistance, the risk of unintended outcomes, and the political stakes in bilateral and multi-national engagement are far too high for humanitarian assistance projects and programs to operate without the benefit of a formal, and hopefully, an institutionalized evaluation process. Well-planned, humanitarian assistance with documented performance metrics that meet or exceed internationally recognized consensus standards should become the norm for the majority, if not all providers of humanitarian assistance, civilian or military. The many international providers

of humanitarian relief including: militaries, PVOs, IOs, and NGOs, as well as the host country, would all benefit from: the application and sharing of established performance criteria, effectiveness measured in a quantifiable and repeatable process, and periodic sharing of information to the greatest extent feasible.

While the logical framework process can be implemented unilaterally in a given organization or project, it is best accomplished collaboratively. Ideally, all organizations involved in a humanitarian effort, military and civilian should share information on project techniques, goals, intended outcomes or end-states, and the measures to be utilized to measure progress.

A model for this kind of civil-military cooperation for more effective humanitarian assistance already exists in the process known as civil-military operations center (CMOC). Although the CMOC process has repeatedly demonstrated its utility in a number of complex human emergencies (CHEs), it is usually only applied for short periods of time. When the crisis of complex human emergency (CHE) passes, the CMOC is dis-established and humanitarian assistance providers disperse. This is perhaps the only problem in the CMOC process –that it is only used for short periods of time.

The CMOC process can also have utility in the day-to-day planning of humanitarian assistance of a non-emergency nature. Instead of disbanding the CMOC every time a crisis lessens the CMOC process of civil-military collaborations could remain in effect. For example, the several hundred deliberately planned, HA, HCA, and EP projects conducted by DoD annually worldwide presently involve surprisingly little coordination or even contact with any organization outside DoD, even with the host nation (Drifmeyer & Llewellyn, 2002d). The effectiveness of these projects would benefit from the collaboration with civilian providers made possible by the CMOC process.

Whether physically present in the same room (or tent) in a traditional CMOC, or sharing information electronically in a 'virtual CMOC,' military and civilian planners would benefit from the exchange of information. From relief requirements to the varying capabilities of the organizations providing assistance, ideas and information can be shared on how best to meet requirements in working towards effective relief and a more stable situation. Collectively measuring and sharing information on progress towards the desired end state is particularly important –even where the vision of what that end-state might be, may differ between civilian and military providers.

The use of planning criteria, the logical framework process, and a CMOC, or other civil-military collaborative processes, all are best begun during the initial planning stages, - long before any humanitarian assistance is rendered. Begun early, such measures should be applied consistently throughout a humanitarian assistance project. Progress towards defined outcomes should be measured and updated periodically, and is critical to post-project reviews, after action reporting and other feedback or evaluation.

For medical humanitarian assistance of the greatest effectiveness, projects should incorporate the types of health-related activities that are most appropriate in the context of the specific situation as mutually agreed upon by all providers and the host nation. Projects should incorporate innovative health care delivery that is consistent with: patient and host country needs, international medical practice and standards of care, and the host nation medical infrastructure and culture, as well as provider capabilities and expertise. For example, deployable military medical capabilities, designed for combat trauma care, can and have been successfully used to provide medical humanitarian assistance in both disaster and emergency situations and non-emergency routine health care. However, deploying highly specialized military units is an extremely expensive means of providing humanitarian care, especially when it is not a true emergency. Through civil-military collaboration, less costly means of providing needed health care can be identified and provided. In addition to cost considerations, deploying military medical units to provide humanitarian assistance may involve personnel who, while extremely dedicated and hard working, may not have had the benefit of prior training or experience in humanitarian health care. The medical needs of refugees or internally displaced persons are quite different than providing health care for a highly physically fit, fully-immunized, well-nourished, young, largely male military force.

The wide variety of organizations conducting humanitarian assistance is itself a reason for conducting such projects within a consistent logical framework. Among collaborating PVOs, NGOs, and military providers of relief; information on project criteria and performance metrics should, to the fullest extent possible, be shared with all involved, including and especially host nation representatives. Discussing basic information such as purpose, intended results, and criteria by which success is determined, will improve effectiveness and help ensure successful project outcomes.

The tremendous unmet global demands for health care and finite U.S. resources (whether government, corporate or private) argue for conducting medical humanitarian assistance in the most effective manner possible. Humanitarian assistance, especially involving direct patient care, should not be conducted without assessments, reviews, and formal evaluations. Such techniques are available even for crisis or emergency response situations and have repeatedly proven their utility in situations ranging from flooding in Mozambique to medical response to terrorist attacks (Richards, 2002).

Written reports on humanitarian assistance while necessary, are not sufficient. Detailed information on evaluation criteria and measures of effectiveness that have been systematically and routinely collected before, during, and after each project is required. Information must be documented in a consistent and retrievable format. Information management systems and program reviews should be used to evaluate and document effectiveness. After action reports can form a 'by country' database on humanitarian projects, with outcomes used by all organizations to plan more effective future projects and activities.

In sum, within sectors of the global effort to provide humanitarian assistance, some providers and organizations, both military and civilian, have begun to apply evaluation criteria and measures of effectiveness in a large scale manner, but have done so comparatively recently. While there are roles and requirements unique to both military and civilian providers of humanitarian assistance, neither group alone can begin to meet projected demands for bona fide humanitarian assistance, especially health care. Working more effectively, whether unilaterally or ideally, collaboratively, the logical framework process and the international consensus standards known as the 'Sphere project' are common, proven tools that merit broader applications. Objective criteria and evidence-based measures of effectiveness should be derived by multiple organizations working collaboratively. Using the logical framework process and measuring progress against defined goals and international consensus standards of performance will result in humanitarian assistance projects of greater effectiveness, regardless of provider.

Summary of Recommendations

The effectiveness of humanitarian assistance is improved by ensuring:

- written project purposes, evaluation criteria, and specific quantifiable measures of effectiveness; early in the planning stages of a project.
- recording essential elements of information and sharing this information, across organizations, in a standardized, readily retrievable format, (ideally electronic) that supports analyses across geography, time, programs, and organizations.
- regularly and routinely sharing information, to the extent feasible, with all parties involved in providing humanitarian assistance including both civilian and military providers as well as host nation participants and beneficiaries.
- implementing the above measures within the logical framework process, linked directly to performance metrics such as the SPHERE standards, and new innovations to be tested such as a 'virtual CMOC.'

Study Methods

This study is based on consultations with many organizations outside the U.S. military, including for example, the Pan American Health Organization (PAHO), U.S. Agency for International Development (US AID), and American Red Cross. Additionally, faculty and researchers at other Centers and Universities with expertise in humanitarian assistance and disaster management were consulted extensively. Notably, these included the Center of Excellence in Disaster Management & Humanitarian Assistance, (COE), an organizational element of H.Q. U.S. Pacific Command and the Center for Disaster Management and Humanitarian Assistance (CDMHA) operated by the University of South Florida and Tulane University with support from H.Q. U.S. Southern Command. The fact that several Combatant Commands have invested considerable resources in civilian centers for humanitarian assistance is a good example of why civil-military collaboration in humanitarian assistance is important and should be increased. In these many venues there were opportunities for wide ranging discussions on current issues in humanitarian assistance from the differing perspectives of leaders, participants, beneficiaries, as well as comparing and contrasting the relief provided by civilian and military organizations.

A limitation of this project was the focus on three specific statutory humanitarian assistance programs operated by the Department of Defense (DoD): humanitarian assistance (HA), humanitarian and civic assistance (HCA), and excess property (EP) donations, a small fraction of the kinds and volume of military humanitarian assistance. Another limitation of this study was the cross-cultural considerations between military and civilian providers of humanitarian assistance. For example, the three kinds of humanitarian assistance examined in this report are widely known and commonly referred to within the military by their acronyms: HA, HCA, and EP. Such terms, however, may be meaningless among civilian providers. In many instances, military and civilian humanitarians have their own 'language', approach, and philosophy. Simply trying to understand the approach of others involved in humanitarian assistance, often at the same location or nearby, will begin to help improve effectiveness. Although, the scope and breadth of these three DoD humanitarian programs, HA, HCA, and EP are considerable, DoD contributions remain a small percentage of global humanitarian relief efforts. There are ample opportunities for military providers of assistance to learn from their civilian colleague and vice versa.

Literature Review

With the sparse literature on overseas humanitarian assistance, the more extensive literature on disaster response provided some cogent points. Catastrophes worldwide seem to result in accounts of the medical aspects of the disaster, its aftermath, recovery, or the re-establishment of normal government and societal functions including health care. This literature contains some lessons applicable to non-disaster humanitarian assistance. For example, de Ville, (2001) explains that it is local health care providers that save most of lives post-disaster, not external aid rushed in often days later. External medical aid, such as what is often offered by DoD, has simply not proven an important factor in emergency medical care compared to local medical assets. Another important lesson from past experiences with external aid, is that it often consists of what donors perceive the victim's needs to be rather than any actual assessment or prioritization of needs. For instance, there are not infrequent reports of massive donations of expired drugs for chronic debilitating diseases after natural disasters. Similarly inappropriate is the common practice of shipping donated items that the donors want to provide (sweaters and winter coats to the tropics), rather than what is truly needed or useful during the rescue, recovery and rebuilding phases post disaster. These examples of ineffective and even counter-productive humanitarian assistance post-disaster, can be applied to non-disaster relief situations, where there is perhaps more time to avoid such problems of the past.

Important lessons from the past experiences of both military and civilian organizations in providing post – disaster humanitarian relief can and should be applied to the humanitarian assistance of a non-emergency nature, such as deliberately planned humanitarian engagement activities like HA, HCA, and EP projects. All providers of humanitarian assistance of any type, military or civilian, need to appreciate that it is the local health care providers, community leaders, and citizens of the host nation, and not donor nations or external organizations, that are the best source of information on the needs and priorities for humanitarian assistance for their situation. Host nation representatives are best able to understand the constraints involved in humanitarian assistance, whether it is long-term improvements to infrastructure or short-term patient care. Donors, whether, military or civilian, regardless of how long they can be present to provide humanitarian assistance, remain foreigners and an external element. As such, they should facilitate relief but not overwhelm local resources. This has, unfortunately, not always been the case in many of the short-term visits in which external agencies or experts dictate the terms, scope, and details of humanitarian assistance as if the recipients had no say in the matter (Bolton et. al. 2001, Drifmeyer & Llewellyn, 2002d). For example, military personnel, usually present for shorter periods of time than their civilian counterparts, rarely ask the foreign recipients of DoD humanitarian relief for their input (Drifmeyer & Llewellyn 2002d).

Civil-Military Cooperation

Although humanitarian missions for the military have grown considerably in recent years, and hundreds of HA, HCA, and EP projects are conducted annually, they provide but a small fraction of the worldwide humanitarian relief effort. With the great number and diversity of organizations involved in humanitarian relief, it seems prudent to consider the use of techniques and processes that have a proven track record. Chief among these are two approaches, one derived from civilian experience and the other arising from the military experience of working with civilian relief organizations during humanitarian crises, i.e. the logical framework and the civil military operations center (CMOC) processes, respectively. The latter has proven particularly useful in matching the capabilities of DoD assets with the requirements of PVOs and NGOs in order to provide more effective humanitarian relief (Seiple, 1996).

Even a seemingly straightforward question such as, “who can best provide health care for local nationals?” is best addressed through the collaborative CMOC process. In some cases initial assumptions for example by some military personnel that they are best suited to provide care has subsequently proven incorrect. Providing health care for host nationals is both a demanding mission and a slippery slope for military units. Once direct patient care is being provided, it is extremely difficult to extricate one's self from the requirement for daily patient care in humanitarian operations. With a longer-term presence, PVOs or NGOs can often provide care

more efficiently, than military units who are frequently moving, or receiving new or modified missions and tasks. Through the CMOC process of collaborative discussion, all interested parties can address, “who can best provide health care for local nationals?” or similar questions involved in humanitarian assistance. Through such discussions for example, civilian health care providers rather than the military might be identified to provide patient care while other necessary functions such as security, communications, and transportation, are left to the military.

In discussion of the capability to provide care, there are important policy considerations to be considered in planning for effective humanitarian assistance. For example, in providing medical assistance when do external health care providers prolong host nation dependency on external medical services? When external providers, military or civilian, assume responsibility for patient care, are planned improvements in host nation self-sufficiency unintentionally delayed? Donor agencies should focus on building the medical capacity of the host nation’s resources to provide the care required. Measuring the effectiveness of humanitarian efforts can help address these issues by helping to define: what is required and what can be accomplished? This could increase effectiveness by ensuring the means to positively affect health long after external care providers depart. Such programs could be effectively formulated and executed using the logical framework and CMOC processes. Alone, neither DoD, nor any PVO or NGO can resolve the many complex host nation health requirements. Working together, military and civilian PVOs, and NGOs have a better chance of solving complex humanitarian problems such as health care needs in the developing world. This partnering process has already been repeatedly proven effective in the most arduous settings using the CMOC process. It should also find ready and effective applications in deliberately planned humanitarian assistance for stability operations. For example, a kind of ‘standing CMOC’ could be used for more comprehensive overseas humanitarian assistance with positive effects for all involved.

Such a creative collaborative approach (albeit without the formal CMOC) has already developed in several successful medical humanitarian assistance projects involving civil-military cooperation. For example, U.S. Navy ophthalmologists worked side by side with their civilian counterparts in Guatemala (Blanchette, 2001, Morton, 2001). Besides the immediate benefits of such collaborations, once they are made other humanitarian resources are often readily identified. Often these additional organizations are only too glad to commit additional resources to the project, thereby multiplying the effectiveness in what might otherwise have remained an exclusively military project. For example, Tissue Banks International was prepared to donate corneal transplant tissues valued in excess of \$100,000. to a project in which U.S. Navy and civilian personnel were assisting Yemeni ophthalmologists with victims of blast injury from land mines (Richards, 2000). In another example, the American Christian Veterinary Association gladly donated animal rabies vaccine valued in excess of \$30,000. to military units combating urban rabies in Port-au-Prince as part of a military humanitarian assistance project during United Nations operations in Haiti.

Many organizations, corporations, and citizens are quite interested in humanitarian causes, and would be only too glad to contribute to humanitarian assistance projects if there were a ready means to do so. For example, a local Rotarians chapter has initiated a “Med-Link” project that is the civilian equivalent of the DoD excess property program. In this innovation, civilian health care providers donate medical supplies and equipment no longer needed in local private, community, or hospital medical practices for redistribution to carefully selected care providers in the developing world. If civilian projects such as Med Link were voluntarily linked to military humanitarian assistance projects, the effectiveness of the humanitarian efforts of both organizations would be greatly increased.

Thus, both military and civilian organizations have identified similar humanitarian medical needs and opportunities ranging from excess property to ophthalmology. Both organizations could be more effective by sharing needs, resources, or at least information; than they could by operating alone. Rather than a single organization attempting to provide all of the diverse needs of humanitarian assistance, by partnering, organizations could more effectively provide humanitarian assistance and probably do so at reduced costs. Well-planned, novel approaches to civil-military cooperation can be the basis for more effective humanitarian assistance.

Some Criteria for more effective humanitarian assistance

Although there are comparatively few published examples of measuring the effectiveness of humanitarian assistance, either by civilian or military providers, there is widespread recognition and support among both of these groups for the importance of doing so. Quite simply, pre-project conditions should be compared with post-project outcomes. Despite the simplicity of this approach it has rarely been applied to humanitarian assistance, including that conducted by DoD. This has been repeatedly pointed out by sources as diverse as: military personnel, host nation participants in humanitarian assistance, and independent government investigative agencies. To translate these observations into improved effectiveness, it is useful to have criteria that have wide spread applicability to planning and evaluating humanitarian assistance. The criteria suggested below are guidelines: no single list of criteria can be universally applicable. Neither can planning for humanitarian assistance be reduced to a 'checklist' approach. Instead, these criteria can raise questions that should be considered in planning for effective humanitarian assistance.

Criteria for effective humanitarian assistance include: coordination with host nation and others, appropriateness of proposed actions for the culture and country, sustainability, local 'buy-in', capacity-building, quality control, means of evaluation, consideration of unintended consequences, appropriate use of resources, and the likely impact and duration of the project (See Table 1). This list of criteria is a starting point and the addition of other criteria is invited. One set of criteria will not fit all possible humanitarian assistance situations. Other criterion may be added as the nature of a humanitarian assistance situation dictates. These general criteria may be considered a minimal list and are likely widely applicable to humanitarian assistance worldwide, whether conducted by military, or civilian providers, or a combination thereof.

Table 1. *Planning Criteria for Humanitarian Assistance.*

Coordination: Has the project been fully coordinated with, and approved by all parties concerned including the staff of the U.S. embassy, the host nation authorities at the local, regional, and national levels, and all providers of humanitarian assistance operating in the area; military, PVO, NGO, IO and other?

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 vice indigenous medical practice?

Sustainable: Are local people, using locally available resources, able to continue the project after external resources are withdrawn? If the project is only going to make conditions better for the short time during which project personnel are present, has anything 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 time of the project?

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? How will one know when the project is “done”?

Unintended Consequences: Have unanticipated events been considered? Alternative courses of action and the associated liabilities must be considered.

Appropriate use of resources:

Does the proposed activity make good use of scarce resources? Have the opportunity costs of doing an alternative project been considered? Proponents should be able to justify and defend expenditures based on the effectiveness of the planned humanitarian assistance.

Impact and Duration: Is the proposed activity going to make a difference? If so, for how long? When the project is completed, will local citizens or an external reviewer wonder, “so what?”

Measuring Effectiveness Using the Logical Framework Process

With these criteria for planning humanitarian assistance projects, it is also essential that an evaluation process be established in which the progress on each criterion can be evaluated. Whether subjective opinions or quantitative measures, the evaluation process should be consistent and encompass the ‘before, during, and after’ stages of humanitarian assistance (Table 2). Results must be documented, and the process should be easily repeatable in subsequent projects by others. Measures of effectiveness are critical to determine end state criteria in humanitarian situations. Without them one does not know what the desired end state is, or if and when it is attained. In this context, rate based information, or denominator data is very important. Measuring effectiveness as rates, allows comparison with conditions elsewhere and over time.

Performance metrics must be quantifiable and record at least at two points in time, typically before and after a project, although additional data points during project execution are highly recommended. Such information is an essential management tool that must be built into humanitarian projects from the pre project planning stages including approvals and funding –whether the project is military, civilian, or a combined effort. Measures of effectiveness must be applied during the execution, completion, analysis, and reporting on a humanitarian project.

Measures of effectiveness also offer a number of additional benefits in helping attain successful project outcomes. First, discussing, and writing down what needs to be quantified can be an enlightening process. This rational process seems of particular value when undertaken, not in isolation, but in open dialogue as might occur during in Inter-Agency planning, or work group sessions, or meetings in a CMOC. In these venues, diverse organizations, or even competing interests, have opportunities to discuss 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 fail to agree for whatever reasons, (and this should not be unexpected in difficult situations such as complex human emergencies), defining measures of effectiveness has at least made the interests of all parties known to one another. The collaborative planning process has also caused all involved to think through to the end state criteria, an important step towards more effective projects.

Developing measures of effectiveness for humanitarian assistance thus has value in facilitating communication between different participants from diverse organizations. Even if subsequent agreements on the strategy, approach, or implementation, are not forthcoming by at least knowing what other organizations propose, all interested parties will be better informed and able to reduce confusion and redundancy in providing relief.

An important reason for using measures of effectiveness is that they provide at least two points in time over which to quantify change. In many humanitarian assistance projects conducted by the military there has been little or no follow up (Drifmeyer & Llewellyn, 2002d). Without follow-up, a fair question about any project is: “so what?” In other words, what, if anything, has been accomplished? For the significant level of resources involved in global humanitarian assistance today, whether from a military, corporate, government, or philanthropic budget; collection of defined, measured outcomes should be mandatory.

Another benefit of employing measures of effectiveness is to ensure that the many different organizations and people involved in various aspects of humanitarian assistance remain focused on the common, defined end state. This may be particularly applicable in humanitarian efforts by the military in which units and personnel rotate, sometimes quickly. Thus, replacement personnel can have the same understanding of mission and purpose and the outcome measures to attain the desired end state. While military units and personnel are rotating on a sometimes surprisingly rapid pace, many of the civilian providers of humanitarian assistance remain in place, month after month

Without such well-defined measures, individuals, military or civilian may attempt to change policies, procedures, and priorities and such changes may not be communicated to others involved. This can contribute to confusion, less effective resource use, and the phenomenon known in the military as ‘mission creep.’ Simply, this is the tendency for a provider of humanitarian assistance to take on ever-expanding commitments and workloads. This has often been the experience in medical humanitarian assistance especially in patient care

projects. It is to be expected given both the training of health care providers and the tremendous unmet health care needs one finds worldwide. Thus, there is great utility in having measures of effectiveness as a kind of bench mark against which progress is measured over time, regardless of the interests, personalities and preferences of individuals. Measures of effectiveness not only ensure that accomplishments are indeed made, but that additional unplanned activities are not undertaken.

In any humanitarian assistance project one should ask, what will actually be accomplished? Without information feed back, outcomes remain unknown, or are at best, subjective. Even where pre and post-project comparisons are based on crude measurements, fraught with inaccuracies, there will at least be comparable information upon which decisions can be made. For example, care providers in and the midst of an epidemic may have to rely on measures as crude as the number of new graves each week. While such indices are fraught with errors, they are better than no information. With neither time nor capability for complex laboratory testing for confirmatory diagnoses for each patient, daily or weekly mortality rates can prove a quick, integrating measure that provides some indication of whether medical programs are having their intended effect. Without quantifiable measures there would be no reference point, making trend analysis impossible, and statements about effectiveness subjective.

Subjective comments do not provide donor organizations, whether military commands, corporate headquarters, or central offices of major PVOs, or NGOs; the detailed, timely information required to make evidence-based decisions. Quantifiable, standardized information from measuring effectiveness must be routinely collected. Information recorded should be consistent over space, time, and ideally by multiple different providers of assistance. Organizations would thus have the shared information necessary to operate more effectively.

We do not suggest that all organizations must use the same measures; each should use what is most useful for their humanitarian operations. Information should be shared with others providing relief, but for political, security, and other reasons this ideal may not become reality. Together, all the various measures should define the overall end state, even when different participants have different visions of what the end-state should encompass.

With timelines ranging from, in some cases, hours, days, or weeks for military humanitarian operations to months or years for civilian provided humanitarian assistance, can humanitarian assistance be described as complete? This is best answered by establishing criteria, measuring effectiveness over time, then making decisions based on this feed back of information. For instance, to be effective, mission completion should depend on the attainment of specific objectives, e.g. “reduce childhood malnutrition by ___% by increasing access to vitamins, anti-parasitics, and food over ___ time span, in the following areas___.” Results-oriented information is much more meaningful than the measures of the process of providing relief that are often reported, e.g. ‘short-tons of food commodities shipped.’

Effectiveness is measured not simply to define the end state. It also has direct applications to ongoing humanitarian assistance. For example, quantifying the impact of donations can be the basis for additional orders or shipments from donors. With medical and many other types of humanitarian interventions, measuring results regularly during assistance allows adjustments to be made in time to respond to the dynamics of the situation.

Measures of effectiveness should be kept simple, and should not be made more complex than necessary. 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, especially in the midst of a difficult humanitarian situation. For example, efforts to control an epidemic might be considered effective when the number of new graves each week reaches a pre-outbreak rate. Obviously, it would be better to have population vital statistics, age-specific demographics, and laboratory confirmations to include serotypes of infectious agents to determine age-specific mortality by cause. However, in many lesser-developed countries and most humanitarian situations such information simply does not exist even in the best of circumstances. In the absence of complete data, there may be a tendency not to collect any information. This would be a mistake. While recognizing the limitations of available information, performance metrics applicable

to each situation should be developed. Basic information, recorded consistently over time and geographic areas is useful in measuring effectiveness.

Citing an example common in humanitarian assistance – e.g. care of displaced persons, the populations of refugee camps – an important measure for distributing food and health care services are often tracked as accurately as possible by relief organizations. A measure of effectiveness in this situation would be the percentage of refugees resettled to their homes. Ideally, rate-based information rather than raw numbers should be used. For instance, if 50 displaced persons are resettled, does this represent all, some, or 50 out of 50,000 people awaiting resettlement? Denominator data is necessary so that performance measures are rate-based, e.g. “to resettle 80% of the village population of _____, by ____ (date) ___.”

In another all too common example, in a famine or food embargo situation, a process measure often cited by relief agencies is ‘tons of food transported.’ While this gives some information about transportation requirements, it provides little indication whether starvation is reduced. How many tons of food commodities remain in warehouses in a port city, awaiting transportation, customs clearance, or other delays common in feeding programs? The measure of effectiveness in feeding programs is the reduction in malnutrition, morbidity, or mortality due to starvation, not the transportation requirements. A measure of effectiveness used by medical personnel in this scenario might be the percentage 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 simple performance metric integrates many of the process measures involved in getting food to the point of consumption and provides a simple, direct indicator of the effectiveness of feeding programs. A straightforward, easily obtainable medical measure of effectiveness can thus have utility in evaluating the effects of non-medical processes like food shipments.

Data gathering for performance metrics is important but should not become an all-consuming task. There should be at least one performance metric for each functional and geographic area in which relief is being provided. Often, more than one measure will be required to monitor progress, but the collection of information should not become such an onerous task as to hinder the relief effort.

Each function, specialty, or interest should develop performance metrics that make sense for them, and share such information with others. Combining information from diverse measures allows project leaders to make more accurate assessments of the situation, and thus more effective efforts.

For medical projects, measures of effectiveness are often defined in terms of declines in morbidity or mortality. For example, ‘a ___ % decrease in cause-specific case fatality rates’ is presumed to measure more effective health care. 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, prove effective in quantifying the long term results of developmental relief projects (Renison, 2001). Both of these measures are comparatively readily obtained, do not require sophisticated technology, and only need 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 area can collect such information quite inexpensively, blanketing the area of interest. Locals can more readily obtain the desired information than uniformed members or other foreigners. Locals can also sustain the data collection effort, and need not be as limited in number, duration, and mobility as outsiders who simply may not be able to function as effectively in a foreign culture. This approach was successfully demonstrated by Richards (2000) in setting up an epidemiological database of victims of blast injury from land mine accidents in Yemen.

While measures of effectiveness should lead directly to specific outcomes, they should also be firmly linked to the stated purpose of the project. If the purpose of an HCA project for example, is to provide training to U S military members that is not available to them at their home duty station, then the project should be evaluated for its effect on training (as discussed in Drifmeyer & Llewellyn 2002b). The evaluation should use the same existing Service training procedures routinely used while training in the U.S. For example, if the mission essential task were to apply a life saving tourniquet to the traumatic amputation of an extremity, then the measure of effectiveness of training would be the number of personnel who successfully completed the task to standard. The medical benefit to the patient, while obviously critical is, in this case, not the outcome measure of interest in conducting an HCA training project. Of course, secondary missions and benefits can also be tracked and included in evaluations of effectiveness.

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 among the most important measure of effectiveness for military medical humanitarian assistance. Additional measures of effectiveness are specified for a given scenario, country, medical condition, and military operation or project.

DoD is by no means alone in working to implement measures of effectiveness of humanitarian efforts. 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 not only makes good management sense, but also is increasingly important in an era where global humanitarian needs far outstrip resources available. This is true 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 a well-organized formal procedure for 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 list, there is less likelihood that required items or important factors would be forgotten or that confusion might arise between who was responsible for which elements.

Besides specific task checklists, the American Red Cross also employs an organized approach to the overall planning of relief missions. This formal process, termed the 'Logical Framework' requires that planners formally state: goals, objectives, outputs, activities, and inputs, or what Oxfam terms, the "vertical logic" of a project. This planning matrix (Table 8) forces the planning process through a system analysis approach to targeted beneficiaries and indicators. The process includes a verification phase (information feed back), and lists any assumptions involved.

As an illustration, the following section applies this logical framework approach to the not uncommon problem of diarrheal-associated morbidity and mortality in the lesser-developed world – serious health concern common to many lesser-developed countries but an issue strangely not addressed in a single after action report on any DoD humanitarian project reviewed. 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 (for example). 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 direct measure, for example, standardized epidemiological survey data collected by trained health outreach workers

(preferably local indigenous peoples), and/or morbidity and mortality data as collected systematically by health care providers at faculties throughout the region, including for example, the local office of vital records. It may also include indirect measures such as the number of mothers trained in maternal child education or other health outreach classes. Another indirect outcome 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 would 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 population of the area. With this logical framework process and the systematic, routine collection of standardized information, the staff would have the information required to evaluate project's effectiveness.

With the logical framework approach, one also has timely information essential to keep the program operating effectively while it is being executed. If for example, a certain geographic area or aspect of the program is showing results inconsistent with other areas, then timely intervention can resolve issues, contributing to project success while time and resources are still available and can be effectively used to induce change or improvements in the particular situation. Reports of data outside the norm could be investigated to determine if they represent a program failure or differing conditions. Without specific measures of effectiveness and information feed back, time and other resources may be exhausted before any bona fide impact on health surfaces. This is likely the case in many military humanitarian projects as conducted today. The short term nature of many deployments, the lack of specified outcome measures, the often limited and/or late contact with anyone from outside DoD, the emphasis on collection of process measures, results in projects being 'completed' by checking the calendar rather than any demonstrable measure of 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, (discussed below) offers excellent possibilities for adaptation by DoD. The Sphere project would be particularly applicable if the focus of military medical humanitarian engagement activities shifts from short-term patient care, to longer-term developmental and capacity-building projects as we strongly recommend.

Evaluating Effectiveness of Humanitarian Assistance

Information feedback and evaluation is essential to the success of any project or program. This applies to humanitarian assistance projects as currently being conducted as well as those planned in the future. Thus, it is important to fully consider the evaluation process, as discussed below as applied to measuring the effectiveness of medical humanitarian engagement activities.

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 no formal attempt was made to document results.

In many cases in the past the assumption was that 'doing good' was all that was required. In today's high stakes international environment, and with finite resources, just 'doing good work' is not enough. All involved in humanitarian relief, military and civilian, should be able to clearly and concisely demonstrate whether their efforts make a difference.

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. Often evaluations and impact assessments rely on subjective or anecdotal tidbits of information that are not part of a systematic data collection and evaluation system.

As mentioned in the preceding section, 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 interventions and scenarios. 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, often overwhelmed with those seeking care. The local nationals, regardless of the country in which the project is undertaken, come for miles to obtain care. Often patient workload far exceeds capacity even when personnel extend duty hours and days, seeing as many patients as possible. This pattern recurs in DoD project after project until redeployment, and likely occurs in many humanitarian projects conducted by other-than-DoD as well. Thus, in such as scenario health care has been provided, DoD personnel presumably received training, 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. The key point and reason for using the logical framework is to ensure that intended outcomes are achieved. Better planning of projects, incorporating performance metrics in a logical framework is essential to improving effectiveness of humanitarian assistance. This is applicable to medical and non-medical projects, both military and civilian-conducted.

The benefit of planning and executing military medical humanitarian projects within the logical framework is that the program defines the variables to be measured and their relationship to each other. The logic of evaluation links the activities of a program with the effects of the activities. Organizations that have made a concerted effort to improve humanitarian project performance, lessons learned, and accountability have adopted the logical framework as a central part of their monitoring and evaluation. Since the logical framework approach has already demonstrated its utility in a variety of situations by diverse organizations, the process is worthy of full consideration, if not adoption by DoD. As a pilot project we recommend implementing the logical framework approach in selected FY02 DoD humanitarian engagement activities. For example, the outcomes of several different medical projects, some using traditional planning approaches and

others using the logical framework could be evaluated and compared. From this kind of beta test, subsequent decisions could be made on possible wider applications in DoD programs.

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 his or her own indicators. 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, in addition to the logical framework, medical and other humanitarian assistance also should comply with widely recognized consensus standards against which performance measurements can be compared.

Application of internationally recognized consensus standards is not a moot point. At the heart of the issue is: who defines success? In other words, are there internationally agreed upon performance standards by which medical humanitarian engagement activities should be conducted. For example, using the example cited elsewhere (Driftmeyer and Llewellyn, 2002c) in which 18,000+ immunizations were given to 5,000+ locals, and the logical framework approach, an organization interested in reducing the occurrence of vaccine-preventable diseases among the under 5 population would define the inputs (e.g. effective vaccines, a cold chain, personnel qualified to administer immunizations, and the transportation and other logistics inputs to get these resources to the point of need). Then the success of the pediatric immunization programs can be measured over time in the reduced incidence and prevalence of the specific diseases for which vaccines were administered, and compared to preprogram conditions, realistically in this same area. In such a well-documented project, planned and executed within the logical framework, what defines success? Does a reduction by 50, 80, or 95% of the vaccine preventable diseases constitute a successful project?

To date, many humanitarian medical projects have not defined desired end states nor even recorded their results or '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 also point out the need for measures of performance and evaluation against internationally recognized standards. Consensus standards for international humanitarian care 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 in humanitarian relief situations. Initiated in 1997, the Sphere Project developed a set of universal standards in core areas of humanitarian assistance (including health care) in order 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 network of experts, and the recommendations are based on international humanitarian law. Presently, there are guidelines dealing with minimum 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 practice. 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 project are, consistent with the logical framework, output oriented, and are potentially very useful in the kinds of short term and emergency humanitarian situations in which military medical personnel often find themselves.

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 reasons for military interventions. Despite these limitations, DoD in general and military medicine in particular, should consider adopting the Sphere project consensus standards, where applicable, to its overseas humanitarian assistance projects. Adopting the logical framework approach to measure of effectiveness and applying the Sphere project minimum standards will afford DoD the performance metrics and consensus standards necessary for 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.

Measuring and evaluating effectiveness generates large volumes of information, and potential recommendations and lessons learned that should be shared. This is necessary to advance the practice of humanitarian relief, especially improved organizational learning, the furtherance of performance metrics, and adoption of international consensus standards. Conducting more than 200 deliberately planned engagement activities annually, DoD personnel have a wealth of experience that could be shared both within and outside DoD. However, at present, even within DoD this information sharing rarely occurs. It is imperative that systems be developed to ensure that essential information is not lost upon project completion. Information from DoD humanitarian projects needs to be widely shared within the organization, and to the extent practicable subject to security, force protection, and political sensitivities, likewise shared with others involved in humanitarian relief such as the host nation, other Federal agencies, PVOs, and NGOs.

Summary

Major findings on humanitarian assistance conducted under the OHDACA - Overseas Humanitarian, Disaster, and Civic Aid program include:

- Both civilian and military providers of humanitarian assistance conduct a large number and wide variety of medical or health-care related humanitarian assistance projects annually. In so doing, diverse organizations face similar challenges in attempting to meet tremendous health care needs in developing countries, complex human emergencies, mass human migrations, and other post conflict scenarios. This health care is often provided under very austere conditions with a destroyed or very rudimentary health care infrastructure. Typically humanitarian assistance patients have had little, no, or only very sporadic access to sometimes irregular health care, and suffer from severe malnutrition, tropical and infectious diseases, parasitic infections, as well as physical exhaustion, exposure, dehydration, physical and mental abuse, and the total collapse of traditional societal, familial, governmental, and economic support systems.
- Despite the many similarities faced by military and civilian providers of humanitarian assistance, there are also fundamental differences in the approach of these organizations to the purpose and methods of providing humanitarian assistance. For example, the majority of military medical humanitarian assistance projects are short-term, one time interventions averaging just 2 weeks in length –just one half of the average time spent on overseas assignment by many civilian humanitarian workers. In addition to markedly different perspectives on the duration of the relief provided, military units conduct humanitarian assistance for their own training benefit or for international political concerns of the donor nation in addition to the humanitarian benefit to recipients.
- Many military and civilian providers of humanitarian assistance need to develop and implement better means of recording key information in the field (under austere and/or emergency conditions), and conveying that information into timely and often critical management decisions. Many humanitarian assistance projects are not well documented either by military or civilian providers. Those reports that are available may contain abundant detail about what went on during the project but usually seem to stress the process of providing assistance rather than objective data on the outcome or results of humanitarian assistance efforts. Since both military and civilian providers of humanitarian assistance, face similar challenges there is an excellent possibility for collaborative sharing of information, tools, techniques, and strategies for obtaining the desired information and then managing it to advantage to support effective relief efforts.
- In some humanitarian emergencies of the recent past, conditions were often so horrible that anything that anyone accomplished was an improvement if not miraculous. In many cases, success was defined not necessarily based on effectiveness but being able to accomplish anything. Today, both military and civilian providers of humanitarian assistance find that it is no longer acceptable or adequate to do something or anything in a humanitarian crisis. Instead, effective actions are based on analysis and prioritization of needs which have been hopefully coordinated with multiple agencies at several levels. In so doing, providers of humanitarian assistance are expected to meet international consensus minimum standards for performance as well as their own internal review processes involving documented outcomes and wise use of and complete accounting for donor resources.
- Both civilian and military providers of humanitarian assistance recognize the need for improved training in order to have personnel able to conduct more effective humanitarian assistance. While the dedication and motivation of relief workers to help their fellow man is highly commendable, effective humanitarian assistance does not often result when untrained volunteers are simply expected to do the best they can.
- Regardless of the type of relief project, medical or otherwise, military or civilian, humanitarian assistance should be planned and executed using the logical framework process in which quantifiable outcomes are planned, measured, and evaluated before and after each project and then compared to internationally recognized standards of performance in humanitarian assistance such as the SPHERE standards.

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Wong YS. Chief Army Medical Officer, Headquarters Army Medical Services, Singapore Armed Forces, AFPN 0041, 75 Lorween Rd. Singapore 248844. CD:

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Table 2. Some examples of differing viewpoints on the effectiveness of humanitarian assistance: Unified Combatant Commander U.S. Ambassador, U.S. military healthcare provider, U.S. military unit commander, host nation beneficiary, and PVO / NGO healthcare provider. Sample representative criteria and measures of the effectiveness of military medical 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

