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World Rugby’s Erroneous and Misleading Representation of Australian Sports’ Injury Statistics

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The goals of World Rugby’s strategic plan, 2010 are to ‘Protect and promote Rugby, its values, spirit and ethos’ and to ‘Drive player welfare best practice’. These values are under question with the publication of misleading claims on injury risks in its SportsWise Survey.

In response to calls earlier this year to the UK government for a ban on tackle and contact in the school game (1), World Rugby has published a report in which it states that ‘Compared with other sports and activities, rugby has a relatively low injury rate despite being known for its physicality’ (2). The statement is misleading and should be changed.

World Rugby’s report draws on data taken from a report published by the Australian Government and Flinders University, ‘Australian Sports Injury Hospitalisations 2011–12’ (3). World Rugby produced two charts to support their claim that rugby has a relatively low injury rate. However, there are a number of problems with World Rugby’s handling and representation of the data.

The chart titled ‘% of Hospital Admissions in Australia related to sports injuries’ purports to show the percentage of all sports-related hospitalisation injuries that various sports contribute with rugby appearing to account for just 5% compared with cycling (25%), equestrian (23%) motorsport (23%) and roller sports (10%). However, both relative and absolute figures from the original source show World Rugby’s claims are inaccurate and seriously misleading. World Rugby excludes data on participation rates although these are included in Table 2.6 of the original Australian report (3). This table shows that rugby has a significantly higher participation-based hospitalisation rate due to injuries than either cycling or equestrian activity. In absolute terms, rugby accounts for significantly more cases than roller sports and equestrian. Contrary to World Rugby’s claims of a relatively low injury rate, the Australian report states that ‘... sports with high participation-based [hospitalisation] rates were roller sports, Australian Rules football and Rugby’ (3). Rugby (league and union combined) have the fourth highest rate of hospitalisations per 100,000 participants (of 22 sports for which data are reported), behind wheeled motor sports, roller sports, and Australian Rules football. Official New Zealand sport injury data supports the findings of a high injury rate in rugby (4).

Another chart presented by World Rugby (the percentage of ‘injuries’ that are serious high threat to life) could be greatly improved by clarifying that the percent of injuries reflects ‘hospitalisation’ injuries only.

World Rugby first published the false and invalid claims in a press release on August 25, 2015 (5), and in a short document called Keeping Benefit World Rugby Sportswise Survey (6). For many months a link to the World Rugby Sportswise Survey appeared at the top of World Rugby’s twitter page, and these claims have also been disseminated across the media worldwide (7, 8).

World Rugby also conflates the benefits of physical activity where the benefits are well established, with rugby, where the evidence of benefits over physical activity is not known and where the risks of injury are well established. The survey claims that that most parents say the benefits of sport outweighs the risks but provides no source to support the claim (9).

In order to drive player welfare best practice, we encourage World Rugby to correct the inaccurate and misleading statements in the Sportswise Survey and correct all the charts and the misleading
claim that rugby has a relatively low injury rate. Another positive action would be for World Rugby to publish the survey methods and data underpinning all of its claims.

Beyond rugby, there are wider policy implications for injury reporting. Many international and national sports governing bodies are in receipt of government funding, and it is imperative that the public are given accurate injury information. The Australian and New Zealand governments are to be commended for collecting national sports injury data and by sport. The UK must do the same - the independent and accurate reporting of injury data is essential.

**Author statement:** This analysis does not represent the view of any organisation. Thank you to the generous referees for helpful and detailed comments.

**References**


(9) Pollock AM, Kirkwood G. *Removing contact from school rugby will not turn children into couch potatoes.* Br J Sports Med. Published Online First: doi:10.1136/bjsports-2016-096220 (Accessed 1 May 2016)