



Basketball 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.

METHADODOLOGY: On March 29th and 30th, we attended the Basketball Saskatchewan's U15 male and U15 female Provincial Team tryouts. 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 50th 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 90th centile indicating they are tall for their age, i.e. 90% of the population is shorter. 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 above the 97th centile, whereas those not selected were closer to the 90th centile. The selected players were also found to be significantly heavier and significantly more mature than the not selected players. They were more mature because they were further past their age at Peak Height Velocity (aPHV) and showed a younger aPHV. Reaching aPHV at an earlier chronological age is considered as an early maturational marker. In terms of birth distribution, the not selected athletes had more birthdays in the first half of the year. The female athletes were also tall for their age compared to the general population. Both the groups were above the 75th centile for height. The measurement were however, similar between the selected and not selected athletes, contrary to what was observed in the male group. In terms of maturation, the selected females were found to be further past their aPHV (and therefore more mature) than those not selected; however, significance was never reached. The selected group was also found to have more individuals born later in the year compared to the not selected players, but once again, the difference was not found to be significant.

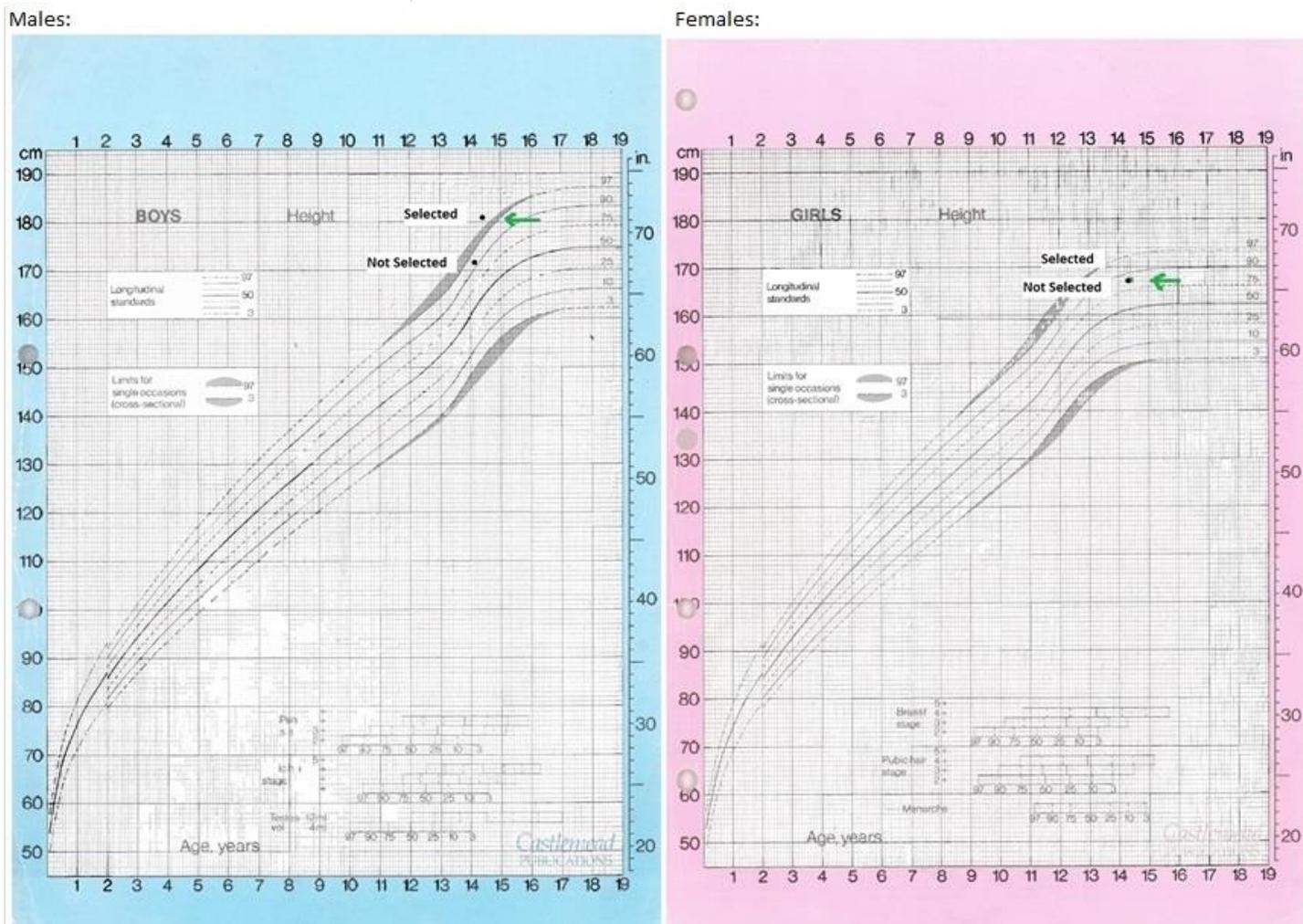


Figure: Height growth charts with selected and non-selected group averages

The green arrows point to the Selected players

FOLLOW UP: On Sept 25th, all participants received an email asking them to complete online questionnaires for their first 6-month follow up. The questionnaires were similar to those completed at the Provincial Tryout. 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 3rd, 2015). We will announce the winner on our Facebook page.

<https://www.facebook.com/sportparticipationresearch>

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

Sept '14	March '15	Sept '15	March '16
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If you would like more information about the project, please contact Dr. Adam Baxter-Jones at 306-966-5759 or via email at: baxter.jones@usask.ca

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.