





## Volleyball Overview

**BACKGROUND:** In 2013 a team of researchers lead by Dr Adam Baxter-Jones from the University of Saskatchewan in collaboration with colleagues from Sask. Sport and other academics in the UK (Swansea University, University of Bath, and University of Loughborough) were awarded a Sports Canada Research Initiative grant, a partnership between Sports Canada and the Social Sciences and Humanities Research Council of Canada (SSHRC) and the Canadian Institutes of Health Research (CIHR). One of the streams of the initiative was to contribute to the understanding of the barriers to, and the benefits of, sports participation. The grant entitled 'The effects of adolescent physical growth and maturation on selection into sport and the long-term effects on sports participation' aims to identify the influence of various factors (physical, psychological and social) that influence youth sports participation. We will address the long-term consequences of selection / non-selection into provincial Saskatchewan teams on an athletes continued participation.

**METHADOLOGY**: On Saturday May 24<sup>th</sup> and Sunday May 25<sup>th</sup>, we attended the Final Selection Camps for the Sask. Volleyball High Performance Programs, held in Regina and Saskatoon. All Females (15U, 16U, and 17U) and Males (16U and 17U) were invited to participate in the study. Consenting players completed 6 Questionnaires asking them about their physical activity participation, perceptions on physical conditioning/competence, how they perceived their coach's techniques, enjoyment of the sport, as well as how parental involvement influenced their participation in sport. We also measured their height, sitting height and weight to predict their maturity status.



**INITIAL FINDINGS**: So far we have only analyzed the physiological measures. The two graphs (see figure) are reference charts showing the normal development of height for boys and girls. The lines on the graph are called centiles and represent statures attained at various ages. The middle line, labeled 50, is the 50<sup>th</sup> centile. This is the average height at each age and indicates that 50% of the population has heights below this line and 50% have heights above this line. We have plotted the average heights for those selected and not selected for both boys and girls. Both groups are above the 75<sup>th</sup> centile indicating they are tall for their age, i.e. 75% of the populations are shorter than them. In addition, our findings suggest that males who were selected to play for the Provincial team were significantly taller than those who were not selected. Those selected were on the 97<sup>th</sup> centile, whereas those not selected were closer to the 75<sup>th</sup> centile. We also found those who were selected had greater predicted final stature, as a result of their father's average height being taller than the fathers of the non-selected group. We also found in the selected group that they were more mature for their age and that a high percentage of male volleyball players were born within the first 6 months of the selection year. For Females, both the selected and not selected groups were between the 90<sup>th</sup> and 97<sup>th</sup> centiles for height, with no significant difference in height between those selected and those who were not. There were also no differences between the groups in predicted adult stature or maturity status. However, a large percentage of female volleyball players were born within the first six months of the selection year indicating they were chronological older than their non-volleyball playing peers.

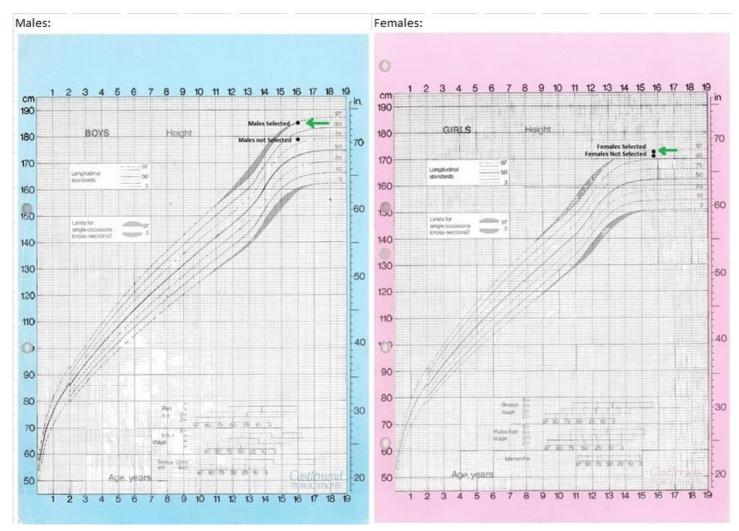


Figure: Height growth charts with selected and non-selected group averages

## \*The green arrows point to the Selected players\*

**FOLLOW UP:** On November 19<sup>th</sup>, all participants received an email asking them to complete online questionnaires for their first 6-month follow up. The questionnaires will ask them questions similar to those completed previously. All participants who complete the follow up will have their name entered into a draw for a chance to win an iPad mini (Draw date Jan 3<sup>rd</sup>, 2015). We will announce the winner on our Facebook page. <u>https://www.facebook.com/sportparticipationresearch</u>

## *Here is the follow up schedule for the remainder of the study*:



## Email, Phone, Online and Social media

Website: http://bit.do/sports-participation

Like "Like" our Facebook page: <u>https://www.facebook.com/sportparticipationresearch</u>

Follow us on Twitter: <u>https://twitter.com/usasksportpart</u>

If you would like more information about the project, please contact Dr. Adam Baxter-Jones at 306-966-5759 or via email at: <u>baxter.jones@usask.ca</u>

Thank you to all those who participated!! We could not do this research without you!

We will continue to update you on our research as results are made available.

-The Research Team.