Welcome to the fifth edition of the Pac-12 Student-Athlete Health and Well-Being Initiative (SAHWBI) newsletter, which continues to highlight the initiative’s efforts and accomplishments.

Our Pac-12 COVID-19 Medical Advisory Committee continues to meet, provide guidance and recommendations to our University Presidents, Chancellors and Athletic Directors on the health and safety of student-athletes, as we navigate through a different phase of the COVID-19 pandemic. We thank Dr. Doug Aukerman, who served as the SAHWBI Board chair for the last two years, for providing extraordinary leadership to the Board and the Autonomy 5 and NCAA COVID-19 Medical Advisory Committees.
We are thrilled for our third Student-Athlete Healthcare Summit, set to take place Jan. 27-28 at the Meyer and Renee Luskin Conference Center on the campus of UCLA. This year’s summit is titled "Understanding and Addressing Barriers to Health Equity." The summit will examine the impact on diversity, equity, access and representation in the healthcare and health outcomes of our diverse athlete population groups. We are very excited about the faculty we have assembled for this year’s meeting and look forward to compelling content and dynamic discussion.

Sincerely,

Miguel Rueda, Pac-12 SAHWBI Board Chair
Kim Terrell, Pac-12 SAHWBI Board Vice Chair

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**2022 Pac-12 Student-Athlete Healthcare Summit**

The Pac-12 is proud to host the 2022 Pac-12 Student-Athlete Healthcare Summit with "Understanding and Addressing Barriers to Health Equity." The event will be held on Jan. 27-28, 2022 at the UCLA Luskin Center on the beautiful campus in Los Angeles and is presented by the Pac-12, the NCAA and the Office of Continuing Education, David Geffen School of Medicine.

**REGISTER FOR 2022 STUDENT-ATHLETE HEALTHCARE SUMMIT**

The course will feature sessions on current and historical disparities for underrepresented populations, unique burdens and the impact of mental health, and overall health for underrepresented student-athletes, effective educational programming for members of the collegiate sports medicine units and strategies to create a more inclusive environment for diverse and underrepresented student-athletes.

The two-day program will feature lectures and panel discussions from top health equity experts, current and former student-athletes, physicians, athletic trainers, and administrators from across the nation and explore the important issues surrounding diversity, equity and inclusion, presented new findings ad discuss policies and procedures that can improve healthcare for all student-athletes.

Full program information, including online registration details, are available below. Questions can be directed to the UCLA Office of Continuing Medical Education at **(310) 794-2620.**

*(Click image for full program)*
Message from Pac-12 Commissioner George Kliavkoff

THROUGHOUT THE INTERVIEW PROCESS AND NOW MY FIRST FEW MONTHS AS COMMISSIONER, THE PRIDE WE ALL SHARE IN BEING LEADERS WITH OUR PAC-12 SAWHBI HAS BEEN ABUNDANTLY CLEAR. I AM HONOURED AND PROUD TO WORK WITH ALL OF OUR UNIVERSITIES AND STAFF IN CONTINUING THIS STANDARD OF EXCELLENCE WHEN IT COMES TO THE HEALTH AND WELL-BEING OF OUR STUDENT-ATHLETES.”

GEORGE KLIAVKOFF, COMMISSIONER
PAC-12 CONFERENCE

Update from Pac-12 Research Development Director, Dr. Kim Harmon

What a time for research! Since our last update in January the Pac-12 has made significant contributions to the evolving knowledge base on COVID-19 and how it relates to athletes and sport. We’ve also continued moving forward with other research that improves the health and well-being of the student athlete.

In August, the Pac-12 briefly paused return to sport because of uncertainty about potential cardiac effects of COVID-19 on young people and because of challenges implementing a wide-scale screening testing program. Initial reports suggested that up to 46% of athletes might suffer some cardiac effects after COVID-19! The COVID-19 working group immediately began seeking ways to contribute to and produce answers to pressing questions. Athletic trainers and physicians across the conference contributed de-identified athlete data to the Outcomes Registry for Cardiac Conditions in Athletes (ORCCA Registry) which looked at over 3,000 post-COVID athletes around the country. The results, published in the journal Circulation, showed only 0.4 – 1.5% of athletes actually developed this concerning outcome and informed cardiac screening strategy after COVID-19 across the country for all levels of sport. Important information helping to get our athletes back on the field safely!
How to get our athletes safely on the field was also a big question. The Pac-12 implemented a screening test program utilizing both highly sensitive and accurate laboratory-based PCR testing and daily, rapid point-of-care antigen testing. The medical staff did an amazing job setting up the infrastructure to conduct daily tests on athletes and staff and we recorded and studied the results. We learned that even with daily testing other mitigation strategies like masking and physical distancing are needed and reported these findings. Others are using what we learned to develop effective screening strategies for sports but also school and workplaces. Quarantine length of close contacts was also a vexing issue. We, again, levered our experience to create knowledge to inform policy. The Pac-12 contributed de-identified athlete data (~50% of total athletes in the study) to the CDC who reported results here and recommended decreasing quarantine length for exposed contacts, not just in sport settings, but everywhere.

Our Concussion Coordinating Unit continued to operate during these difficult times reporting on the infrastructure we have developed to study concussion and exploring the diagnostic accuracy of common sideline tests used to diagnose concussion. Our other funded research studies go on – some slightly delayed because of the pandemic. The Pac-12 contributes to contribute important knowledge in many different areas; mental health, equity, overuse injuries, bone health and other areas that helps keep athletes everywhere safe. I am grateful to work in a conference that puts such a high priority on student athlete wellness!

Sincerely,
Dr. Kim Harmon, Pac-12 Research Development Director

Projects funded by Pac-12 SAHWBI announce progress & findings

Several research projects funded by the Pac-12 SAHWBI announced progress and findings recently. A key pillar of the initiative, the Pac-12 Research Grant Program funds over one million dollars annually in research conducted on member university campuses (note: the grant program did not fund its typical amount during the 2020-21 campaign due to the COVID-19 pandemic). Projects focusing on head trauma, mental health, coach health education, overuse injuries and injury surveillance, and more are all in progress from past funding cycles.

In addition to findings & progresses related to Pac-12-funded research, the Pac-12 SAHWBI has also seen a number of recent notable publications, including "Surveillance testing for SARS-COV-2 infection in an asymptomatic athlete population," related to COVID-19 testing conducted by Pac-12 universities and the Pac-12’s partnership with Quidel, as well as...
"Pac-12 CARE-Affiliated Program: structure, methods and initial results," related to research surrounding sports-related concussions.

For the most recent findings from funded research projects, please see the press release here at Pac-12.com.

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**Pac-12 Brain Trauma Task Force**  
**Pac-12 Concussion Coordinating Unit update**

The Pac-12 CARE-Affiliated Program (CAP) continues to oversee collection of all concussion data in the Pac-12 conference. The CAP study has achieved several milestones and important study improvements over the past year.

- Over 4,000 student-athletes from all Pac-12 institutions enrolled, each with baseline concussion measures
- 500 concussions have been recorded with concussion and recovery information
- Changes made to the fall football schedule by the NCAA were informed by data collected by the Pac-12

Several studies have been published with collaboration of the BTTF and PCCU:

- “Pac-12 CARE-Affiliated Program: structure, methods and initial results” in BMJ Open Sport and Exercise Medicine. This publication describes the Pac-12 CAP protocol and will serve as reference for future studies using the CAP data.
- “Diagnostic accuracy and reliability of sideline concussion evaluation: a prospective, case-controlled study in college athletes comparing newer tools and established tests” published in BJSM.
- A third publication describing the risk of concussion following a targeting foul in football is expected to be published soon in the Orthopedic Journal of Sports Medicine.

Happenings with the PCCU:

- The PCCU is under new direction with Dr. Adam Bohr succeeding Dr. Matt McQueen as Director and study PI. Bridget Whelan will serve as co-Director.
- The data collection protocol has been streamlined and the Brain Trauma Task Force approved the use of a new data element, the Near Point Convergence test to improve concussion diagnosis and assessment of recovery.
- The PCCU is in the process of adding contextual post-injury surveys to our common data elements for football, volleyball, and soccer. These surveys will provide additional data outlining the circumstances that preceded the concussion and additional insight on the contributors of the injury.
The FB Spotter program continues for another year, providing a ‘birds-eye view’ of the FB field during games and helping inform sideline medical personnel about potential injury.

We look forward to providing continued guidance to the Pac-12 and securing additional grant funding for on-going research and collaboration with outside entities to strengthen and highlight the role of the Pac-12 as a leader in sports concussion science.

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**Pac-12 Research Grants Committee update**

One million dollars was made available for grant awards this cycle by the Pac-12 SAWHBI Board for the main grant program. Both Standard grants and Exploratory/Bridge grants are available. A Standard grant provides a specific level of support for a specified period of time. There is no dollar limit. However, projects under $150,000 annually are encouraged. The Exploratory/Bridge grant is similar to NIH R-21 grants which are used to fund preliminary studies, exploratory, or development-based projects that have large growth potential with a likelihood of NIH support. This grant would lead to submission of a larger, NIH R01 award in the future. Exploratory/Bridge grants are limited to two years at $200,000 annually, including indirect costs.

In addition, outside the main grant program, the Pac-12 SAWHBI Board is funding two additional programs:

1. The Board is funding a study seeking to understand more about access and barriers to healthcare across the conference. Outcomes will be presented at the Student-Athlete Healthcare Summit - Understanding and Addressing Barriers to Health Equity.
2. The Student-Athlete (SA) Research Opportunity: Pac-12 SA Research and Travel awards. Details can be found at the following link. Applications will be judged on a rolling basis until five grants are awarded. Applications will be accepted until Jan. 15, 2022, if all awards have not been given out by that time.

**Data sharing:**

- We have received 24 unique data requests submitted from Pac-12 Conference members, with 13 being fully completed. Data is now being shared with Colorado (three), Oregon State (two), UCLA (five), USC (two) and Washington.
- Projects are looking at:
  - The effect of the global pandemic on injury rates among athletes
Field surface types and their effect on lower-extremity injuries
Concussion timing and its effects on symptoms and recovery
Research on trends of water polo injuries and ways of preventing injuries in the future

You can find more information about the data request process, including link to the Application, here: Pac-12.com/pac-12-data-requests.

Pac-12 Mental Health Task Force Updates from Chair, Dr. Robin Scholefield

Formed in May 2018, the Pac-12 Mental Health Task Force is a multidisciplinary group of licensed mental health practitioners, physicians, athletic trainers and students from Pac-12 member universities that serves as a resource for the Pac-12 on educational initiatives, applied research and best practices for advancing the mental health and well-being of collegiate athletes.

The task force is proud to provide the following updates:

- Pac 12 institutions are each doing something on their campuses to recognize the importance of student athlete mental health by participating in the Pac 12 Mental Health Week, connected to World Mental Health Day, on Oct. 10.
- Next up: development of best practices for appropriateness of outside speakers and consultants and integration of injury support groups as part of season ending injury protocol.

2022 Pac-12 Student-Athlete Health Conference

We are excited to return to an in-person meeting this year! The 2022 SAHC will be held at the Aria Resort in Las Vegas on May 12-14. All meeting information can be found at the website: www.pac12sahc.org.
The Pac 12 Student-Athlete Health Conference (SAHC) is a comprehensive educational and business meeting aimed at collaboration among sports medicine teams and for professional growth of attendees. The meeting functions as a forum for physicians, athletic trainers, dietitians, and mental health professionals to share best practices, evaluate Pac 12 and institutional policies, and discuss various aspects of student-athlete health and wellness.

Objectives of the conference are:

- For the Pac-12 to remain as a leader in student-athlete health and well-being
- Create an environment of collaboration and networking
- Provide a space for representatives from many disciplines to meet and discuss conference-wide trends and topics that impact each group
- Present an educational program that exhibits current trends and research in collegiate sports medicine
- Highlight Pac 12 funded research projects from across the conference
- Provide designated time for Pac 12 committees to conduct business meetings

The meeting has expanded to approximately 150 attendees including representative from all Pac 12 institutions. Sports medicine professionals, athletic directors, faculty athletic representatives, research teams and Pac 12 administrators are encouraged to attend.

Inquiries regarding the conference can be sent to Tandi Hawkey at tandihawkey@gmail.com or directed to the Board Representative at respective institutions. A list of board members can be found at Pac-12.com/health.

Pac-12 Mental Health Coordinating Unit update

The Pac-12 directive for the Mental Health Coordinating Unit (MHCU)* was to build and test a set of scalable mental health screens consistent with NCAA best practice recommendations. The screen spans across various mental health domains including, but not limited to, Anxiety, Depression, Sleep Disturbance, Substance Misuse, Alcohol Misuse, and Eating Disorders. The MHCU will also help develop policies and procedures to address positive mental health screens.

The MHCU initially launched the mental health screens in five Pac-12 universities in Summer 2020: University of Arizona (Dr. Rachel Webb, Thomas Milord), Oregon State University (Drs. Fernando Frias, Jessica Dietch, and Kirstin Carroll), Washington State University (Dr. Sunday Henry, Kara Lange), University of Colorado-Boulder (Dr. Rachel Walker, Erin Rubenking, Marissa Holliday), and University of Washington (Dr. Kelly Schloredt, Claire Hipkens, Bridget Walker).
This past summer, the MHCU began collaborating with three additional Pac-12 schools: University of Utah (Dr. Jonathan Ravarino, Dr. Clint Norseth, Ryan Pelo), University of Oregon (Dr. Christopher Smith, Travis Halseth), and Stanford University (Dr. Kelli Moran-Miller). Both University of Utah and University of Oregon administered the mental health screens through Presagia Sports. Although the original plan was to move the administration of all mental health screens to Presagia Sports, this transition is currently on hold due to the acquisition of Presagia Sports by Kitman Labs.

All schools began administering their Fall 2021 mental health screens in June for the current study phase (Summer to Fall 2021). More than 1,900 student athletes have been completed the MHCU screen this Summer.

In June 2021, the MHCU presented data collected from Summer 2020 at SLEEP 2021, the 35th Annual Meeting of the Associated Professional Sleep Societies (APSS), which examined the relationships between sleep disorder and mental health symptoms in athletes, in addition to differences by gender, race, and ethnicity. Manuscripts regarding the reliability of measures used in the first year of the grant, as well as the studies above, are in development.

The MHCU is now attempting to validate the mental health screens in athletes by comparing the screener results to structured clinical interviews. In addition, an upcoming study to be conducted at the University of Arizona and Oregon State University in collaboration with Dr. Fernando Frias, Dr. Jessica Dietch, and Dr. Kirstin Carroll assesses how daily assessments of mental health in athletes predict physiological metrics from the Fitbit Sense.

The MHCU Executive Team, directed from the University of Arizona, is composed of Dr. Daniel Taylor, Dr. Alex Auerbach, Dr. John Ruiz, Dr. Michael Grandner, Dr. Rachel Webb, Tom Milord, Dr. Alisa Huskey, Dr. Sarah Emert, Samantha Nagy, Kelly Kim, Jackie Leete, and Ethan Olson.

**Pac-12 Health Analytics Program (HAP) update**

It is understood the past year has created unique health care challenges within the world of collegiate athletics. The Pac-12 Health Analytics Program (HAP) continued to provide value to researchers and clinicians throughout the conference by supporting translational research around COVID-19 illness management protocols. HAP continues to expand its common data element with relevant data points supporting additional grants within the Conference as well as the upcoming Student-Athlete
Healthcare Summit: Understanding and Addressing Barriers to Health Equity. To date, HAP has supported over 20 formal requests for de-identified project data.

In the spring of 2021, HAP optimized clinical workflows within PacTrac designed to enhance granularities in exposure documentation. Clinical efficiencies were expanded to further reduce the burden on clinician documentation. Monthly quality control strategies continue to positively enhance data integrity and completeness. Additionally, individual analytics were implemented to provide clinicians high-fidelity insight on participation metrics from exposure data documented within PacTrac.

The summer of 2021 brought new opportunities for HAP to experience continued growth and innovation. The coming transition to Kitman Labs, a global sports intelligence platform, will occur over the 2021-22 academic year. This process will culminate with new prospects for expanding clinical data documentation in the areas of athlete performance and injury risk metrics. We are excited for this unique opportunity to work with Kitman Labs. Preserving the many HAP data assets within this distinctive platform will ultimately foster continued innovation on the leading-edge of sports injury analytics.