

Doping in Dutch elite sports

English summary

Lisanne Balk

Marit Dopheide

Doping in Dutch elite sports

English summary

With financial support from the Dutch Ministry of Health, Welfare and Sport

Lisanne Balk
Marit Dopheide

With the cooperation of Maarten Cruyff (University of Utrecht)

© Mulier Institute
Utrecht, March 2021

Mulier Institute
Research for Sports and Public Policy

PO Box 85445 | 3508 AK Utrecht
Herculesplein 269 | 3584 AA Utrecht
T +31 (0)30 721 02 20 | I www.mulierinstituut.nl
E info@mulierinstituut.nl | T @mulierinstituut

English summary

The Mulier Institute, with financial support from the Dutch Ministry of Health, Welfare and Sport, conducted a study about doping in Dutch elite sports.

The aim of this study was to investigate (1) the prevalence of doping among Dutch elite athletes and (2) the attitude of elite athletes towards using performance enhancing substances.

A total of 831 elite athletes with an 'elite-status' (assigned by NOC*NSF, the Dutch Olympic Committee) and 210 former elite-level athletes (including both active and retired athletes) were invited by NOC*NSF to participate in the study. They received an email with an invitation to complete an online questionnaire that consisted of questions about demographic factors, attitude towards using of performance enhancing substances and their personal doping (anabolic agents, blood manipulation, stimulating agents and other prohibited substances/methods). The response rate was 33 percent for both current and former elite athletes.

In order to guarantee full anonymity regarding the questions about personal doping, the randomised response method was used. With the randomised response method, participants are required to answer the questions with either A or B, but the meaning of their answer (A=yes and B=no, or A=no and B=yes) is random. The meanings of A and B are defined by chance, which in this study was determined by the rolling of two dice by the participant.

The estimated prevalence of the use of anabolic agents in Dutch elite athletes during the past 12 months was 2,1 percent, with a 95 percent confidence interval (95% CI) of 0,0 to 9,3 percent. For the use of blood manipulation, the estimated prevalence was 0,3 percent, with a 95% CI of 0,0 to 7,3 percent. The estimated prevalence of use of stimulating agents was 2,7 percent, with an 95% CI of 0,0 to 10,0 percent, whereas the estimated prevalence of other prohibited substances/methods (such as glucocorticoids, bèta-2-agonists, diuretics or hormones) was clearly higher, at 8,1 percent (95% CI of 0,4 to 15,9%).

For the estimation of the prevalence of total doping, data on the four types of doping was combined and the possibility of using combinations of different types of doping was taken into account. This resulted in an estimated prevalence of 12,5 percent, with a 95% CI of 3,0 to 24,7 percent. This means that in this study a prevalence of 12,5 percent was found, and that the actual prevalence among Dutch elite athletes lies between 3,0 and 24,7 percent. The large confidence interval is a result of the randomised response method and the relatively small number of respondents.

In order to compare the data from 2020 with data from 2015, new analyses were performed on a selection of the data from 2015, using similar analysis methods as in 2020. The analyses of the 2015 data show an estimated total prevalence of 7,6 percent, with a 95% CI of 0,0 to 25,5 percent. The difference in prevalence between 2015 and 2020 is mainly caused by an increase in the use of other prohibited substances/methods. The difference between 2015 and 2020 is not statistically significant ($p=0.705$) which means that we cannot state that doping has increased since 2015.

Besides the different types of doping, there are other substances (such as supplements and medication) which may be performance enhancing but are not listed as prohibited. The large majority of the Dutch elite athletes (94%) finds the use of vitamins and minerals, in order to enhance performance, acceptable. The use of supplements (86%) and medication without prescription (74%) is considered acceptable by the majority of athletes. Furthermore, almost one in four athletes accepts the use of prescription medication in order to enhance sport performance.

Finally, we investigated different anti-doping motivations. Dutch elite athletes report 'fair play' as the most important reason for anti-doping. Health risks and the responsibility as a role model were also reported as important reasons.

To conclude, there is no significant difference in doping among Dutch elite athletes between 2015 and 2020. However, there seems to be a slight increase in the use 'other prohibited substances/methods'. One in four athletes accepts the use of medication on prescription without a medical necessity, in order to enhance their performance.

