

## Perry Joint Fire District, Perry



**Intervention key words:** Cots, emergency medical services, emergency, ambulance

**Industries:** Health care, cities

**Risk factor(s):** Manual handling – pushing/pulling; manual handling – lifting/carrying; awkward posture – back deviations; awkward posture – shoulder deviations

**Situation:** Perry Joint Fire District responds to emergency calls in Perry and the surrounding area. Employee back injuries occur when employees lift patients using a standard cot.

The picture to the left shows employees loading a standard cot into an ambulance. Squad members typically transfer the patient onto the cot at floor level. The squad crew then manually lifts the bed portion of the heavy cot. When loading the cot onto the ambulance, the crew members manually raise the cot's legs and wheels while bending over the cot.

**Solution:** The district purchased three electric-powered cots. At the push of a button, these cots raise or lower patients weighing 500 pounds or more. After patients are transferred onto these cots, crew members raise the cots with no effort.

The members may also raise the patients' legs and the cot's wheels without extra effort and without needing to bend over in the process. A powered cot costs approximately \$11,000.

### Results

- The incident rate (standardized per 200,000 hours worked) decreased from four the two years prior to the intervention to zero the two years following, a 100-percent improvement.
- The National Safety Council reports on average the cost of a workers' compensation claim is \$19,382. The return on investment for the district was 1.2 years.
- The powered cots allow one squad crew member to remove the cot from the squad while patient care is rendered by the remaining crew member.
- During the past two years, the usability and effectiveness of the cots decreased the on-scene time for most rescue calls.