

EXECUTIVE SUMMARY

This Executive Summary is intended to assist stakeholders in navigating the data outlined within the 2017 Anti-Doping Testing Figures Report (2017 Report) and to highlight overall trends.

The 2017 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 2017. This is the third set of global testing results since the revised World Anti-Doping Code (Code) came into effect in January 2015. The 2017 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 **7.1% increase in the overall number of samples** analyzed: 300,565 in 2016 to 322,050 in 2017.
- A **decrease in the number of AAFs**: 1.60% in 2016 (4,822 AAFs from 300,565 samples) to 1.43% in 2017 (4,596 AAFs from 322,050 samples). This is primarily due to the significant decrease in the reported cases of meldonium.
- About **80% of WADA-accredited laboratories saw an increase** in the total number of samples.
- A **relative increase in the overall number of (non-ABP) blood samples** analyzed: 7.75% in 2016 (23,298 of 300,565) to 8.62% in 2017 (27,759 of 322,050).
- An **increase of 3% in the number of ABP samples** tested: 28,173 in 2016 to 29,130 in 2017.

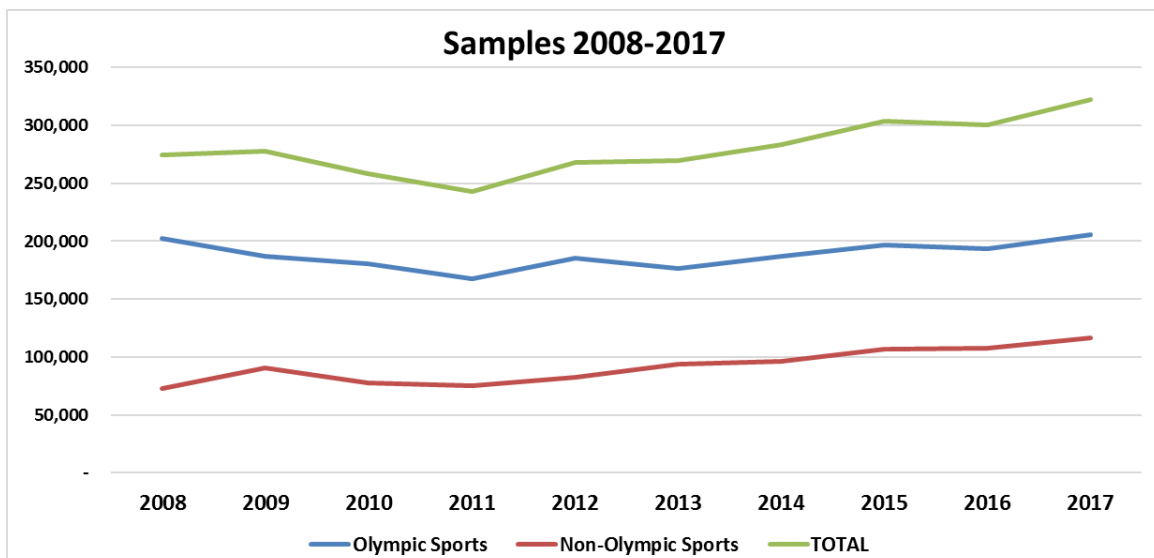
ADAMS USE GROWS

WADA's ADAMS System continues to be a critical data-gathering tool for the anti-doping community. The findings indicate that more and more individuals and organizations are entering testing data directly into ADAMS (from 56% in 2015 to 87% in 2016 and 91% in 2017).

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 2017.

OVERALL FINDINGS

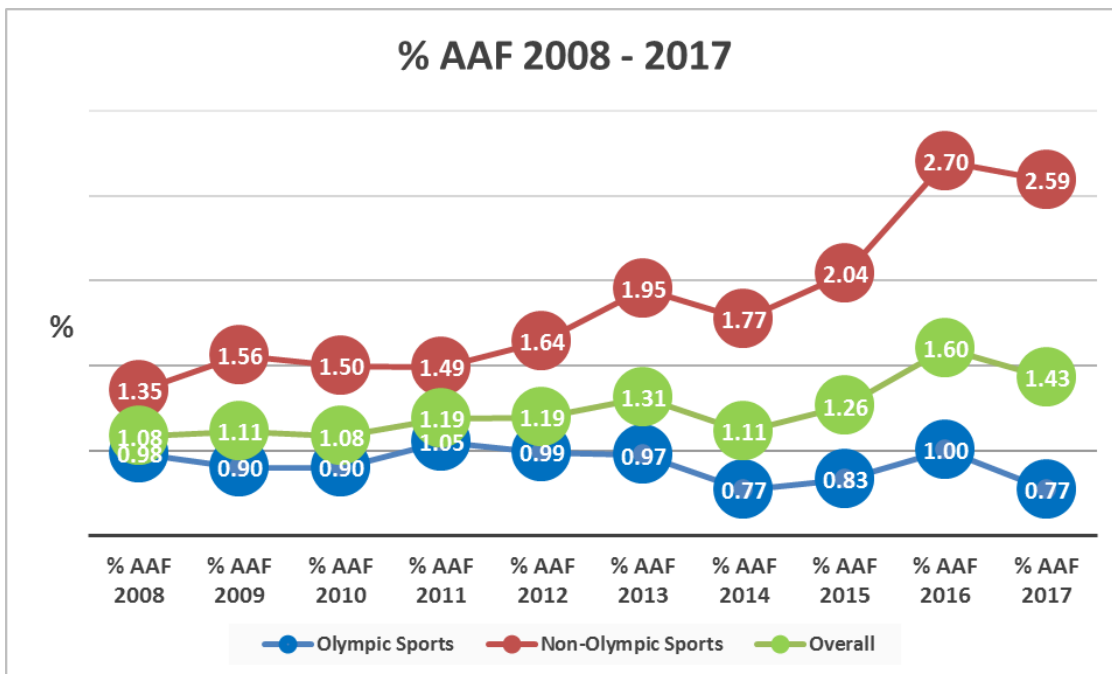
The 2017 data shows an increase of 7.1% in the number of overall samples analyzed from 300,565 in 2016 to 322,050 in 2017.



There was a decrease in the percentage of total findings (AAFs and ATFs - combined) from 1.81% in 2016 to 1.48% in 2017. The decrease in the total findings can be attributed to a decrease in both the number of AAFs and ATFs reported.

In addition, the data shows a decrease in the number of AAFs – more commonly known as positive tests – from 1.60% in 2016 to 1.43% in 2017. The lower number of AAFs is primarily related to the reported cases of meldonium (515 cases in 2016 to 79 cases in 2017) – a substance that was first included in the 2016 Prohibited List.

In 2017, the number of ATFs reported decreased as an expected consequence of the “Guidelines for the reporting and management of Human Chorionic Gonadotrophin (hCG) and Luteinizing Hormone (LH) findings”, later replaced on 1 September 2017 by the Technical Document TD2017CG/LH, which set out specified criteria for the analysis and reporting of LH findings.



The results also show an increase in the number of blood samples analyzed from 23,298 (2016) to 27,759 (2017).

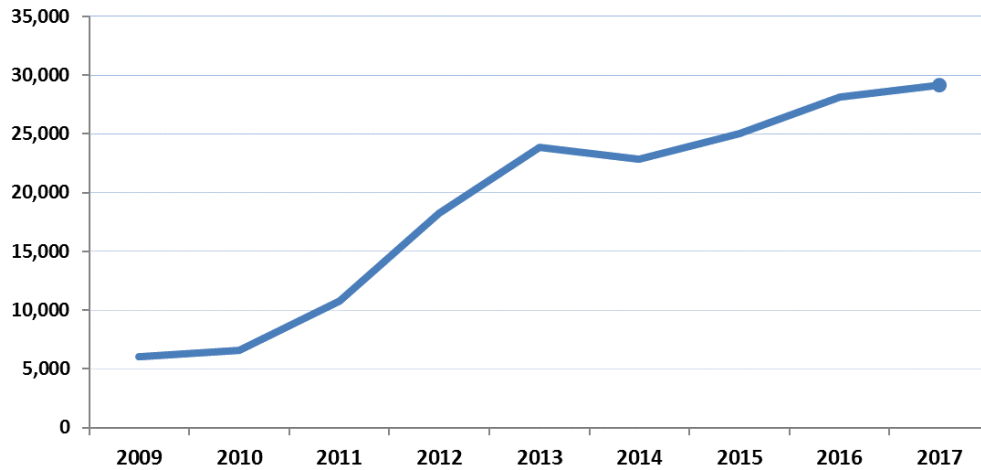
INCREASED IMPLEMENTATION OF ABP

Blood ABP

The number of International Federations (IFs) that included ABP blood testing has remained at 26 compared to 2016, while the number of National Anti-Doping Organizations (NADOs) increased from 46 in 2016 to 54 in 2017.

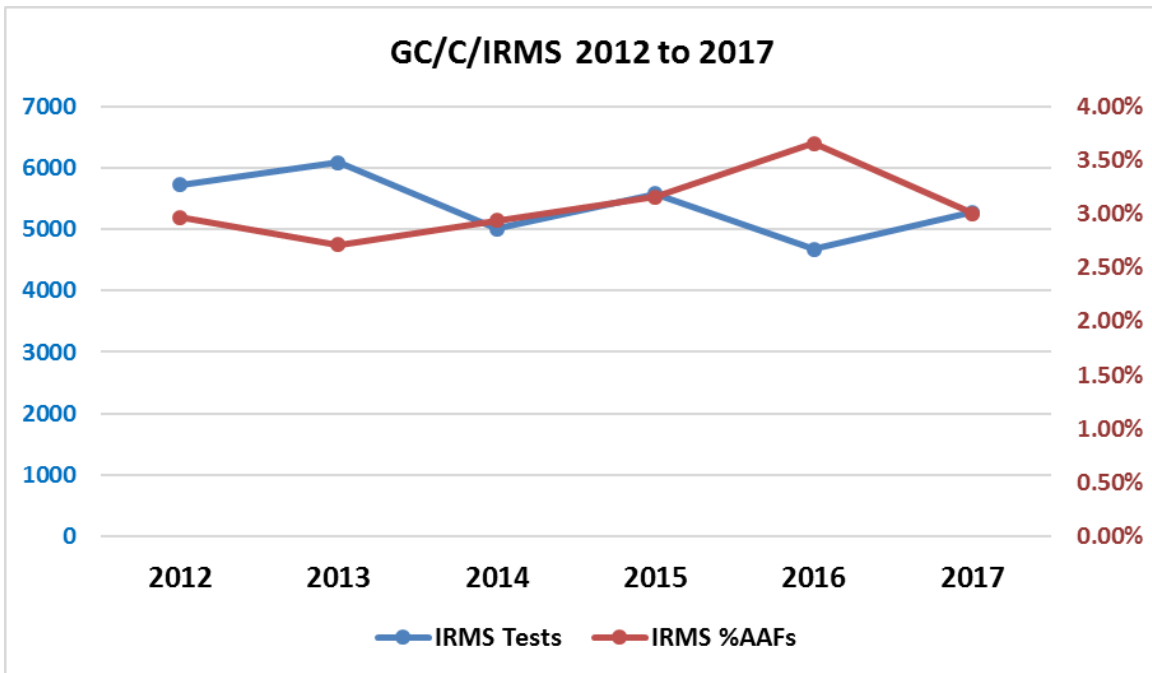
The total number of ABP samples grew by 3% over 2016 (28,173 in 2016 to 29,130 in 2017).

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 decreased compared to 2016 (169 in 2016 and 159 in 2017) while the number of tests have increased in 2017 by 13% (4,676 tests in 2016 to 5,279 in 2017). Based on the relative percentage of AAFs in comparison to other methods, it is considered that the application of the GC/C/IRMS test continues to be useful and remains, at 3.01% AAF, the analytical method with the highest proportion of AAFs.



INCREASED COMPLIANCE WITH THE TDSSA

The 2017 Report marks the third year that Anti-Doping Organizations (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 2017 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 and 2016 including:

- An increase in the recording of TDSSA compliant sports/disciplines in ADAMS.
- An increase in ESAs testing in both urine and blood samples (60% between 2014 and 2017, 5% between 2016 and 2017).
- An increase in GH testing (a large increase in testing since 2014 continued with a 16% increase between 2016 and 2017).
- An increase in GHRFs testing (a large increase in testing since 2014 continued with a 17% increase between 2016 and 2017).

Erythropoiesis Stimulating Agents (ESAs)

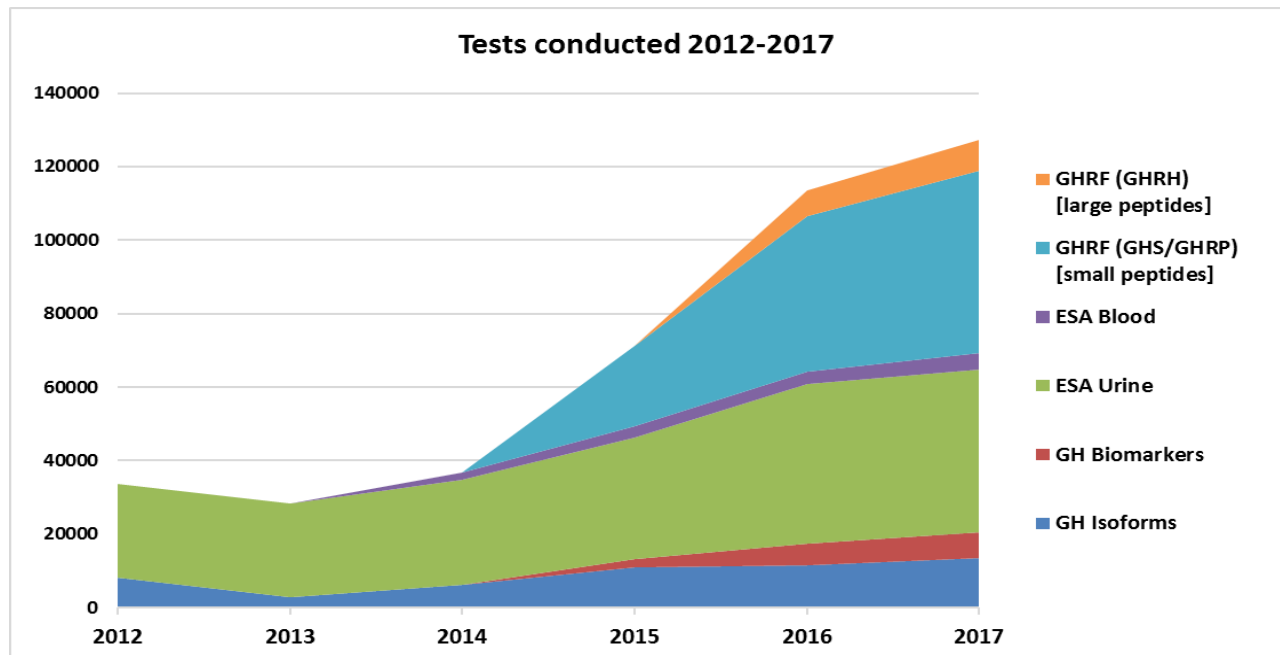
	Samples	# of Sports	# of TAs	AAFs
2017	48,853	116	220	85
2016	46,710	108	212	67
2015	36,218	95	179	46
2014	30,563	55	129	66

Growth Hormone (GH)

	Samples	# of Sports	# of TAs	AAFs
2017	20,482	90	124	0
2016	17,538	68	111	6
2015	13,264	81	105	4
2014	6,075	44	64	2

Growth Hormone Releasing Factors (GHRFs)

	Samples	# of Sports	# of TAs	AAFs
2017	57,869	119	218	19
2016	49,358	111	207	15
2015	21,727	88	154	14
2014	1,804	41	18	6



The Sport segment of the 2017 Report includes more samples in ADAMS that are assigned to specified sport disciplines than in 2016, 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 2017 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 2017 ADRVs Report will be published in 2019.

The figures include all analyses conducted in 2017 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 2017 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 2017 Report, a comprehensive [Question and Answer document](#) is available on WADA's website.