

Final Report Girls in Action Sports Project (GASP)

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GASP at a Glance

Overview

The Girls in Action Sports Project (GASP) 2 was designed to better understand the enablers and barriers for girls in three male-dominated action sports – mountain biking, skateboarding and surfing. It builds on our GASP 1 project (findings not the subject of this report), an interview study with Tasmanian girls engaged in any of the three aforementioned action sports. Girls are less physically active than boys (a pattern that continues across the life-course) so finding ways to engage, re-engage and retain girls' engagement in physical activity is important for individual and societal level benefit.

GASP 2 captured the perspectives of young people who used to, wanted to or were participating in either mountain biking, skateboarding or surfing; parents/carers of young action sport participants or enthusiasts; and adults who had administrative, coaching or officiating/event coordinating roles in any of these three sports. GASP 2 attracted significant media attention in the recruitment phase (five printed, five radio and two television features) and numerous expressions of stakeholder interest in study findings. This 'GASP at a Glance' section provides an executive summary, with more detailed information in the 'GASP in Detail' section and Appendixes.



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action
sports
are
for
girls
too

What we did

Data were collected through interviews and focus groups which concentrated on the enablers and barriers to action sport engagement and equality and equity issues. A gender-related policy review and collation of membership numbers by gender across the three sports were additional arms of the project.

- Between March and April 2020, we conducted telephone interviews with 28 Tasmanian young people (17 boys who mountain bike, skateboard or surf; 11 girls who used to or wanted to mountain bike, skateboard or surf) aged 12-18 years. Interviews with girls who participated in either of the three action sports occurred in GASP 1 in 2018 (not the subject of this report)
- In September 2020, we conducted two hybrid face-to-face/Zoom focus groups with 8 Tasmanian parents and two with twelve Tasmanian based stakeholders (e.g. coaches, administrators, committee/board members, officials, event coordinators).
- In 2020 we reviewed gender-related policies from Mountain Bike Australia and Surfing Tasmania. No relevant policies were identified through the Skateboarding Federation.
- In 2020 we collated membership data by gender from Mountain Bike Australia and Surfing Tasmania from 2015-2019. No membership data were available from the Skateboarding Federation.

Definitions

- Gender equality – all genders being treated equally
- Gender equity – all genders being treated according to their needs
- Gender – socially constructed roles, behaviours, expressions and identities
- Sex – a set of biological attributes that are primarily physical or physiological

Key findings

Young People (telephone interviews)

- Gender stereotyping was the most common reason young people thought boys were over-represented in action sports (e.g. boys ride bikes, girls play with dolls). Other reasons included boys mostly encouraging other boys to participate because girls were seldom in their peer group. Feeling self-conscious participating in action sports in front of boys was another reason offered by girls.
- Girls-only events/programs/coaching opportunities, inclusive school-based action sports events/programs and enhanced promotion of action sports for girls were popular strategies proposed to increase girls' participation.

Stakeholders (focus groups)

Social factors were dominant themes in discussions regarding barriers and enablers to girls' participation in action sports. A focus on inclusivity (e.g. engaging families, all skill levels), social support, promoting participation and not just competition, pathways for skill development, and better promotion/normalising girls' engagement in action sports were commonly cited to increase girls' engagement in action sports. Schools were considered an important setting to promote girls' involvement in action sports, likewise girls' only programs/events.

Parents (focus groups)

Parents viewed parental involvement (either in a supporting or co-participation role) as a key enabler. Facilitating participation through friendship groups or helping girls to be part of a “crew” (e.g. through formal or informal groups such as She Shreds in skateboarding, the Dirt Girls in mountain biking respectively) was another common enabler. Enhanced investment in facilities to support the needs of girls (e.g. toilets) at requisite action sports environments was raised by several parents. Parents identified the value of female sporting role models and normalising girls’ involvement (such as through media).

Policy review

Policy documents reviewed included reference to gender/gender equality either specifically or generally (e.g. statements relating to inclusion/diversity or anti-discrimination). Strategic plans did not specify measures of success related to gender equality across all core areas of business and participation by gender was not comprehensively described in annual reporting. Occasionally contemporary gender inclusive terms were not used or used inaccurately (e.g. reference to “sex” when “gender” was the correct term), therefore limiting the inclusivity of the policies.

Membership data by gender

Girls and women were under-represented as members of Surfing Tasmania and Mountain Bike Australia with little change between 2015 and 2019. Twenty-four percent of Surfing Tasmania membership were female in 2015 compared with 25% in 2019; 16% of Mountain Bike Australia membership were female in 2015 compared with 18% in 2019.

Recommendations

Box 1 details practical recommendations that could be implemented by a range of stakeholders and organisations. These recommendations were informed by the overall findings of the policy and membership review, interviews with young people, and focus groups with parents and stakeholders.

Conclusion

This project has produced rich new knowledge about the enablers and barriers of girls’ participation in three action sports, mountain biking, skateboarding and surfing. The findings have been used to develop recommendations which may assist stakeholders to attract and retain girls in action sports (and possibly other sports) for individual and societal level benefit.



Photo credit: Mel Sharman

social
connections
are
key

Box 1. Recommendations to increase girls' involvement in action sports (NB: These recommendations have not been evaluated for their effectiveness)

- Action sports are for girls too: Promote that action sports are for everyone at every opportunity
- Normalise: Build and promote female role models to normalise girls' involvement. Advocate for increased media coverage of girls in action sports
- Families and peers: Engage families and peer groups of girls as participants in action sports (participation appears contagious)
- Girls-only programs and events: Develop or expand existing girls-only action sports programs, events, coaching clinics, formal and informal groups (e.g. club and social media based)
- Facilities: Build change rooms and toilets for girls in action sport environments
- Equipment: Find ways to provide access to equipment that is free/low cost
- Promote participation too: Promote participation not just competition
- Schools: Provide opportunities for girls to engage in action sports through schools
- Skills: Ensure pathways for skill development, such as follow-up from Come and Try days, coaching and equipment maintenance courses
- Early introduction: Develop skills and confidence before the teenage years
- Lifelong engagement: Provide pathways for life-long engagement across all areas of the sport (e.g. coaching, officiating, competing, board/committee membership)
- Education: Provide education on the harms of gender inequality in action sports and the benefits of remediating it
- Evaluation: Encourage sporting organisations to specify measures of success related to gender equality across all core areas of business
- Reporting: Encourage sporting organisations to report participation by gender across all core areas of business in annual reporting

GASP in Detail

Interviews with young people

We conducted 28 telephone interviews with Tasmanian young people between March and April 2020 (see Appendix 1 for a summary of participant characteristics). The interview principally focused on the enablers and barriers to participating in either mountain biking, skateboarding or surfing; the relationship between participants' action sports and physical activity; and views on why more boys participate than girls and how to increase girls' participation. Seventeen boys who mountain bike, skateboard or surf and 11 girls who used to or wanted to mountain bike, skateboard or surf aged 12-18 years shared their perspectives. Some young people had experience in or were interested in participating in more than one of the three action sports. Whilst we focused on their main action sport, the other action sports were included in the discussion as relevant. For brevity, only the main sport is listed alongside any quotes in this report.



promote local
female
role
models

Photo credit: Jill Britton

Findings from boys who mountain bike, skateboard or surf

(see Appendixes 1 and 2 for more detail)

The boys interviewed discussed several key participation enablers:

- peers participating or interested in participating
- family members either participating (especially mums or dads) in the activity or actively encouraging it (e.g. providing financial support, transport)
- being part of a wider community (an especially strong theme in mountain biking) - “...it’s a really friendly community” (15 years, mountain biker)

- social media for providing inspiration, inspiring others, following role models (often local and a mix of girls/women; boys/men) and learning new skills.
- not being deterred by injury risk or the experience of injury and overcoming fear
- experiencing action sports as “*fun, exciting and action packed*” (13 years, skateboarder) and enjoying going fast/flying and mastering new skills
- enjoying the natural environment
- easy access to the requisite environments

With respect to the relationship between action sports and physical activity:

- Most boys reported an overall physical activity gain from engaging in action sports with reduced screen time also mentioned
- Some said that they had started other physical activity types to support their engagement in action sports such as attending the gym
- A couple of boys said that their passion for mountain biking reduced other forms of physical activity (e.g. organised sport)

With respect to the boys’ perspectives on girls’ participation in action sports:

- Overall, boys had limited direct experience participating with girls in their action sports
- Many stated that the way boys and girls perform in action sports is similar or that there is “*not that much of a difference*” (14 years, mountain biker) and instead there are individual styles
- Gender stereotypes were the main reason for unequal participation by gender in action sports – “...everyone thinks that boys love bikes and girls love dolls...” (14 years, mountain biker)
- Having fewer girls in their friendship groups was another reason some felt that fewer girls participated because of the strong influence of friends triggering engagement in action sports
- Breaking down gender stereotypes, promoting action sports as inclusive sporting pursuits and conducting events/programs/coaching clinics just for girls were commonly suggested to remediate the inequality - “...*I just feel like we should make sure they [girls] don’t see that it is a boy sport*” (12 years, skateboarder)
- Boys overall spoke positively about girls’ involvement in action sports and increasing the number of girls participating

Findings from girls who used to or want to mountain bike, skateboard or surf
(see Appendixes 1 and 3 for more detail)

Among girls who used to engage in either of the three action sports, the enablers driving initial engagement were like the boys and consequently are only briefly discussed here. For example, girls talked about how influential family and peer groups were – “*Well, we used to go skating with our dad. But my mum – she likes the idea of skating*” (14 years, used to skateboard). Of note, like the boys, girls also said they like going fast, that action sports are

fun, that the sense of mastery was satisfying, and overcoming fear was part of it - “...*you fall off, and that's just a normal thing in skateboarding*” (14 years, used to skateboard).

Reasons for withdrawing from action sports included:

- increasing workload/less free time associated with high school
- friends withdrawing or not engaging in the action sport
- other family commitments
- fear of injury
- other interests such as reading, social media and other physical activity types.

The perceived impact of ceasing action sports on their physical activity levels depended on the reason/s for withdrawing. For example, a growing interest in social media resulted in a perceived decrease in physical activity contrasting withdrawing from the action sport to pursue another type of physical activity.

Reasons girls wanted to start action sports included:

- being inspired by others involved in the activity (e.g. a parent, friends, girls/women engaged in action sports – “...*there was so many good girl riders up there [Derby]. That really inspired me...*” (13 years, wants to mountain bike)
- the opportunity to be with friends or make new friends and be part of a wider community
- enjoyment of nature
- for fun, excitement, relaxation (e.g. surfing)

Girls said that their reasons for not yet participating included:

- not having the necessary gear/equipment
- family and friends not engaged in the activity
- inability to easily access the requisite environment
- competing demands (e.g. schoolwork, other interests)
- fear of injury and lack of confidence - “...*my fear holds me back...*”, (13 years, wants to surf)

Current interests and physical activity levels influenced the participant’s perspectives on whether engaging in the action sport would change how physically active they were. For example, one girl said that to do the action sport she would have to limit or stop one of her many other physical activities.

With respect to girls’ perspectives on the under-representation of girls in action sports:

- gender stereotypes were holding girls back from participating in action sports – “...*people just think that it's something more that a boy would do...*” (13 years, used to skateboard)
- girls feeling self-conscious participating in front of boys was a barrier

- all-girls events/programs/coaching clinics and school-based programs inclusive of all skill levels would help increase the number of girls participating
- greater visibility of girls/women in action sports would make a difference - “...*it’s more about just seeing other people doing it*” (13 years, used to skateboard)

Focus groups with adults

We ran four focus groups in September 2020 at the Menzies Institute for Medical Research in Hobart. Participants engaged in the hybrid-style focus group either face to face (n=9) at Menzies or via the video-conferencing software, Zoom (n=11). The focus groups were run separately for adults involved in the sport as administrators (e.g. Chief Executive Officer), committee/board members, coaches, officials or event coordinators (two focus groups, n=12) and parents of girls who currently or used to participate in either of the three action sports (two focus groups, n=8). There were no parents of girls who wanted to participate in either action sport. Just one parent had a daughter who used to participate (skateboarding) but they also had a daughter who was still skateboarding. Consequently, we asked all parents about their perspectives on why girls do not participate or disengage from the sport as relevant. Some parents had girls who participated in more than one of the three action sports and some stakeholders had more than one role in their respective sport. For brevity, only the main sport is listed alongside any parent quotes in this report and quotes from stakeholders with more than one role in the action sport are highlighted with an asterisk (*).

The focus group topic list was informed by GASP 1 and centred on the enablers and barriers for girls participating in the three action sports. Key findings from the interviews with young people were also discussed where relevant.



skill
development
pathways are
needed for
girls

Photo credit: Bylan Logan

Findings from adults involved in mountain biking, skateboarding or surfing
(see Appendixes 4 and 5 for more detail)

Barriers to girls' participation in action sports discussed included:

- gender stereotypes/ “sexism”/cultural norms (e.g. action sports viewed as being for boys/men, unequal prize money, parents more comfortable with their sons engaging in risk taking, schools perceiving action sports to be too risky)

- lack of facilities (e.g. toilets and change rooms – “...some of those places [mountain biking areas] don't have toilets. If you're a menstruating girl that is a real blocker.” (woman, surf coach*)
- lack of pathways from beginner events such as Come and Try sessions
- absence/lack of friends/no critical mass of girls to participate with – “It's a terrifying thought to be somewhere where there might be lots of blokes that you don't know and that's a barrier that I know exists for women [later refers to girls specifically] to go riding” (woman, mountain biking committee member)
- limits in resources or resources allocated inequitably between boys and girls at a family or sporting organisation level (e.g. accessing coaching, provision of requisite clothing/equipment)
- beginners being unfamiliar with rules/sports specific etiquette leading to unfriendly behaviour from more experienced participants
- girls tending to be more focused on the benefits of participation (e.g. socialising and having fun) rather than competition was viewed as a hindrance if these needs were not considered

Enablers to girls' participation in action sports discussed were predominantly social factors:

- focus on inclusivity (e.g. engaging families, nearby infrastructure catering for all skill levels, access to equipment, adequate facilities such as toilets/change). For instance, Derby and St Helens were named as exemplars of inclusive mountain bike parks – “...they're targeting families which basically means they're targeting everyone participating [sic] (man, committee/board member, mountain biking)
- facilitating social connections (at a peer group and community level)
- promoting participation and not just competition
- establishing pathways from beginners' events such as Come and Try days – “...so the pathway is really important...” (women, committee/board member, mountain biking)
- establishing formal (e.g. Shredding Betties, She Shreds) and informal (e.g. Dirt Girls, Surfing Sisters) support clubs/groups for girls - “...big applause to the Shredding Betties and to She Shreds because they are making waves” (man, coach, mountain biking)
- increasing access to coaching and supporting more girls to become coaches themselves
- educating all community members about the harms of gender inequality and promoting that boys and men are a part of the solution to encourage more girls to get involved
- schools used as a setting to increase girls' involvement in action sports (e.g. through skill development, competitive events for all skill levels)
- all girls events/coaching opportunities (note a couple of participants commented that all-girls events were not always successful)
- better promoting/normalising girls as active participants in action sports (e.g. establishing role models, media promotion) – “...putting it out there... “Yes, girls do mountain bike and do surf and do skate,” is a big thing and I think media plays a big role in this...” (man, administrator, mountain biking)

Findings from parents of girls who currently or used to participate in mountain biking, surfing or skateboarding

(see Appendixes 4 and 6 for more detail)

Parents raised many barriers regarding girls' engagement in action sports some of which were the same as those discussed by the stakeholder groups:

- gender stereotypes/male dominated environments – “...*there is this assumption that girls are meant to be there as eye candy*” (mother of surfer) and equipment, clothing and safety gear being principally designed for boys or men
- lack of a critical mass of girls/absence of friends participating
- exclusivity - lack of/limited proximity to requisite environments or clothing/equipment (e.g. no bike paths; expense of wetsuits, mountain bikes; poor quality equipment hampers progression compared with friends with high quality equipment)
- inadequate facilities/infrastructure (e.g. lack of toilets for menstruating girls/change rooms/showers)
- poor representation of girls in action sports in media (more girls will participate if more girls are seen to be participating)
- family members/parents not involved (e.g. less desire to provide transport, maintain equipment, less equipment available to practice on)
- girls' growing self-consciousness or reduced confidence and hormonal fluctuations in the teenage years
- safety issues (e.g. the culture of some skateparks and mountain biking alone)

Many enablers to girls' participation in action sports were discussed by parents with some overlap with the stakeholder group:

- support provided by parents (e.g. providing equipment/gear, transport, assisting with maintenance, general support, advocacy) – “*I think it's definitely family driven*” (mother of mountain biker)
- parents participating in the action sport or co-participating with their daughter (the importance of mothers being actively involved was raised) or participating with likeminded families
- having a “*crew*”/friends to participate with
- all girls' groups/clubs such as the mountain biking group Dirt Girls or the skateboarding group She Shreds - helpful entry points, provide opportunities for social connections and role modelling
- facilities to support the needs of girls (e.g. toilets), including school-based facilities to support riding to school.
- encourage socialising/participation and not just competition
- pathways for skill development (including equipment maintenance)
- starting action sports at a young age (e.g. before the teenage years when confidence may drop)

- more girls/women as role models (e.g. as coaches)
- normalising girls' participation in action sports/break down stereotypes/enhance media (social and printed) representation
- access to requisite environments, equipment, coaching (e.g. club environments to keep cost down)
- school-based action sport programs



girls with periods need toilets

Photo credit: Dean Tirkot

Review of gender-related policies

Gender related policies were available from Surfing Tasmania/Surfing Australia and Mountain Bike Australia (note that Mountain Bike Australia has since joined AusCycling which commenced operations 1 November 2020). In addition to the review of relevant policy documents, strategic plans and 2019 annual reports were also included in the analysis. Summary details are provided in Appendixes 7 and 8.

Most documents reviewed included specific reference to gender or gender equality. Documents that did not specifically refer to gender/gender equality did include statements related to inclusion/diversity/non-discriminatory practice. Some policy documents did not use contemporary gender-inclusive language or it was used incorrectly (e.g. use of the term “sex” when “gender” should have been used) which can constrain the inclusivity of the policies. Recognizing “sex” and “gender” as discrete categories acknowledges all gender expressions irrespective of assigned sex.

Strategic plans did not include specific outcome measures related to the pursuit of gender equality across all core areas of business (e.g. participation in the sport, staffing, board/committee representation, coaching, officiating) even when reporting of participation by gender in annual reporting was more comprehensive. Where data were broken down by gender in annual reporting, it was not consistently done so across all core business areas.

Some policy documents were over five years old and could benefit from review.

Collation of membership data

Membership data were provided by Surfing Tasmania and extracted from Mountain Bike Australia’s annual reports for the period 2015-2019 (note that Mountain Bike Australia has since joined AusCycling which commenced operations 1 November 2020). Membership data was not available through the Skateboarding Federation. Reporting on participation level data by age and gender was not possible due to unavailability of these data at a consistent level across the three sporting organisations. As evidenced in Table 9, in 2019 females were under-represented as members of Surfing Tasmania and Mountain Bike Australia, and this under-representation of females as members of either organisation has been relatively stable since 2015.

Table 9: Membership numbers (%) by gender for Surfing Tasmania and Mountain Bike Australia from 2015-2019

	<i>Surfing Tasmania</i>		<i>Mountain Bike Australia</i>	
<i>Year</i>	<i>Female (%)</i>	<i>Male (%)</i>	<i>Female (%)</i>	<i>Male (%)</i>
2015	33 (24)	107 (76)	1 933 (16)	10 150 (84)
2016	29 (17)	144 (83)	2 247 (16)	11 796 (84)
2017	24 (14)	145 (86)	2 481 (17)	12 241 (83)
2018	43 (23)	144 (77)	2 638 (17)	12 722 (83)
2019	41 (25)	123 (75)	2 951 (18)	13 758 (82)



girls
like
going
fast
too

Photo credit: KiPhotomedia

Appendix 1. Table 1: Characteristics of boys who currently and girls who used to or want to participate in mountain biking, skateboarding or surfing (n=28)

Characteristic	Boys currently participating (n=17)	Girls who used to participate (n=5)	Girls who want to participate (n=6)
Age (y)*			
Mean (range)	14 (12-17)	14 (13-17)	14 (13-17)
School Year			
Year 6	2	0	0
Year 7	5	2	3
Year 8	2	2	2
Year 9	2	0	0
Year 10	3	0	0
Year 11	2	1	1
Year 12	1	0	0
Geographic location			
Hobart City Council suburbs	7	1	1
Other suburbs in Greater Hobart [†]	9	4	2
Northern Tasmania [‡]	1	0	3
Language spoken at home			
English	16	5	6
Other	1	0	0

Country of birth			
Australia	16	5	6
Other	1	0	0
Main action sport			
Mountain biking	7	0	3
Skateboarding	5	4	0
Surfing	5	1	3
Weekly participation in main action sport			
1-3 x p/wk	8	5	-
4-6 x p/wk	5	0	-
>6 x p/wk	4	0	-

Key * age in 2020 † Includes suburbs Blackmans Bay, Richmond, Howrah, Bellerive, Lauderdale, Dromedary, South Arm, Clifton Beach, New Norfolk, Moonah, Margate ‡ Includes suburbs Branxholm, Legana, Penguin

Appendix 2. Table 2: Key themes – Boys who mountain bike, surf or skate

Theme	Sub-theme	Example quotes
Enablers - peers	Establishing new friendships and strengthening existing friendships (very strong in mountain biking)	Well, before that, I didn't really have this really good friend group that I'm in. (15 years, mountain biker)
	Own participation leads to others in peer groups getting involved (very strong in mountain biking)	And then I took a few of my mates off with me and then they started loving it as well, so we started doing that and we still do that. (15 years, mountain biker)
Enablers - family	Initiating participation (both mums and dads important)	Well, my mum surfed a lot when she was growing up so I kind of just got brought up into it - so, from a pretty young age... (16 years, surfer)
	Co-participation (both mums and dads important)	So my mum and dad have been mountain biking in their life and they got me into it by putting me on training wheels on little bikes, taking me to parks and just riding around on a paved area. And then I started – I got my training wheels off and they started riding with me on trails and tracks. And I just – yeah, I got into it kind of from my mum and dad. (14 years, mountain biker)

	Own participation encourages other family members to get involved	I've been showing and telling my Pa [grandpa] about all these things so he, the other day before we went to Derby, he bought an e-bike, an electric mountain bike... Yeah, so he can't run or anything like that so he thought oh, I'll buy an e-bike. And now I've been able to take him up and down the hills as much as he wants because he can keep up, and it's awesome. (14 years, mountain biker)
Enablers - community	Sense of belonging	Well if everyone around you is motivated then that's pretty motivating to yourself so if you do try and then you go out there and everyone's saying good job on your wave or yelling out when you're on the wave and that stuff, that motivates. (13 years, surfer)
	Social media (being inspired, inspiring others)	I think when I see other people riding on social media or any other thing I just get inspired and I just think that's pretty cool. (14 years, mountain biker)
Enablers - individual	Resilience (not deterred by injury, injury risk, fear)	...I've crashed twice and broken my collarbone once and my wrist. I suppose that was quite annoying...But I always try to think, is this too risky? Do I need to take it a bit easier? But yeah, it's hard, but I try my best. (14 years, mountain biker)
	Feelings – fun, exciting, flying, speed, fear, satisfaction	Yeah going fast, that's fun. And you're just dropping off curbs and swerving around and stuff easy as – it's a good feeling. (17 years, skateboarder)
Enablers – environment	Enjoyment of nature (predominantly mountain biking and surfing)	...just being out in the water is the best part. (13 years, surfer)

	Proximity to requisite environments	I live ... across the road from [High School] so I can pretty much ride wherever I want, apart from the mountain. (15 years, mountain biker)
Physical activity	Gain	...and getting outside and active a bit more, rather than just sitting inside. I wasn't really very active at all, before mountain bike riding. (15 years, mountain biker)
	Stopping other sporting pursuits	...this year I've chosen not to do soccer and instead go for riding, because I like it more. And that definitely will affect on my running. Like I used to run heaps with soccer and stuff. (14 years, mountain biker)
	Engaging in other physical activity to support the action sport (e.g. going to the gym)	I do go to the gym and do land-based training on skateboards and just running. (16 years, surfer)
	Less screen time	Because I used to be playing video games and stuff. I think he [dad] was just happy to see that I was doing a sport and I was enjoying it so much. (12 years, skateboarder)
Perspectives on reasons for gender inequality	Gender stereotypes	I think it's because everyone thinks that boys love bikes and girls love dolls or something. (14 years, mountain biker)
	Gendered peer groups	...when one boy goes - with my friendship group, if one friend does it, it's just everybody else finds that cool and does it as well. (13 years, mountain biker)

Removing gender inequality	Increasing girls' participation is a good thing	...it's cool to see girls and women getting really into riding... (14 years, mountain biker)
	All girls' programs/clinics/events	Or maybe there's like just a solely true girls' surfing program, maybe something like that. I know they have something like that for skating so they could maybe try something like that, I'm not sure. (16 years, surfer)
	Inclusive programs (e.g. school-based competitions/programs cater for all abilities)	...my school's been up to the mountain bike track a few times and we do it at high school a fair bit, once we get older. A lot of the girls go and like it, and they think it's fun. (13 years, mountain biker)

Appendix 3. Table 3: Key themes – Girls who used to or want to mountain bike, surf or skateboard

Theme	Sub-theme	Example quotes
Reasons for withdrawing	Less time/increasing school workload	...other reasons why I just stopped doing it was also because now that I've also started high school it's also I don't have much time to do it after school because I have to get ready for the next day of school and everything. (13 years, used to skateboard)
	Friends withdrawing from the sport	And I stopped doing it as well because some of my friends stopped. (13 years, used to skateboard)
	Lack of girls/friends engaged in the sport	I think having more friends who really like skateboarding. So, then it's like, if I invited them, they'd come with me, and then I wouldn't be the only girl there. (13 years, used to skateboard)
	Other family commitments	So then it's hard for mum to do it because she's got work and she's like part of the parents and friends committee in my brother and sister's school, and so time is very hard to get out to the beach. (16 years, used to surf)
	Fear of injury	...I fell and then everything kind of moved on, and it was harder to find time for that, and kind of scarier. (14 years, used to skateboard)
	Other interests – reading, social media, different sport/recreational pursuits	...I've only got social media this last couple of months and since then I haven't done much skateboarding. (13 years, used to skateboard)

Impact of withdrawing on physical activity	Mixed (dependent on reason for withdrawing)	<p><i>Physical activity gain</i> - Well, it gave me an opportunity to try more other sports. (13 years, used to skateboard)</p> <p><i>Physical activity loss</i> - Probably less...when I started doing skateboarding as much I started doing running almost every day for a while. (13 years, used to skateboard)</p>
Reasons for wanting to participate	Inspired by others	Well, I heard about this girl, Skye Browne, and she was sort of a role model because she was sort of brave and courageous and that in this sport and I wanted to try it. (13 years, wants to surf)
	Being with friends/making new friends/widening community	<p>And it'll be so cool if all my friends all spent like a day, surfing...(14 years, wants to surf)</p> <p>And he's [brother who mountain bikes] mixing with a lot more new people. It's really inspired me to try a different sport, so that I can widen my social group. (13 years, wants to mountain bike)</p>
	Feelings – fun, exciting, relaxing	...I want to get out and do something exciting. (13 years, wants to mountain bike)
	Enjoying nature	I kind of just love being in the ocean. (14 years, wants to surf)
Reasons for not participating	Lack of gear/expense of gear	If I had my own board, that would probably be a bit more helpful. (14 years, wants to surf)

	Family members or friends not participating	I think I'll hold off a little bit more because a lot of my friends don't do it. It's a very small group and I don't really want to be riding a track if I fall off or hurt myself - by myself and I can't get out. A lot of my friends don't think it's a very great sport. (13 years, wants to mountain bike)
	Competing demands/interests (schoolwork, involved in other sport/recreation types)	...because like homework takes up, like an hour of your time in the afternoon. (13 years, wants to mountain bike)
	Lacking confidence/ fear of injury	...if there's people there, as I say, watching you, it's a bit nerve-racking if you don't know the proper skills and to try out your first jump, all of that sort of thing. (14 years, wants to mountain bike) I'm a bit nervous to actually do it...you could get hurt, you hurt yourself. (14 years, wants to mountain bike)
	Lack of proximity to requisite environments	So I live about 40 minutes away from the beach. (17 years, wants to surf)
Impact on physical activity if engaged in action sports	Mixed (dependent on current physical activity levels)	...well it depends on the person. Like, if you already do heaps [of physical activity] then you might switch it around a bit. (14 years, wants to mountain bike)
Perspectives on reasons for gender inequality in action sports	Gender stereotypes	Because I think before I always thought of skateboarding as more of a boy's sport, and that, you know, it was more of a teenaged boy thing to do. (14 years, used to skateboard)

	Self-conscious participating in front of boys	Especially if you mess something up [skateboarding]. It's hard to not feel like everyone's kind of watching you - especially when they [the boys] can do it. (used to skateboard). (14 years, used to skateboard)
Perspectives on remediating gender inequality in action sports	Greater prominence of girls/women participating	But a lot of girls don't, which is like something that also puts girls off. They think they're gonna be the only girl doing it. (13 years, wants to mountain bike)
	All girls' programs/clinics/events	Maybe if there's girls' competition, skateboarding competition, that maybe the girls are not just there for good looks. They're there to nail the tricks and they're there to get feedback. (13 years, used to skateboard)
	Inclusive programs (e.g. school-based events catering for all abilities)	...kids do go to school and they're at school every day, and if you advertise it at school, they will hear more about it. They should definitely start clubs at school about all these sports. (13 years, wants to mountain bike)

Appendix 4. Table 4: Characteristics of parents of girls (12-18 years) who currently participate in mountain biking, skateboarding or surfing and adults (stakeholders) involved in mountain biking, skateboarding or surfing (n=20)

Characteristic	Parents (n=8)	Stakeholders (n=12)
Age (years)		
Mean (range)	49 (41-58)	47 (20-68)
Sex		
Female	7	3
Male	1	9
Highest level of education		
Year 12 or less	0	2
Certificate/Diploma	1	3
University qualification	7	7
Employment status		
Working at least part-time	7	12
Other (e.g. unemployed, student)	1	0
Geographic location		
Hobart City Council suburbs	4	6
Other suburbs in Greater Hobart region*	2	4
Northern Tasmania [†]	2	2
Language spoken at home		
English	8	12
Other	0	0

Country of birth		
Australia	7	9
Other (Canada, Poland, England, New Zealand)	1	3
Main action sport		
Mountain biking	3	6
Skateboarding	2	1
Surfing	3	5
Other action sport represented		
Mountain biking	3	2
Skateboarding	0	0
Surfing	2	0
Role in action sports (stakeholder group only)		
Administrator (e.g. CEO)		3
Board/committee member		7
Coach		5
Event coordinator		1
Official (e.g. judge)		2
Other (outdoor education teacher)		2

Key * Includes suburbs Dodges Ferry, Clifton Beach, Sandford, South Arm † Includes suburbs Latrobe, Scamander, Launceston, Lower Barrington

Appendix 5. Table 5: Key themes – stakeholders

Theme	Sub-theme	Example quotes
Barriers	Sexism, gender stereotypes, cultural norms	I've never forgotten one of the races where they just forgot to announce the women altogether and it was like, "Everyone, see you later, bye, see you, go home now," and there were little girls watching that and there were women there. I was racing, I was one of the racers just thinking, 'This is not really happening, is it?' and it was really happening. So, that stuff happens frequently. (woman, mountain biking committee member)
	Lack of facilities (e.g. toilets, change rooms)	Facilities [toilets] for sure, I do know guys complain about it as well but the bottom line is that it is easier for a guy to go in the bush after the ride than for a female rider... (man, mountain biking coach)
	Friends not participating/lack of a critical mass of girls	I think that it is a bit of a social thing, so you might be interested in mountain biking but if you don't have anyone that you know is into that sort of thing, you might not go down that path. (man, administrator, mountain biking)
	Insufficient resources (within families and sporting clubs/organisations)	...so a lot of the time, we see boys that get really high-end bikes and then the girl is given some crappy thing with old V-brakes that she can barely reach her fingers on and then she's told, "Go out and go riding," she's like, "I hate riding." (woman, mountain biking committee member)

	Competition versus participation model	...we tried to get involved in the comps and up the amount of girls getting into the - it just became a bit more pressured and another barrier to not want to really do it. (man, committee/board member, skateboarding)
	Lack of pathways from beginner level events	The issue is as they go along on the day, they have a go but because they've got no one to go with or there's nothing else offered, it's a one-off, so that compounds the problem so you offer a girls go surfing day but then there's not some follow-on days or whatever for them to go along. Unless they've got great equipment and a group, they tend not to continue with the sport. (man, coach, mountain biking)
Enablers	Inclusivity (e.g. family oriented, all abilities, access to infrastructure and equipment)	<p>The more successes we have are all purely around family, social, barbecues, hang out, skate days where the girls get to walk to Hungry Jacks with other girls who are a bit older and that side of things is very successful for sure. (man, committee/board member, skateboarding)</p> <p>Derby has just been a wonderful experiment in putting in really good quality interesting trails, and having that stacked loop concept where close to the village there's lots of beginner trails and there's skills tracks. It's been awesome. It's really pulled out - all sorts of people have come out of the woodworks because of that. (man, committee/board member, mountain biking)</p>

	Pathways	We've got 12-year-old girls called the Dirt Girls and they mentor and support our Little Peeps rides and what we have is six-year-old girls that these girls partner up with and they mentor them on a ride and we're now up to our fourth ride and ... the 12-year-olds - they're route finding, doing the safety briefings, pairing up with their little buddies that they go riding with and then of course, there's adults there and we have our ride leaders there and they get to have this lovely experience with older girls and the mums get to go out and support as well. (woman, committee/board member, mountain biking)
	Action sport specific informal and formal social supports	We've got a group... Surfing Sisters... they are a group of girls that go surfing regularly together, they hang out together, it's the social aspect and the surfing aspect... (woman, committee/board member, mountain biking)
	Access to coaching, becoming a coach)	So for the girls to be able to access that where they can get coaching, that was a huge enabler. (woman, committee/board member, surfing)
	Education on gender equality	A few people mentioned there are guys out there on the trails that are just not very nice and I think they just need to be called out on the spot. (man, coach, mountain biking)
	Action sports in schools	Yeah, I'd say one of the biggest enablers has been the school surfing event because it's spread across many divisions... it's not just based on being the elite... it's really accessible. (woman, committee/board member, surfing)

	All girls' events	We've had girls only [surf] days and we've had the Women in Waves Day which has been really successful. (woman, coach, surfing)
	Normalising girls' participation/female role models	So, having social media being so accessible and luckily, a lot of big brands supporting the top female riders and really pushing and promoting them, I think being a little girl or teenage girl on the phone, going through the Insta and seeing one more of those posts is very, very cool. (man, coach, mountain biking)

Appendix 6. Table 6: Key themes – parents

Theme	Sub-theme	Example quotes
Barriers	Gender stereotypes/male dominated environment	I think in society with a lot of the older population, there's still... a thing that there's boy activities and girl activities which, in the real world, is just activities. And that filters down through the younger population too, at times, I think, what I've noticed locally anyway. (father of skateboarder)
		...certainly with the mountain biking, the majority are male and it just seems so testosterone built through the whole culture around it, like all the guys are wearing the big black body armour and it's all big and black and tough. (mother of mountain biker)
		If you go into a bike shop and ask for a girl's bike at a \$500 price point say for a six-year-old girl, the gear on it will be less sophisticated than the boy's version. It will be more about the colours... the brakes will be not such good quality. The gears won't be such good quality and it will be heavier. And so then girls get out there on the track and they're saying, "Why can't I ride as well as the boy? Why can't I stop so well? (mother of mountain biker)
	Lack of critical mass of girls participating/no "crew"	But I do think that it's definitely one of those things that, if you're going to continue at it, you need to have a crew at that crucial age that girls are getting into surfing. (mother of surfer)

	Growing self-consciousness, reduced confidence in the teenage years	It's a real battle, a continual battle to keep her in doing something that she loves doing without feeling like she's standing out and making a fool of herself. (mother of mountain biker)
	Lack of facilities/infrastructure (e.g. toilets, change rooms)	And even if you take Derby, for example, we've ridden there every single holidays for the last five years and now there is a apprehension to go mountain biking if it's that time of the month because there's no toilet facilities anywhere apart from right there in town. (mother of mountain biker)
	Family members not involved	...we have other family friends who perhaps aren't as involved...And I think that's such a critical thing. (mother of surfer)
	Exclusivity (e.g. cannot access the requisite environments; expense	Mountain biking and surfing, but particularly mountain biking, are very expensive. (mother of mountain biker)
	Inadequate/inappropriate representation of girls/women in action sports in the media/social media	You look at our local newspapers, how many women feature in the sports pages? We're lucky if there's one woman in a month. So how is that sending any kind of role modelling to any of our daughters coming through? (mother of mountain biker)

	Safety concerns (e.g. skatepark culture, mountain biking alone)	They're in some ways very accepting environments [skateparks] which is really fabulous, but there is also sometimes when you think, "I don't feel safe here and I certainly don't feel safe for my daughter to be here." ... But I think it's really important in skating that councils take it seriously, that that should be a place that kids can go on and feel safe. It's not okay if kids can't go along and if they feel threatened by the people that are there or they might tread on a needle. That's not on. (mother of skateboarder)
Enablers	Parent support/co-participation/family participating with likeminded families	She just started riding because that's what we all did. And then, as I mentioned to you before, we were very pleased when she got to school, and she found some likeminded friends and likeminded families because then it makes it a lot easier. They just go together. (mother of surfer)
	Social connections – participating with friends/all girls groups (e.g. Dirt Girls, She Shreds)	“There is no way [daughter's name] would have started skateboarding if she hadn't been able to be part of that girls group [She Shreds]” (mother of skateboarder)
	Facilities that support the needs of girls	...it would be great to have some basic toilet facilities because girls with periods need toilets (mother of mountain biker)
	Encourage socialising/participation not just competition	“...keep it enjoyable.” (father of skateboarder)
	Pathways for skill development (including equipment maintenance)	...making sure that you engage girls and women in the maintenance of those bikes so they can learn a lot about

		mechanics and they can also look after their own kit... (woman, mother of surfer)
	Starting young (e.g. avoid the challenge of starting later when their contemporaries are more skilled)	... if they start earlier and they've got the skills, then when they hit their teenage years they've got a level of confidence in what they do... (mother of mountain biker)
	Supporting girls/women to become role models	...I think that because my daughter already has lots of female role models to ride with and look up to, I guess, for girls who come from different areas where they might not have that, then having a female coach would be really important just to see that you can do it. (mother of mountain biker)
	Breaking down stereotypes/normalising involvement/ Enhanced visibility through media (social and printed)	The whole culture of our group is about inclusion and participation and trying to, not so much blaze the trail, but just challenge that stereotype, actually, just challenge that idea that this is not a space for girls. Well, why not? "Why isn't it a space for girls?" and "Girls can do it, too," and "They are doing it - just look at them." It's been fantastic. (mother of skateboarder) ...media and social media, having more female representation there, so in the magazines, on posters around the place, that means a lot, I think. (mother of mountain biker)

	<p>Improve access to requisite environments, equipment, coaching, low cost club-based activities</p>	<p>...if a parent isn't a mountain biker or a surfer, it needs to be easy. You need to be able to drop them at the beach and go or drop them at the mountain bike park and go and just pay some money and have somebody else do it, like music lessons. (mother of mountain biker)</p>
	<p>School-based opportunities</p>	<p>...actually, the school that [daughter's name] goes to, they ran a mountain bike course and so we took that last year as one of the electives for 5/6 sport. It's amazing just in the last year how much she's improved. (mother of mountain biker)</p>

Appendix 7. Table 7: Summary of policy documents reviewed

Action sport	State/national level document	Document type	Document title	Year published	Reference to gender*/gender equality (specific/general) [†]
Mountain biking	National	Member protection policy	Mountain Bike Australia P2: Member Protection Policy V2.0	2016	Specific and General
	National	Strategic plan	Mountain Bike Australia Strategic Plan 2016-2018	2016	General
	National	Inclusion policy	Mountain Bike Australia Inclusion Policy Statement	2018	General
	National	Code of conduct	Mountain Bike Australia Code of Conduct - Members and Affiliated Organisations	2019	Specific and General
	National	Annual report	2019 Mountain Bike Australia Annual Report	2019	Specific and General
Surfing	National	Member protection policy	Protection policy May 2012	2012	Specific and general
	State	Inclusion policy	Surfing Tasmania (STAS) Inclusion Policy – July 2014	2014	Specific
	State	Competition policy	Surfing Tasmania Competition Policies	2019	Specific
	State	Annual report	Surfing Tasmania Annual Report 2018/19	2019	Specific
	Combined state/national	Strategic plan	One Surf Strategy Strategic plan	2019	Specific and General

* Includes reference to “sex” (e.g. male/female) † To be categorised as “specific” there was explicit reference to gender (including terms such as man/woman; men/women; boy/girl)*/gender equality. General reference to gender*/gender equality included statements made about inclusion, diversity, non-discriminatory practice without explicitly referring to gender*/gender equality. See Appendix 8 for illustrative quotes

Appendix 8. Table 8: Illustrative quotes from policy review

Sporting Organisation	Source document	Examples of specific references to gender/gender equality	Examples of general references to gender/gender equality
Mountain Bike Australia	Member protection policy	Mountain Bike Australia is committed to providing a safe, fair and inclusive sporting environment all where people can contribute and participate. We will not tolerate any unlawful discrimination or harassment of a person because of their gender identity.	Mountain Bike Australia is committed to creating a safe, fair and inclusive sporting environment and this Member Protection Policy is an essential tool in the organisations risk management strategy. It outlines how Mountain Bike Australia will meet its commitment to safety, fairness and inclusiveness.
	Strategic plan	Not applicable	“Inclusion” listed under “Values”
	Inclusion policy	Not applicable	At MTBA we demonstrate the value of Inclusion by ... Embracing and fostering everyone’s diversity, valuing every team member and recognising their rights and beliefs, and maintaining a workplace of unconditional positive regard where there are no barriers.
	Code of conduct	Respect the right, dignity and worth of every human being - within the context of the activity, treat everyone equally regardless of gender, ethnic origin or religion	Encourage inclusivity and access for all potential participants

	Annual report	The 2019 MTBA National Championships held in Bright, Victoria saw a number of firsts. The Championships saw ... the crowning of Australia's first female champion. The Championships played host to MTBA's inaugural women in mountain biking breakfast, featuring a panel of six women all sharing a unique perspective on their involvement in the mountain bike community...	Community & Inclusion Award BREAK THE BOUNDARY
Surfing Tasmania	Member protection policy	Treat all players fairly within the context of their sporting activities, regardless of gender, race, place of origin, athletic potential, colour, sexual orientation, religion, political beliefs, socioeconomic status and other conditions.	The NSO [National Sporting Organisation] opposes all forms of harassment, discrimination and bullying. This includes treating or proposing to treat someone less favourably because of a particular characteristic; imposing or intending to impose an unreasonable requirement, condition or practice which has an unequal or disproportionate effect on people with a particular characteristic;
	Inclusion policy	Given the importance of sport and recreation to the larger community, we agree that it is of utmost importance to STAS that all members of the community, regardless of age, sex, race, socio-economic status, ability and geographical location have access to the range of opportunities that we provide	Not applicable
	Competition policy	Women will have the same opportunities as men in State Championship rounds.	Not applicable
	Annual report	The Women in Waves event at Clifton Beach Surf life Saving Club with Layne Beachley was a huge success, with over 100 women participated in this wonderful day.	Not applicable

	Strategic plan	Under “Measures of Success”...100 participants in Women On Waves Program	Grow an inclusive and active community through surfing.
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