Stories in the Land of Enchantment

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UNM Center for Rural and Tribal EMS Medicine

• Mission: to support and advance the field of Out-of-Hospital Medicine in rural, frontier, and tribal settings, through education, innovation, research, and medical direction

• Consists of two core EMS physicians, one EMS Fellow, and one EMS NP/Paramedic covering multiple rural, frontier, and tribal EMS agencies in NM, AZ, and NPS

• Works closely with EMS Academy to creatively address rural EMS education needs

Mt. Taylor, McCartys, Acoma Pueblo, N.Mex.
**The Sting:** Tarantula hawks have some of the longest stings in the insect world, measuring up to a third of an inch. That may not sound like much, but these curved weapons are perfect for injecting venom into large spiders.

**Lazy Boy:** Adult male tarantula hawks have an easy life—and should probably have a different name from the females because they don't attack anything but flowers. While the females are out hunting tarantulas, the males just fly from plant to plant sipping nectar all day. Their only job is to mate.

**Creature Features**
- **Genus/Species:** Pepsis/Various
- **Size:** Length up to 2 in.
- **Habitat:** Deserts and other areas where tarantulas live in the Americas
- **Food:** Adults eat nectar, larvae eat spiders
- **Lifespan:** Up to 3 years

**Female tarantula hawk wasps spend their lives daring death.** These fearless hunters pick fights with large tarantulas—and usually win! The wasp jabs the arachnid with its extra-long sting. Before the tarantula knows what hit it, the spider is paralyzed and being prepped for dinner. The spider will be the food for the wasp's growing larvae.
Indian Rt. 53, Mesita, Laguna Pueblo, N.Mex.
Call Failed
The Indian Health Service (IHS), an agency within the US Public Health Service Department of Health and Human Services, is responsible for providing federal health services to the 1.9 million American Indians and Alaska Natives who belong to 567 federally recognized tribes.
Crownpoint IHS Hospital (CLOSED), Crownpoint, Navajo Nation, N.Mex.
Single Payer + 638

Pine Hill Health Center, Pine Hill, Ramah Navajo Reservation, N.Mex.
Community Health Representatives

Old Acoma, Acoma Pueblo, N.Mex.
Laguna Fire Rescue

- 3 stations 24/7, with 8-9 Firefighter/Paramedics per shift; usually one or two of whom are
- ~1550 calls for “traditional” paramedic services in 2017
- Instituted community paramedic program in late 2015
Community Needs Assessment

- CHRs realized that some community members had medical issues beyond their scope.
- They were also aware of many community members whose medical needs weren’t being met, due to geographic isolation, lack of transportation, etc.
- CHRs approached Laguna Fire Rescue to help meet some of these unmet needs.
The CHRs, LFR admin, and the LFR medical director determined that LFR paramedics could be trained to provide some in home medical treatments and services.

Two paramedics were selected to become CPs.

Wound care was chosen as the first major focus for CPs because of the large number of members with poorly healing wounds.
One CP Skill at a Time

• Initial training involved learning general CHR workflow
• Visits focused on patients needing complex wound care
• Often accompanied CHRs and patients to wound care appointments in Albuquerque
Advanced Wound Care Training

• In December, 2015, both Community Paramedics traveled to Oklahoma City, Oklahoma, to complete Wound Care Training
• This greatly expanded their skills and experience with complex wounds
Medication Management

• Medication management was the next area of emphasis, based on CHR needs assessment
• Most of the medications of interest were within paramedic scope, so the CPs already knew indications, side effects, etc.
• Unusual med questions = phone call
Numbers

- First patient seen on 10 September, 2015
- CPs have made 272 visits to 16 patients as of 1/16/18
- For comparison, CHRs follow 100-150 unique patients each year
Results

• Results of CP/MIHC programs are difficult to quantify

• Hard data showing the positive effects of the Laguna CHR/CP partnership is especially challenging, since many of the needs addressed by the CPs were previously unmet or under-addressed
Results

- We are attempting to estimate the costs of the specialist care and off reservation/out of IHS network care that patients should have been receiving (but in many cases were not) and comparing them to the costs of care under the CHR/CP model.
- Exciting opportunities for collaboration with the UNM Robert Wood Johnson Center for Health Policy.
Results

• Anecdotal results are especially promising among wound care patients
• Patient/family testimonials are very positive
• The impact of these comments cannot be underestimated, especially upon members of Tribal Council and CHR who allocate funding

Paguate Village, Laguna Pueblo, N.Mex.
COOPERATIVE

Implementing a community paramedicine program in rural Laguna Pueblo, N.M.

By: Cadeau C. White IV, M.D., N.M. FBMP; Kimberly Avent, M.Ed.

Laguna Pueblo is situated in the north central area of New Mexico, occupying about 7 square miles of land in Socorro County. The pueblo is located in the northern part of the state, approximately 60 miles north of the city of Socorro. The pueblo is home to the Laguna Pueblo Tribe, which is a federally recognized Indian tribe.

The pueblo has a rich history, and it was once home to the ancestors of the modern-day tribe. The pueblo was founded in the 14th century and has been inhabited by the tribe ever since. The pueblo is known for its traditional Pueblo culture, which is still strong today.

In recent years, the pueblo has faced several challenges, including a lack of access to healthcare resources. The pueblo's population is spread out over a large area, which makes it difficult for residents to access healthcare services.

To address these challenges, the pueblo has implemented a community paramedicine program. The program is designed to improve access to healthcare services for residents of the pueblo, particularly those living in remote areas.

The program is staffed by a team of healthcare professionals, including nurses, paramedics, and other medical providers. The team works closely with the pueblo's leaders to identify the needs of the community and develop strategies to address those needs.

The program provides a range of services, including mobile health clinics, home visits, and telehealth consultations. These services are designed to help residents access care in their own homes, which is particularly important for individuals with transportation challenges.

The program has been well-received by the pueblo community, and it has helped to improve access to care for residents. The pueblo's leaders are committed to continuing to expand the program and improve access to healthcare services for all residents.

In conclusion, the Laguna Pueblo community paramedicine program is an important initiative that is helping to address the challenges faced by the pueblo community. The program is a testament to the commitment of the pueblo's leaders to improving access to healthcare services for all residents.
Thoughts for Other Rural Areas

• Focus of Laguna Community EMS program is on discovering and addressing unmet/underserved medical needs that are amenable to home-based treatment by EMS providers.

• This allows the program to be built around community needs, not according to specific CP curricula.
Thoughts for Other Rural Areas

- The well-established CHR program provides infrastructure and IHS funding for home health care not available to non-tribal areas.
- CPs are as much CHR extenders as they are physician extenders.
Thoughts for Other Rural Areas

• Full spectrum CP programs may be out of reach for rural areas – but also may be unnecessary

• It is possible to build special skill sets for community paramedics one skill at a time, based on community need

near Paguate Village, Laguna Pueblo, N.Mex.
Thoughts for Other Rural Areas

• Easier to start such a program as an extension of an existing Community Health Representative program

• Without a CHR program, the prospective CPs must perform the needs assessment themselves
Pine Hill EMS

- Staff of 15 providers (EMT, EMT-I, and drivers)
- 679 traditional EMS service calls in 2017
- Average transport time of 1 hour
- Average total call time 3 hours
• Limited clinic hours (M-F, 9-5)
• Long distances to nearest hospital (45 minutes at the closest, usually more like 1-3 hours, depending on healthcare needs)
• Patients have limited access to transportation resources (vehicles, gas money, licensed drivers)
• Narrow and often unsafe roads
• Monthly QA sessions with quarterly skills blocks
• 100% EMS physician QA of all urgent care patient records
• 24/7 EMS physician phone consult availability
• 99 patients seen in 2016
• Protocols are under constant scrutiny to make sure community needs are being met safely
• Training is continual, for experienced providers and for new hires
• The EMS Physicians providing the phone consults need to be trained too, since this is such a unique model within our system
• Health economics analysis in planning stages
COMMUNITY CARE

EMS-based urgent care flourishes on the Ramah (N.M.) Navajo reservation

By Emily A. Pearce, BS, NRP, Michelle O. Cody, EMT

& Chelsea C. White IV, MO, NRP, FAEMS

In the United States, there are currently 573 federally recognized American Indian and Alaska Native tribes, representing about 2.3 million people. Many of these are concentrated in the Southwest, with 23 states having at least one tribe. More than 10% of the population (20,986,274 individuals) of New Mexico identifies as a member of one of these 23 tribes.

New Mexico is ranked 5th nationwide for population density, with an average of 117.3 people per square mile, making the southwest largely rural. Of the state’s 33 counties, 14 have fewer than 5,000 people per square mile, making them not just rural but also desperate for other resources.

The shortage of New Mexico nurses presents a significant challenge for EMS providers with vast distances between agencies, few EMS-trained personnel respondents to the relevant departments, unimproved roads, and limited cellphones or GPS mapping capabilities. In addition, there’s a lack of 13 nursing centers in the entire state. With these limitations, remote health care becomes not just a challenge, but also a necessity.

Many of the tribes and pueblos in New Mexico have local EMS agencies that provide the emergency medical care within their communities. Often located in small and remote New Mexico, they are faced with the challenges of limited resources and lengthy travel times. Despite these problems, they work hard to address the community’s needs.

AMERICAN INDIAN HEALTHCARE

Provided and underwritten by federal, state, and local governments, access to healthcare for American Indians and Alaska Natives may have an early origin in the Department of Indian Affairs, which was formed within the Department of the Interior and is the leading Indian health agency who had one center to receive occasional medical care from the government. In 1952, we appealed to support for the Department of Interior, who provided $12,000.00 for medical support, and in 1953, the first annual health program was started, with the Center and Calf." 200,000 for Indian health in 1971, and in 1974, the Indian Health Service (IHS) was established.

1978 and July 1985, the Indian Health Service (IHS) was established.
The IHS was established with $300 million, 40 hospitals, 18 health centers, 67 satellite, and 13 special institutional facilities, all with the goal of providing comprehensive health services delivery system for the country’s American Indian and Alaska Native populations.

In 1996, landmark legislation was passed in the form of the Indian Health Service Act (IHSAA). The IHSAA Act allowed tribal governments to develop their own healthcare programs based on the specific needs of their communities.

May 2018 JEMS 51
- 3700 square miles
- Population 20,000
Sandoval County Tribal Lands

- 12 reservations/pueblos
  - 4 entirely contained within Sandoval County, 8 partially

- EMS Agencies
  - 5 tribal EMS agencies
  - Sandoval County Fire Department
Sandoval County Fire Department