

Peace Corps' Response to OIG Investigative Review I-13-020

The Peace Corps family continues to grieve the loss of Nick Castle, and we share the commitment of his family and of the Office of the Inspector General (OIG) to ensure the agency does everything it can, every single day, to protect the health, safety and security of our Volunteers. Nick was passionate about his mission as a Peace Corps Volunteer and was committed to serving others.

To honor the Peace Corps' commitment to Nick, we have taken an introspective look at his unusual case to determine whether or not his death was preventable and what we can learn from this tragic experience. As part of this thorough review, Nick's case was formally reviewed by four physicians including a doctor with the Peace Corps Office of Health Services (OHS); an independent, outside expert at the request of the Agency; a pathologist with the Armed Forces Medical Examiner System; and an outside expert at the request of the OIG. The conclusions of these physicians differ to varying degrees, which underscores the complexity and uniqueness of this case.

Despite the differing conclusions, we know there is room for improvement. We share a strong commitment with the OIG to continuously review the support we provide to our Volunteers, and we appreciate this opportunity to comment on the considerations included in the Investigative Review. Nothing is more important to the Peace Corps than our Volunteers, and although we can never fully overcome the fundamental challenges of operating abroad, we will never stop pushing those limits.

Below are our comments. The original text from the Investigative Review is repeated here to provide clarity and context for the Peace Corps' responses.

Contingency Plans that Support Better Decision Making. To develop effective contingencies it is important to anticipate the possibility of failure. Decision making by individual healthcare workers depends on training to prepare for unexpected events based on tasks involved, context,¹ and self-awareness.² For example, when there are concerns about the local healthcare system, PCMOs [Peace Corps Medical Officers] should err on the side of caution, even when a patient's condition appears routine.

We genuinely appreciate the support from the OIG for our efforts to improve our performance, and we agree that healthcare workers should work to anticipate possible failures and to train for unexpected events. In this regard, however, it is important to understand that not all mitigation strategies depend on training, preparedness for unexpected events, or even self-awareness. Risk mitigation in medicine is nuanced and exceptionally complex.

Managing unexpected or outlier events means that providers have to be trained to make strong responses to early, weak signals that something is amiss, and this is generally counterintuitive

¹ "Context" would include: lack of necessary material, unserviceable equipment, available healthcare facilities' capabilities, local culture, etc.

² "Self-Awareness" would include: limits of expertise, fatigue, inexperience, new to job, negative life events, etc.

and contrary to deeply ingrained behaviors. A strong response to a weak signal is a necessary step in preventing a snowballing cascade toward failure in medical care, but such behavior is rarely well-regarded. On the contrary, it is often deemed to be alarmist and an unnecessary escalation.

A relevant consideration for training to manage unexpected or outlier cases includes the risk of evoking paradoxical dangers. First, such training can create a distraction from training related to basic medical care, where more significant, albeit less dramatic, daily risks arise, and without its balanced application, it runs the risk of degenerating into thoughtless, defensive medicine. In addition, searching for outlier medical conditions routinely introduces spurious results from over-testing, which then gives rise to additional, clarifying tests. This can lead paradoxically to entirely new risks from needless procedures. Furthermore, erring on the side of caution can result in direct risks from over-treatment (e.g., prescribing antibiotics for all sore throats “just in case” streptococcus is the cause, possibly leading to antibiotic resistance). Lastly, excessive medical caution can create considerable anxiety for patients.

1. Consider developing contingency plans that decrease the possibility of confusion and improve efficiency.

We agree with this consideration. In the recent past, we contracted with the Department of Defense to provide Peace Corps Medical Officers (PCMOs) with Pre-Hospital Trauma Life Support (PHTLS) training, which was followed by a graded practical exam for each PCMO. Having everyone practice a specific methodology helps to eliminate confusion and coordinate care during acute events. Additionally, we routinely perform tabletop exercises with the entire leadership team at posts during their tri-annual site assessments (see (5) below), again with the intention that practice reduces confusion and improves coordination of efforts.

The caveat here is that primary care providers must always remain agile in their thinking and cannot perform by rote. They often find that standardized plans of care, decision algorithms, or contingency plans are impossible to apply in live situations, except under very constrained circumstances.

A tool known as “cognitive forcing” was taught at the 2014 Continuing Medical Education (CME) conferences to help PCMOs routinely check their thinking and develop contingency plans dynamically that would compensate if their thinking about a medical case might be in error. In addition, as the Electronic Medical Records System (EMR) matures beyond the current pilot program and past full implementation in 2015, we will be able to provide “just-in-time” reinforcing education regarding common illnesses to assist PCMOs in broadening their thinking and anticipating unexpected turns in a case.

2. Consider training or other measures that may improve team based behaviors, and in a crisis to yield decision-making to the most experienced and knowledgeable individual.³

³ Suggested Resources:

- a) James Reason, *The Human Contribution: Unsafe Acts, Accidents and Heroic Recoveries*, (United Kingdom: Ashgate, 2008);
- b) James Reason, *Managing the Risks of Organizational Accidents*, (United Kingdom: Ashgate, 2007);

We agree with this consideration. A coordinated and communicative team, especially one where those on the front lines are empowered to make necessary decisions based on their knowledge of the situation rather than their seniority in any hierarchy, is a central feature in a high-reliability organization.

Our caveat here is that there is natural tension between accountability and empowerment, and empowerment appears to be an essential feature to an effective team. Accountability requirements stem from administrative oversight, and imply adherence to rules and reporting, and represent a degree of inflexibility. Team-based empowerment implies finding creative responses on the front lines, finding flexible workarounds to keep things going, and making decisions based on intimate knowledge of active circumstances. Excellent medical care in Peace Corps requires both global accountability and local empowerment, and while the two concepts are not irreconcilable, they do require a sensitive and balanced approach.

There are flaws and risks in applying high-reliability methods from business and industry to the practice of medicine, which the Investigative Review's suggested resources generally endorse. Clearly there are lessons from industry that medical practice can learn and adopt regarding the human element of performance. However, when personnel in industry interact with mechanical elements, they can expect engineered responses within tight parameters; meanwhile, medical personnel interact with dynamic biological systems, where tidy cause-and-effect mechanisms are elusive.

OHS has been steadily collaborating with regional administrators and Country Directors (CDs) on the issues of coordinating the entire team at posts in both the overall management of the health unit as well as the management of individual Volunteer health. In addition, we conduct open discussions about team-based behaviors at every Medical Overseas Staff Training (MOST) and CME conference, searching for impediments to the team and offering paths forward.

3. Consider requiring PCMOs routinely use standard order sets for the most frequent conditions, and checklists for assuring minimum go-bag functional equipment and supplies, to reduce the effect of human factors such as stress or fatigue.

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- c) *The website of the U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality;*
 - d) "TeamSTEPPS," accessed September 9, 2014, <http://teamstepps.ahrq.gov/> ["TeamSTEPPS® is an example of an evidence-based teamwork system (initially developed in the military) aimed at optimizing patient outcomes by improving communication and teamwork skills among health care professionals. It includes a comprehensive set of ready-to-use materials and a training curriculum to successfully integrate teamwork principles into any health care system."];
 - e) Karl E. Weick and Kathleen M. Sutcliffe, *Managing the Unexpected: Assuring High Performance in an Age of Complexity*, (Michigan: University of Michigan Press, 2001);
 - f) Mark R Chassin and Jerod M Loeb, "High-Reliability Health Care: Getting There from Here," *The Milbank Quarterly*, 91(3) (2013): 459–490, <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3790522/>;
 - g) David Marx, *Patient Safety and the "Just Culture": A Primer for Health Care Executives*, (NY: Columbia University Press, 2001), <http://psnet.ahrq.gov/resource.aspx?resourceID=1582>.

We agree with this consideration, with the caveats about using standardized plans of care mentioned under Consideration (1) above. In July 2013 the Medical Director directed PCMOs to use checklists for go-bag contents. By November 21, 2013, all posts had been identified as compliant.

4. Ensure that PCMOs clearly articulate the degree of urgency when requesting access to posts' non-medical resources (e.g., driver, car), in emergency and nonemergency situations.

We agree with this consideration. We see clear communication as a central feature in teamwork, as mentioned above in Consideration (2). The pre-supposition here is that the PCMO must recognize the acuity of the situation before they can convey it; we are confident that tools taught at the most recent CME conferences (e.g., cognitive forcing, and our review of red flags, as described under Consideration (6) below) will aid the PCMO in recognizing emergencies.

5. Consider additional steps, such as requiring posts to simulate critical events, to improve communications and teamwork among medical staff and with emergency providers.

We agree with this consideration. We see this as an additional facet to Consideration (1) above; please see our response there.

Anchoring. Anchoring is a cognitive bias that describes the common human tendency to rely too heavily on the first piece of information offered. The Peace Corps PCMOs were also treating five or six other Volunteers who were attending training along with PCV Castle and who were staying in the same hotel, who also reported having gastrointestinal illnesses but did not become violently ill. The Peace Corps has already taken steps to educate PCMOs about the danger of anchoring bias.

Anchoring bias along with more than two dozen other cognitive biases and common errors in scientific reasoning were reviewed with PCMOs in considerable detail at the 2014 CME conferences. Training for all PCMOs into the future will continue to include tools to prevent anchoring as well as other biases in medical decision-making.

Training. Gastrointestinal illness is the health issue most commonly reported by Peace Corps Volunteers, more than double the second most reported health issue. Though death from gastroenteritis is uncommon in otherwise young, healthy individuals, training is important for mitigating risk.

We agree that we should strive to be experts at recognizing and managing our most common illnesses. As noted in our commentary preceding Consideration (1), there is tension between training to become experts at common illnesses and training for unexpected events. The first represents the usual purview of primary care, while the second is more the scope of emergency medicine. These are not entirely incompatible training objectives, but the specialties are optimized for different outcomes.

6. Consider enhanced training for Peace Corps' healthcare staff, and Volunteers as appropriate, to recognize, document, and treat symptoms and signs of hypovolemia/dehydration.

We agree with this consideration, and see it as a facet of the clinical management of shock. Shock management was reviewed in detail with PCMOs during the 2014 CME conferences. During a detailed review of a case that included the development of shock, we spent considerable time pointing out each incremental step as shock evolved, and discussed as a group which features were red flags (and thereby predictive), and which were artificially reassuring (and needed to be ignored, to avoid distraction or flawed reactive care).

Record-keeping. Good record-keeping is critical to ensure proper management of the patient, as well as improve the quality of treatment provided to future patients.

- 7. Set or reinforce the expectation for physicians and healthcare professionals to date, sign, and time all orders, notes, and entries.**
- 8. Consider improving current processes for ensuring compliance with agency medical records standards. Intermittent, independent reviews should be considered to assure accountability.**

We agree with the two preceding considerations. Quarterly chart reviews performed by the Quality Improvement (QI) unit are the current method of enforcement. The QI unit assesses, grades, and provides feedback to the originating PCMOs, regarding the completeness of their medical records, including the presence of dates and times on clinical notes. We are currently implementing an electronic medical record system to strengthen our process by automatically dating and timing entries into the chart.

Collection and Analysis of Near Miss Data. A near miss is an unintentional event that does not lead to patient harm. It is considered a red flag for potential future injury or mortality and reflects a potential chain of events that leads to the near miss. System issues of leadership, management, equipment, employee awareness, team-based behaviors, and human factors may lead to a near miss or injury. There are many more near misses than harms. A system of close-call data collection is useful to establish patterns and organizational priorities/resources to establish targeted interventions. Data collection systems may be pro-active (healthcare worker incident reporting) or reactive (root-cause analysis). It is recommended both harm and near-miss reporting systems allow for anonymous reporting and follow an algorithm to establish if there was negligence, human, or other factors involved.⁴ The results of such reviews should be used to improve safety systems and reduce risk via training, feedback, and performance.

9. Consider establishing or reinforcing a systematic method to collect and discuss near miss events.

⁴ Similar to reviews of airline incidents where anonymous reporting is utilized as a tool, allowing reporting of data that otherwise would not be reported, significant legal hurdles would need to be addressed and boundaries would have to be well established.

We agree with this consideration. Our current sentinel event system is a fairly robust method of collecting data about aberrant events in the Peace Corps healthcare system, and it addresses both sentinel events and near-miss events.

Peace Corps defines a sentinel event as an unexpected occurrence that results in harm, such as death, serious physical or psychological injury, or a significant risk thereof in a Peace Corps Volunteer or a Returned Peace Corps Volunteer whose event was related to their Peace Corps service. Such events are called “sentinel” because they signal the need for investigation and possible response.

Peace Corps defines a near-miss event similarly to the definition above the Consideration. Since such an event does not engender harm as an outcome, it does not meet the definition of a sentinel event per se. However, we report on, investigate, and respond to these events using the same system as sentinel events. Investigating and analyzing both of these phenomena allow for opportunities to improve our health care delivery processes.

Root Cause Analysis is a process within the sentinel event system for identifying the basic or causal factors that underlie a variation in performance, whether resulting in a near-miss or a sentinel event. A root cause analysis focuses primarily on systems and processes, not individual performance, and the purpose of the root cause analysis is elucidate potential improvements in systems or processes that reduce the risk of similar incidents in the future.

Upon completion of a Root Cause Analysis, where indicated, an action plan is developed. The action plan identifies strategies to address the causal factors that were identified and to ultimately reduce the overall risk inherent in the healthcare system. Sentinel and near-miss event reporting is routinely shared with the Peace Corps Quality Council, and action plans and improvement areas are then communicated to PCMOs and OHS Staff by the Quality Improvement Unit or other units as necessary.