

## BRIEF REPORT

# Search and Rescue in the Intermountain West States

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**Background.**—Minimal data exist regarding the activity, membership, training, and medical oversight of search and rescue (SAR) teams.

**Objective.**—Our objective was to describe these characteristics in the Intermountain West SAR organizations.

**Methods.**—A contact list was generated and electronic surveys were sent to SAR officials in each Intermountain West county. Results were descriptively analyzed.

**Results.**—Of the contacted jurisdictions, 56% (156) responded to the survey. The annual average call volume was 29 missions (range, 5 to 152). Multiple levels of medical training were represented on SAR teams, ranging from first aid/cardiopulmonary resuscitation providers to the physician level, and 79% of teams provided some medical training to their membership. Of the SAR medical professionals, 23% had formal wilderness medical training. Local emergency medical services provided 60% of the medical care on SAR missions rather than SAR personnel. Formal physician medical oversight was present in 41% of the SAR teams. These physicians participated in a range of SAR activities including medical protocol drafting (including expanded scope of practice), medical trainings, mission participation, medical consultation, and prescribing medications for field use. The majority (69%) of those physicians were trained in emergency medicine, and 45% of the active medical directors had protocols allowing for an expanded scope of practice due to the remote nature of SAR medical care.

**Conclusions.**—Intermountain West SAR teams vary in their activity, composition, training, and level of medical oversight. This study confirms that opportunities exist for physician integration with SAR teams in the studied states and likely throughout the United States.

*Key words:* search and rescue, SAR, medical direction, remote, expanded scope of practice

## Introduction

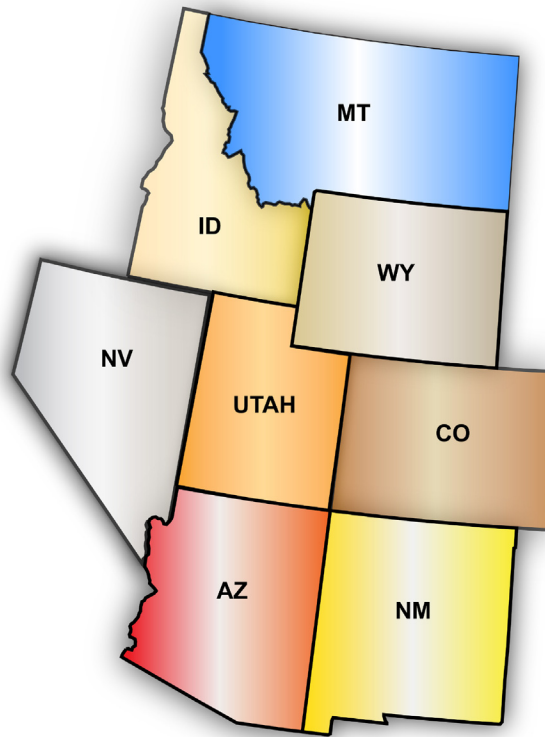
Search and rescue (SAR) teams are utilized to assist lost and injured backcountry travelers or to retrieve the deceased. The SAR teams of the Intermountain West states (Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming) are likely some of the most active in the country (Figure 1). Currently, minimal data exist regarding these teams. This study sought to describe these SAR organizations, including call volume, membership, training for team members, and the level of field medical care that was provided to the ill and injured (Figure 2). Additionally, the involvement of

physician medical direction and authorized expanded scopes of practice were investigated.

## Methods

The SAR operations are typically the responsibility of the county sheriff's office, so we began by contacting the sheriff's department in all 281 counties in the Intermountain West. The one exception is the state of New Mexico, in which the State Police act as the SAR incident command, and we were able to obtain a list of all recognized SAR agencies within the state. A 15-question electronic survey was developed that queried call volume, team composition, training activities, and medical oversight and was sent to each county (Table). If no response to the initial e-mail request was received, additional e-mails and telephone calls were made to compile an

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**Figure 1.** States comprising the Intermountain West region.

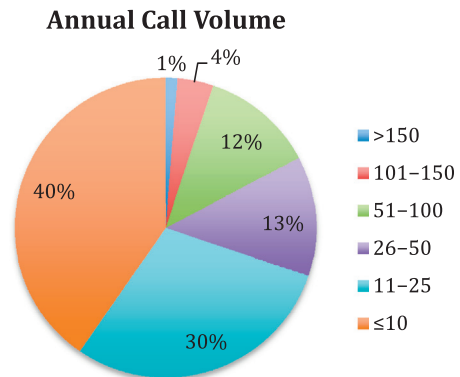
accurate contact list. Results were descriptively analyzed using Excel (Microsoft, Redmond, WA) and SurveyMonkey (Palo Alto, CA). The University of Utah Institutional Review Board reviewed and approved our study.

**Results**

Of the SAR agencies contacted, 56% (156) of jurisdictions responded to the survey. The response rate for the individual states was as follows: 67% in Arizona (10 of 15), 56% in Colorado (36 of 64), 48% in Idaho (21 of 44), 41% in Montana (23 of 56), 59% in Nevada (10 of 17), 58% in New Mexico (19 of 33), 69% in Utah (20 of 29), and 74% in Wyoming (17 of 23). The mean annual call volume of responding teams was 29 missions (range, 0 to 154; Figure 2). The highest call volume teams were located in Clark County, Nevada (154), El Paso County, Colorado (152), and Boulder County, Colorado (146). Nine teams from the Intermountain West region reported an average of 0 missions per year. Teams were composed of on average 41 volunteers (range, 0 to 300) and 1 paid member (range, 0 to 26). Although the sheriff’s office in most communities is responsible for organizing SAR response, 76% of teams have someone other than the actual sheriff acting as SAR team commander.

Training offered to SAR team members is both technical and medical in nature. Instruction in a wide breadth of technical specialties is made available to SAR teams. The environments of the counties in which individual teams operate typically dictated the types of trainings conducted.

Most teams (67%) did not require medical training before joining but 79% of teams provided at least basic first aid and cardiopulmonary resuscitation (CPR)



**Figure 2.** Average annual call volume for reporting search and rescue teams in the Intermountain West geographic area.

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