

EXECUTIVE SUMMARY

This Executive Summary is intended to assist stakeholders in navigating the data outlined within the 2018 Testing Figures Report (2018 Report) and to highlight overall trends.

The 2018 Report summarizes the results of all the samples WADA-accredited Laboratories analyzed and reported into WADA's Anti-Doping Administration and Management System (ADAMS) in 2018. This is the fourth set of global testing results since the 2015 World Anti-Doping Code (Code) came into effect. The 2018 Report – which includes this Executive Summary and sub-reports by Laboratory, Sport, Testing Authority (TA) and Athlete Biological Passport (ABP) Blood Analysis – includes in- and out-of-competition urine samples; blood and ABP blood data; and, the resulting Adverse Analytical Findings (AAFs) and Atypical Findings (ATFs).

REPORT HIGHLIGHTS

- A **6.9% increase in the overall number of samples** analyzed: 322,050 in 2017 to 344,177 in 2018.
- A **slight decrease in the total percentage of AAFs**: 1.43% in 2017 (4,596 AAFs from 322,050 samples) to 1.42% in 2018 (4,896 AAFs from 344,177 samples).
- About **60% of WADA-accredited Laboratories saw an increase** in the total number of samples recorded.
- An **increase in the total number and percentage of non-ABP blood samples** analyzed: 8.62% in 2017 (27,759 of 322,050) to 9.11% in 2018 (31,351 of 344,177).
- An **increase of 7% in the number of ABP blood samples** tested: 29,130 in 2017 to 31,261 in 2018.

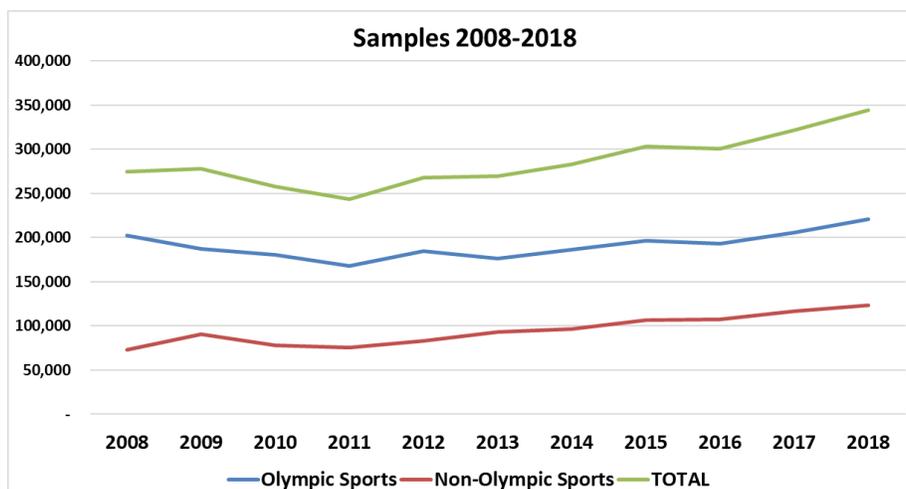
ADAMS USE

On 12 May 2016, WADA's Foundation Board decided to make it a mandatory requirement for Code Signatory Anti-Doping Organizations (ADOs) to enter all DCFs and TUEs into ADAMS no later than 15 business days after sample collection or receipt of a TUE decision. WADA's ADAMS System is a critical data-gathering tool for the anti-doping community, and the findings indicate that more and more individuals and organizations are entering testing data into it (56% in 2015, 87% in 2016, 91% in 2017 and 98% in 2018).

In addition, the figures of urine and blood samples (not including ABP samples) were compiled according to the 'Sample Collection Date' (and not the WADA-accredited Laboratory's 'Sample Reception Date'). This is a result of the efforts made by the WADA-accredited Laboratories to incorporate the collection date into their ADAMS reporting. The data was compiled using sample collection dates between 1 January and 31 December 2018.

OVERALL FINDINGS

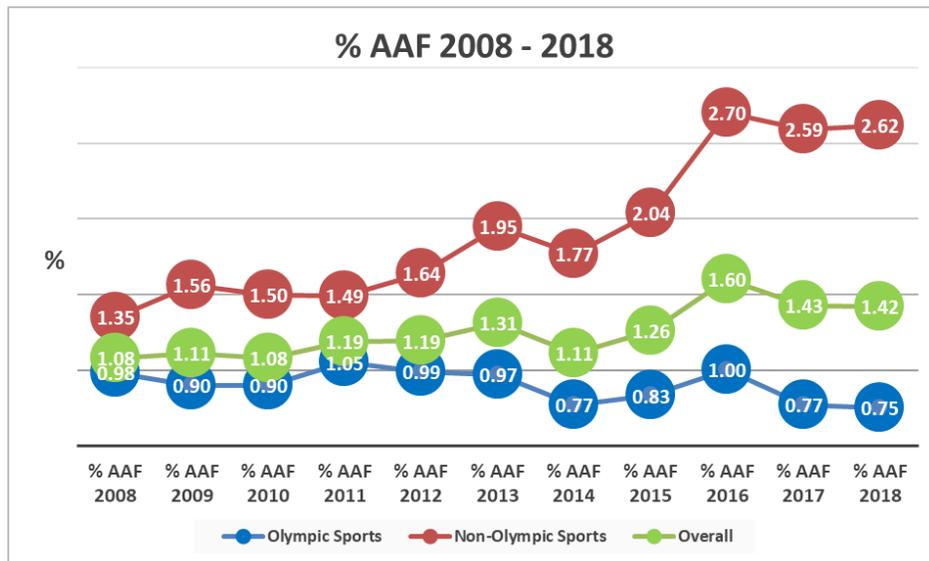
The 2018 data shows an increase of 6.9% in the number of overall samples analyzed from 322,050 in 2017 to 344,177 in 2018.



There was a slight increase in the percentage of total findings (AAFs and ATFs - combined) from 1.48% in 2017 to 1.49% in 2018.

In addition, the data shows a slight decrease in the percentage of AAFs – more commonly known as positive tests – from 1.43% in 2017 to 1.42% in 2018.

In 2018, the proportion of ATFs reported (223 ATFs in 344,177 samples) is relatively similar to 2017 (201 ATFs in 322,050 samples).



The results also show an increase in the number of (non-ABP) blood samples analyzed from 27,759 (2017) to 31,351 (2018).

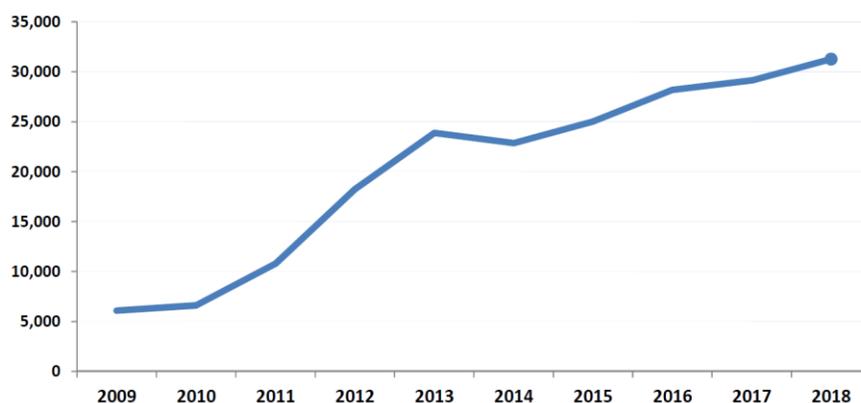
INCREASED IMPLEMENTATION OF ABP

Blood ABP

The number of International Federations (IFs) that included ABP blood testing was 26 in 2018 (compared to 24 in 2017) while the number of National Anti-Doping Organizations (NADOs) increased from 53 in 2017 to 59 in 2018. The number of Other Sports Organizations that included ABP blood testing increased from 6 in 2017 to 12 in 2018.

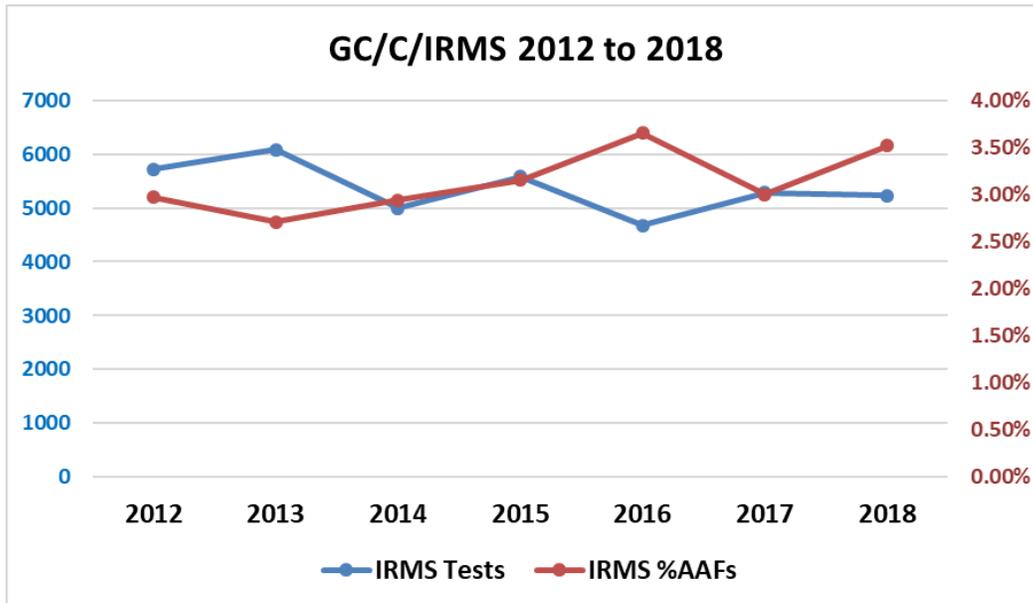
The total number of ABP samples grew by 7% over 2017 (29,130 in 2017 to 31,261 in 2018).

Total ABP Samples Analyzed per Year



Steroidal ABP

The gas chromatography combustion isotope ratio mass spectrometry (GC/C/IRMS) analytical method is an important test connected to the steroidal module of the ABP. IRMS can be triggered by the ABP or requested by the TA based on other information. The number of AAFs from the application of this method has increased compared to 2017 (159 in 2017 and 184 in 2018) while the number of tests has slightly decreased in 2018 by 1% (5,279 tests in 2016 to 5,231 in 2018). Based on the relative percentage of AAFs in comparison to other methods, it is considered that the application of the GC/C/IRMS test remains, at 3.52% AAF, the analytical method with the highest proportion of AAFs.



INCREASED COMPLIANCE WITH THE TDSSA

The 2018 Report marks the fourth year that ADOs were required to incorporate the Technical Document for Sport Specific Analysis (TDSSA) into their testing programs.

The TDSSA is intended to ensure that three groups of prohibited substances (Erythropoietin Stimulating Agents (ESAs), Growth Hormone (GH) and GH Releasing Factors (GHRFs)), which are deemed to be at risk of abuse in certain sports/disciplines, are subject to an appropriate and consistent Minimum Level of Analysis by all ADOs.

The findings of the 2018 Report highlight that there was an increase of ADOs testing for these three groups of prohibited substances when compared to 2014 (the year prior to TDSSA implementation), 2015, 2016 and 2017 including:

- An increase in ESAs testing in both urine and blood samples (a large increase in urine and blood testing since 2015 continued with an 8% (urine) and 5.6% (blood) increase between 2017 and 2018).
- An increase in GH testing (a large increase in testing since 2015 continued with an 18% increase between 2017 and 2018).
- An increase in GHRFs testing (a notable increase in testing since 2014 continued with a 5.8% increase between 2017 and 2018).

Erythropoiesis Stimulating Agents (ESAs)

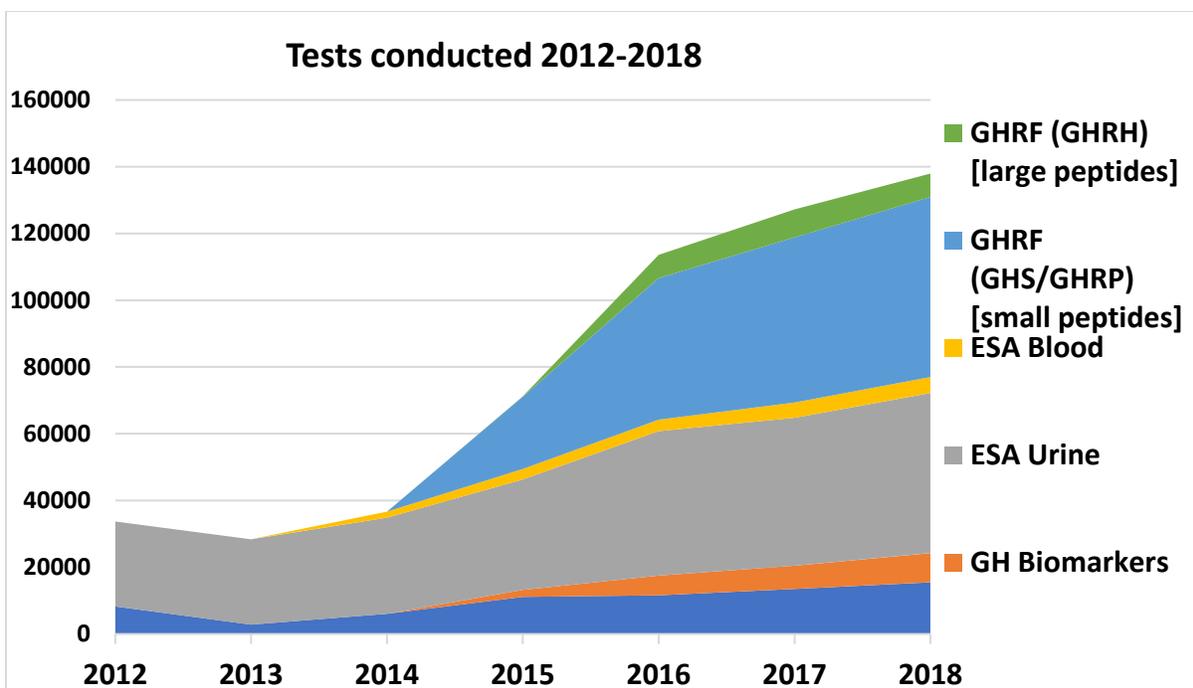
	ESAs Urine Tests	ESAs Blood Tests	AAFs Urine	AAFs Blood	AAFs Total	# of Sports	# of TAs
2018	47,955	4792	61	16	77	118	229
2017	44,322	4531	56	29	85	116	220
2016	43,246	3464	44	22	66	108	212
2015	32,999	3219	45	1	46	94	183

Growth Hormone (GH)

	GH Isoforms Tests	GH Biomarkers Tests	AAFs Total	# of Sports	# of TAs
2018	15,487	8755	2	99	137
2017	13,474	7008	0	90	124
2016	11,555	5983	6	68	111
2015	11,082	2182	4	74	103

Growth Hormone Releasing Factors (GHRFs)

	GHRFs Urine Tests	AAFs Total	# of Sports	# of TAs
2018	60,964	21	124	231
2017	57,869	19	119	218
2016	42,730	15	111	207
2015	21,654	14	88	145



The Sport segment of the 2018 Report includes more samples in ADAMS that are assigned to specified sport disciplines than in 2017, which suggests that TAs continue to incorporate the TDSSA-defined sport disciplines into their sample collection procedures and documentation and thereby enhances the ability to analyze such figures accurately.

The 2018 Report does not detail statistics on Anti-Doping Rule Violations (ADRVs). These results are included in a separate ADRVs Report, which details analytical and non-analytical cases and the outcomes of results management. The 2018 ADRVs Report will be published in 2020.

The figures include all analyses conducted in 2018 by the WADA-accredited Laboratories and by the WADA-approved Laboratories (approved by WADA to conduct blood analysis exclusively for the purposes of the ABP blood module).

In reading the 2018 Report, it is important to note that:

- One single result does not necessarily correspond to one athlete. Results may correspond to multiple findings regarding the same athlete or measurements performed on the same athlete, such as in the case of longitudinal studies of testosterone.
- The number of AAFs in the Report may not correspond with the number of ADRVs reported by ADOs. This is because all results are subject to a results management process conducted by ADOs, which includes matching results with Therapeutic Use Exemptions (TUEs) and/or longitudinal studies, which can result in no sanction.
- To help with the interpretation of the 2018 Report, a comprehensive [Question and Answer document](#) is available on WADA's website.