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Improving Risk Management through Incident Reporting
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Without warning, the rope pulled tight and I was yanked off my feet. I landed with a thud on the hard snow. The unexpected force was still pulling me down the slope as I struggled to gain control of my ice axe and begin to arrest my slide down the glacier. Finally my axe stuck and I stopped sliding. I couldn’t see because of the foggy conditions, but I could feel that my two rope mates above me were most likely in a similar position.

When I looked down the slope, I could not see the fourth rope team member and could just make out that the rope seemed to disappear over the lip of a crevasse ten feet away from me. With clear communication and practiced precision, we were able to quickly rescue our fallen climbing partner who had plunged through a snow bridge and taken a 20-foot crevasse fall. Fortunately her only injury was a very sore knee from when she slammed against the ice wall of the crevasse.

Was this an accident? The word accident is commonly used to refer to events that cause injury or damage from natural or human forces. Webster’s Collegiate Dictionary defines an accident as an “unforeseen and unplanned event.” In reality, many if not most of the “accidents” we see and experience in the adventure programming profession are in fact foreseeable and planned for through the use of controls and appropriate risk management strategies.

The word “incident” is a more useful term to refer to these events. Incident is defined as “an occurrence of an action or situation that is a separate unit of experience.” This allows us to refer to events in a more factual way. Incident is a nonjudgmental way to refer to events that may be accidental, intentional, a force of nature, errors in judgment or procedures, or an outcome of the inherent risks of participating in adventure activities. Significant incidents should be analyzed in more detail in order to learn from the experience. After analysis we may conclude that an incident was indeed an accident, or we may discover factors that contributed to the incident. Such analysis leads to better understanding of how to avoid and minimize future incidents.

In the story above, we know the four climbers were planning for the possibility of a crevasse fall. They were roped together. They had been trained in and practiced in ice axe arrest and crevasse rescue. They were wearing the right clothes in anticipation of falling into an icy crevasse. This was no accident. If we were to hold an imaginary debriefing with these climbers, we might discover other factors that contributed to the incident. That the weather changed quickly and unexpectedly. That they continued climbing because they were confident in their ability to reach the summit and descend before the weather got too severe. That they didn’t bring wands to mark their route because it was a crystal clear morning when they left camp. The wind-blown snow didn’t hold footprints and they got off route on the descent. It is easy to imagine many other factors that could have come into play.

The point is that when we realize that these events don’t just happen — that we as participants or leaders in adventure activities have an active role in the sequence of events that lead to injuries or close calls — we grossly oversimplify them by referring to them as accidents.

We at NOLS firmly believe that by understanding our incident history, by maintaining a verifiable record of incidents, and by analyzing past incidents, we are better able to identify if and when changes in risk management methods might be necessary. This type of information can also be useful for participants and their families to better understand the types of risks inherent to participation on NOLS courses or other adventure programs. NOLS has collected incident data over the past 20 years, and we have used it to improve our program. We have also published it regularly to contribute to the greater body of knowledge in the adventure programming industry. This too is no accident.

Seven Components of an Effective Incident Reporting System

An effective incident reporting system is not difficult to implement, but certain elements are important. It needs to be prioritized by senior management or trustees. It requires forethought and planning. It takes a commitment of some time from administrative staff. And most importantly it needs to be accepted by the field staff. Here are the steps to implementing a good incident reporting system:

1. Design a simple incident report form. A complex form that has too many questions hinders compliance by field staff. It just takes too much time and is viewed as a burden. Too many details also become an administrative nightmare when its time to enter the data and crunch the numbers. Avoid “TMI” syndrome (Too Much Information).

   Fortunately, you don’t have to reinvent the wheel. NOLS has published its incident report forms in the proceedings of the Wilderness Risk Management Conference, available for sale through NOLS and the Outdoor Network. The Wilderness Risk Management Committee (WRMC) also has an incident reporting project with forms available for use. You should seriously consider submitting your incident data to the WRMC project.

2. Define a reportable incident. Some organizations may need to record every scratch and splinter, but this level of detail may be unnecessary for others. Define a reportable injury, illness and near miss. Set your own parameters or borrow from NOLS or the WRMC.
3. Capture the story. Have a narrative section on the incident report form. Incident narratives are not simple to write. To write them well takes instruction, training and practice. Good narratives are written succinctly and factually and present a clear picture of the event.

4. Collect program day information. Participant data is needed to calculate incident rates. Incident rates are used to measure performance over time. A program day is one person (staff or participant) on a course/trip for one day. The common rate factor is incidents per 1,000 program days.

5. Have accessible data. Design a storage system that allows for easy retrieval. Database software such as Filemaker Pro® or statistical software provides the necessary functionality. Set specific designators for categories such as type of injury/illness, activity, or contributing factors.

6. Analyze the data. Look for the most frequent incidents and the most severe ones. Search for patterns in factors contributing to incidents. Identify trends in the data, such as changes in incident rates over time or by season. And double-check to make sure you’re reading the numbers correctly. Ethan, I understand your point with the last sentence, but I think it reads better without it.

7. Close the feedback loop. Develop an organizational culture that embraces learning from incidents. Encourage reporting by using the information responsibly. It is better to receive an incident report of a close call that calls into question staff judgment than to not learn of it because staff fear they’ll be penalized. The “heads will roll” approach is not an effective management strategy. Crunch the numbers, write the reports, and set measurements of performance. Turn the collected incident data around and report to staff so they can see the value of their efforts to fill out the incident report form and have ownership in the process.

Ultimately, staff and participants are the ones who are going to benefit the most from the incident reporting process.