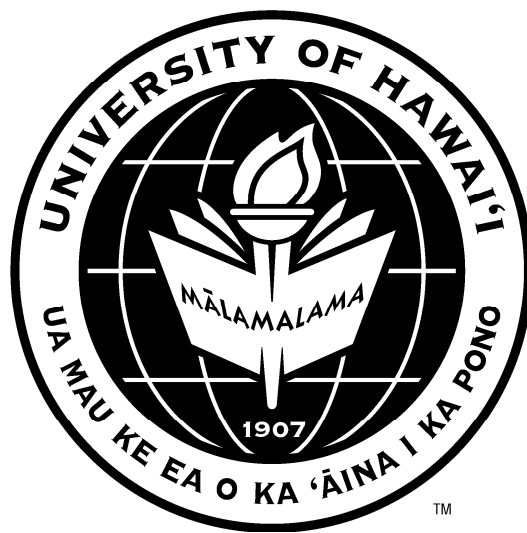


# UNIVERSITY OF HAWAI‘I SYSTEM REPORT



REPORT TO THE 2017 LEGISLATURE

Report on Concussions

Act 262, SLH 2016

November 2016

Concussions Legislative Report  
Submitted by

Nathan M. Murata, Professor and Chair

and

Troy Furutani, Project Director  
Hawai'i Concussion Awareness and Management Program  
Department of Kinesiology and Rehabilitation Science  
College of Education  
University of Hawai'i at Mānoa

Overview

Act 262, Session Laws of Hawai'i (SLH) 2016, "Relating to Concussions" was signed into law July 12, 2016 by Governor David Ige. The purpose of this Act is to expand the scope of the concussion educational program under Act 197, SLH 2012, to include youth and incorporate additional program requirements. Moreover, Act 262 also makes appropriations to develop and implement the concussion monitoring and educational programs and to administer concussion testing to high school student athletes. To this end, the following is a report submitted to the State of Hawai'i Legislature as directed by this law.

This report includes the following information: (1) Concussion Report for School Year 2016-2017 (from August 1, 2016 through November 30, 2016), (2) Concussions by Sport, (3) Baselines Conducted and Number of Concussion per League, (4) Community related educational workshops and trainings, and (5) Concussion education program.

Since August 1, 2016 through November 30, 2016 a total of 5714 baselines were administered to student athletes statewide (See Table 1). The actual number of concussions documented was 613 across all leagues.

Table 1: *Concussion Summary Report from August 1, 2016 through November 30, 2016*

<b>Concussion Summary Report from 08/1/16 to 11/30/16</b>						
<b>63 Schools</b>	<b>Total</b>	<b>BIIF</b>	<b>KIF</b>	<b>MIL</b>	<b>ILH</b>	<b>OIA</b>
Number of Baselines	5714	839	154	187	1606	2928
Total Number of Concussion	613	50	34	64	145	334

In addition, we decided to provide specific sports related data to show which sports have more documented concussions to date. Table 2 offers all Interscholastic sports participated by both males and females statewide.

Table 2: *Number of Concussions by Sports and Gender*

<b>Number of Concussion by Sports</b>	
<b>SPORTS</b>	<b>Total to Date 08/01/16 to 11/30/16</b>
Baseball (M)	6
Baseball (F)	0
Basketball (M)	16
Basketball (F)	27
Boating Related (M)	0
Boating Related (F)	2
Cheerleading (M)	1
Cheerleading (F)	74
Football (M)	321
Football (F)	1
Golf (M)	0
Golf (F)	0
Lacrosse (M)	0
Lacrosse (F)	0
Martial Arts (M)	0
Martial Arts (F)	1
Rugby (M)	0
Rugby(F)	0
Rowing (M)	1
Rowing (F)	0
Soccer (M)	12
Soccer (F)	36
Softball	19
Swimming (M)	1
Swimming (F)	1
Tennis (M)	0
Tennis (F)	0
Track & Field (M)	0
Track & Field (F)	0
Volleyball (M)	0
Volleyball (F)	50
Water Polo (M)	6
WaterPolo (F)	0
Wrestling (M)	15

Wrestling (F)	13
X-Country (M)	4
X-Country (F)	3
Others (M)	2
Others (F)	1
<b>Total (39 sports)</b>	<b>613</b>

Perhaps of interest is the breakdown of baselines and the number of concussions per each league (Big Island Interscholastic Federation [BIIF], Maui Interscholastic League [MIL], Kaua'i Interscholastic League [KIF], Interscholastic League of Honolulu [ILH], and O'ahu Interscholastic League [OIA]). Moreover, the "Other" category includes club sports that are not necessary interscholastic in nature. Table 3 offers specific data for leagues as of November 30, 2016.

Table 3: *Baseline and Concussions per League*

<b>BIIF</b>	<b>Number of Baselines</b>	<b>Number of Concussions</b>
<b>SCHOOL</b>	08/30/16 to 11/30/16	Total to Date 08/01/16 to 11/30/16
Hilo High School	180	11
Honoka'a High School	92	4
Kamehameha Schools-Hawai'i	175	7
Ka'u High School	13	0
Kea'au High School	133	2
Kealakehe High School	248	9
Kohala High School	0	0
Konawaena High School	0	11
Pāhoa High School	120	0
Waiākea High School	58	6
<b>Total (10 Schools)</b>	<b>839</b>	<b>50</b>

<b>KIF</b>	<b>Number of Baselines</b>	<b>Number of Concussions</b>
<b>SCHOOL</b>	08/30/16 to 11/30/16	Total to Date 08/01/16 to 11/30/16
Kapa'a High School	82	5
Kaua'i High School	96	16
Waimea High School	58	13
<b>Total (3 Schools)</b>	<b>154</b>	<b>34</b>

<b>MIL</b>	<b>Number of Baselines</b>	<b>Number of Concussions</b>
<b>SCHOOL</b>	08/30/16 to 11/30/16	<u>Total to Date</u> 08/01/16 to 11/30/16
Baldwin High School	86	13
Hāna High School	17	3
King Kekaulike High School	80	11
Lahainaluna High School	3	3
Lāna‘i High School	5	4
Maui High School	61	25
Moloka‘i High School	21	5
<b>Total (7 Schools)</b>	<b>187</b>	<b>64</b>

<b>ILH</b>	<b>Number of Baselines</b>	<b>Number of Concussions</b>
<b>SCHOOL</b>	08/01/16 to 11/30/16	<u>Total to Date</u> 08/01/16 to 11/30/16
ASSETS School	34	7
Christian Academy	8	0
Damien High School	218	21
Hanalani School	62	3
Hawai‘i Baptist Academy	120	4
Honolulu Waldorf School	11	0
‘Iolani High School	293	8
Island Pacific Academy	27	0
Kamehameha Schools-O‘ahu	209	34
La Pietra, Hawai‘i School for Girls	65	0
Lanakila High School	38	0
Le Jardin Academy	62	7
Lutheran High School	0	0
Mid-Pacific Institute	95	9
Pacific Buddhist Academy	0	0
Sacred Heart Academy	68	22
St. Andrews Priory	45	1
St. Francis	49	8
St. Louis School	198	13
University Lab High	38	8
<b>Total (20 Schools)</b>	<b>1606</b>	<b>145</b>

OIA	Number of Baselines	Number of Concussions
SCHOOL	08/01/16 to 11/30/16	Total to Date 08/01/16 to 11/30/16
‘Aiea High School	118	8
‘Ānuenue School	33	9
Campbell High School	125	25
Castle High School	98	14
Farrington High School	148	16
Kahuku High School	378	14
Kailua High School	137	10
Kaimukī High School	116	12
Kaiser High School	178	3
Kalāheo High School	115	21
Kalani High School	173	19
Kapolei High School	154	11
Leilehua High School	158	25
McKinley High School	162	11
Mililani High School	167	41
Moanalua High School	95	36
Nānākuli High School	126	3
Pearl City High School	151	15
Radford High School	180	12
Roosevelt High School	0	11
Waialua High School	70	5
Wai‘anae High School	23	10
Waipahu High School	23	3
<b>Total (23 Schools)</b>	<b>2928</b>	<b>334</b>

With regard to educational expansion of concussion awareness and training the Hawai‘i Concussion Awareness and Management program (HCAMP) has provided the following educational information to youth and community programs. A list of event, sites and dates are provided below in Table 4.

Table 4: *Dates, Event/Location and Target Group for Concussion Education Training*

DATE	EVENT/LOCATION	TARGET GROUP
July 21, 2016	Concussion Clinic, McKinley High school	Public event
Sept 10, 2016	UH vs UT Martin Aloha Stadium	UH football audience
Sept 22, 2016	Return to Learn, Mililani High School	DOE, Athletic trainers
Sept 26, 2016	Vestibular Ocular Motor Screening	Athletic Trainers

Sept 27, 2016	Vestibular Occular Motor Screening	UH Mānoa, AT students
Sept 27, 2016	ImPACT Overview	UH Mānoa
Oct. 1, 2016	UH vs Nevada Aloha Stadium	UH Football audience
Oct. 15, 2016	UH vs UNLV Aloha Stadium	UH Football audience
Nov. 12, 2016	UH vs. Boise State, Aloha Stadium	UH Football audience
Nov. 17, 2016	Nānāikapono Elem, Health Fair	Children, parents, teachers
Nov. 26, 2016	UH vs. UMASS Aloha Stadium	UH football audience
Nov. 30, 2016	Vestibular Occular Motor Screening Kamehameha, Ke‘eau Hilo	BIIF Athletic Trainers and school personnel
Nov. 30, 2016	Concussion Clinic, Hilo HI	Public event

### Concussion Education Program

An objective of 2016-2017 is to develop a concussion education program for coaches, officials, parents, and athletes. The program will address education and awareness on the signs and symptoms of concussions, the risk playing with a concussion, and the need for proper medical attention for an athlete suspected of having a concussion. The education program will also address the additional concerns of the various populations, including but not limited to parents, coaches, officials and student athletes. For example, parents will receive additional education on home care for a concussion and the return to learn process. Coaches and officials will receive additional information on their responsibilities during a concussion and the importance of creating a safe playing and concussion reporting environment. Student athletes will receive supplementary information on the importance of reporting their concussion and a peer description of signs and symptoms associated with a concussion.

The second phase of the concussion education program may include a program for educators at schools in which socio-cultural factors, language and ethnicities are investigated. HCAMP will continue to provide live lecture workshops to various groups and will continue to pursue the education program for the community and schools. The concussion education program is intended to meet the needs of annual concussion awareness education as required in Act 262.