

# REVIEW OF TRENDS OF DOPING CONTROL AND ANTI-DOPING RULE VIOLATIONS IN PARASPORT



## AIMS

- Provide an overview of doping control testing in parasports in comparison to all testing,
- Offer insight into Anti-Doping Rule Violations by para-athletes,
- Highlight research areas that could help developing a better understanding of doping control testing and sanctioning in parasport.

## APPROACH

To explore if doping is a greater or a lesser issue in parasport than in able-bodied sport, we collated and analysed information on doping testing and sanctions for Anti-Doping Rule Violations between 2013 and 2019.



## RESEARCH QUESTIONS

- What is the rate of positive doping tests (Adverse Analytical Findings or (AAFs)) and sanctions for Anti-Doping Rule Violations (ADRV) in parasport?
- What is the dominant reason for ADRVs among para-athletes?
- How can the reporting on testing, AAFs and ADRVs be improved to help research and understanding of the nature of doping offences in parasport?



## METHODS:

- Secondary data analysis involved descriptive analysis of the World Anti-Doping Agency's Laboratory reports and ADRV reports between 2013 and 2019.



## PARTICIPANTS

- Parasport data comprise Paralympic sports (IPC) and other sports for athletes with impairment.
- The parasport data we extracted from the WADA reports comprised 57,312 doping control samples: 931 Adverse Analytical Findings (AAFs), 361 analytical and 11 non-analytical Anti-Doping Rule Violations (ADRVs).



## FINDINGS:

The data were distilled into six key results with practical relevance.

1. Doping control: Testing in parasports only constitute a small segment (< 5%) of the doping control testing programme each year.
2. Sanctions in parasports: on average, 51 para-athletes were sanctioned in a year for analytical Anti-Doping Rule Violations (ADRVs), which comprise less than 5% of all ADRVs each year.
3. Doping prevalence: the ratio of ADRVs over total samples ranged between 0.45% and 1.08%. Based on this figure, the prevalence of doping seems to be the same as or slightly below the comparable figures for all other sports (Fig. 1).
4. Conversion rate from positive test results (AAFs) to sanctions for ADRVs ranged between 30% and 50% which is lower than in able bodied sport where 50% to 60% of AAFs progress to sanctions. The difference lies in the three-times higher proportion of AAFs being explained by medical reasons in parasport than in able-bodied sports (Fig. 2)
5. Characteristics of ADRVs: Powerlifting, athletics and cycling account for more than half of ADRVs in parasports (Fig. 3)
6. Sanctions for non-analytical ADRVs in parasport is negligible (< 1% of all non-analytical ADRVs)



Fig 1: Changes in the number of samples, AAFs and ADRVs in parasport between 2013 and 2019

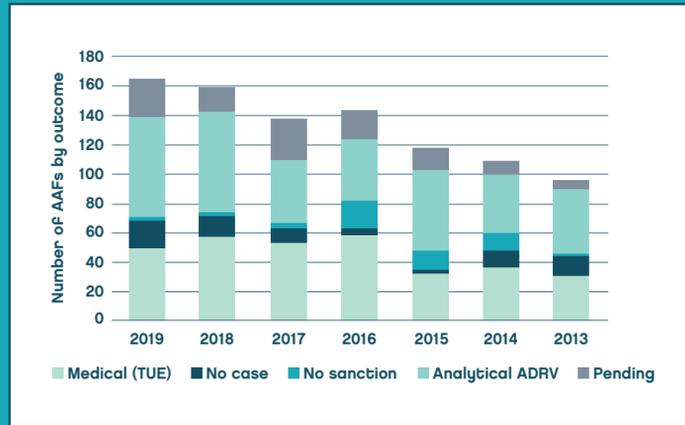


Fig 2: Breakdown of AAFs in parasport between 2013 and 2019

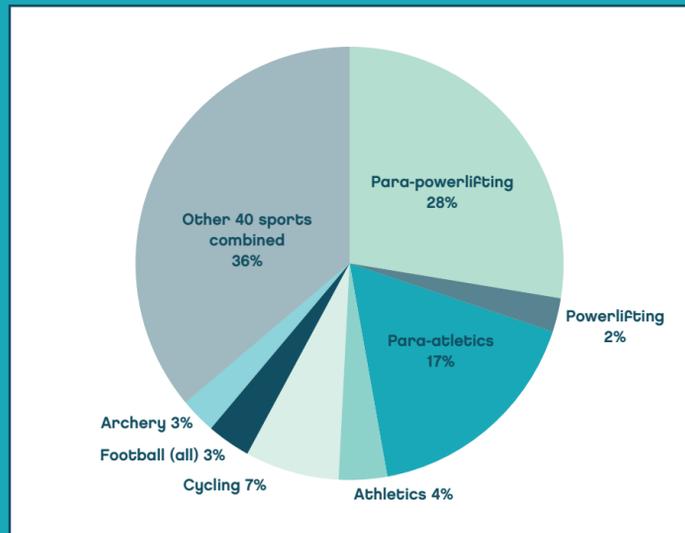


Fig 3: ADRVs in parasport by sport (7 years combined, only sports >= 10 ADRVs for the period are displayed)



## LIMITATIONS, CONCLUSIONS AND RECOMMENDATIONS:

- Testing para-athletes constitutes a small segment of the doping control testing programme.
- Sports at-risk for doping in parasport mirror able-bodied sport.
- The number of AAFs not progressed to sanctions due to medical reasons supports the common belief that Therapeutic Use Exemption (TUE) plays a greater role in parasports.
- Data on Athlete Support Personnel cannot be separated for parasports.
- Separating inadvertent ADRVs and wilful ADRVs is needed for tailored anti-doping education.
- Future investigation would benefit from being able to make a link between the number of (para-)athletes tested, produced AAFs and sanctioned for ADRVs.