**TITLE:** Injury Surveillance and Evaluation of Medical Services Utilized During the 2016 Track and Field Olympic Trials

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**STUDENT SUBMISSION: Yes** 

**TOPIC/TARGET AUDIENCE:** Injury Epidemiologists, Orthopedic Surgeons, Sports Medicine Professionals (Medical Doctors, Chiropractors, Physical Therapists, Athletic Trainers), Athletic Administrators, Track and Field Meet Organizers & Coaches.

ABSTRACT: Background: Injury surveillance has been implemented at track and field championships, yet no work has determined the burden of injuries during Olympic trails competitions including the type of medical services utilized. Methods: We performed a retrospective review of all documented injuries and treatments at the 2016 U.S. Track and Field Olympic Trials. Descriptive statistics were calculated for athletes and non-athletes (i.e., meet) staff of recorded injuries, illnesses and medical services utilized. Incidence of acute injuries was analyzed for athletes, stratified by event type. Results: Overall, 542 individuals (athletes=89%, meet staff=11%) were seen with 71 injuries and 14 illnesses diagnosed by physicians. Athletes reported 85% of documented injuries with hamstring strains the most prevalent injury (16.7%). Long distance and jumping athletes had the highest rates of injuries. On average, 124 medical services (Median:137, IQR:65.5-179.5) were provided daily, with athletes primarily seeing massage therapists (41.8%) and meet staff seeing chiropractors (47.1%) Conclusions: Jumping and long distance athletes were commonly seen by physicians, potentially requiring an increase in staffing during these events. Medical services appeared to follow the competition schedule and the need for recovery treatments. Study findings should inform strategy for staffing and policy development at future trials and major track meets.

Word Count: 200

**OBJECTIVE(S):** Identify medical services utilized by athletes and meet staff during the 2016 Track and Field Olympic Trials.

Describe the incidence and prevalence of injuries to athletes by event types.

Describe the patterns of recorded injuries over the course of the multi-day competition.

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