30 May 2013

Committee Secretary
Senate Standing Committees on Rural and Regional Affairs and Transport
Parliament House
Canberra ACT 2600
Australia

By online submission

Dear Secretary

Submission: The practice of sports science in Australia

I make the following submission in relation to the terms of reference to the Senate Standing Committees on Rural and Regional Affairs and Transport with regard to "**The practice of sports science in Australia**" (**Terms of Reference**).

General Comments

These terms of reference are unhelpfully vague and lacking any worthwhile focus. They read like a media release looking to be tweeted.

It is unclear how the Senate Standing Committees on Rural and Regional Affairs and Transport could make any substantive finding which has any meaningful nexus with Commonwealth jurisdiction. The fact that the Commonwealth funds its Australian Sports Commission and regularly gifts large, sorry, *very* large amounts of tax payers' funds to a handful of sporting governing bodies, or for their stadia or for bids for world championships does not give any obvious Commonwealth jurisdictional nexus to potential regulation of what are almost certainly overwhelmingly natural persons engaged in privately contracted services or volunteer work.

The remarkably short period of time allowed for public submissions cannot reasonably allow for diversity of submissions or any significant number of submissions. In particular, it is highly unlikely to permit substantive responses from the persons most likely to be affected, namely, athletes.

Therefore the entire context of the Terms of Reference disenfranchises those persons most relevant to those terms.

My general submission is that this reference to a Senate committee of these Terms of Reference falls well short of any meaningful justification for Senators to spend public time and resources on it.

Specific Comments

1. The fundamental problem with the Terms of Reference is the **failure to define "sports scientists".**

It uses a folksy label without any conventional limits to its meaning and thereby opens up the Terms of Reference to applying to an unmanageably enormous variety of conduct. In effect, thee Terms of Reference make the mistake of implying there is a pre-defined cohort of people *doing* certain things but probably not doing them well enough according to some standard yet to be created and so impliedly they should by definition be those to whom the Terms of Reference apply – the mistake of using the desires conclusion to define the assumed issue.

This inherent assumption fatally falters under the obvious question: To whom do the Terms of Reference apply?

a. People with sports science degrees, if so, by what title of degrees?

b. People with health science or medical science degrees or human movement related degrees with some components of study in sports science related topics and who assist athletes?

c. People with science degrees who work with sports related issues?

d. Holders of certificates in fitness training from TAFE?

e. Those with undergraduate or with graduate accreditation?

f. Coaches accredited through Australian Sports Commission -approved accreditation bodies and who cover some of the topics of "sports scientists" as referred to in media?

g. Unaccredited, volunteer coaches to school or community athletes?

h. Biomechanists?

i. Strappers (who purport to apply strapping on the basis of science)?

j. Sports first aiders and sports aid trainers?

k. Podiatrists who advise on sports movement patterns and injuries in relation to sports activities?

l. Physiotherapists who advise on sports movement patterns and injuries in relation to sports activities?

m. Chiropractors who advise on sports movement patterns and injuries in relation to sports activities?

n. Medical doctors (general and sports specialist) who advise on sports movements and injuries in relation to sports activities and advise on a range of treatments?

o. Dieticians? Nutritionists? Or only those with some specialist *sports* dietary or nutritionist qualifications or accreditations?

p. Exercise Immunologists?

q. Exercise physiologists?

r. Sleep and recovery experts?

s. Acupuncturists? Reiki practitioners?

t. Masseurs?

u. Media commentators who analyse tactics using statistics?

v. Those with no sports qualifications but who use sports science when dealing with athletes or employers of athletes? If so, this would have covered illustrious coaches in Australia from the 1800s onwards, such as Charles Lawrence, Gustav Techow, John Worrall, Jessie Street, Fred Cavill, Harriet Elphinstone Dick, Franz Stampfl, Percy Cerutty, Jack Gibson and Harry Gallagher, to name a few among many who used "sports science" in their coaching.

All of the above use science in their services to sports participants.

Do the Terms of Reference cover only those who work directly with athletes, or also those who work indirectly, such as by advising coaches, club officials or parents?

Do the Terms of Reference cover paid or unpaid "sports scientists"?

Do the Terms of Reference cover employees, independent contractors or volunteers?

The Terms of Reference cover every teacher (with or without sports related training) who coaches, every volunteer coach for a community sports team, leading scientists working with or for AIS and leading sporting teams and individuals, as well as statisticians who suggest tactics.

The Terms of Reference would cover "mums and dads", retailers and wholesalers of sports equipment, nutrition and hydration supplements, medication and sports psychological guidance, such as heat ointments, bandaids, stopwatches, tape and supplements on supermarket shelves.

This huge variety of unanswered questions about the coverage of the Terms of Reference illustrate how grasping and ill-considered they are for the status of terms of reference of a Senate committee enquiry.

If an outsider were to extrapolate from recent media stories, it *might* be speculated that the Terms of Reference *might* have meant to target individuals who *might* have been paid for their services and who *might* have advised athletes or corporations (a tenuous nexus for Commonwealth taxation and regulation) on food supplements or on doping (illegal, legal or banned for particular sports or otherwise).

The Terms of Reference, however, make no such limitations in express words. Instead, the Terms of Reference adopt a vague term of no feasible utility, let alone stumble towards new and costly Commonwealth regulation of an extremely broad field of services of anyone who engages in "sports science".

There should be no further enquiry by a Senate Committee under the Terms of Reference unless and until they are revised to include a viable definition of the persons whose conduct is called into question and with a suitable nexus to Commonwealth jurisdiction.

If the Terms of Reference are revised, it is submitted that the focus should be on grassroots or community sport. It might grab media headlines to focus on the high performance level sport or on levels of sport with large amounts of money involved, but in terms of *public policy* there is a relative lack of evidence supporting policy intervention by governments at that level in contrast with a huge amount of evidence on public policy interventions in community (including school) sport[1].

In other words, based on evidence-based policy criteria, the Senate should not focus any enquiry on incidents with a high media profile at the expense of priority of focus on where policy interventions are shown to have more relevance –grass roots and community sport.

2. The Terms of Reference make an **egregious error** by assuming "sports scientists" are in a **profession**. They are not, whether judged by promulgated Australian standards or by community perception.

   Of course, the underlying problem with the Terms of Reference is the complete failure to define "sports scientists", so it is impossible to address this aspect further without a workable, community supported definition of "sports scientist".

   For the sake of raising the analysis to the level of discussion at an end-of-season U11 soccer team BBQ, these brief points may be made:

   - A profession is, in plain terms, a predominantly self-regulating cohort of practitioners of a service obliged by their own rules to comply with minimum standards of expertise in a particular field and who, essentially, submit to enforceable duties to their clients *above their own personal interests*.

[1] See, for example: Green (2007).

Without a large degree of self-regulation they are not "professionals"; they are employees or agents of another, such as a government agency.

Without a higher ranking duty to their clients, they are service providers without any fiduciary duty to others unless that is imposed by law or contract.

A police officer and a pilot are not in a profession, even though their services are highly valued, regulated and require considerable expertise. Australia has provided some world-leading scientists whose sustained expertise in sports activities is highly respected, yet they are not professionals by any common usage of that term, despite their integrity, quality of work and dedication to assisting others.

There **should be no assumption** that any or all "sports scientists" *are* in a profession. The Senate could not reasonably make findings based on this assumption without first establishing the reliable and relevant evidence that practitioners of "sports science" are in fact in a profession.

- As providers of services, paid or not, to athletes or to employers of athletes, there is no emerging **evidence** that <u>any</u> sector of "sports scientists" justifies **Commonwealth (or State) regulation** of their contractual services.

  There is no compelling **reason** to assume what those services are, what they are contracted for, or the context of their delivery (such as high level advice, tests, assistance to injured players or, analysis of work by other service providers).

  The Commonwealth does not intervene to regulate the daily conduct of professional services by existing professions, such as medical practitioners or legal practitioners. (Regulation of finances and accountability for that is another topic.) There is no evidence of why the Commonwealth should intervene in the conduct of "sports scientists" when it has not chosen to intervene in the professional services of doctors, lawyers and other professions.

  In short, there is no body of evidence to justify Commonwealth regulatory intervention or interference in the contractual services of any part of an enormously diverse range of "sports scientists", whether directly or indirectly by creation of a new "professional services" regulatory agency for them such as has been created for tax return agents or podiatrists.

- There are ample **codes of conduct already in existence** for providers of services to athletes and sporting bodies, such as for coaches or exercise physiologists.

  The buyer of the services has full freedom to choose whether to purchase, or accept for free, the services of those who submit to a code of conduct. There is no evidence that the Commonwealth (or a State) should **interfere to force** on voluntary users e.g., mums and dads, community athletes, spectators, or buyers, "sports science" services which are mandatorily required by Commonwealth law (backed by penalties an) to be subject to a code of conduct or to mandatory duties or other terms of service.

  The burden lies on the legislature to justify more regulatory interference in freedom of choice. Given the plethora of codes of conduct for many within the concepts of "sports scientists", there is no evidence (as distinct from unsubstantiated feelings of indignation) of a need to remove by Commonwealth increased legislation the choices currently open to the public.

  There is no evidence to justify a paternalistic attitude that government knows better the public so as to demand new laws, new codes, new penalties and new fines and taxes just to support less freedom of choice to use any aspect of "sports science".

- Even for those "sports scientists" who are in a profession and helping athletes, there is no evidentiary basis for the Commonwealth to interfere in their professional duties.

  From ancient times the medical fraternity was willingly co-opted to help athletes. Modern sports medicine is proud of its long history[2]. This long history of *professional* medical practitioners assisting athletes and complicity in doping, from Ancient Greece to Soviet era sport to

[2] See, for example, commentary in: Masterson (1976); Snook (1978); Snook (1984); Appelboom, Rouffin, and Fierens (1988); Leadbetter and Leadbetter (1996); Tipton (1997); Schnirring (2003); Mathias (2004); Ergen, Pigozzi, Bachl, and Dickhuth (2006); Georgoulis, Kiapidou, Velogianni, Stergiou, and Boland (2007); Speed and Jaques (2011).

professional bicycling, shows even at a superficial level that professional regulation throughout history gives no assurance that practitioner's conduct will always be acceptable to the public[3].

In simple terms, the Senate would be best served by learning the lessons from the long history of professional regulation that it is not the panacea for ensuring optimal conduct of its practitioners. Any attempt by the Commonwealth to achieve behavioural outcomes by regulating existing professions providing services to athletes or to their employers is doomed to fail, apart from the unnecessary cost and lack of policy justification for that.

- There is no evidence or community support for **creating a new regulated *profession* of sports scientists**.

  There is no reason for the Commonwealth to consider creating new laws, and using taxpayers' funds, to create a new exclusive, monopolistic guild of "sports scientists", particularly when there are more insidious issues in sport to manage, such as sports betting, health of children and proper use of Commonwealth (i.e., taxpayer) funds for existing sports-related allocations.

3. The Terms of Reference's query into "ethical obligations in relation to protecting and promoting the ***spirit of sport***" (my emphasis) is a glorious but impossible task.

   If the Committee members can provide a reliable, community-agreed definition of "the spirit of sport" it will transcend at least three thousand years of (healthy) disputes about the "spirit of sport", including the evolving views of sport during ancient times in Sumer, Babylon, Egypt, China, the centuries of professional sport during the ancient Olympics and during the modern Olympics in all of its many phases.

   Perhaps Senators think they can "end 'sports science' history" by surpassing commentary on the "spirit of sport", such as from Plato[4]; Pierre de Coubertin[5]; George Orwell[6]; numerous Victorian era moralists[7] and modern Olympics commentators?

   Rather, the Senate and the Commonwealth have no legitimate role in regulating, directly or indirectly, the "spirit of sport" or any morals, values or ethics in sport, including sports science in any form.

   It is futile, unhealthy and dictatorial to attempt this, let alone assume it is within the remit of the Senate.

   The litany of reports to the Commonwealth and successive sports policies by federal governments, from the 1970s onwards to the current year, reflects failed attempts to fix the role of the Commonwealth in sport in Australia. Any attempt to have the Commonwealth dictate directly or indirectly through regulation and penalties just one part of sport - the "spirit of sport" - flies in the face of forty years of the federal farrago of fiddling with sports policies.

   Even if this is delegated to government agencies, the inevitable result is skewing of control to bolster the reason for the government agency to exist and, preferably in their view, to be allocated more tax payer funds.

   Examples of this repeatedly recur in Australia and in other comparable countries[8]. Closer to home, the push to have athletes sign statutory declarations provided to the AOC reflects structural failures within the AOC and the sports' governing bodies, not an underlying problem of *sports science* supporting doping. I await the spectacle the first time a 15 year old female Olympic swimmer is hauled before the courts for giving a false declaration due to having taken a cough syrup. Who in the AOC, Swimming Australia, the AIS or the ASC will stand up then and say they made a mistake in relying on threats of gaol instead of addressing the underlying cause within the sports?

   Of course, if any Committee member were to assume that Commonwealth law could create a definition of "the spirit of sport", then it would possibly be the first time in recorded human endeavour that a legislature has attempted to define "spirit of sport" and to impose that on the community. Not even the

[3] By way of a sample of perspectives of the history of doping in sports with the involvement of medical practitioners, see: Birchard (1998); Birchard (2000b); Birchard (2000a); Birchard (2002); Holt, Erotokritou-Mulligan, and Sonksen (2009).

[4] See, for example, Carr (2010).

[5] Coubertin (2000).

[6] Orwell (1945).

[7] See, for example, Lucas (1975) and Erdozain (2012).

[8] see, for example, the skewed survey results wrongly portrayed as evidence in U.S. Anti-Doping Agency (2010).

National Socialist party successfully achieved that in 1936[9]. Regrettably, the Terms of Reference's assumption of Senate-controlled meaning of "spirit of sport" has menacing echoes with the state-mandated sports goals of the Soviet era, which had disastrous results for the health and well being of many individuals[10].

Reference to those extreme eras is not polemical: similar caustic experiences harmful to athletes and the society in which they live can be found in many other "socialist democracies"[11] whose leaders thought they could decide what is in the best interests of their ruled populace and that controlling or suing sport for political or other reasons was justifiable. In short, socialist democracies have caused similar harm from making the same errors as made in the more extreme regimes.

4. The Terms of Reference invite enquiry into "avenues for reform or enhanced regulation of the profession". The explicit reference to "**avenues for reform**" insultingly omits any consideration whether there should be *any* regulation in the first place or why any regulation could be justified in terms of cost to the community (through increased taxes or diversion of an existing stressed tax base).

   It would be a further insult to the public to claim that the question of whether there should be any regulation is implicit in the words "any other related matter".

   The voting public deserve first a thorough explanation from Senators or other elected representatives how any possible new regulation and the increased costs of that could be justified as a priority for any federal government. The voters, and taxpayers (not all of whom are voters) and the rest of the Australian public do not have the burden to show why there should not be regulation, penalties, mandated terms of service and Commonwealth government resources allocated to this. The elected representatives who assume or propose new legislation have the responsibility to substantiate the need for new regulation and the costs of that.

   Of course, this submission cannot pre-empt the findings of the Senate Committee. It would be arrogant to do so.

   The point is that the Senate Committee could not reasonably make any findings in support of more legislation, more controls on behaviour, less freedom and more taxes and penalties, without first having a compelling body of reasonable evidence that there should be any such laws in the first place, let alone *more* of them.

   In the absence of reasonable evidence, any purported findings to the effect that there should be "legislative reform" of some conduct within the Terms of Reference will simply be an unjustifiable wish to control others for the sake of control.

   Therefore any Senate Committee report suggesting there should be more control by legislation must first detail how and why the Commonwealth *should* be involved and how it could be involved as a cost effective priority for any federal government, with that regulation fully funded by taxpayers or even by a new levy on the sporting public.

5. The Terms of Reference are in a **vacuum of evidence to support the timing of the enquiry**.

   Others might say that it is the function of this Senate Committee enquiry to provide a forum for submitting the evidence. As noted above, the nature and timing of this enquiry will not give any reasonable opportunity to provide evidence.

   However, for the sake of considering what kind of evidence *could* be garnered, given sufficient time, and assuming generous suppositions about what these Terms of Reference might have been intended to consider, there is an obvious dearth of evidence even to justify this enquiry at this time.

[9] For some considered commentary on evidence on how government directed sport values corrupts athletes, coaches, government sports bureaucrats and politicians who want to control sport, see: Krüger (1999); Krüger (1995); Tunis (1936); Van Steen (2010); Steiner (1976);

[10] For some considered commentary on evidence on how Soviet era governments sought to control sport and its values, with remarkable parallels in the Terms of Reference, see: Johnson (2008); Steinberg (1979); Marchiony (1963); Yessis (1972); Yakovlev (1975); Riordan (1987); Green and Oakley (2001); Rowley (2006).

[11] See, for examples ranging from pre-war Britain to contemporary China and Korea, evidence in commentary in: Bernett (1988); Wagner (1992); Bernett (1992); Luh (2003); Johnson (2008); Xiong (2011); Radchenko (2012); Hong and Zhouxiang (2012).

The problems of developing policies and legislation in a vacuum of evidence are usefully addressed in two key publications: Productivity Commission (2010a); Productivity Commission (2010b). Ignoring those well-researched problems at this stage of a Senate Committee enquiry would doom the legislature to repeat costly mistakes that have pervaded enquiries and legislative responses for a considerable time.

In particular, now is the time to avoid pre-determined policies which have ignored or selectively filtered out evidence.

Apart from media commentary and press releases from numerous persons on this topic, what is the state of *relevant* key evidence? Here is a summary:

- There is as yet **no criminal conviction** in Australia of any person of any offence in relation to services affecting athletes which calls into question the need for more personal regulation of "sports science". There have been convictions of athletes in various sports for illegal drug importation, assault, fraud and burglary, but not for "sports science" services.
- There is as yet **no publicly known personal (civil) legal action** commenced (let alone resolved) by any athlete against a club, "sports scientist" or other person for negligence, breach of contract or breach of statutory or other duties in relation to their employment or occupational health and safety.
- There is **no known deficiency in the legislated powers of ASADA**. There are emerging concerns about how it uses those powers. There are signs that there could be a repeat of a recurring error by adding to ASADA's powers to make it investigator, prosecutor and judge. Nevertheless, there is currently no evidence of weakness in the powers of ASADA to pursue its current remit.
- There is **no known deficiency in the powers of any sporting governing body** which receives funding from the Commonwealth with regard to how they *regulate "sports science" services*.

  If anything, the problems of doping and bullying in different degrees over recent years in cycling, swimming, AFL and rugby league repeatedly show that:

  - the governing bodies in those sports use their powers to create environments where sports science in all of its aspects is a vital element to performance and to commercial success; and
  - conduct generally held to be unacceptable arises from lack of appropriate internal governance structures within those agencies and the hiring of people with insufficient personal integrity.

  In plain terms, the source of problems of misconduct lies not in contracted sports science services, but in the very organisation of the sport that so highly values sports science.

  Commercially driven sports, such as AFL, cricket and rugby league, are driven by priorities different from those for other sports less driven by the need for commercial success. AFL's problems due to its three-strikes rule is not caused by suppliers of drugs to individuals, but by the inherent tolerance within AFL to water down WADA standards in its sport. Swimming's problems with sleeping drugs is a problem of swimming's organisational structure and staff, not the people who sell the drug or decide to buy and use them.

  This is not criticism of sport driven by commercial success – after all it is only a matter of degree between a local football team selling raffle tickets to get funds for an end of season trip and Australian Football successfully dysoning up $40 million of public funds for its failed World Cup bid.

  The relevant evidence should be on the context of the governing sporting bodies which gives rise to the need for sports science services.

  The NRL's announcement (on or around 24 May 2013) of its intention to adopt several anti-doping measures usefully addresses the core issues: the *environment* in which doping arises, not the causal outcome of there being suppliers of various components of "sports science" services to meet the demands created by the sporting bodies.

  Curiously, also, if the published reasons for securing the Terms of Reference were to be applied to that NRL proposal ("the need to work out" "reform", regulation of a new "profession", new laws for new "safeguards", new "governance structures") that would almost certainly have delayed and reduced the NRL's plans for new anti-doping measures, despite being developed with ASADA. This delay and obstruction would have arisen because of the greater uncertainty arising from inevitable new regulation, fewer people being allowed to be involved and greater compliance costs reducing the

funding for the program itself. In short, regulation has consequences, often in worse outcomes than the ones intended by poorly conceived regulations.

- Even the most generous view of possibly relevant **evidence is too small to justify** new Commonwealth laws interfering in the conduct of a few more or of potentially tens of thousands of "sports science" service providers.

  The most extravagant and ambitious claim on the damage done to athletes as known to date could not possibly justify a new, taxpayer-funded set of regulations of the **very few number of people** whose conduct has been directly or indirectly maligned in the media or by inference in media releases.

  The putative misconduct, at its most projected worst, even at its most harmful and most regrettable, is **relatively small in Australian society** compared with the abundance of accessible avenues of recourse by the injured through existing legal means.

  Even if events come to light over the coming year or two which lead to convictions or to civil litigation, the evidence which is then available is unlikely to justify new regulation, tax allocations or new levies and the corresponding concentration of economic power in the fewer number of people controlled by the new laws.

- There is **no practical means** by which new regulation could provide sufficient **preventative protection**.

  The only likely outcome of any such regulation is **punitive penalties after damage** is done. This has been the recurring, sustained experience with illegal doping. The sustained evidence of reasons for using illegal doping shows that athletes are even prepared to shorten their lives for the sake of ephemeral sporting success and even if they are likely to be caught and punished.

  The available evidence indicates a more successful approach to avoiding illegal doping is to educate athletes at the grass roots level and to educate coaches at all levels[12].

  Therefore a principles-approach, based on reliable evidence, rejects proven failures of increased regulation in favour of well-designed education of key participants at times critical to beneficially influencing behaviour.

- While there is almost no reliable evidence of "sports science" misconduct in recent times in Australia, there could be an enormous amount of evidence of what *is* sports science in Australia. The Terms of Reference give no indication of which evidence is relevant, so there is a vacuum in knowing what to provide.

  Scientists involved in sport, including those funded by AIS and national sporting bodies, heavily research a variety of interventions of all kinds. This has consistently been mandated by the ASC: "Planned and systematic use of sports science is integral to elite success" (Australian Sports Commission, 1999, p. 29). "An applied research and innovation agenda will provide a robust evidence base for the ongoing development and resourcing of the system." (Australian Sports Commission, 2012). The considered conclusion that the federal government funds the service provider, but should not be a service provider, was empathically stated in the Independent Sports Panel Report (Crawford Report, Commonwealth of Australia (2009, p. 72)).

  Examples include nutrient or chemical supplements, hypobaric training and diet regulation. The different hydration compositions targeted for marathoners during a race are the result of sports science. The precise pacing strategies during a running or swimming race are the result of "sports science". Game plans for netball matches are the result of "sports science". Changing bowlers according to the wind conditions is the result of "sports science". A junior triathlete's changed training plan to optimize performance is the result of "sports science". A new swimsuit, a new tennis racquet, a new golf ball are the results of "sports science".

  Most often these and other "sports science" contributions are the result of accumulated and continuing research and trials whether clinical tests or suburban competitions.

[12] Unfortunately the AIS Centre for Performance Coaching and Leadership fails this test, since it is a highly costly program for 30 people to have an occasional chat in Canberra. This reflects a recurring failure of allocation of government moneys when directed towards high profile events and meetings, rather than a principles-based expenditure for long term effect.

None of that is illegal or banned for a particular sport, but it might be either harmful or beneficial. There is no policy ground for excluding from such an enquiry the legal sports science activities of the peak sporting bodies. However, if that legitimate enquiry is logically extended, it must reach back to the Commonwealth's existing interventions to promote sports science, a sample of which is given above.

It might be justifiable to argue that much of the source of problems in Commonwealth-funded agencies and Commonwealth funded independent sporting bodies lies with the Commonwealth funding and policy controls of those organisations to encourage sports science. Quite possibly the evidence might lead to the rational conclusion that the Commonwealth could best assist to remove pressure for unacceptable "sports science" by:

- removing its existing involvement as a regulator of sports, not increase it;
- removing its funding in all forms of sport other than for grass roots sports;
- ending the existence of its own sports agencies, such as the ASC, AIS and a plethora of other agencies and programs.

In short, the evidence of "sports science" services in Australia would be huge. Of all of that, what evidence should be examined: the elite but legal? The illegal? Or just that which is odious to a Senator?

Should it review the evidence of the harmful effects of there being any Commonwealth regulation and funding that already exists?

If there were to be the luxury of reasonable time to provide a more detailed submission, there would be a strong case for the Senate to recommend the Commonwealth substantially withdraw its existing involvement in sport. That is unlikely to be attractive to politicians seeking the limelight and a transfer of marketing value by standing beside sports celebrities, but it might be the best evidence-based policy outcome of a decent review.

6. Any purported new Commonwealth regulation would have to work through the **mire of Commonwealth-State laws and relationships**, since sport is not within the express constitutional powers of the Commonwealth.

   States proudly adopt their own sports policies, assuming their own models for the reason for sport and State government regulation of it[13]. Changing that by new Commonwealth-imposed or directed regulations and tax funds allocations will increase the complexity of Commonwealth, State and local council laws and policies applying from grass roots to high elite level athletes[14].

   It is a monumental task to seek to change that for very little real impact in the Australian community.

Recommended findings

The only reasonable outcome of the Senate Committee enquiry into the Terms of Reference is that the Committee finds:

- The many existing legal avenues of recourse arising from unproven media reports have not been tested such as to justify any new regulation by the Commonwealth and the costs of such regulation to taxpayers and to the many sporting communities and providers of sports science.
- The breadth of the concept of "sports scientists" is so large such that it is likely to include parents on the sideline of a suburban match *and* highly paid contractors to professional team sports as well as a plethora of volunteers such that further investigation by the Senate Committee of the current Terms of Reference is not justifiable.
- There is no meaningful legal, fiscal or social justification for the Commonwealth to create new legislation for regulation of possibly a handful of individuals or for possibly tens of thousands of volunteers covered

[13] See, for example: the explicit plan to model behaviours for six "core values" in NSW's "Five-year plan" NSW Sport and Recreation (2007).

[14] See, for example: Commonwealth of Australia (2011); Commonwealth of Australia et al. (2011) which did not have NSW as a party.

by the Terms of Reference, whether funded by existing tax revenues diverted from other Commonwealth funded appropriations or by new levies imposed on the Australian public.

- No Commonwealth agency has the expertise to regulate this vaguely defined sphere of conduct nor does any Commonwealth agency have the expertise to oversee regulation by industry bodies, of whoever is within the broad concept of a "sports scientist".
- The Commonwealth does not a have a legitimate role in regulating science.
- The Commonwealth does not a have a legitimate role in regulating the meaning of sport let alone the "spirit of sport".
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Disclosure

I am probably not a sports scientist, unless my *pro bono* advice to non-professional sports participants (ranging from 7 years to 70 years) on biomechanics, nutrition, training sessions, training programmes, goals, travel for sports, strength training, sports psychology, racing tactics, footwear, health care practitioners and my font of stories of Australian sport bring me within the terms of reference.

Yours faithfully

Andrew Mac Donald

References

Appelboom, T., Rouffin, C., & Fierens, E. (1988). Sport and medicine in ancient Greece. *The American Journal of Sports Medicine, 16*(6), 594-596. doi: 10.1177/036354658801600607

Australian Sports Commission. (1999). *The Australian Sports Commission - Beyond 2000*. Canberra: Australian Sports Commission.

Australian Sports Commission. (2012). *Australia's Winning Edge 2012 - 2022*. Canberra: Australian Sports Commission,.

Bernett, H. (1988). National socialist physical education as reflected in British appeasement policy. *The International Journal of the History of Sport, 5*(2), 161-184.

Bernett, H. (1992). Sport History: Sport and National Socialism—A Focus of Contempory History *Sport Science in Germany* (pp. 439-461): Springer.

Birchard, K. (1998). Why doctors should worry about doping in sport. *Lancet, 352*(9121), 42.

Birchard, K. (2000a). Olympic committee bans doctor after doping case. *Lancet, 356*(9236), 1171. doi: 10.1016/S0140-6736(00)02768-9

Birchard, K. (2000b). Past, present, and future of drug abuse at the Olympics. *The Lancet, 356*(9234), 1008.

Birchard, K. (2002). An Olympic gold standard in sports medicine. *Lancet, 359*(9311), 1046. doi: 10.1016/S0140-6736(02)08123-0

Carr, D. (2010). On the Moral Value of Physical Activity: Body and Soul in Plato's Account of Virtue. *Sport, Ethics and Philosophy, 4*(1), 3-15. doi: 10.1080/17511320903264222

Commonwealth of Australia. (2009). *The Future of Sport in Australia*. Canberra: Commonwealth of Australia.

Commonwealth of Australia. (2011). *The National Sport and Active Recreation Policy Framework*. Canberra: Commonwealth of Australia.

Commonwealth of Australia, State of Victoria, State of Queensland, State of Western Australia, State of South Australia, State of Tasmania, . . . Northern Territory of Australia. (2011). *National Institute System Intergovernmental Agreement* Canberra.

Coubertin, P. (2000). Olympic Letter XI: The Sporting Spirit of Students. In N. Muller (Ed.), *Pierre de Coubertin 1863-1937 Olympism Selected Writings* (pp. 172-173). Lausanne, Switzerland: International Olympic Committee.

Erdozain, D. (2012). Does Sport Build Character? A Progress Report on a Victorian Idea. *Studies in Christian Ethics, 25*(1), 35-48. doi: 10.1177/0953946811428264

Ergen, E., Pigozzi, F., Bachl, N., & Dickhuth, H. H. (2006). Sports medicine: a European perspective. Historical roots, definitions and scope. *J Sports Med Phys Fitness, 46*(2), 167-175.

Georgoulis, A. D., Kiapidou, I. S., Velogianni, L., Stergiou, N., & Boland, A. (2007). Herodicus, the father of sports medicine. *Knee Surg Sports Traumatol Arthrosc, 15*(3), 315-318. doi: 10.1007/s00167-006-0149-z

Green, M. (2007). Olympic glory or grassroots development?: Sport policy priorities in Australia, Canada and the United Kingdom, 1960 – 2006. *The International Journal of the History of Sport, 24*(7), 921-953. doi: 10.1080/09523360701311810

Green, M., & Oakley, B. (2001). Elite sport development systems and playing to win: uniformity and diversity in international approaches. *Leisure Studies, 20*(4), 247 - 267.

Holt, R. I., Erotokritou-Mulligan, I., & Sonksen, P. H. (2009). The history of doping and growth hormone abuse in sport. *Growth Horm IGF Res, 19*(4), 320-326. doi: 10.1016/j.ghir.2009.04.009

Hong, F., & Zhouxiang, L. (2012). Representing the New China and the Sovietisation of Chinese sport (1949–1962). *The International Journal of the History of Sport, 29*(1), 1-29. doi: 10.1080/09523367.2012.634982

Johnson, M. W. (2008). *Training socialist citizens: Sports and the state in East Germany* (Vol. 44): Brill Academic Pub.

Krüger, A. (1995). 'Buying victories is positively degrading'European origins of government pursuit of national prestige through sport. *The International Journal of the History of Sport, 12*(2), 183-200.

Krüger, A. (1999). Strength through joy. The culture of consent under Fascism, Nazism and Francoism. *The international politics of sport in the twentieth century*, 67-89.

Leadbetter, J. D., & Leadbetter, W. B. (1996). The philosophy of sports medicine care: an historical review. *Md Med J, 45*(8), 618-631.

Lucas, J. (1975). Victorian "Muscular Christianity". Prologue to the Olympic Games Philosophy. *Olympic Review, 5*, 97-98.

Luh, A. (2003). On the way to a national socialist sports system: From liberal sports in clubs and associations to directed sports in national socialist organizations. *European Journal of Sport Science, 3*(3), 1-10. doi: 10.1080/17461390300073307
Marchiony, J. A. (1963). The Rise of Soviet Athletics. *Comparative Education Review, 7*(1), 17-27.
Masterson, D. W. (1976). The ancient Greek origins of sports medicine. *Br J Sports Med, 10*(4), 196-202.
Mathias, M. B. (2004). The competing demands of sport and health: an essay on the history of ethics in sports medicine. *Clin Sports Med, 23*(2), 195-214, vi. doi: 10.1016/j.csm.2004.02.001
NSW Sport and Recreation. (2007). *Game Plan 2012 NSW Sport and Recreation Industry Five Year Plan – shaping Our Community for a Sustainable Future*. Homebush: NSW: Department Sport and Recreation NSW.
Orwell, G. (1945, 14 December 1945). 'The Sporting Spirit', *Tribune*.
Productivity Commission. (2010a). *Strengthening evidence-based policy in the Australian Federation, Volume 1: Proceedings*. Canberra: Productivity Commission.
Productivity Commission. (2010b). *Strengthening Evidence Based Policy in the Australian Federation, Volume 2: Background Paper*. Canberra: Productivity Commission.
Radchenko, S. (2012). It's not enough to win: The seoul olympics and the roots of north Korea's isolation. *International Journal of the History of Sport, 29*(9), 1243-1262.
Riordan, J. (1987). Sports medicine in the Soviet Union and German Democratic Republic. *Soc Sci Med, 25*(1), 19-28.
Rowley, A. (2006). Sport in the service of the state: Images of physical culture and Soviet women, 1917–1941. *The International Journal of the History of Sport, 23*(8), 1314-1340.
Schnirring, L. (2003). Mending injured athletes: a track record of orthopedic advances. *Phys Sportsmed, 31*(9), 13-14. doi: 10.3810/psm.2003.09.475
Snook, G. A. (1978). The father of sports medicine (Galen). *Am J Sports Med, 6*(3), 128-131.
Snook, G. A. (1984). The history of sports medicine. Part I. *Am J Sports Med, 12*(4), 252-254. doi: 10.1177/036354658401200402
Speed, C., & Jaques, R. (2011). High-performance sports medicine: an ancient but evolving field. *Br J Sports Med, 45*(2), 81-83. doi: 10.1136/bjsm.2010.075325
Steinberg, D. A. (1979). *Sport under red flags: the relations between the Red Sport International and the Socialist Workers' Sport International, 1920-1939* (Vol. 2): University of Wisconsin--Madison.
Steiner, J. M. (1976). *Power politics and social change in national socialist Germany: a process of escalation into mass destruction* (Vol. 2): Walter de Gruyter.
Tipton, C. M. (1997). Sports medicine: a century of progress. *J Nutr, 127*(5 Suppl), 878S-885S.
Tunis, J. R. (1936). The dictators discover sport. *Foreign Affairs, 14*(4), 606-617.
U.S. Anti-Doping Agency. (2010). *What Sport Means in America: A Survey of Sport's Role in Society*. Silver Spring, MD: U.S. Anti-Doping Agency.
Van Steen, G. (2010). Rallying the Nation: Sport and Spectacle Serving the Greek Dictatorships. *The International Journal of the History of Sport, 27*(12), 2121-2154. doi: 10.1080/09523367.2010.495226
Wagner, J. F. (1992). Prague's Socialist Olympics of 1934. *Canadian Journal of History of Sport, 23*(1), 1-18.
Xiong, H. (2011). Stratification of women's sport in contemporary China. *Int J Hist Sport, 28*(7), 990-1015.
Yakovlev, N. N. (1975). Biochemistry of sport in the Soviet Union: beginning, development, and present status. *Med Sci Sports, 7*(4), 237-247.
Yessis, M. (1972). Kinesiological research in the Soviet Union. *Journal of Health Physical Education and Recreation*.