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Editorial

The Constants in the Evolving Sports Injury-Surveillance Ecosystem: Athletic Trainers

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As sports injury epidemiologists, we understand the value of public health surveillance and its role in informing injury-prevention efforts. Sports medicine researchers have previously described how large-scale surveillance efforts are a critical first step in the *sequence of injury prevention* and have depicted injury prevention in sports medicine as a feedback loop between such large-scale efforts and smaller, targeted initiatives.[1,2] Sports injury surveillance is a complex, multidimensional process involving many stakeholders (such as athletes, athletic trainers [ATs], and researchers) at various stages (during study design, reporting, data management and analysis, policy development, etc). We at the Datalys Center for Sports Injury Research and Prevention manage the operations of various sports injury-surveillance systems, the largest of which is the National Collegiate Athletic Association Injury Surveillance Program (NCAA ISP). We, the authors of this editorial, serve as Principal Investigators or Directors of surveillance studies at the high school and NCAA levels, and through our work in sports medicine research, we have developed a profound appreciation for the field of athletic training. From our experiences managing large sports injury surveillance programs, we believe that it is the ATs who play the most vital role in sports injury surveillance.

It would be impossible to sustain sports injury-surveillance studies without the commitment and tireless efforts of the ATs who contribute sports injury data. In the early days of the NCAA ISP, ATs at participating institutions completed weekly pen-and-paper-based surveys to report data.[3] While this method was appropriate given the technology available at the time the ISP was conceived, it had notable practical limitations. This approach required ATs to document injuries once for their own medical recordkeeping purposes and separately for the purposes of the surveillance system. This double entry imposed a substantial burden on the participating ATs. The reporting burden notwithstanding, ATs continued to participate in the program and supplied a rich set of injury and exposure data that provide important historical context to the injury burden among NCAA student-athletes even to this day. As a practical solution for this problem, the NCAA developed a Web-based data-collection platform in 2004 that, although not a true electronic medical record (EMR) system, allowed ATs to quantify and monitor injuries. However, this approach created a new challenge by restricting EMR options for ATs. Even as these concerns were raised by the athletic training community, ATs continued to participate in the surveillance system. In 2008, the Datalys Center (with input from the NCAA) created a new method for ATs to submit data from various commercial EMR systems.[4] This approach was crafted with the AT firmly in mind and intended to minimize the reporting burden on participating ATs while also not restricting their choices of EMR systems.

Over the course of the past 15 years, the Datalys Center has worked to expand the set of NCAA ISP-compatible EMR systems, enabling ATs at an increasing number of member institutions to participate in the ISP. During this time, Datalys Center staff has also refined communication streams and quality control processes to reduce the strain of participation. The success of the NCAA ISP as one of the most robust and longstanding sports injury-surveillance systems in the world clearly indicates that ATs at NCAA institutions nationwide understand the value of this program. The ratio of student-athletes to ATs varies across institutions,[5] and even when ATs must accommodate high patient loads, their commitment to injury surveillance has been unwavering. We at the Datalys Center ultimately seek to reciprocate this sense of appreciation with our commitment to the athletic training community. Our efforts over time have ensured that participation in the NCAA ISP typically requires no more than a weekly commitment of approximately 20 minutes per sport for participating ATs. We are also continuously engaged in appraising the submission and quality control processes, with the intention of securing high-fidelity data with minimal reporting burden.

Even as the landscape of sports injury surveillance has evolved over recent years, ATs have demonstrated high standards in sports injury reporting.[6,7] This remarkable consistency equips sports injury epidemiologists like us to conduct surveillance-based studies with the assurance that sports injury-surveillance data serve as a robust platform for informing injury-prevention and management efforts. This special issue of publications consists of several such studies and collectively serves not only to enrich the scientific literature on the epidemiology of injuries in NCAA sports but also to provide greater context to the efforts and contributions of participating ATs. At the Datalys Center, we routinely receive queries from ATs and

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other sports medicine clinicians who are seeking to contextualize patterns observed within their institutions to the broader population of high school or NCAA athletes. This issue is foremost an effort to deliver robust empirical evidence to the hands of those who are caring for NCAA student-athletes and have the most direct utility for these data. Ultimately, the Datalys Center is devoted to making sports safer for athletes. As the authors of this editorial, we also share an unequivocal commitment to improving the health and wellbeing of athletes over their lifespans. The partnership between nonclinical researchers like us and the AT community is critical in executing these missions, and we look forward to continued work with our AT colleagues in the years to come.

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