Evidence Based Summary of Injury Rates and Incidence

Note: These data reflect only the sports that are common to NC high schools (ex. boys ice hockey, etc are excluded from this summary).

Non-catastrophic injuries, including concussions

(Black) This is summary data of the High School RIO study (Comstock, Currie, & Pierpoint, 2014). The study examined injuries in 9 sports of interest. The data was collected from high schools around the country. This data report reflects '05-'06 through '13-'14 school years.

Catastrophic injuries (fatalities, non-fatalities/life altering, severe)

(BLUE) This data is pulled from the Catastrophic Sports Injury Research 31st Annual Report (2013 Data Tables). This report represents Fall 1982 - Spring 2013. Direct injuries occur as a result of the sport or sport-specific activity and indirect activity relate to other physical activity or other factors (ex. heat, diabetes, exercise or conditioning, etc). Mueller, Kucera, & Cox (2014).

(The numbers in italics represent injury rates as reported by Comstock et al.)

Fall

1. FB has the greatest rate of injuries (3.74 overall, 11.38 competition) and the most injuries (more participants)
2. BSOC competition (3.4) is greater than FB practice (2.15)
3. FB-27% concussions occur during competition, 20% during practice
   BSOC-32% concussions occur during competition, 12% during practice
4. FB has greatest direct and indirect injury rates of fatalities, non-fatalities, and serious injuries in the last 30 years, but also since 2008 only; there were 45 direct fatalities and 2 indirect fatalities since 2008
5. Boys XC has had 4 direct fatalities since 2008 (female XC=0) and BSOC has had 3

CONCLUSION: The evidence indicates that FB requires coverage for practice and competition; however injury rates and fatality incidence of BSOC competitions justify medical coverage.

Winter

1. GBSKB (1.88 overall, 3.66 competition) is greater than BBSKB, competition particularly (1.4 overall, 2.4 competition)
2. WR competition (3.95) is hardly different than GBSKB competition (3.66)
3. BBSKB-8% concussions occur during competition, 8% during practice
   GBSKB-29% concussions occur during competition, 10% during practice
   WR-25% concussions occur during competition, 17% during practice
4. WR, BBSKB, nor GBSKB have had no direct fatalities since 2008, although BBSKB has highest rate of fatalities of all winter sports

CONCLUSION: The evidence indicates that GBSKB and WR competition have similar injury rates, including the incidence of concussions occurring during competition.

Spring

1. GSOC is greater than all others (2.47 overall, 5.72 competition)
2. BLAX competition has a substantial rate of injury, especially during competition (3.65)
3. GSOC-28% concussions occur during competition; 13% during practice
   BLAX-31% concussions occur during competition; 15% during practice
4. BSB competition (1.68) is slightly higher than GSOC practice (1.04)
5. GLAX has insufficient data in this dataset to make strong conclusions
6. BSB has had 4 direct fatalities since 2008, 4 direct non-fatalities, 7 direct serious injuries; 5 indirect fatalities and 1 indirect serious injury since 2008
7. BLAX has had 3 serious direct injuries since 2008 and 1 indirect fatality since 2008 (and leads all spring sports)
8. Boys TR has had 7 indirect fatalities since 2008
9. GSOC has had 0 fatalities, non-fatalities, and serious injuries since 2008

CONCLUSION: The evidence indicates although GSOC has highest competition injury rate, the injury rate for BLAX is notable. Both GSOC and BLAX have approximately one-third of the sports' concussions occurring during competition. However, BLAX has a greater likelihood of catastrophic injury or fatality than GSOC. The incidence of catastrophic injury associated with BSB and Boys TRACK, even in the past 5 years, is particularly notable and warrants consideration regarding medical coverage.

ADDITIONAL NOTE:

CHEER (with stunting) remains the female activity with the most direct catastrophic injuries. Since 2008, there have been 6 direct non-fatal and 2 direct serious.