



# WSLA

## Safe Sport

Celebrating functionality  
and performance

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NZ Olympic Women's Sport Leadership Academy

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# WSLA

## NZ Olympic Women's Sport Leadership Academy

*The New Zealand Olympic Women's Sport Leadership Academy is designed to support NZ's female Olympians make a positive transition from sport performance to sport leadership and connect to an international network of women leaders in sport.*

*The 18 month programme provides a unique learning environment that supports the women to further develop their confidence and leadership competencies. One objective of the programme is to raise awareness of issues in women in sport, and this becomes the basis of the special projects. The WSLA participants work in small groups outside of the formal sessions to further enhance their leadership and learning, undertaking projects that are substantive and of direct relevance to the sector.*

*Find out more about the WSLA Special Projects including presentations of this report from the NZOC [website](#)<sup>1</sup>*

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<sup>1</sup> <http://www.olympic.org.nz/about-the-nzoc/programmes-and-funding/womens-sport-leadership-academy/>

## CONTENTS

EXECUTIVE SUMMARY .....	4
RED-S .....	4
Process.....	4
Recommendations.....	5
INTRODUCTION.....	6
PROCESS .....	6
Scoping with stakeholders.....	6
Online survey of athletes and health professionals.....	6
National sports organisations.....	7
Literature review .....	7
Further research .....	7
UNDERSTANDING RED-S.....	8
What is RED-S? .....	8
Emotional abuse and RED-S.....	8
A sport system view.....	9
GLOBAL AND NATIONAL EVIDENCE AND CURRENT ACTIONS.....	10
International – current state of play.....	10
New Zealand – current state of play.....	11
Parallels with other sectors .....	14
SUMMARY OF EVIDENCE .....	15
Evidence - athletes .....	15
Influence.....	15
Impact.....	18
EVIDENCE - EXPERTS.....	21
Understanding RED-S.....	21
Influencing athlete undernourishment .....	22
Evidence - our story .....	23
SUMMARY OF ISSUES .....	24
Information.....	24
Influence.....	24
Impact.....	24
RECOMMENDATIONS .....	25
Recommendation 1 – Information .....	25
Recommendation 2 – Early Intervention.....	26
Recommendation 3 – Culture.....	27
Recommendation 4 – Personal Empowerment.....	28
SCHEDULE 1: ATHLETE SURVEY.....	30
SCHEDULE 2: EXPERT SURVEY.....	31
SCHEDULE 3: ADDITIONAL DIRECT QUOTES .....	32

## EXECUTIVE SUMMARY

New Zealand's female athletes are suffering from varying forms of emotional abuse giving rise to body weight and image issues. While the scope of this report is limited to the experience of female athletes, the same issues increasingly apply to male athletes. The conclusions and recommendations set out in this report should also be applied to New Zealand's male athletes.

### RED-S

Emotional abuse specifically relating to an athlete's body weight and image most commonly manifests itself in female athletes suffering from Relative Energy Deficiency in Sport (RED-S). An athlete with RED-S does not consume sufficient calories to recover those used during training.

While RED-S is now a commonly recognised issue in New Zealand sport, the underlying cause of this condition is not being addressed.

In New Zealand, emotional abuse typically arises because of a lack of education and reluctance to conduct open dialogue around female specific health issues, coupled with there being a toxic culture in certain sports. The archaic view that restricting diet to achieve weight loss will improve performance is embedded in New Zealand's sporting culture, and often imbalanced power relationships are contributing to the issue.

As a result of their own experiences and observations within sport, the authors of this report are committed to ensuring that New Zealand's current and future female athletes are protected from all forms of emotional abuse which manifests itself in disordered eating and body image issues.

We need to build cultures that are healthy for female athletes and do not damage their health and long-term wellbeing. The focus needs to shift to promoting functionality and performance.

### Process

To obtain an accurate picture of the current environment, we undertook comprehensive research, scoped key stakeholders and conducted surveys of both athletes and health professionals.

Research included reviewing current literature, both globally and in New Zealand, to understand what processes and mechanisms are already in place to promote safety in sport and address specific issues around emotional abuse of female athletes and the increasingly prevalent RED-S condition.

As part of scoping the project, informal interviews with interested parties including doctors, physios, nutritionists, coaches and both current and retired athletes helped to identify the nature, severity and extent of the issues.

Online surveys were then conducted with high performance female athletes across five sporting codes and health professionals. Each respondent described their personal experiences and perception of the issues, thereby providing a sample representation of a broader range of sports.



### RECOMMENDATIONS

RED-S is common and well understood particularly among sports doctors. What is less obvious are the strategies in place to address this in New Zealand in a proactive, preventative manner.

Existing legal protections are not adequate protection in a sporting environment. The issues that are applicable to emotional abuse and body weight and image issues in female athletes have commonalities with the broader topics of emotional and physical abuse and sexual harassment. It is our view that any recommendations and strategies in one area could be more widely applied across all three areas.

Based on the research, interviews and survey information, the following recommendations for action will help athletes cope with issues of body image and disordered eating practices.

#### *Recommendation 1 – Information*

A two-way information channel to access information and seek help if needed. A website, supported by a mobile application, will include details about RED-S and warning signs, as well as details about support channels and access if intervention or treatment is required. Coaches and athletes need to be encouraged to use period tracking.

#### *Recommendation 2 – Early Intervention*

Work with HPSNZ as it develops the permanent complaints service. Establish regional panels of independent safety / wellbeing officers to address athlete concerns. Explore the role of an overarching sport integrity unit that extends to safety in sport. Ensure availability of support services to women and girls of varying abilities.

#### *Recommendation 3 – Culture*

Influence NSO's to create an environment that prioritises physical and mental health as the key to performance. Clarify roles and eliminate coach intervention in weight and nutrition discussions. Educate athletes, coaches and support staff through use of existing international resources.

#### *Recommendation 4 – Personal Empowerment*

Educate female athletes early about the significant long-term health risks that can affect their performance and lives well beyond the end of their competitive sporting career. Encourage current and former athletes to be role models who confidently speak out against negative comments and openly discuss menstruation and healthy weight. Promote real women being active. Develop female trainers, coaches and support staff to increase the proportion of females and promote a culture of support, encouragement and resources enabling young women to safely pursue elite level sport.



## INTRODUCTION

There is a prevalence in New Zealand of athletes suffering from RED-S, with minimal strategies in place to prevent, identify and remedy those athletes with the condition. The key issues we have identified are:

- Lack of understanding of coaches, parents and other support of the condition (its causes and how to identify and treat it);
- Lack of education and information available to those people and athletes themselves;
- Cultures which promote negative behaviours including different forms of emotional abuse which exacerbate the problem;
- Cultures where speaking about female specific health issues and menstrual health is avoided and seen as a topic of discomfort;
- Coaches giving advice on weight and nutrition and not being sufficiently educated in these areas; and
- Lack of training of athletes to empower them to understand the long term health effects of their decisions, and the importance of functionality and performance over weight.

## PROCESS

To obtain an accurate picture of the current environment, we conducted initial informal interviews with key stakeholders to enable us to scope the project, followed by targeted online surveys to athletes and health professionals. We also undertook comprehensive research to understand the current New Zealand and global environment.

### Scoping with stakeholders

We initially conducted informal interviews (by phone, email and in person) with various key stakeholders including doctors, physios, nutritionists, coaches, current athletes and retired athletes. The severity and extent of the issues was clear and included multiple sporting codes at all levels from grass roots to elite.

### Online survey of athletes and health professionals

Acknowledging the inefficacy of targeting all sports and at all levels, we elected to conduct targeted formal online surveys of high performance female athletes across five sporting codes.<sup>2</sup> In our view, these elite athletes would be able to describe experiences and personal influences occurring throughout their sporting career, thereby giving us a sample representative of a broader range of sports. The sports we elected to focus on are those which are commonly accepted as having a particular emphasis on attaining optimal weight for performance. Ten open-ended questions were created and sent out to the five

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<sup>2</sup> A copy of the survey distributed to athletes is set out in Schedule 1 of this report.

sporting codes with a request to forward the survey on to current and retired high performance female athletes. Athletes were asked to reflect not only on their own experiences but on examples of emotional abuse of other athletes which they had observed.

To the extent direct quotes have been included in this report, necessary amendments have been made to remove any identifying factors to ensure anonymity for the respondents, the subjects of their comments, and their sports code.

A similar survey was created and sent out to certain experts in the field<sup>3</sup> including doctors, nutritionists and physiotherapist. We targeted experts who have experience working with athletes, or having observed athletes, experiencing these issues.

A summary of the evidence and information compiled from the results of completed surveys is set out in section 6 of this report.

### **National sports organisations**

Of the five national sports organisations (NSOs) that were approached, one NSO ignored requests to participate (however we obtained some responses by contacting athletes in that sport directly), and one NSO declined to participate. The three NSOs that participated were willing, engaging and expressed a genuine interest in the results of this report and a desire to implement any resulting recommendations.,

This mix of responses is indicative of the systemic and unintentional ignorance that surrounds RED-S.

### **Literature review**

Additionally, we have undertaken extensive research of the current environment both globally and in New Zealand to understand what processes and mechanisms are already in place to promote safety in sport and address specific issues around emotional abuse of female athletes and the increasingly prevalent RED-S condition. This research is summarised in section 5 of this report.

### **Further research**

While beyond the scope of this report, we recommend further investigation is undertaken to determine the differing responses to, and interpretation of, abusive practices between athletes, and the variances in response by an individual athlete across the duration of their career (for example, how does their response change when experiencing both increased and decreased performance, and at various ages). A limitation of this report is that it is reliant on athlete perception and is anecdotal. Emotionally abusive practices are often normalised by athletes during their career, however on retirement, and with the benefit of reflection and hindsight, athletes are more inclined to report such behaviours and recognise them as problematic.

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<sup>3</sup> A copy of the survey distributed to experts is set out in Schedule 2 of this report.



## UNDERSTANDING RED-S

### What is RED-S?

An athlete with RED-S does not consume sufficient calories to recover those used during training. Those athletes who have key stakeholders (being the athlete and external influencers) who retain a mindset of "skinner is better" are at an increased risk of developing RED-S.

With researchers beginning to notice an increased frequency of amenorrhoea in athletes as early as the 1970s,<sup>4</sup> RED-S is now a commonly recognised issue and is increasingly identified as a key area for improvement in New Zealand sport. However, the underlying cause of this condition is not being addressed. Professor Holly Thorpe<sup>5</sup> notes that despite three decades of research, prevalence of the condition is becoming worse, in part because the existing research focuses on the individual rather than investigating sports cultures.

One of the difficulties in diagnosing the condition is that many sportswomen have normalised amenorrhoea, with a number of athletes and coaches going further, believing it is a sign of peak performance.<sup>6</sup> Many sportswomen in New Zealand also use oral contraception, masking the natural menstrual cycle, meaning that loss of menstruation, the key symptom of RED-S is often overlooked.

Typically sports that have an endurance or aesthetic focus have proportionally higher levels of athletes suffering this condition. Those sports have high caloric requirements given the use of multiple muscle groups and are sports where a lean body is considered optimal. However, it is now being acknowledged that this condition is not exclusive to those sports, with athletes across all sports and abilities, and the general public undertaking recreational exercise only, all susceptible to the condition.

### Emotional Abuse and RED-S

Emotional abuse is defined as a pattern of deliberate non-contact behaviours within a critical relationship between an individual and caregiver that has the potential to be harmful.<sup>7</sup> The relationships between (but not limited to) coach and athlete, and parent and athlete, are critical – they typically have a significant influence over an athlete's sense of safety, trust and fulfilment of needs.<sup>8</sup> Emotional abuse specifically relating to an athlete's body weight and image most commonly manifests itself in female, and increasingly male athletes, who suffer from the condition known as Relative Energy Deficiency in Sport (RED-S) or the Female Athlete Triad. The term "Female Athlete Triad" was created to describe the interrelationship between bone mineral loss, disordered eating and loss of

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<sup>4</sup> Training Peaks ([www.trainingpeaks.com/coach-blog/how-to-prevent-the-female-athlete-triad-as-a-coach/](http://www.trainingpeaks.com/coach-blog/how-to-prevent-the-female-athlete-triad-as-a-coach/)).

<sup>5</sup> Professor Holly Thorpe cited in Stuff "Breaking the silence on the mysterious syndrome hurting female athletes" by Suzanne McFadden of LockerRoom dated 17 December 2019).

<sup>6</sup> "Toxic sport cultures are damaging female athletes' health, but we can do better", [www.theconversation.com](http://www.theconversation.com), 10 December 2019, authors Holly Thorpe, Katie Schofield and Stacy Sims.

<sup>7</sup> Stirling, A.E., & Kerr, G.A. (2008), Defining and Categorizing Emotional Abuse in Sport.

<sup>8</sup> Crooks, C.V., & Wolfe, D.A. (2007), Child abuse and Neglect.



menstruation in women athletes, with the condition later renamed Relative Energy Deficiency in Sport (RED-S) to acknowledge male athletes who also increasingly suffer from this condition.

### **A sport system view**

In New Zealand high performance sport, emotional abuse typically arises because of lack of education and reluctance to conduct open dialogue around female specific health issues, coupled with there being a toxic culture in certain sports.<sup>9</sup> The evidence we have gathered, discussed in detail in section 6 of this report, has identified numerous examples of this toxic sport culture, with coaches, sponsors and medical support staff often demanding athletes change weight for performance having no regard to the physical or mental health of that athlete. Often, imbalanced power relationships are contributing to the issue.

Evidence shows that the archaic view that restricting diet to achieve weight loss will improve performance is embedded in New Zealand's sporting culture. In contrast, such behaviours instead often give rise to RED-S which can lead to low bone density, reproductive dysfunction, compromised immunity, higher cardiovascular risk and reduced performance.

While there are certain sports that reveal a toxic high performance sporting culture, often the emotional abuse is not intentional (particularly at levels below elite), but is better described as abuse through ignorance. The negative results of such abuse are however the same.

Compounding this is the increased pressure on female athletes due to social media, increased audience followers and more sponsors, which often manifests itself in doubts about bodies and self-image. Social expectations of femininity often directly contrast with the physical requirements of training and competing at peak physical condition, with that challenge exacerbated by expectations within a sport to look a certain way.

There are a number of examples of individual advocates and certain sports that have specifically identified RED-S as an area of concern and are working on strategies to address and treat this condition. However, in New Zealand there is yet to be a system-wide, cross-sport strategy in place to:

- address the underlying reasons why such a condition is so common;
- encourage open and transparent dialogues (both at an overarching national level and at an individual coach-to-athlete level); and
- implement prevention and treatment strategies for use by not only athletes, but their support networks including coaches, support staff and parents.

We need to build cultures that are healthy for female athletes and do not damage their health and long-term wellbeing. The focus needs to shift to promoting functionality and performance.

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<sup>9</sup> "Breaking the silence on syndrome hurting female athletes", LockerRoom, 17 December 2019 (updated 20 January 2020).



### GLOBAL AND NATIONAL EVIDENCE AND CURRENT ACTIONS

Set out below is an overview of the current environment both globally and nationally in respect of safety in sport and, in particular, undernourishment in female athletes.

#### International – Current State of Play

There is a growing demand internationally for policies and procedures to be implemented to ensure sport is a place of safety for all. There are numerous examples of processes, mechanisms and resources that have recently been implemented and made available in an attempt to promote safety in sport and address the issues of emotional abuse of female athletes in particular.

##### *Safe Sport International*

Safe Sport International<sup>10</sup> (SSI) is the leading international agency in eliminating abuse, violence or harassment against athletes of all ages. SSI focuses on non-accidental harms undermining both the mental and physical health of the athlete and the integrity of the sport. It collaborates internationally to develop and support the implementation of international frameworks for safe sport. As a result, countries have adopted national Safe Sport policies and procedures.

#### **Canadian Case Study**

The Canadian Centre for Ethics in Sport (CCES) is advocating for a Universal Code of Conduct for Canadian sport that addresses all forms of maltreatment and is administered by an independent body.<sup>1</sup> A draft code of conduct has been prepared on the request of Sport Canada and is currently undergoing a review and consultation process.

Canada also has the Canadian Sport Help Line, which is available to all athletes (by phone or email)<sup>1</sup> and offers advice, guidance and resources on how to proceed or intervene appropriately in certain circumstances. Independent Safe Sport Officials are also available,<sup>1</sup> being an independent third party available to guide athletes through the formal complaints process or explore alternative options. That Official is empowered to supersede NSO staff and launch appropriate procedures as required based on evidence or situations reported. Individual NSOs in Canada are also taking responsibility for offering their athletes support in terms of ensuring safety in sport.

At an NSO level, and by way of example:

- Athletics Canada has created the Commissioner's Office, which is dedicated to resolving complaints within the NSO as an independent office. The Commissioners are not employees of Athletics Canada and instead act as independent officers whose sole function relates to complaints resolution.
- Swimming Canada has created a safe sport framework, which focuses on education, prevention and response, with policies and procedures to address each aspect of a safe sport environment including separately dealing with harassment, anti-doping, coaching, diversity and inclusion.

<sup>10</sup> <http://www.safesportinternational.com/>.

### *International Olympic Committee*

The International Olympic Committee (IOC) has also completed significant work in safe sport and ensured that they have made internationally available the results of research and resources developed.

These projects include:

- The *Healthy Body Image Project*<sup>11</sup> which documents four “Hungry for Gold” videos detailing the experiences of fictional characters. These are used as educational tools aimed at athletes, parents, coaches and support staff to inform them about RED-S and related health implications.
- A free *Female Athlete Health*<sup>12</sup> interactive course, that many international sporting organisations promote and encourage their female athletes to complete.
- The *Female Athlete Handbook*<sup>13</sup> in which an international team of expert contributors cover the science, medicine and psycho-social aspects of female athletes at all levels of competition. The Handbook focuses on the specific issues that female athletes confront both on and off the field, including bone health, nutrition and exercising and competing during menstruation and pregnancy. The Handbook is recommended for all international health care providers for female athletes at all levels of competition (including doctors, physical and occupational therapists, nutritionists and sports scientists as well as coaches, personal trainers and athletes themselves).

### *Summary*

Considering and learning from the global environment, including using available resources and learning from existing research, is critical to obtain a deeper understanding of the commonality and seriousness of these issues, and ensuring we promote an environment of safety in sport in New Zealand.

### **New Zealand – Current State of Play**

While New Zealand is viewed internationally as being proactive in seeking to address the increasing prevalence of female athletes suffering from RED-S (and the broader issues of emotional abuse of athletes and lack of safety in sport), it is still in the early stages of accepting the prevalence of these issues and creating strategies to address them. The following strategies have been implemented in the previous four years:

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<sup>11</sup> <https://www.olympic.org/hbi>.

<sup>12</sup> <https://www.olympicresources.com/Home/Welcome>.

<sup>13</sup> The handbook is available from a number of online sources including Amazon (<https://www.amazon.com/Handbook-Medicine-Science-Athlete-Olympic/dp/1118862198>).

### *WHISPA – Healthy Women in Sport: A Performance Advantage*

The WHISPA Project<sup>14</sup> was formed by High Performance Sport NZ (**HPSNZ**) after the 2016 Rio Olympic Games to ensure that the best clinical advice is being provided to athletes and coaches to facilitate optimal athletic performance in elite female athletes. WHISPA brings together a group of experts from a range of health disciplines (including sports doctors, endocrinologists, physiologists, psychologists, sociologists, nutritionists, physiotherapists and strength and conditioning specialists). They undertake research and deliver advice, guidelines and education opportunities to coaches, sports staff, doctors and athletes around obtaining optimal athletic performance in female athletes taking into account normal hormonal variation occurring during the menstrual cycle of healthy females.

### *HPSNZ – Female Athlete Health Symposium*

The third Female Athlete Health Symposium was held in 2019. This symposium is the brainchild of HPSNZ and, in particular, its WHISPA group. Presentations and workshops during the 2019 symposium were focussed on issues specific to young female athletes including nutrition, injury prevention, RED-S, bone health and fertility issues. As part of the symposium, workshop sessions are held which are designed specifically for coaches of young female athletes, parents, athletes, teachers, and health professionals.

### *HPSNZ – Complaints Service*

In May 2019, HPSNZ implemented an interim complaints service<sup>15</sup> offered to high performance athletes. Dyhrberg Drayton Employment Law delivers this interim complaints service which deals with bullying, harassment, inappropriate behaviour, athlete well-being and mental health, and enables athletes to make a complaint to an independent body. The service is not anonymous but details relating to complainants identity are confidential unless there is a risk of serious harm or unless otherwise agreed with the complainant. The service is available for complaints in respect of NSOs with carded athletes. Anyone is able to raise a complaint about high performance or campaign athletes, employees or contractors of NSOs as well as HPSNZ and Sport NZ staff embedded in those NSOs.

HPSNZ's website notes that a permanent, system wide solution spanning both high performance and community sport is being developed but currently there is no indication of the form that this permanent solution will take.

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<sup>14</sup> <http://www.sportwhispa.com>.

<sup>15</sup> <https://hpsnz.org.nz/what-we-do/independent-complaints-mechanism/>.

### *HPSNZ – Code of Conduct (2018)*

This code of conduct<sup>16</sup> addresses interactions with athletes and relationships requiring HPSNZ personnel to:

- a) not unduly interfere with athlete's privacy or take advantage of the relationship they have with those athletes;
- b) eliminate all forms of physical, verbal or emotional bullying or abuse by or of others; and
- c) assume full responsibility for setting and monitoring the boundaries of their professional relationships with athletes and coaches.

An investigation and / or disciplinary action may be undertaken against any HPSNZ personnel subject of a complaint regarding an alleged breach of the code. That investigation or disciplinary action will be undertaken in accordance with the relevant contract or HPSNZ policy or procedure, or otherwise by or on behalf of the Chief Executive in the Chief Executive's discretion.

### *Sport NZ and HPSNZ – Duty of Care Charter and Athlete Safeguarding Toolkit for NSOs*

Sport NZ and HPSNZ are developing a duty of care charter and athlete safeguarding toolkit for NSOs. They are undertaking a review into how programme centralisation can be better optimised to support athlete welfare.

### *Sport NZ – Elite Athletes' Rights and Welfare review*

The Cottrell Review<sup>17</sup> was completed on 5 November 2018, and highlighted growing evidence of a lack of genuine focus on athlete rights and welfare in elite sports organisations in New Zealand. While the report did not seek to impose on NSOs certain solutions to address these issues, it sought to summarise the current situation to inform NSOs, and to encourage them to seek appropriate ways to address those issues in their sport.

The Cottrell report focuses on athlete welfare including considerations relating to training load, competition requirements, funding, health and safety, sport, education and life after and outside of sport. While part of the report is dedicated to health of athletes, including mental health, it only briefly considers issues specific to women, body weight and image.

The research undertaken and summarised in this WSLA Safe Sport report provides a more detailed investigation of the issues and prevalence of emotional abuse of athletes in New Zealand and, in particular, the prevalence of RED-S in female athletes.

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<sup>16</sup> <https://hpsnz.org.nz/content/uploads/2018/10/Code-of-Conduct.pdf>.

<sup>17</sup> <http://sportnz.org.nz/assets/Uploads/Elite-Athlete-Right-and-Welfare.pdf>.

## Summary

While there has been very positive progress in New Zealand in regards to identifying and addressing issues of safety in sport, there is still significant work to be undertaken to promote safety in sport at all levels and types of sports, and to highlight in particular the prevalence of undernourishment in our female athletes.

## Parallels with Other Sectors

The broader topic of mental health, and the promotion of wellbeing in the workplace in particular, has enjoyed increased focus in the last 12 to 24 months. In particular, professions are demonstrating a zero tolerance policy to all forms of abuse (emotional, physical and sexual). A key example of this is release of the "Bazley Report"<sup>18</sup> which investigated wrongdoing in national law firm Russell McVeagh and has subsequently been the key driver in a shift of culture within in all New Zealand law firms. Equally, sports organisations needs to be prioritising these issues, advocating for change, and developing tools to educate, enable early identification and intervention, and promote cultural change.

Sporting organisations can learn from experiences in the work place and, conversely, sport is an excellent "Trojan horse" for change in society. In New Zealand in particular, sport is integral to our culture and has a significant role in shaping and inspiring New Zealanders.<sup>19</sup> Previously, sport has become the avenue for advocating against racism, promoting gender equality, raising public awareness of human rights issues and the promotion of peace and international cooperation. Now it can become the avenue for advocating against emotional abuse and a focus on weight, and promoting health, wellbeing, functionality and performance in females.

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<sup>18</sup> On 5 July 2018, Dame Margaret Bazley published her review of Russell McVeagh which has since colloquially been referred to as the "Bazley Report".

<sup>19</sup> NZ Rugby Respect and Responsibility Review.

## SUMMARY OF EVIDENCE

This section provides an overview of the information collected from the interviews conducted and online surveys completed for the purposes of this report. Where possible direct quotes from athletes, experts and other respondents are included. Additional direct quotes not included in this section of the report are set out in Schedule 3.

### Evidence - Athletes

We received 26 completed surveys from athletes from four Olympic sports. All athletes completing surveys had represented New Zealand in their respective sports and all except four athletes had represented New Zealand at an Olympic Games.

One athlete emphasised the effect her experiences had on life following retirement and separately noted the following:

*...happy to provide any more information you might need as this is a topic close to my heart. I am so happy there is movement happening around this topic thank you for that.*

All participants responded to the question asking them to explain any positive or negative influences on nutrition they had experienced. The following two themes emerged from the responses:

- Influence
- Impact

### Influence

#### *Influence of self*

Athletes identified the influence of “self” – where the athlete was aware of the need to change their weight or the need to maintain a healthy weight. Often this awareness was ill-informed and ultimately had a detrimental effect on the athlete, with relevant support people not acknowledging the issue until it was too late:

*For about three years 15-18, smaller for me was faster. I put so much pressure on myself to be small, I had poor self confidence and I developed bad eating habits that eventually put me in hospital with gut issues. I mainly did this to myself because I wanted to succeed. It was my coach and nutritionist that eventually stepped in. They were always trying to get me to eat more and encourage me to eat.*

#### *Influence of coaches and performance support*

Athletes noted the influence of experts they worked with closely including coaches and nutritionists. This tended to have the most impact on the athlete.



Where negative comments were made, some athletes expressed an ability to brush comments off and considered the comments to be merely frustrating rather than impacting them mentally or physically. One athlete commented: *“yes, constantly being asked how much I weigh annoys the crap out of me”*. For other athletes, the comments had a lasting effect on their performance as athletes and in their life after sport:

*“yes it was negatively affected by coaches obsessing over the figure on the scales, forcing us to weigh in daily and constantly commenting on my appearance in relation to fat. This caused me to under eat and over train, I felt like I needed to ‘earn my food’ each day”*.

A number of athletes commented on their coach's influence:

*Asked me to get my skinfolds down, I was in agreeance and was fully engaged to do everything possible for our best chance at Worlds and the Games. Struggled for years not to lose weight, but all of a sudden it was hard to even maintain my current weight. It was a strain on me mentally and my teammates as it affected my relationship with my coach.*

*There were comments made by [coach], one in particular was after [sport] break [coach] gave me a weight to hold and then said "this is how much extra weight you are now carrying..."*.

*I was very restrictive on my food and water especially when we were weighed most Friday afternoons.*

*I was handed an article by one of my coaches about an Aussie [athlete] that had just done very well at Commonwealth Games and in the article the athlete talked about how she dropped 5kgs and that was one of the reasons she felt her [performance] had stepped up. I remember feeling, is my coach giving me this article to make me feel I should lose weight.*

*...coaches I have had in NZ have at one time or another told me outright that I was "fat" and not allowed to eat for a few days. Having a coach tell you not to eat then hand you lollies definitely had a negative impact on our training...I had no energy to work and then feeling really down, I would binge on the wrong foods. It took me a long time to get out of that cycle and be happy with who I was.*

Participants noted that comments not only related to being too heavy, but also accusations of being too light.



Athletes made the following comments:

*I was told at my season review with the selectors that I wasn't managing my weight well. I was becoming too light. The selectors were told by my coach that this could be an issue moving into the next season. This was the first I'd heard of my weight being a "problem." I felt a lack of trust between me and my coach.*

*My first 3.5 years of being in the team (since 2015) I battled with being 'too light' even though I was performing. I was always told I had to put on weight. I felt that pressure really bad.*

*Yes - weight is discussed A LOT. Some of us have to put on 6-8kg and others have to lose up to 10. Different coaches target it differently but I've been told by my current and previous coaches that if I want to make it I have to go "get fat" as it's the only way to put on 5kg.*

### *Influence of peers*

Athletes commented on the influence of peers and other athletes, although these influences were considered less significant. One athlete commented:

*Sometimes comments from fellow athletes about being in 'bulk season' have also triggered feelings. Has made me restrict my food intake and put more thought into what I'm eating or what I shouldn't be eating.*

One athlete summed up the discussion well by commenting:

*I think that for female athletes to gain weight the only hurdle we have is our own personal judgement. When gaining weight is performance based, support around doing so is very accessible. For athletes I know that have to lose weight or stay small, the nutrition support is not optimal. There are very conflicting opinions in and outside of the sport that make it difficult for these females. They are constantly being told by different people how to manage their weight, what to eat, what to weigh. The most helpful advice girls around me have been given in relation to nutrition/weight management has been through older and more experienced athletes, rather than experts.*

### *Positive influences*

Athlete responses in respect of influence were not limited to negative experiences. Some athletes considered that the support they had received was appropriate and positive.



One comments as follows:

*My mother...always spoke about balance. Never had to remove or cut anything from my nutrition. HPSNZ nutritionists - whole foods approach, not taking the short cut to supplements if there was a food option available.*

### Impact

#### *Emotional and physical responses*

Athletes commented on the negative impact these influences have had both emotionally and physically.

Emotional effects included the development of negative self-thoughts, disliking their bodies, and discussions on this topic triggering horrible emotions. They experienced doubts about whether they were good enough given they were not at the 'right' weight, and fears that underperformance in tests would be blamed on weight. One former athlete commented that the focus on weight for performance could become a self-fulfilling prophecy, whereby if an athlete was not at their race weight they believed their performance would suffer, and that belief meant their performance did in fact suffer (regardless of their capability at that time to perform). Athletes commented that they experienced a lack of emotional stability, suffered depression and obsessed about their weight. One athlete even commented that her coach blamed her for injuries obtained as a result of the emotional abuse.

Physical effects included stress fractures, under eating, struggling with sleep, under performance, binge eating and amenorrhea.

One athlete's comment encompassed what many were saying:

*I was emotional all the time. I went through depression. My body wasn't well, I didn't have my period for a year or even longer, and I got injured easily because I didn't have the muscle mass. In the end, it wasn't sustainable. My family knew I was getting too small and was worried about how self-aware I was of my body weight.*

### Self-image

When athletes were asked to reflect on their own body image in sport and how they felt when their body changed (for better or worse), many recognised the negative impact significant body changes had on their performances and number noted that their weight issues were career ending. The following comments reflect a common theme throughout most responses:

*I felt proud of being slim but deep down I knew that my performance was suffering from it, every day I was scared I would wake up heavier.*



*I criticise all the parts (of my body) that have gained a bit of weight, feel uncomfortable and self-conscious in my body and constantly think about losing weight.*

*Toward the end of my [sporting] career, my 'weight' was my biggest work on. For me, this unconscious focus shift would have been the turning point in my career, as it was no longer about performance.*

Other athletes recognised the importance of having a healthy and strong body to help them succeed in sport. They recognised that, when compared to their non-athletic friends, their body was different and not necessarily the 'ideal' body for society (for example, having muscular shoulders and thighs), but they recognised that their body was the vehicle that would help lead them to success. Unfortunately, these comments were not common, but reflect an ideal "outcome" in a society where athletes do not experience emotional abuse in respect of body image and weight:

*I felt really good about myself. When I look in the mirror, I see a body that has helped me go and achieve some amazing times and go some amazing places because of those times. I feel proud of myself.*

*For a long time I was not happy with my body. Competing with European girls who you are always told "have the perfect [ ] body" is really hard to deal with as a teenager. I was constantly embarrassed to even train in shorts. It wasn't until I was about 23 that I was able to shift my focus from my body to my performance. This made a huge difference in both training and my competition levels because I decided not to care what other people thought and just show what I could do and how hard I could work.*

### **Perceptions of the "ideal-look" athlete**

When discussing perceptions of what an athlete "should" look like and whether this "look" was directly related to performance, a number of the athletes responded negatively. While aware that at times their selection depended on their "look", they often felt that when trying to attain this ideal, their performance suffered:

*Skinny, veiny, ripped. I think to a point it is okay for performance but there have been a few cases where it has resulted in injury due to my body running out of fuel and being unable to sustain and support the training load.*

*I always thought I needed to have visible abs and lean legs as that's what looked good in [sportswear] and what [athletes] generally on an international stage looked like.*

*I always thought I needed to be stick thin with hyperextending knees to be able to have my skills counted for the best points.*

A number of athletes recognised that within the scope of the athletic "look" there were different shapes and sizes that had experienced success. They recognised that optimal performance was



about having a holistically healthy body, mind and spirit, not just the one element of the body. The sentiments of the following statements were reiterated by a number of athletes:

*I think an athletic look is always supposed to be lean and muscular. I don't think it necessarily has a direct connection to performance. I think being healthy and having all your bodily functions working well will have a better connection to performance than how someone looks.*

*I feel like there is so much information available these days there is no excuse not to be aware that there is no one-size-fits-all model out there.*

### *Retirement*

Many retired athletes that were interviewed had struggled to fit back into normal life and to find a body that they were happy with post retirement. Many noted that they now struggle with weight gain, have low self-esteem or have unhealthy obsessions with food. An athlete commented as follows:

*Yes, it took me 4 years to realise that I was better off being healthy than skinny. I suffered with binge eating for two years after [sport] and still can't get on the scales.*

### *Information*

Athletes commented that the information that was provided to them by coaches, parents and friends came from a wide range of sources including nutritionists, professional articles, media, personal experience, hearsay and direct comparisons to other athletes. One athlete commented that:

*Coaches had very old fashioned opinions and were not up to date in the information they were giving us. I was often told to not eat breakfast to lose more weight.*

## EVIDENCE - EXPERTS

Information set out in this section of the Report has been obtained from interviews conducted with experts, the results of surveys completed by experts, and online resources offered by experts. Experts include nutritionists, critical analysts and doctors.

### Understanding RED-S

A number of experts have offered a wealth of medical information on this topic. The experts represent key stakeholders in promoting safety in sport, and have a specific focus on emotional well-being and the increasing need to address issues of body image and disordered eating practices. Experts identify high-risk athletes as those that compete in sports where leanness is important or where making weight is required. These include but are not limited to endurance events or sports where the athletes undergo lengthy and heavy training schedules.

Kirsty Elliot-Sale<sup>20</sup> reflects on the urgency that is missing around the effects of low energy availability on women, emphasising that these effects are not limited to visual physical attributes. She highlights the crisis that is emerging where athletes are developing menstrual disorders such as secondary amenorrhea and oligomenorrhea at an early stage in their sporting careers, with this becoming the norm.

Secondary amenorrhea is when the individual has gone through puberty and their menstrual cycle has begun but, during their time in sport, their period has been missed for three or more cycles. Oligomenorrhea is when an individual's menstrual cycle is more than 45 days long and can be with or without ovulation. For an athlete to return to normal menstrual health, typically eating strategies from a nutritionist are required but the damage done is likely to be long lasting.

The effect that inadequate nutrition has on the menstrual cycle comes from the body not having enough energy to perform basic metabolic functions. The deficiency of energy can also lead to osteoporosis, lack of cognitive function, cardiovascular stress, low bone metabolism and stress on brain function.<sup>21</sup>

Experts have noted that for every single eating disorder that has been diagnosed, there will easily be another five that have not been diagnosed.

Recently, bone density assessments using DEXA scans<sup>22</sup> have been introduced in New Zealand to gauge the nutritional health of athletes. These scans are widely acknowledged as being a source of

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<sup>20</sup> The Guru Performance Institute Podcast, episodes 57 and 106.

<sup>21</sup> Kirsty Elliot-Sale, The Guru Performance Institute Podcast, episodes 57 and 106.

<sup>22</sup> A DEXA scan is a non-invasive test that measures bone mineral density using spectral imaging of the individual to assess if a person is at risk of osteoporosis or fracture. Bone density is determined from the absorption of the x-ray beams by the bone. DEXA stands for dual energy x-ray absorptiometry.

truth for an accurate assessment of an athlete's nutritional health, rather than relying on the blunt instrument of a pair of scales.

High Performance Sport New Zealand Nutritionist, Christel Dunshea-Mooij, noted that the ideal amount of energy available for basic metabolic functions of a female is 45 kilo calories/kg fat free mass (FFM). When the medical team (physiologist, doctor, nutritionist) screened New Zealand elite female athletes in November 2018 only one female athlete who she worked with (and who had completed a DEXA scan) was consuming sufficient calories for the work she was doing. Given the significant energy expenditure of an elite athlete, it is concerning that only one female athlete tested as having more than 45 kilo calories/kg FFM at the time of the scan.

After the test results were received in 2018, an intervention occurred through an education programme between coaches, psychologists, physiologists and doctors. The majority of those females subject of the initial screening were consuming more than 45 kcal/kg of FFM when retested November 2019.

### **Influencing athlete undernourishment**

While the pressures resulting in athlete undernourishment appear to come from a wide range of sources, key influencers noted are an athlete, the athlete's coach and their mother.

#### *Athletes*

Experts noted that elite athletes are at particular risk of RED-S given their rigorous training schedules, desire to succeed and excessive expectations of themselves. Given these common traits in high performing athletes, often the key influence and reason behind their undernourishment is the athletes themselves.

#### *Coaches*

Coaches were identified as the primary influencer causing the undernourishment of athletes. The key issue arising in respect of the coaches, is the overwhelming assumption that skinny equals improved performance, and that athletes should be aiming for a lower number on the scales. Experts expressed concerns about the level of involvement that coaches seemed to have in respect of athletes' nutrition and weight. They noted that the coaches typically had limited knowledge and access to information resulting in them giving incorrect advice to athletes.

Sighted weigh-ins have been identified as a source of power that coaches have over athletes. There are a number of scenarios that have been described where the weight and performance of one athlete was upheld to other athletes as an "ideal", with other athletes compelled to under-nourish resulting in deteriorating performance. While some coaches were noted as expressly requiring weight loss of their athletes, often the key driver behind under nourishment was noted to arise due to athletes being single-minded in their focus and drive to achieve success. Where athletes are misinformed that weight has a direct correlation to performance, the results are alarming.

There have been a number of instances (and, in particular, where the sport has a majority of male coaches and management) where experts (for example, nutritionists / sports science professionals) have experienced bullying from coaches when they have disagreed with coaching methods and advice and expressed concern that such methods are not beneficial to the health of particular athletes. The conclusion drawn is that there needs to be a clear division of tasks, with the coach needing to focus on coaching, and the sports scientists and health professionals having exclusive control over the physical health and well-being of athletes. It is clear from these discussions that there is a strong correlation between coaches involving themselves in an athlete's weight or appearance, and that athlete experiencing disordered eating or body image issues.

These conversations on adequately fueling and removing comments about weight are so important. The goal needs to be optimal health first, performance second...it does not need to be an either or, we can have both.

### *Mothers*

Experts noted that the secondary influencer of under nourishment in athletes is the athlete's mother. Experts expressed concerns with mothers associating an athlete's appearance with performance, and highlighting other successful athletes (and their appearance and weight) to their daughter as an influencer. There have been examples of a mother restricting a young athlete's food intake in an attempt to improve performance. This has been noted as being prevalent in households where all siblings are female.

### **Evidence - Our Story**

Each author of this report has experienced, either directly or indirectly, female athletes struggling with issues of body image and disordered eating practices while competing in high-level sport.

We have had people openly comment about our weight. We have heard our fellow team members being criticised for eating dessert. We have watched and felt the emotional turmoil of being weighed in front of our coach and our teammates and having that weight discussed openly and without context. We have been handed weights that are reflective of the weight we are perceived to be needing to lose. We have experienced RED-S first hand and we have unequivocally wanted to search out solutions to improve performance and achieve success.

Our experiences are individual and varied and equally our responses to those experiences have been individual and varied. Notwithstanding this, we recognise the importance of highlighting this issue. We are committed to ensuring that New Zealand's current and future female athletes are protected from all forms of emotional abuse which manifests itself in disordered eating and body image issues. Protecting these athletes while they compete is paramount; however, the lasting effect of these issues on a female following retirement cannot be disregarded. With the lasting effects of these issues including reproductive problems, bone density issues, and deteriorating mental health, this has a wider impact on society than just our sportspeople.

## SUMMARY OF ISSUES

This multi-mode research has identified some key issues.

### Information

Health and medical professionals express significant discontent with the involvement of coaches in athletes' health and wellbeing. The information used to guide athletes is often incorrect, sources are questionable, and emphasis is placed in the wrong areas.

Male coaches in particular, are reluctant to openly address female-specific health issues and are often noted as treating their female athletes as small men. Topics such as weight, menstrual cycles, and emotional wellbeing are not openly discussed nor addressed. A number of coaches have expressed a desire to focus on these issues, but have openly admitted to having a lack of information and feeling unsure about the correct way to approach these sensitive issues.

Given the detrimental health issues that are associated with low energy availability, it is disturbing that young female athletes are influenced by uninformed people with little knowledge around the energy requirements to be a high-performing female athlete.

### Influence

Coaches are identified as the key influencer on athletes. A lack of education and misplaced willingness to be involved in an athlete's nutrition and weight, means that athletes ultimately place too much emphasis and importance on misinformation given by, and communications from, a coach.

Mothers are also key influencers on athletes (particularly, young athletes) and, again, are the source of significant misinformation in respect of nutritional needs of athletes.

### Impact

Emotional abuse (whether targeted or incidental) is negatively affecting athletes both physically and mentally. Athletes are suffering significant weight loss (and corresponding physical health issues), decreased performance, mental health issues (including depression), experience ongoing negative relationships with food, and ultimately, decreased performance. There are many reports of the impact of emotional abuse being career ending for an athlete.

The negative impacts are experienced not only during the athlete's career, but are seen to have a long lasting effect in their life after sport.



## RECOMMENDATIONS

RED-S is common and well understood particularly among sports doctors. What is less obvious are the strategies in place to address this in New Zealand in a proactive, preventative manner. The focus needs to be on:

- Information and education for prevention;
- Early identification and intervention;
- Creating a culture focused on health; and
- Personal empowerment.

Existing legal protections<sup>23</sup> are not adequate protection in a sporting environment. While New Zealand has a number of formal sports integrity institutional arrangements in place (for example, anti-doping, match-fixing and corruption), until recently there has been very little focus on safety and athlete protection measures in sport.

The issues that are applicable to emotional abuse and body weight and image issues in female athletes have commonalities with the broader topics of emotional and physical abuse and sexual harassment. It is our view that any recommendations and strategies in one area could be more widely applied across all three areas.

Based on the research, interviews and survey information, the following recommendations for action will help athletes cope with issues of body image and disordered eating practices.

### Recommendation 1 – Information

Inconsistent or unavailable information creates issues for both coaches and athletes.

While positive changes are happening at elite level, providing specialist nutritionist services and psychological support to elite athletes is no longer adequate. In any event, often this specialist support is overridden by an athlete's exposure to social media and other mainstream media highlighting dieting fads and potentially incorrect or misguided sources of information that do not take into account an athlete's specific nutritional needs.

Our focus in this area needs to be both broad and targeted in order to reach our athletes. Coaches, support staff and parents need to be well educated and equipped to have potentially uncomfortable discussions in this area. Dialogue needs to be early, open and transparent. An athlete's broader support network needs to be equipped with sufficient information to be able to identify and intervene early, and to understand the treatment required (and the avenues for sourcing that treatment).

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<sup>23</sup> Including the Crimes Act 1961, Harassment Act 1997, Health and Safety in Work Act 2015 and Employment Relations Act 2000.

The issue then is for women and girls of varying abilities including recreational exercisers to have access to the right people and help. Once a high performance athlete is identified as suffering from low energy availability, they likely have full medical support from an endocrinologist, sports doctor, nutritionist and psychologist. However, this support is not available to development or recreational athletes. The latter group needs to source and fund that support individually. How do we make these services affordable and accessible?

*Recommend:*

1. A two-way information channel is required, where athletes, coaches and their broader support systems including parents and healthcare providers can access information and seek help if needed.
2. Create a website, supported by mobile application, to deliver this information, with separate portals specific to athletes, coaches, parents and experts with each portal including information relevant to that sub-group.
3. The website and app would include details about support channels that an athlete (or coach or support person) can access if intervention or treatment is required.
4. While the website and app will be targeted at high performance athletes and their specific nutrition needs, this could be rolled out as a model for a separate app specific to recreational athletes and their needs and interests.
5. In addition to this website and app, coaches and athletes need to be encouraged to use period tracking mobile applications. There are a number of these available<sup>24</sup> with strong support from athletes and coaches internationally. Alternatively, a period tracking app can be built into the recommended app, with access to the relevant information available to the athlete and their coach only.

## **Recommendation 2 – Early Intervention**

Coaches, parents and support staff have an important responsibility to intervene early when suspecting their athletes may be at risk of RED-S. They need to understand what to look for and to be continually diligent with athletes. All interested parties need to understand that the most important thing is an athlete's physical and mental wellbeing.

We need to understand the uptake of HPSNZ's interim complaints service and consider where there might be gaps or room for improvement in the design and operation of a permanent solution. Anonymous complaints should also be considered but, of course, management of potentially vindictive claims will need to be addressed if an anonymous service is offered.

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<sup>24</sup> For example, FitrWoman, Clue and Orreco.

*Recommend:*

1. Engagement with HPSNZ as it develops the permanent complaints service. Subject to its proven success and uptake, this system should be mirrored at a development and regional level.
2. At a minimum, each region should have a panel of independent safety / wellbeing officers that they can consult with if they have concerns.
3. Consider implementing a sport integrity unit that acts as an overseer of all existing arrangements (including for example doping in sport and gambling) but extends to safety in sport. This could be a way to use limited resource optimally.
4. Ensure availability of support services to women and girls of varying abilities.

**Recommendation 3 – Culture**

There needs to be a change in culture within our sporting environment where health is a priority and seen as a means for increased performance. Information alone is not enough, we need to have a culture where everyone involved in sport takes responsibility for their own education on this topic. There is currently a wealth of information, research and resources that is available internationally. A simple, cost-effective and immediate solution to educate and change existing sporting cultures in New Zealand, is promoting the use of this existing information at all levels (see section 5 of this report).

Coaches need to take responsibility for educating themselves to understand when early intervention is required and who to refer their athletes to. Coaches need to understand that their involvement in nutrition and body composition discussions should be limited to referrals to specialists. Coaches and support teams need to de-emphasise weight as a factor in performance, instead highlighting healthy nutrition as a crucial contributor to both health and performance (with these not being mutually exclusive). Regular weigh-ins, comments about weight and punitive consequences for weight change need to be eliminated from our sporting environments.

NSOs need to be educated to intervene with athletes and coaches early in their performance pathway, and educate those athletes and coaches to help them understand the damage that inadequate nutrition and over-training can have. In particular, NSOs need to lead the coaching of coaches to equip them with the language and understanding they need to navigate these sensitive topics, arm them with a list of specialists to refer to, and to help them understand the negative impact throwaway comments about weight can have on their athletes.

Culture in sport is integral to the successful implementation of any strategies to address these issues. NSOs, clubs and teams need to be openly investigating how they can influence culture to promote an environment where teammates, coaches and support staff talk openly about missing periods, body image, eating and weight.



### *Recommend:*

1. Influencing NSO's to create an environment that prioritises physical and mental health as the key to performance. There should be repercussions for creating or contributing to a culture of promoting negative body image or eating disorders, and coaches should be rewarded based on health metrics and retention of talent.
2. Role clarification and elimination of coach intervention in weight and nutrition discussions.
3. Education (of athletes, coaches and support staff) through use of existing international resources.

### **Recommendation 4 – Personal Empowerment**

We need to equip our females with the strength and resilience to overlook external factors, refocus on performance, not weight, and prioritise health over competitive success – while understanding that these do not have to be mutually exclusive.

Athletes need to be equipped with internal competencies to help them overcome any potential negative reactions to their body that they may experience. This can be achieved by both encouraging an early appreciation for a healthy, active body, and by helping athletes understand that optimal weight for health and performance is different for everyone (with their relationship with food being reframed to show that food is fuel for performance enhancement). Athletes could also identify and implement internal competencies such as adopting a “growth-mind-set” to cope with difficult external factors.

We want young athletes to have a healthy relationship with their bodies and the resilience and confidence in themselves to overcome comments or experiences that will one day occur (we may not be able to stop the experiences from occurring but we may have a better chance of helping the athlete learn the right mind-set to overcome it).

### *Recommend:*

1. Educate female athletes early about the significant long-term health risks that can affect their performance and lives well beyond the end of their competitive sporting career. Our findings suggest that this message would be most powerfully delivered to existing athletes by former athletes and role models who have experienced these issues.
2. Shift the culture of NSOs to encourage current and former athletes to be role models and by being confident to speak up against negative comments and to openly discuss menstruation and healthy weight.



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3. Partner with @thisismenz which is an Instagram account promoting real women being active. The founder of @thisismenz has expressed interest in this report and supporting any recommendations made.
4. Focus on the development of female trainers, coaches and support staff to increase the proportion of females undertaking these roles and promoting a culture where young female athletes have the support, encouragement and resources they need to pursue elite level sport without risking mental and physical health.

## SCHEDULE 1: ATHLETE SURVEY

1. What is your code? What is the highest level you have represented New Zealand at and at what age? What is your current age?
2. Have there been any coaches/parents/friends/other athletes that have negatively or positively influenced your nutrition or your peers' nutrition in sport (for example, through conversations or remarks around weight management or otherwise)? Please explain who has influenced you and how.
3. How has this influence affected you/your peers in respect of their emotional wellbeing, their sporting performance, and otherwise (either negatively or positively)?
4. Where do you think coaches/parents/friends are getting their nutritional information?
5. Reflect on our own body image in sport – how did you feel when your body changed for the better or worse? Who/what made you feel that way?
6. Was anyone in your sport held up as the “ideal”? Why were they the ideal athlete?
7. As an athlete how did you think you had to look? Did this ideal "look" have a direct connection with performance?
8. Do you know of any sports that have systems or processes to navigate healthy eating and positive mindsets around eating and body image?  
Please provide specific examples of where you see this happening, or systems where you feel that your own sport is making a difference
9. If you are retired, how has your attitude changed (if at all) to your eating and body image? Have you noticed any negative effects of your competitive years on your body?
10. We would love to open the final bit of the survey up to hearing your story. If you have any experiences in sport that you think would contribute to our research, then please share this below.

## SCHEDULE 2: EXPERT SURVEY

1. What is the code(s) that you have the most experience working in, and at what level of sporting representation are the athletes you are working with (if applicable)?
2. Do you see that coaches/parents/friends influence an athlete's nutrition in sport?
3. How have you seen this influence affect the athlete? Was it negatively or positively? Please share your stories around this.
4. Where do you think coaches/parents/friends are getting their nutritional information?
5. How do you see/hear about conversations being navigated around athletes' weight management?
6. Have you seen these conversations influence the athlete's performances? If so, how?
7. Do you know of any sports that have systems or processes to navigate healthy eating and positive mindsets around eating? Please provide specific examples of where you see this happening, or systems where you feel that the sport you work in is making a difference
8. We would love to open the final bit of the survey up to hearing your story. If you have any experiences in sport that you think would contribute to our research, then please share this below

### SCHEDULE 3: ADDITIONAL DIRECT QUOTES

*"When I am at my smallest, even though I know it's unsustainable and unhealthy, there is part of me that likes being small, having a low fat percentage. It has been those times of affirmation from other people that have also moulded me into thinking - skinny = good and fast."*

*"I thought I needed to have zero body fat, looking back on my performances I was faster when I was heavier but no one took this into consideration."*

*"I hate the relationship I have with my body."*

*"Skinny is not always fast and it definitely doesn't make you happier."*

*"I was too young to be on such a diet."*

*"When we about ages 10-14 [ ] would include nutrition classes in our training schedule to help us understand good nutrition and make sure we were eating enough/the right foods for the amount we were training. In saying that all of the coaches I have had in NZ have at one time or another, told me outright that I was "fat" and not allowed to eat for a few days."*

*"I know my Australian coach would work very closely with professional nutritionists. My coaches in NZ I think were just going off their own experiences."*

*"My emotional well-being can go through stages but more often than not I try not to let my weight affect my life because I fussed over it for so many years."*

*"I always feel I have to get to a goal weight. It's always in the back of my mind the weight I believe I should be living life at and I go through stages of caring a lot and trying hard and stages where I just try to enjoy the moment."*

*"I have pretty bad self confidence especially now."*

*"I would hate myself when I gained weight and feel great when I lost it; I always knew there would be comments when I put on weight and a lot of positive comments when I lost it or leaned out."*

*"I see a lot of patients with energy availability issues, and this comes from a range of sources. Often there are personality components involved in this, but parents, friends, social media AND coaches have a huge influence on this. It seems to be more negative than positive, but recently am starting to see a shift with greater education which is helping the athlete."*



*"Girls need to see that it is okay, and actually awesome, to be strong."*

*"I feel we have been judged critically for our nutrition and weight management at early stages of high performance campaigns. It is hard to expect kids straight out of youth campaigns to have a full understanding of what high performance nutrition and weight management looks like. I think there needs to be more support for females who need to lose weight, because the health risks are so much higher, and I have seen it have major impacts on mental health. When past gold medalist's advice directly conflicts with HPSNZ advice, and you are left on your own to figure it out, shit can hit the fan pretty quick."*

*"My friend falls under the category of having to lose 8kg and her coach is always on at her about her weight. Constantly telling her any time she doesn't perform in certain events that it's because she's too big and the only solution is to lose weight even though she is working really hard to lose it. This puts her in a super negative self doubt and frustrated mindset very close to pinnacle events."*

*"I am less strict on myself but I still maintain a high awareness of my weight and body composition. My own healthy weight standard is stricter than others might be, and in my last few years competing I was sick often which I bring down to not eating enough and yet still trying to do everything and all my training. My fatigue levels and recovery have suffered long term as a result of the loads I placed on my body as a competitive athlete."*



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