2021 Code Implementation Support Program

Guidelines for Implementing an Effective Testing Program

world anti-doping agency

GUIDELINES FOR IMPLEMENTING AN EFFECTIVE TESTING PROGRAM

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Welcome to the Guidelines for Implementing an Effective Testing Program

Introduction

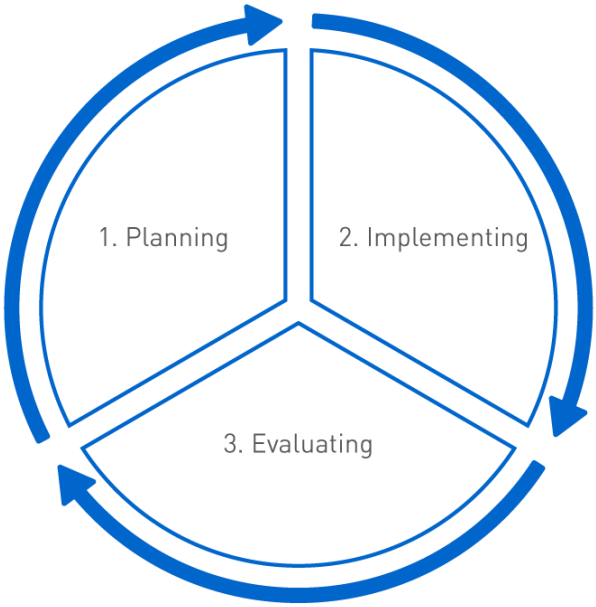
Welcome to the Guidelines for Implementing an Effective Testing Program, a third-level, non-mandatory document that supports the International Standard for Testing and Investigations (ISTI). The Guidelines aim to assist Anti-Doping Organizations (ADOs) in developing and implementing a testing program as described in the ISTI. Specifically, the Guidelines expand upon section 4 of the ISTI, *Planning Effective Testing*.

Where the ISTI provides a minimum of *what* to do, the Guidelines aim to help you understand *how* to do it, providing you with examples and suggestions, and showing you how to go above and beyond the requirements where possible.

In addition, WADA has produced several resources, including templates and checklists, to help ADOs develop and implement effective testing programs. These resources are referenced throughout the Guidelines.

The Scope

These Guidelines have been divided into three sections: 1) the steps involved in **planning** an effective testing program; 2) the strategies to consider in order to ensure you are **implementing** an effective testing program and; 3) how you should be monitoring, **evaluating** and updating your effective testing program. The relationship between these three components is cyclical and is designed to be performed on an annual basis in order to continually improve the effectiveness of your testing program.



An effective testing program is built on the foundation of a proper and thorough risk assessment. Everything that follows – developing an annual Test Distribution Plan (TDP), creating whereabouts pools, testing and analysis strategies including sample retention and further analysis – rests on an effective risk assessment. The decisions you take, at each step of the way, require you to refer to your risk assessment.

The ISTI also requires ADOs to document several activities and requirements. For many things – the risk assessment, the TDP, the sample retention strategy – it is a mandatory requirement of the ISTI to have it documented. But as a general approach, documenting the various processes makes it easier for an organization to be aware of what it is doing, to share information, to monitor and review its activities, and then update them as needed. It is therefore good practice for ADOs to adopt the habit of documenting their work and make it a part of their business as usual operations. In addition, these documents are often requested by WADA as part of the compliance monitoring program, so it is encouraged to keep these documents up to date.

Key partners and importance of collaboration

Collaboration is a key component of an effective testing program. There are many different partners that you should be communicating and collaborating with on a regular basis, such as:

Other ADOs

This includes, International Federations (IFs), Major Event Organizations (MEOs) and National Anti-Doping Organizations (NADOs). Arguably the most important reason for ADOs to communicate and collaborate with each other is to avoid unnecessarily duplicating each other's work. Everyone has limited resources, so it is important to ensure they are used in the most efficient manner possible.

Collaboration on the following areas will greatly enhance your testing program and strategies:

- **Risk assessment**: sharing how you have assessed sports and sport disciplines with each other, sharing outcomes of your risk assessment, etc.
- **Testing plans**: sharing both your overall TDP and individual test missions which also includes ensuring athletes that have qualified or who may qualify for major events are tested sufficiently in the lead up to the event.
- **Whereabouts pools**: discussing which athletes are included in which ADO's Registered Testing Pool (RTP) or Testing Pool (TP), management of whereabouts failures, etc.
- **Athlete Biological Passport (ABP) programs**: confirming passport custodianship, ensuring APMU recommendations are acted upon, etc.
- **Intelligence:** sharing information/intelligence received as appropriate.

Laboratories

Having close ties with the WADA accredited (and approved) laboratories you use has many benefits. Besides the input laboratories can provide regarding sample retention and further analysis strategies, they can also offer valuable analytical intelligence which can inform your risk assessment and TDP, including:

- share laboratory analytical data which may not reveal an AAF, but which may provide strong suspicion of potential doping;
- provide interpretation of results as to a possible cause of the finding (e.g., food or supplement contamination vs doping) or to corroborate an athlete's explanation;
- interpret suspicious biological profile, such as atypical results requiring further investigation or suspicions of sample manipulation/substitution;
- share information regarding the presence of alcohol or other substances that may influence the steroid profile;
- confirm the presence of substances that may suggest the application of a prohibited method (e.g., plasticizers in a urine sample, which may suggest a blood transfusion); and
- identify biological markers in a sample that are indicative of doping, but which the laboratory cannot clearly determine using current analytical methods and therefore should trigger further investigation and target testing of the athlete.

It is important to remember that laboratories never know which athlete a sample came from, nor the circumstances in which the sample was collected, and they rely strictly on analytical data. But by discussing specific results, and providing missing pieces of the puzzle to the laboratory (e.g., maybe a prior ATF or AAF that the athlete had, or some other information the laboratory was unaware of), you can put together plans for additional sample collection and analysis, or further testing of stored samples, all of which you would have been unable to do without collaborating with the laboratory. While discussion with the laboratory is important, you must always remember never to disclose the identity of the athlete(s).

Laboratory input may also be beneficial if you are dealing with a case that involves finding doping equipment (such as used syringes) during sample collection, or a case of sample substitution (i.e., doppelgangers). In such circumstances, laboratories can guide you on how best to conduct forensic or DNA analysis and/or provide specialized evidence as part of an investigation.

Athlete Passport Management Units (APMUs)

Close communication with your APMU is vital for the operation of your ABP program. APMUs will assess athlete passports and provide you with specific feedback. Your APMU is required to provide their comments directly into ADAMS so you need to ensure you are monitoring the APMU comments and recommendations closely and actioning them as required. In particular, recommendations to conduct further tests must be acted upon, including if there is specific guidance on the timing and frequency of tests.

National Federations

Having good collaboration with National Federations can be key to having a deep understanding of a sport at the national level. This applies to both NADOs and IFs.

National Federations can provide information on training and competition schedules, or other information that applies to specific events including prize money that may be available, and can also be a source of potential intelligence, such as when foreign athletes may be training at national training locations. They can also identify young athletes whose performances may be of interest and who could be future national representatives of their sport. More generally, they also have a good understanding of the national culture of their sports and sport disciplines that can help you when preparing risk assessments. National Federations should also share information regarding which athletes are part of national teams, junior national teams, which can assist you in identifying athletes to include in whereabouts pools.

Law enforcement

The police, customs, national drug control agencies, and other law enforcement bodies have jurisdiction and access to information that are not available to ADOs. In particular, their investigatory powers, including the ability to place people under surveillance and subpoena information, means they can lead investigations and access information that ADOs cannot. There are often cases – for example those that may involve the smuggling and illegal distribution of prohibited substances – that are of clear interest to the ADO but outside their ability to act. It is therefore important that ADOs establish good relationships with the relevant law enforcement agencies and are able to work with them to receive and share information and intelligence that can be used by the ADO.

Roles and responsibilities in doping control programs

There are many different organizations that can have a role to play in doping control programs. In turn, one organization may play different roles at different times, each time with different responsibilities. This can be confusing. Therefore, we have provided a brief explanation about how the different organizations can operate and collaborate with each other.

Let's start with an **Anti-Doping Organization (ADO).** An ADO is a Code signatory that is responsible for adopting rules for initiating, implementing or enforcing any part of the doping control process (i.e., everything from test distribution planning through to enforcing sanctions, including testing, investigation, whereabouts, TUEs, sample collection and administration, laboratory analysis, results management, hearings and appeals). Only ADOs can initiate testing as a **Testing Authority (TA).** However, an ADO may delegate its authority to test to a **Delegated Third Party (DTP).** Even if an ADO delegates its authority to test, they remain as the TA and ultimately responsible under the Code to ensure the DTP conducting the testing does so in compliance with the requirements of the ISTI. An ADO that uses a DTP must sign an agreement that governs the relationship between the two parties.

A **DTP** as defined in the Code is any person, organization, or other entity to which an ADO delegates any aspect of the doping control process or anti-doping education programs. Examples could be the International Testing Agency (ITA) coordinating an IF's entire anti-doping program; a continental Confederation or National Federation planning testing under the authority of an IF in a specific continent or country; another ADO or private sample collection company engaged to conduct sample collection; or an individual working as an independent contractor who performs services for the ADO (e.g., non-employee Doping Control Officer, or a consultant running educational workshops).

IMPORTANT: While there are different examples of when an ADO may delegate to a DTP, from a testing perspective, it is important to note that, a National Federation or continental Confederation may only be assigned the 'DTP role' under documented authority by its relevant IF (i.e., a NADO cannot delegate its authority to test to a National Federation or continental Confederation).

A DTP can also be **a Doping Control Coordinator (DCC).** A DCC can be an ADO or a DTP that coordinates any aspect of doping control on behalf of an ADO but not necessarily collects the samples. The ADO delegating any program or part thereof always remains ultimately responsible under the Code for compliance with the requirements of the ISTI, the International Standard for Therapeutic Use Exemptions (ISTUE), the International Standard for the Protection of Privacy and Personal Information (ISPPPI), and the International Standard for Results Management (ISRM). Therefore, it is important that an ADO document any delegation of its programs with a DTP and ideally this should include provisions that require the DTP to implement such programs in accordance with the Code and International Standards.

When it comes to the ADO responsible for the results management process, there must be a **Results Management Authority (RMA)** for each test (i.e., the ADO responsible for conducting results management in a case). An ADO can choose to delegate this responsibility to a DTP (see above) but any Anti-Doping Rule Violation (ADRV) must be adjudicated by an operationally independent hearing panel and the ADO remains ultimately responsible under the Code for compliance with the ISRM. For clarity, the TA and RMA can be a different ADO for the same test.

Finally, there can also be a **Sample Collection Authority (SCA)** involved in the testing of an athlete**.** A SCA is the organization that is responsible for the collection of samples in compliance with the requirements of the ISTI. For any given test, the SCA could be: a) the TA itself; or b) a DTP to whom the authority to conduct testing has been granted or sub-contracted. The TA always remains ultimately responsible under the Code for compliance with the requirements of the ISTI relating to the collection of samples.

Use of ADAMS

The key to effective testing and the success of your collaboration is the proper use of ADAMS. As a central clearinghouse it enables the secure exchange of information between ADOs with overlapping testing jurisdiction and offers an easy way to administer and monitor significant parts of your testing program.

Reminders regarding when and how you can use ADAMS to help plan and implement an effective testing program are included throughout these Guidelines. For it to be a helpful tool, it is important that the information entered into ADAMS is accurate. When you enter data, ensure, for example, that all athlete profile information is correct, that the doping control form information is entered into ADAMS promptly and accurately, that the custodian for whereabouts and/or athlete biological passport is assigned to the right ADO.

SECTION 1:
PLANNING YOUR EFFECTIVE TESTING PROGRAM

This Section outlines the planning process. It begins by guiding ADOs on how to develop and document a comprehensive risk assessment (Chapters 1 and 2). It continues by explaining how ADOs use the outcomes of their risk assessment to help prioritize between sports, sport disciplines and nations, between athletes, between types of testing, and between types of samples, in order to finalize and document an effective, efficient and proportionate Test Distribution Plan (TDP) (Chapters 3 and 4). This Section also includes guidance on how to develop a sample retention and further analysis strategy (Chapter 5).

Why is planning so important?

Detailed planning is so important since it is intended to increase the effectiveness of a testing program. A testing program based on a thorough planning process should increase the potential of catching athletes who decide to engage in doping behavior while deterring those who may be considering it, ultimately protecting the rights of every athlete to compete on a level playing field.

A comprehensive assessment of doping risks, in addition to being a mandatory requirement of the ISTI, will assist ADOs in determining how best to use their limited resources by making informed decisions. Specifically, the aim of a risk assessment is to:

- obtain accurate and objective information on the types of sports, sport disciplines, events, and countries (as applicable) with a higher potential for doping behavior;
- gain credible information on the prohibited substances and methods most likely to be used within a sport or sport discipline;
- increase knowledge regarding which athletes or athlete groups are more likely to engage in doping behavior; and
- identify optimal times to apply specific test types (including analyses) to particular athletes or athlete groups.

When an ADO knows what risks exist where, it can make informed decisions and explain:

- why it is allocating more tests to a certain sport compared to another;
- how it is distributing in-competition versus out-of-competition tests;
- which type of samples (e.g., urine, blood) to collect from which athletes;
- how and why it is allocating the collection and types of samples to certain times of the year (or season); and
- which type of analyses to perform on the samples it has collected.

Identifying the risk factors related to a specific sport, sport discipline or particular group of athletes enables ADOs to build an effective, efficient and proportionate testing program that targets the individuals, sports and sport disciplines, countries and/or events where the risk of doping is higher.

Finding help?

WADA has developed new templates and checklists to assist you with this important planning exercise. Specifically, the following documents will be referenced throughout this first Section and can be found on WADA's website here:

- *Checklist: Risk Assessment*
- *Template: IF (and MEO) Risk Assessment & TDP*
- *Template: NADO Risk Assessment & TDP*
- *Template: Policy for Sample Retention and Further Analysis Strategy*
- *Template: RTP Inclusion Notice*
- *Template: RTP Inclusion Notice - Whereabouts to Other ADO*
- *Template: TP Inclusion Notice*
- *Template: RTP or TP Removal Notice*

- *Checklist: Planning an Effective Testing Program*
- *Checklist: Testing of Athletes and Major Games*

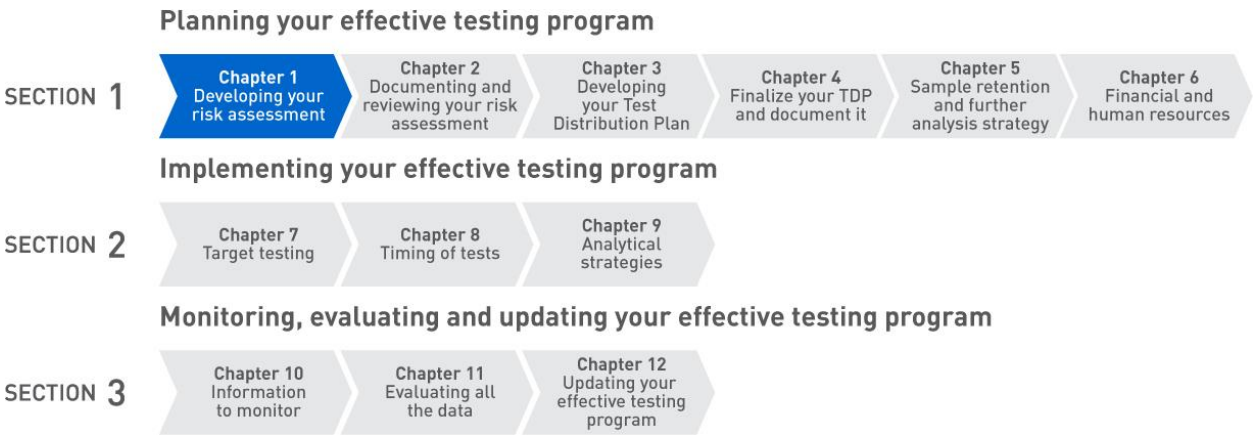
While this Section is designed to help with the development of a risk assessment, a TDP and a sample retention and further analysis strategy, there are many ADOs who are willing to share how they developed their risk assessment, the information they used to guide their assessment, the outcomes they identified and how that informed the development of their TDP and sample retention and further analysis strategy. Reach out to different ADOs to learn how they undertook this process and the lessons they learned in doing so. Better yet, establish partnerships with ADOs who could guide you through this process. Collaborating with other ADOs will give you access to external expertise, different perspectives and help you make the most of your resources.

What else can help? **Patience!** Planning an effective testing program takes time. It is not uncommon to take several days, which can involve several individuals to develop a risk assessment. It will then take a few more days to determine how different aspects of your testing program will be prioritized. To that, add more time to finalize your TDP and to develop a sample retention and further analysis strategy. While planning takes time, when done properly from the start, the next time such exercise is conducted it will be easier and take less time. Once you have completed this planning exercise and built a strong foundation, remember that you have to regularly review and update as necessary.

REMINDER: It is important to ensure that individuals with a conflict of interest are not involved in the test distribution planning or athlete selection processes for their own athletes (see ISTI Article 4.1.2). For example, an IF which has an anti-doping committee that reviews and approves the risk assessment and/or TDP, must ensure that committee members with links to any athlete, team or National Sports Federation are not involved in the review and approval process.

CHAPTER 1:

Developing your risk assessment



Whether you are developing a risk assessment for the first time or are reviewing your risk assessment, you want to ensure that your starting point is clear and comprehensive. Specifically, what does this mean?

It means that you must identify, as relevant, the **sports and sport disciplines**, the **events** and the **countries** that need to be assessed.

How to begin?

The starting point will be different whether you are a NADO, an IF or a MEO (although there will be some overlap which is why collaboration is so important and useful). To assist you with this exercise, here are some questions that can help you ensure the starting point of your risk assessment is clear and comprehensive:

If you're a NADO, ask yourself:

- What are the sports and sport disciplines that fall under my jurisdiction (i.e., where can I conduct testing, where do I need to conduct testing,)?
- What are the events (i.e., national championships) that fall under my jurisdiction?
- Do I have specific regulations that require that testing be conducted in certain sports?
- Are there national requirements that necessitate that I allocate testing at certain events or in certain sports?

If you're an IF, ask yourself:

- What sport(s) and sport discipline(s) fall under my jurisdiction?
- What event(s) fall under my jurisdiction?
- What are the countries (i.e., athletes' nationalities) who compete in my sport(s)/discipline(s)/event(s)?

If you're an MEO, ask yourself:

- What sport(s) and sport discipline(s) are included in my major event?
- What countries (i.e., athletes' nationalities) will participate in my event (for every sport(s) and sport discipline(s)?

A **NADO** needs to assess all the sports and sport disciplines under its jurisdiction, including relevant para-sports and sport disciplines. This may vary from one country to another, but a good starting point is generally to look at all sports that have a National Federation within the country.

It is important to remember that each sport and relevant sport discipline needs to be assessed individually. For example, if you are assessing the sport of skating, you need to consider each sport discipline individually. So, your risk assessment would include a separate assessment of:

- Skating – Figure Skating
- Skating – Short Track
- Skating – Speed Skating 1500m or less
- Skating – Speed Skating greater than 1500m
- Skating – Synchronized Skating

Q: Why can I not simply assess the sport of skating as a whole?

A: The disciplines in skating (and for most sports) vary in terms of their physical and physiological demands (see for example the Technical Document for Sport Specific Analysis (TDSSA) MLAs). In addition to the physiological risks, there could be other factors that affect the risk for each discipline (e.g., popularity in a specific country, rewards, whether the sport is on the Olympic/Paralympic program or not, etc.).

It is also important to assess para sports separately as the risk is not necessarily the same as the "equivalent" able-bodied sport or sport discipline. The physiological demands, the performance level and popularity of a given sport or sport discipline could vary between the able-bodied and para.

An **IF** needs to assess all the different disciplines that make up the sport(s) it governs, all the events that it organizes within these sport(s) and/or disciplines, and each nation that is represented by its member federations (and, if applicable, Continental confederations too).

An **MEO** needs to assess all the sports and sport disciplines, and all the participating nations, in its major event. If an MEO organizes more than one major event, each major event must have its own risk assessment.

As mentioned, this first step involves ensuring that your starting point is comprehensive. While the examples below do not represent a comprehensive list, it provides a visual of what the starting point of your risk assessment should look like. Whether you are a NADO, IF or MEO, WADA's risk assessment and TDP templates include a long list of sports and sport disciplines as well as countries to help you get started.

Do you have a complete list of your sport(s) and discipline(s)?

Sport	Discipline
Aikido	Aikido
Air Sports	All
American Football	American Football
Aquatics	Diving
Aquatics	Swimming Sprint 100m or less
Aquatics	Swimming Long Distance 800m or greater
Aquatics	Swimming Middle Distance 200–400m
Aquatics	Open Water
Aquatics	Artistic Swimming
Aquatics	Water Polo
Archery	All
Arm Wrestling	Arm Wrestling
Athletics	Combined Events
Athletics	Jumps
Athletics	Long Distance 3000m or greater
Athletics	Middle Distance 800-1500m
Athletics	Sprint 400m or less
Athletics	Throws
Automobile Sports	All
Badminton	Badminton
Bandy	Bandy
Baseball	Baseball
Basketball	Basketball
Basketball	3 on 3
Basque Pelota	Basque Pelota
Biathlon	Biathlon
Para-Alpine Skiing	Para-Alpine Skiing
Para-Athletics	Wheelchair Racing—All Distances
Para-Athletics	Jumping—All Classes
Para-Athletics	Running Sprints 400m or less—all classes
Para-Athletics	Running Middle Distance 800m — 1500m All Classes
Para-Athletics	Running Endurance—greater than 1500m All Classes
Para-Athletics	Seated Throws—Classes: F31-F34/F51-F53
Para-Athletics	Seated Throws—Classes: F54-F57
Para-Athletics	Standing Throws—All Classes
Para-DanceSport	Para-DanceSport
Para-Ice Hockey	Para-Ice Hockey
Para-Nordic Skiing	All
Para-Powerlifting	Para-Powerlifting

Do you have a complete list of all the nations?

Country/area
Afghanistan
Albania
Algeria
American Samoa
Andorra
Angola
Antigua and Barbuda
Argentina
Armenia
Aruba
Australia
Austria
Azerbaijan
Bahamas
Bahrain
Bangladesh
Barbados
Belarus
Belgium
Belize
Benin
Bermuda
Bhutan
Bolivia
Bosnia and Herzegovina
Botswana

Do you have a complete list of all events?

Event
World Cup 1
World Cup 2
World Championships
World Cup 3
World Cup 4
World Juniors Championships

What are the nine mandatory criteria in the ISTI that I need to apply?

Now that you have a clear starting point, you need to apply the nine mandatory criteria identified in ISTI Article 4.2.1. Below we outline each mandatory criterion and explain what they mean, where you can find useful information to assist with your assessment as well as provide examples of how each can be assessed.

We also use WADA's risk assessment template and have included screen shots, where possible, to provide practical examples. To offer examples that can apply to IFs, NADOs and MEOs alike, we have selected a few sports and sport disciplines and will be using those throughout. Please note that the information used to assess these sports and sport disciplines is **fictious**.

a. Physical and physiological requirements

The physical and physiological demands of sports and sport disciplines can predict the types of sports that are more prone to doping and what types of doping might be most prevalent in each sport and sport discipline. You should therefore thoroughly evaluate the physical and physiological attributes of sports and sport disciplines under your jurisdiction to understand which prohibited substances and methods may be of benefit to athletes.

To conduct the best assessment possible for this criterion, we suggest that you consider at least the two categories identified below and evaluate them for each sport and sport discipline:

- **cardiovascular endurance**: the ability to maintain a medium to high intensity effort for a long period of time; and
- **power, strength, and muscular endurance**: the ability to generate maximum force and move weight with speed and the ability to exert maximal power output for a limited period of time.

The TDSSA can act as a starting point and can be used to guide your assessment of the physical and physiological requirements. For example, sport disciplines with an ERAs MLA of 30% or more in the TDSSA (e.g., Cycling – Road or Biathlon) are those that demand high levels of cardiovascular endurance and so should have a high 'risk score' in this category. Likewise, sport disciplines with a GH or GHRFs MLA of 30% (e.g., Weightlifting) are those that have high power, strength, and muscular demands and so, should have a high 'risk score' in this category.

WADA's risk assessment and TDP templates use the TDSSA as guide to assess physical and physiological risk. The screen shots below demonstrate how the TDSSA MLAs can be used to score (on a scale from 1 to 5) cardiovascular endurance as well as power, strength, and muscular endurance for the following sport and sport disciplines:

Risk category	Physiological and physical requirements	
	Cardiovascular Endurance (Ability to maintain high intensity for a long period of time)	Power, Strength & Muscular Endurance (Ability to generate maximum force, accelerate the body over a short distance as quickly as possible)
Score		
5 High	TDSSA EPOs MLA of 30% & 60%	TDSSA GH/GHRFs MLA of 30%
4 Medium high	TDSSA EPOs MLA of 15%	TDSSA GH/GHRFs MLA of 15%
3 Medium	TDSSA EPOs MLA of 10%	TDSSA GH/GHRFs MLA of 10%
2 Medium low	TDSSA EPOs MLA of 5%	TDSSA GH/GHRFs MLA of 5%
1 Low	TDSSA EPOs MLA of 0%	TDSSA GH/GHRFs MLA of 0%

Sport	Discipline	Physiological requirements & physical demands	
		Cardiovascular Endurance	Power, Strength & Muscular Endurance
		Score 1–5	Score 1–5
Skating	Figure Skating	3	3
Skating	Short Track	4	3
Skating	Speed Skating 1500m or less	4	3
Skating	Speed Skating greater than 1500m	5	3
Skating	Synchronized Skating	3	2

TIP

The TDSSA includes over 230 sports and sport disciplines and is used as the basis for including sports and disciplines in WADA's templates for risk assessment and TDP. However, it may be the case that some sports or disciplines are not included in the TDSSA. If an ADO needs to include one of these "missing" sports or disciplines in its risk assessment, it can either undertake a full physiological and physical assessment without guidance from the TDSSA, or it can take a similar sport or sport discipline that is listed in the TDSSA and use those MLAs as a guide.

It is important to note that, by better understanding the physical and physiological demands of individual sports and disciplines, you can better understand the types of sports and disciplines that are more prone to doping and what types of doping might be most prevalent.

While the TDSSA can serve as a guide to assess the physical and physiological components, academic papers or similar types of research papers could also be useful to learn more on the physiological and physical requirements of various sports and disciplines. In addition, many IFs have medical (or science)

committees that have conducted research on the physiological and physical demands of their sports and disciplines. As such, we strongly recommend that NADOs and IFs work together to ensure the best and most complete assessment.

Other factors could also be assessed to provide further insight regarding the physiological or physical risk of sports and disciplines. While those have not been included in the WADA templates, you can always add non-physiological demands such as movement agility, psychomotor skills and accuracy, bodyweight, etc.

b. Substances or methods most likely to enhance performance

An ADO needs to review which prohibited substances and methods athletes in a sport or discipline would be most likely to use to enhance their performance. This can only be done once an ADO has looked at the physiological demands of the sport or discipline. Such a review needs to consider whether a substance would be used in-competition or out-of-competition, during the sporting season or in the off season, to directly enhance performance or help with recovery.

For example, based on an initial assessment of "Skating – Speed Skating greater than 1500m" you have determined that the risk for cardiovascular endurance is very high and you know that some of the prohibited substances that could help increase cardiovascular endurance are ERAs. Based on recent research and after reviewing WADA's TDSSA testing guides, you know that ERAs are often used out-of-competition. You have done additional research and found that some studies have demonstrated that steroids could be of benefit during the off-season to recover. You add all this information to your risk assessment.

Taking Basketball as another example, based on your assessment of the physiological and physical requirements needed to be a strong basketball player, you know that short bursts of energy are key (i.e., running fast but for a short period of time). You have also read studies that have shown that stimulants could be abused just before basketball games. To build muscle and to increase strength, useful for many positions in basketball, there is a risk that some athletes may use steroids during the off-season. You add this information in your risk assessment.

For team sports, you should also keep in mind that some positions might benefit from different substances or might consider using prohibited substances and/or methods for different reasons. This should also be documented in your risk assessment.

c. Rewards and/or potential incentives for doping

Rewards, whether financial or otherwise, can be a significant motivation to dope. ADOs should consider possible incentives such as:

- any sport that offers exceptional payment for performance (i.e., prize money), especially at particular events; and/or
- sports or sport disciplines with professional leagues that have large financial rewards. In such situations younger athletes may be prepared to take risks to obtain a well-paid contract or when a contract is nearing its end and an athlete may be tempted to dope to secure a renewal; and/or
- athletes or events with generous sponsorships, or highly visible public image and the resulting pressures to maintain high performance levels (including during injury, or with increasing age).

Other potential incentives for doping could include different political and cultural factors that could be correlated to doping behavior. These may involve explicit policies and behaviors from sport administration or governance, or general attitudes towards doping and drug use in a country.

Political factors to consider include:

- state sponsorship of teams that seek financial benefit from the profile (and success) of that team; and/or
- known political and economic corruption in a country; and/or
- the drug laws and drug enforcement capacity of certain countries; and/or
- the paid transfer of citizenship for athletes (i.e., athletes who accept to be paid to transfer nationality may, either directly or indirectly, become susceptible to pressures to perform that could lead to doping); and/or
- a country hosting future major events in a specific sport.

This information can assist in assessing risks of different sport(s) and disciplines as well as different countries.

CASE SCENARIO

For example, the following two NADOs are assessing the risk in Basketball as it relates to rewards and potential doping incentives:

- **NADO/Country A:** In their country, this sport is extremely popular with junior and national women and men's teams being extremely successful on the international stage, athletes receiving salaries as soon as they make a junior or national team and the government providing funding to increase the level of participation throughout the country. Based on this information the potential risk of doping might be higher if athletes are looking for an advantage to either 1) make a team, or 2) remain on a team. So, this NADO might include a 'score of 5' in the 'rewards and/or potential incentives for doping' column of their risk assessment.
- **NADO/Country B:** In their country, this sport is not popular. There are no organized leagues, very few individuals participate, and, while there is a men and a women's national team, they are not very competitive and do not participate in competitions on the international stage. Based on this information, it could indicate a lower risk of doping. So, this NADO might include a 'score of 2' in the 'rewards and/or potential incentives for doping' column of their risk assessment.

If you are an IF (or an MEO) assessing the risk of these two countries, based on the information presented in this case scenario, NADO/Country A should be ranked higher in terms of risk in this category ("rewards and/or potential incentives for doping") since this sport is very popular in that nation, athletes perform extremely well and win frequently on the international stage, etc.

The culture surrounding a sport or a particular athlete, or the environment in which they train and live, can strongly influence attitudes toward doping and the likelihood of doping. Examples of cultural factors that could lead to potential incentives for doping could include:

- association with support personnel (i.e., working with coaches, physicians, etc. who have previously been linked to doping); and/or
- level of anti-doping education available or received; and/or
- how much athletes may be exposed to and influenced by a "win at all costs" mentality within their team, training environment or country.

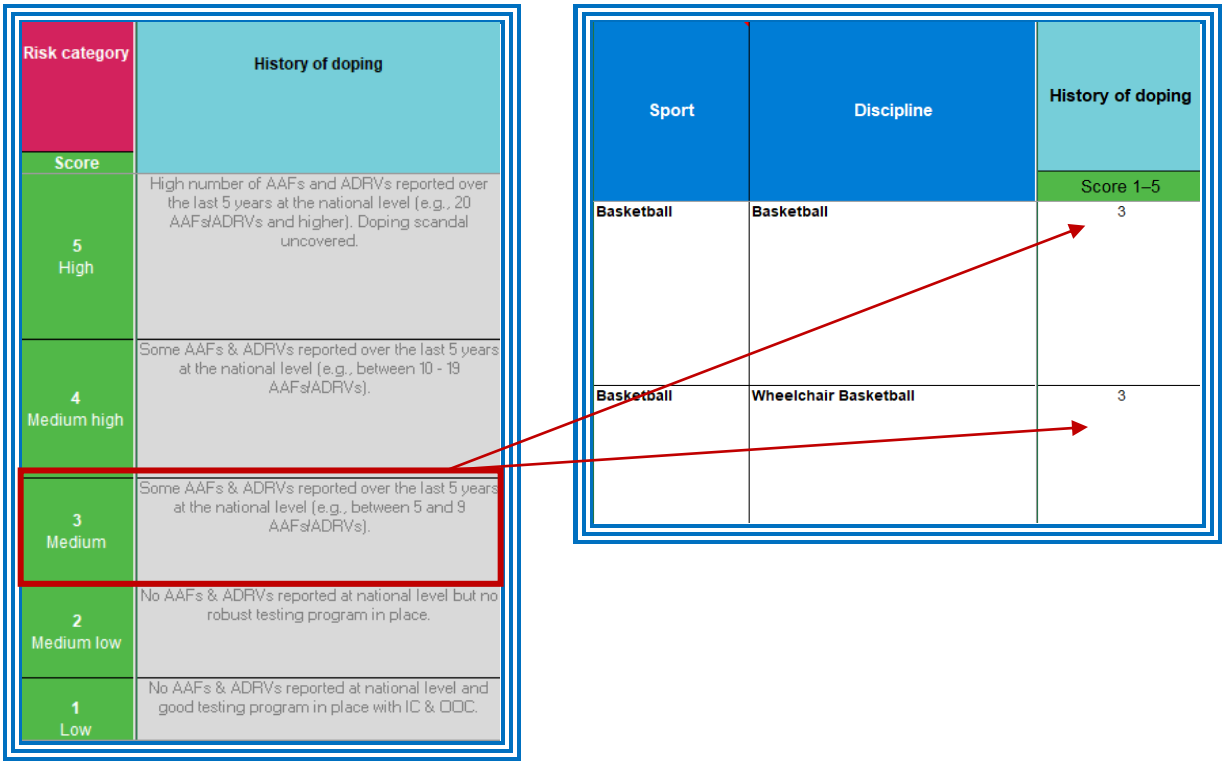
Another element that could be considered as part of the incentives for doping is the lack of collaboration between IFs and NADOs. Good collaboration means the regular sharing of information, coordination of testing plans, ABP programs, etc. If an IF and a NADO collaborate well, then an athlete under their joint testing authority is more likely to be effectively and sufficiently tested. On the other hand, a lack of collaboration tends to lead to uncoordinated or insufficient testing, relevant information not being shared,

and more chance of an athlete being able to dope. Collaboration can therefore be considered when developing a risk assessment.

d. History of doping

NADOs, IFs, and MEOs must all assess the history of doping as another risk factor. A history of doping in a sport, discipline, nation or event, especially a recent history, can give a good indication that there is a current high risk of doping. At the same time, a history that shows no doping can only be seen as a reliable indicator of doping risk if there has been a comprehensive testing program in place. The absence of an effective testing program (including both in-competition and out-of-competition) says little if anything about the risk of doping in that particular sport or sport discipline.

Again, using the WADA Risk Assessment and TDP template, here is how this information could be captured and quantified in your risk assessment. On the left-hand side, the screen shot indicates the information you are using to allocate different scores (i.e. why are you allocating a 5 versus a 3 mean). On the right-hand side, based on how you are scoring the history of doping, you allocate a score to each sport discipline. Using the example below, given the score is '3', it means that some AAFs/ADRVs (between 5 and 9) have been reported in the past 5 years in each sport discipline.



Risk category	History of doping
Score	
5 High	High number of AAFs and ADRVs reported over the last 5 years at the national level (e.g., 20 AAFs/ADRVs and higher). Doping scandal uncovered.
4 Medium high	Some AAFs & ADRVs reported over the last 5 years at the national level (e.g., between 10 - 19 AAFs/ADRVs).
3 Medium	Some AAFs & ADRVs reported over the last 5 years at the national level (e.g., between 5 and 9 AAFs/ADRVs).
2 Medium low	No AAFs & ADRVs reported at national level but no robust testing program in place.
1 Low	No AAFs & ADRVs reported at national level and good testing program in place with IC & OOC.

Sport	Discipline	History of doping
		Score 1–5
Basketball	Basketball	3
Basketball	Wheelchair Basketball	3

For IFs and MEOs, in addition to concrete information on potential or actual doping practices, corruption indexes may be useful when comparing and assessing different countries. Although independent indices of corruption cannot definitively indicate that doping practices may be widespread, they do provide useful guidance on where corrupt practices may be more prevalent. When reviewing such independent

assessments of corruption, it may also be useful to examine doping statistics in these countries to assess the possible correlation. Readily available indices include unodc.org, worldbank.org, or transparency.org.

e. Statistics and research findings on doping trends

WADA publishes many statistical reports that can be used to inform your risk assessment. The annual Anti-Doping Testing Figures report provides data on all samples analyzed by WADA-accredited laboratories, including in-competition and out-of-competition urine, blood, and blood ABP data. The data can be viewed by laboratory, sport/discipline, and TA. The annual Anti-Doping Rule Violations report gives data on the outcomes of all AAFs (e.g., medical reasons, no case to answer, ADRV), along with data on all ADRVs, including those that resulted from non-analytical findings.

Likewise, WADA also supports significant amounts of research into doping, both from a social science perspective and from a medical and scientific one. The outcomes of the social science research can be found here while information on the medical and science research projects can be found here.

Research on doping-related matters, from analytical chemistry to sociology, is also published in many academic journals. While many journals require a subscription to be able to access their full content, much research is available for free via open access.

This data, whether you are a NADO, an IF or a MEO, will further inform your risk assessment. Again, using fictious information, this is how such information can be captured:

Sport	Discipline	Statistics/ Research on doping trends
Skating	Figure Skating	Studies found that athletes may use diuretics to keep their weight down.
Skating	Short Track	Studies found that athletes may use stimulants before races and steroids to build muscle during the off seson and/or to recover from injury.
Skating	Speed Skating 1500m or less	Studies found that athletes may use stimulants before races and steroids to build muscle during the off seson and/or to recover from injury. Stats have shown an increase in ABP related ADRVs.
Skating	Speed Skating greater than 1500m	Research demonstrated that EPO could help with building endurance and that steroid use could assist in muscle development and/or recovery from injury.
Skating	Synchronized Skating	Studies found that athletes may use diuretics to keep their weight down.

f. Information received/intelligence developed

Relevant intelligence about sport(s), sport discipline(s) and individual athletes or groups of athletes must be considered when developing the risk assessment. Such information or intelligence could include:

- prior ADRVs/test history, including any abnormal biological parameters (blood parameters, steroid profiles, etc.) that seem more prevalent in a particular sport discipline; and/or
- sport performance history, including in particular sudden major improvements in performance by a given country, and/or sustained high performance without having been regularly tested; and/or
- repeated failure to comply with whereabouts requirements or suspicious whereabouts patterns (e.g., athletes who nearly always have one or two current whereabouts failures, or who regularly update their whereabouts at the last minute); and/or
- teams moving to or training in a remote location, or a location deemed to be high risk due to political or cultural factors; and/or
- reliable information from a third party (e.g., DCO reports, ADO's hotline, whistle blowers, etc.,), or intelligence developed by or shared with the ADO regarding the potential use of prohibited substances by an athlete or a group of athletes in a given sport discipline.

Many of the above factors are not in themselves indicators of doping. However, any combination of factors should be considered as establishing higher risk for an athlete, a particular group of athletes, a particular sport discipline or a country. This information/intelligence can be captured in your risk assessment either as a 'quantitative' or 'qualitative' factor (or both).

TIP

For more information on how to obtain, assess and process anti-doping intelligence and to ensure appropriate processes and policies are in place, please consult the *Guidelines on Information Gathering and Intelligence Sharing*.

g. Outcomes of previous test distribution planning cycles

The outcomes of the previous year's testing must be taken into account for the next year's risk assessment. For example, if testing in a particular sport in the previous year led to two AAFs, both of which occurred from out-of-competition tests conducted shortly before an important championship, this could indicate that in that sport the period leading up to a major championship is a period of higher risk.

You should always review and analyze your ADAMS data to help inform your risk assessment. For example, use testing reports to determine when out-of-competition testing in a particular sport discipline was conducted. If you notice that all testing was conducted between April and August or on Tuesdays and Fridays of the week, firstly determine the reasons and secondly consider whether out-of-competition should be better distributed or distributed differently for the following year/cycle.

Also, if a comprehensive testing strategy, with frequent target testing throughout the year, was implemented on a sport or sport discipline or a certain group of athletes and no suspicions of doping identified from the test data analyzed then resources may be directed to another sport or group of athletes. Documenting this will provide historical data for decision making.

ADAMS

Use ADAMS and the many reporting functions to review testing data by sport, sport discipline, country, etc. In particular, the following reports: Sample Collection Report, Laboratory Analysis Report, and ADAMS Next Gen TDP Monitoring.

h. Potential doping patterns in an athlete's career

In each athlete's career there are periods when a combination of factors can increase the risk of the athlete considering to dope. These periods will vary depending on the sport or sport discipline. Some examples may be:

- young athletes at the point in their career where they are trying to improve and gain selection to participate in elite level competition, or trying to secure a professional contract; and/or
- athletes trying to qualify for an Olympic or Paralympic Games or other major event; and/or
- an athlete nearing the end of their career who may try to obtain one final professional contract or qualify for one last major event; and/or
- periods where an athlete sustains a serious injury and will not be able to compete for several months.

These could represent higher risk periods where athletes might be tempted to dope and need to be documented in your risk assessment. For example:

Sport	Discipline	Sport/discipline career patterns
Basketball	**Basketball**	A few athletes on national team are getting older. Pay attention to up and coming athletes.
Basketball	**Wheelchair Basketball**	National team includes fairly new players at the prime of their careers.

i. Potential doping patterns in the sporting season

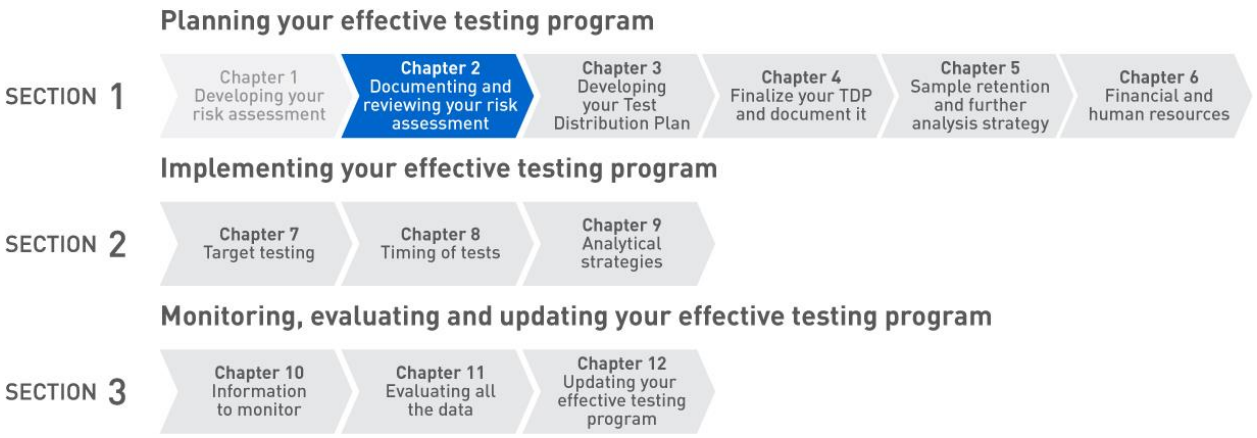
Within each sport and sport discipline the structure of the sporting season could identify where an athlete may attempt to dope at one time rather than another. In one sport, a season may be based around one or two important competitions or events or a series of events, and everything the athlete does is designed to ensure they are in peak condition for those. This will have an influence on an athlete's training, competition, and rehabilitation/recovery strategies. On the other hand, many professional team sport athletes have long seasons and must maintain peak condition for nine or ten months. Some then have international events during the off-season, reducing the time available for recovery and preparation for the next competition season.

Review national and international competition calendars to help you determine potential risks and plot in key timelines and other information to your risk assessment. For example:

Sport	Discipline	Seasonal patterns
Skating	**Figure Skating**	Season from October to March with main competitions in February/March.
Skating	**Short Track**	Season from October to April with main national competition in January and main International competition in April.
Skating	**Speed Skating 1500m or less**	Season from October to April with new major competition in February with higher prize money.
Skating	**Speed Skating greater than 1500m**	Season from October to April with new major competition in February with higher prize money.
Skating	**Synchronized Skating**	Season from October to March with no International competition this year. Only National Champs in February.

CHAPTER 2:

Documenting and reviewing your risk assessment



As we outlined previously, WADA has produced template documents (for IFs, NADOs, and MEOs) to assist ADOs conduct a thorough risk assessment. While using them is optional, these templates will help you comply with ISTI Article 4.1.3, which requires that a risk assessment is documented. Furthermore, the templates allow you to easily use the outcomes of your risk assessment to develop your TDP.

HELP! So far, throughout this Section, we have used screen shots from WADA's Risk Assessment and TDP template. You can find the Risk Assessment and TDP template you need here: *Template: IF (and MEO) Risk Assessment & TDP* and *Template: NADO Risk Assessment & TDP* (instructions on how to use these templates are also provided within the documents). The *Checklist: Risk Assessment* is another helpful tool.

Risk assessment outcomes

A risk assessment needs to have clear outcomes. The outcomes take the wealth of information in the assessment and make it actionable, so you can then develop your TDP and other aspects of your testing program, including assigning athletes to whereabouts pools and developing a sample retention and further analysis strategy.

The quantifiable factors that you assess can be added together to produce a total risk score. In the WADA template the physiological factors have a larger weighting than others. You may choose to allocate scores in a different way, but if you do so you should remain consistent across your risk assessment. The total risk scores can be classified, from "high" to "low" risk. The qualitative factors then give context and further

information. Using the sports and sport disciplines used as examples so far, please consult **ANNEX A – Example of a Completed Risk Assessment** (with fictious information) to review the completed risk assessment for these sports and sport disciplines.

Once you have conducted the risk assessment for your relevant sport(s) and sport disciplines, you should have a clear idea of:

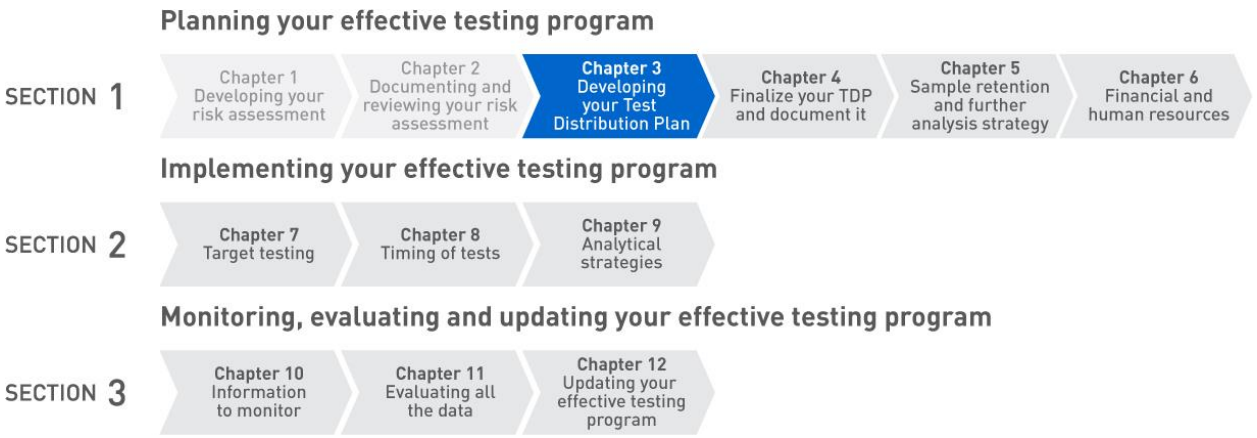
- which sports and sport disciplines have a higher risk of doping behavior;
- which athletes are more likely to dope, and when;
- within a given sport or sport discipline, in which period athletes are more likely to dope;
- the prohibited substances and methods most likely to be used within a sport or sport discipline; and
- how different types of samples should be allocated throughout the year.

Reviewing your risk assessment

A risk assessment is a living document and should be regularly updated as new data, information, and intelligence becomes available. To that end, you should ensure that you capture this information somewhere (e.g., by including notes in your risk assessment document itself) and that you use it to update your risk assessment. At a minimum, ***ADOs need to review and update (as necessary) their risk assessment every year***. Every aspect needs to be reviewed. For example, ensure that all relevant sports, sport disciplines, nations, and events (as appropriate) are included and that the data used is the latest available. You should also verify with other ADOs whether they have any relevant new information (i.e., new physiological studies, or intelligence, or country-specific information) that could inform any updates to your risk assessment. Once the risk assessment has been reviewed and updated, this could lead to different outcomes. Remember to use these different outcomes to adapt your TDP.

CHAPTER 3:

Developing your TDP



You have now completed your risk assessment and you have clear outcomes. Armed with that knowledge, the next steps involve taking a series of **informed decisions** about your ADO's priorities. For example, ADOs need to determine which sports and/or sport disciplines should be tested more than others, which athletes should be targeted, what type of testing should be conducted, and what type of samples should be collected. All ADOs have limited resources and need to make decisions about where those resources should be focused.

In developing your TDP, it is important that you reflect on how to prioritize several aspects using the outcomes of your risk assessment. So, what do you need to prioritize?

Define your overall athlete pool: Who are "International-level athletes" and who are "National-level athletes"?

The first step is to **define your overall athlete pool**, that is which athletes are subject to an ADO's full anti-doping program (e.g., education, TUE requirements, testing, etc.). Some ADOs have a wide scope of jurisdiction. For example, a NADO may have jurisdiction over millions of athletes through athletes signing sports club membership agreements that bind them to the anti-doping program in the country even though they may only be participating at a recreational level club.

For that reason, the Code and the ISTI, allow NADOs to establish a definition of which athletes they would consider as "national-level athletes" and for IFs, which athletes they would consider as "international-level athletes". This helps IFs and NADOs focus their resources, and reduces overlapping and duplication of responsibilities, such as testing.

The **goal of an IF is to protect the integrity of their sport at the international level**. Therefore, IFs should focus their testing on international-level athletes; that is those who regularly compete at the international level. IFs are free to determine which criteria they use to define an athlete as "international-level", although the ISTI requires, as a minimum, the inclusion of those athletes who compete regularly at the international level or who, depending on the sport, compete at a level at which world records may be set. IFs may use criteria such as world rankings or participation in certain events – whatever suits their sports and disciplines best. Once the criteria have been decided upon, they must be published so that everyone, from athletes to other ADOs, knows where the line is drawn. The challenge for IFs is finding a definition that is neither too narrow nor too broad. If the IF chooses a definition that is too narrow it will be ignoring its responsibility to protect the integrity of its sport. If the IF chooses a definition that is too broad, it would be taking valuable resources away from testing genuine international-level athletes.

EXAMPLE

An IF organizes an annual "World Cup series" comprising several events that involve 200 athletes, for the most part considered the best in the world. If the IF were to define "international-level athletes" as only those athletes ranked in the top 25 in the world it would be too narrow a definition, while too broad a definition would be to include the top 500 athletes by ranking. What may be appropriate is a definition of "international-level athletes" that would ensure that the 200 'top athletes' are captured.

The **goal of a NADO is to protect the integrity of sport at the national level**. Therefore, NADOs would generally focus their testing on "national-level athletes" and above; that is, those who compete at the highest national level. NADOs are free to define "national-level athletes" and while the criteria used may vary from sport to sport, they must include at a minimum those athletes who compete at the highest levels of national competition in the relevant sports. This should probably include those who represent the country, either as individuals or as part of a national team, those who participate in national championships or other events where the best in the country is determined, or those who compete in a professional league in a domestic competition. NADOs also need to establish a definition that is neither too narrow nor too broad, but carefully considered with the results of its risk assessment.

CASE SCENARIO

NADO C has established the criteria (based on ISTI Article 4.3.2b) it will use to classify its athletes as "national-level athletes". These criteria include:

- athletes that receive funding from the government; and/or
- athletes that participate in National Championships or participate in selection events for National Championships; and/or
- athletes with potential to represent Country C internationally or become a member of a National Team.

NADO C uses those criteria to identify how many athletes this means for the following sport disciplines:

- Skating – Figure Skating: 35 athletes
- Skating – Short Track: 50 athletes
- Skating – Speed Skating 1500m or less: 75 athletes
- Skating – Speed Skating greater than 1500m: 75 athletes
- Skating – Synchronized Skating: 25 athletes

So, for the sport of skating, in total, NADO C has identified 260 athletes as "national-level athletes".

It is important to note that as a NADO, some of your top athletes may be defined as "international-level athletes" by the relevant IF. This does not prevent you from testing these athletes. Given they are a top athlete in your country, you should collaborate with the IF and conduct some testing. NADOs and IFs, together, need to ensure that top athletes are subject to proportionate levels of testing. In this context, collaboration between IFs and NADOs would avoid the following situation: top-level athletes that have not been properly tested because their NADO believed they were "international-level athletes", and so being tested by their IF, while the relevant IF considered them to be "national-level athletes" and so being tested by their NADO.

While NADOs should focus their testing resources on national-level athletes and above, they may decide to test athletes below the national-level. Such testing may be due to certain national policy requirements that apply to the NADO (for example, testing recreational athletes who use gyms as a way of combatting steroid use). While this is certainly acceptable and NADOs who do this should be commended, it cannot however, be at the expense of testing its national-level athletes (and above).

Which sports, sport disciplines, and nations should be prioritized?

Once an ADO has defined the pool of athletes it will focus its testing program on, the next step is to prioritize between the sports, sport disciplines, or nations it has testing authority over. The outcomes of the risk assessment are key here and allow ADOs to make objective decisions.

IFs need to prioritize between the various sports, sport disciplines, and nations under their jurisdiction. In your risk assessment you analyzed all sport disciplines and nations, and at the end you got total doping risk scores that rank all the sport disciplines and nations according to their overall doping risk; these are based on the quantitative factors you assessed. These scores are what you should use to prioritize between disciplines and nations under your jurisdiction; the higher the risk level, the higher number of tests you will need to allocate in the relevant discipline or on athletes from the relevant nation (on your own or in collaboration with the relevant NADO).

NADOs need to prioritize between the different sports and disciplines that they included in their risk assessment. The risk assessment has provided you with a total doping risk score based on your analysis of the quantitative risk factors. In turn these total risk scores were then used to classify the sports and disciplines by overall risk level, from "High" to "Low". These levels are what you should use to prioritize between the sports and disciplines under your jurisdiction; the higher the risk level, the more testing you will likely need to allocate to the relevant sport or discipline. If we go back to our risk assessment and want to determine if we should, as a starting point, allocate more testing resources to Speed Skating greater than 1500m or to Synchronized Skating:

Sport	Discipline	Physiological requirements & physical demands		Rewards/ Incentives	History of doping	Available Intelligence	Total Risk Score	Risk Level High (22 - 25) Medium high (18 -21) Medium (13 -17) Medium low (9 -12) Low (5 - 8)
		Cardiovascular Endurance	Power, Strength & Muscular Endurance					
		Score 1-5	Score 1-5	Score 1-5	Score 1-5	Score 1-5		
Skating	**Speed Skating greater than 1500m**	**5**	**3**	**5**	**4**	**4**	**21**	**Medium high**
Skating	**Synchronized Skating**	3	2	2	2	1	10	Medium low

As can be seen in the table above, and based on the quantitative assessment we conducted, Speed Skating greater than 1500m has a higher risk score than Synchronized Skating. While other factors may influence the final allocation of testing resources and certainly the types of samples to be conducted, this offers initial insight on the prioritization of different sport disciplines.

MEOs need to prioritize between the sports, sport disciplines, and nations featured at the major event in question. The risk assessment has provided you with a total doping risk score based on your analysis of the quantitative risk factors. These scores are what you should use to prioritize between disciplines and nations under your jurisdiction; the higher the risk level, the higher number of tests you will need to allocate in the relevant discipline or on athletes from the relevant nation.

Which athletes should be prioritized?

Once you have established your overall athlete pool, defined international-level or national-level athletes, and determined which sports, disciplines, or nations are of higher priority, you then need to prioritize between different athletes to ensure your testing program is focused on those athletes who are at a higher risk of doping.

There are many criteria you need to consider when deciding which athletes to prioritize when planning your testing program and developing your TDP.

IFs should, as a minimum, prioritize individual athletes or teams (especially from priority sport disciplines and nations) who perform at the very highest level, that is those who regularly compete for medals at Olympic or Paralympic Games, World Championships, World Cups and other major events (e.g., Commonwealth Games, Asian Games, African Games, etc.).

NADOs should, within their priority sports and sport disciplines, focus on athletes who are:

- part of national teams, or likely to be selected for national teams, in Olympic, Paralympic or other sports of high national priority. As further guidance, NADOs can consider the following:
  - participants in the last Olympic or Paralympic Games; and/or
  - athletes qualified or trying to qualify for the next Olympics or Paralympics; and/or
  - medallists in the last World Games and those qualified for the next one; and/or
  - medallists in the last Continental Games (e.g., Asian Games, African Games, European Games, etc.), Commonwealth Games, or continental championships; and/or
  - medallists in the last elite or junior events (e.g., World Championships).
- training independently but perform at major events (e.g., Olympic or Paralympic Games, World Championships or continental games) and/or who may be selected for them;
- in receipt of public funding;
- national-level athletes who reside, train or compete abroad;
- national-level athletes who are nationals of other countries but who are present (whether residing, training, competing or otherwise) within the NADO's country;
- international-level athletes (in close collaboration with IFs to ensure the best testing strategies); and
- elite junior athletes.

Both IFs and NADOs should also consider prioritizing the following athletes:

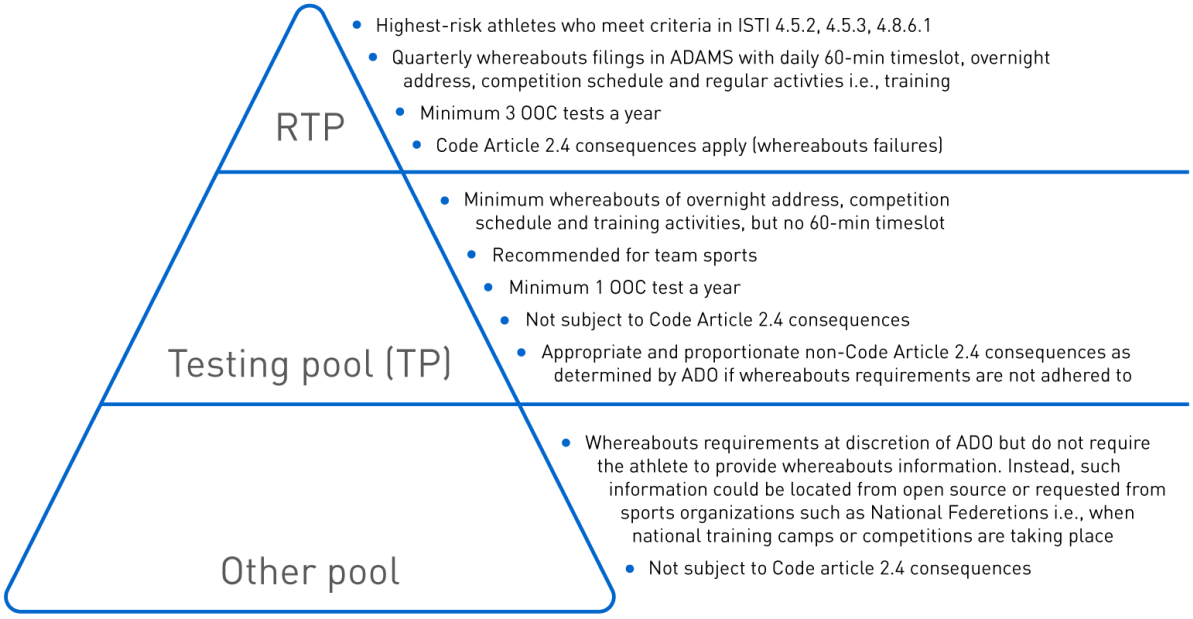
- Athletes currently serving a ban; and
- Athletes who were considered high priority before retiring, and who now wish to start competing again.

From those priority athletes, you need to also determine the whereabouts pool(s) to ensure that you can conduct out-of-competition testing at no-advance notice. Whereabouts information may be available from a variety of sources (e.g., specifically requested from athletes, provided by national federations, provided by teams, etc.) and all ADOs are free to use whatever whereabouts they may have to conduct testing on athletes.

The pyramid approach to whereabouts

ISTI Article 4.8.4 recommends that IFs and NADOs adopt a "pyramid" or "tiered" approach to whereabouts, with athletes put into different whereabouts pools which are each subject to different whereabouts requirements.

Whereabouts Pyramid



It is important to remember that any ADO who develops a RTP or TP (and any other whereabouts pool), has several administrative requirements to closely manage those pools which will play an important role in the success of any testing program. While these requirements are detailed in ISTI Article 4.8, additional guidance is provided in **ANNEX B – Whereabouts Pool(s) Administrative Process**.

Criteria for inclusion in whereabouts pools

Each ADO has the discretion to select which athlete goes into which type of whereabouts pool. However, you must have clear criteria for making these decisions, and these criteria must have been established following a proper assessment of the relevant risks (i.e., you will need to be able to demonstrate such an assessment to WADA if required). When deciding on the criteria for the inclusion of athletes in the various whereabouts pools, you will also need to consider your TDP and the number of tests you plan to conduct.

Athletes in the RTP must be tested at least three times out-of-competition per year, so for example an RTP of 100 athletes means at least 300 out-of-competition tests annually. In addition, you will need to add out-of-competition tests on athletes in the TP who must be tested out-of-competition at least once per year and the other whereabouts pool, where you may decide to conduct out-of-competition tests on athletes in lower risk sports.

While you might have an indication of how much out-of-competition testing you need to be doing and on which athletes, you need to consider how you will be able to conduct the tests. For example, do you have enough information to be able to test the highest-risk athletes when you want to test them, on any day of the week, at any time of the day between 6 a.m. and 11 p.m., and with no advance notice? Can you organize a test at short notice if necessary? It is very difficult to plan a successful test mission if you do not have the necessary information, hence the need to collect whereabouts information.

You will need to decide how much whereabouts information you need. For example, if an athlete is in your blood ABP program, you may have to organize follow-up tests at very short notice following APMU feedback. This may only be possible if you have a 60-minute timeslot from the athlete, which is only required for athletes in the RTP. On the other hand, for an athlete in a team sport who trains with his team 6 days a week in the same place, and who is not in the highest risk category, and not in the blood ABP program, the whereabouts required as part of the TP could be sufficient.

Once you have established criteria for including athletes in their different whereabouts pools, you must regularly review these criteria (for example every year) and update them as necessary to ensure they remain fit for purpose, i.e., that they are capturing all appropriate athletes. You will need to consider the competition or event calendar for the period in question – is there an Olympic and Paralympic Games approaching, or a World Championship in a particular sport? Are all the athletes who may be participating or trying to qualify in a whereabouts pool and being tested enough to ensure that the athletes and the national team that attends that major event are clean? If not, you will need to update the inclusion criteria, and consequently the athletes in the RTP or TP, to ensure that your testing program reflects the current risk.

a. RTP

When establishing the criteria you will use to put athletes into your RTP, you will first need to consider certain risk factors that are listed in ISTI Article 4.8.6.1. While it is not mandatory to add to the RTP all athletes who meet these criteria, the important point is that decisions are made based on a proper risk assessment.

The criteria that you need to consider (identified in ISTI Article 4.8.6.1) are athletes:

- who meet the criteria listed in ISTI Articles 4.5.2 and 4.5.3;
- whom you plan to test at least three times per year out-of-competition (either independently or in agreed coordination with other ADOs);
- that are part of your hematological module of the ABP program;
- included in a TP, who fail to comply with the applicable whereabouts requirements of that pool;
- for whom there is insufficient whereabouts information available for you from other sources to find them for testing;

- in a team sport who are not taking part in team activities for a period of time (e.g., during the off-season); and
- who are currently serving a period of ineligibility.

EXAMPLE

ADOs should consider including athletes currently serving a period of ineligibility in their RTP. If the ADRV was the results of an Adverse Analytical Finding (AAF), the ADO should consider adding athletes who tested positive for substances prohibited at all times (e.g., steroids) rather than substances that are only prohibited in-competition (e.g., cannabis). While athletes serving a period of ineligibility may not need to be included in a RTP for the duration of their sanction, it would be highly recommended to included them during the last year (i.e., the year before they return to competition/training).

b. TP

The assessment you do when establishing the criteria for putting athletes into the TP is essentially the same assessment as for the RTP. You need to consider the outcomes of your risk assessment, the criteria identified in ISTI Articles 4.5.2 and 4.5.3 as well as the following two additional criteria listed in ISTI Article 4.8.10.1, which are athletes:

- whom you plan to test at least once per year out-of-competition (either independently or in agreed coordination with other ADOs); and
- from team sports who regularly train and compete together.

For team sports, where athletes train with their team rather than on their own, you may decide that you have enough information to be able to test the athletes you want by including them in a TP, rather than in an RTP. Most teams, especially professional ones, train in the same place almost every day, and their sporting seasons often last most of the year. However, in periods where there are no team activities scheduled, such as during the off-season, you may decide you need more individualized whereabouts and can consider moving athletes to the RTP.

c. Other pool

The Other pool is designed for athletes who have been assessed as posing a lower risk of doping, especially out-of-competition or they could be athletes for which you have sufficient information to conduct out-of-competition at no-advance notice. You have the flexibility in deciding whether you need to have such a whereabouts pool, and if so, what criteria you have for including athletes in it. Unlike for the RTP and TP, there are no mandatory whereabouts requirements for athletes in this pool.

CASE SCENARIO

NADO C has established its criteria for including athletes in its RTP as:

- athletes from their 'High' and 'Medium High' risk sports and sport disciplines who are part of its senior men and women's national team (unless these sports are team sports and sufficient whereabouts information are available);
- athletes who are currently serving a period of ineligibility; and
- athletes included in their TP who fail to meet their whereabouts requirements.

They have determined that the following criteria would be used to assigned athletes to its TP:

- athletes from their 'medium' risk sports and sport disciplines who are part of its senior men and women's national team;
- athletes from team sports in their 'high' and 'medium high' risk sports and sport disciplines for whom sufficient whereabouts information is available to conduct out-of-competition testing; and
- athletes from their 'high' and 'medium high' risk sports and sport disciplines who are part of its junior men and women's national team.

Therefore, based on the outcomes of our risk assessment for skating, and the athletes previously identified as "national-level athletes", the following number of athletes will be assigned to the RTP and TP:

- (Medium risk) Skating – Figure Skating: 35 athletes
  - TP: There are currently 10 athletes on the national team and therefore would be included in the TP.
- (Medium risk) Skating – Short Track: 50 athletes
  - RTP: There are currently 2 athletes serving a sanction. Therefore, they would be included in the RTP.
  - TP: There are 20 athletes on the national team, therefore they are included in the TP.
- (Medium high risk) Skating – Speed Skating 1500m or less: 75 athletes
  - RTP: There are currently 2 athletes serving a sanction. Therefore, they would be included in the RTP.
  - RTP: There are 25 athletes on the national team, therefore they are included in the RTP.

- (Medium high risk) Skating – Speed Skating greater than 1500m: 75 athletes
  - RTP: There are 20 athletes on the national team, therefore they are included in the RTP.
- (Medium low risk) Skating – Synchronized Skating: 25 athletes
  - Given the criteria identified, no athlete is included in the RTP or TP. These athletes could be included in the 'Other' pool.

So, for the sport of skating, in total, NADO C has identified 260 athletes as "national-level athletes". Of those athletes, 49 are included in the RTP and 30 in the TP. NADO C therefore understands that they need to allocate at least 177 out-of-competition tests in their TDP for skating [(49 x 3 OOC) + (30 x 1 OOC)] or collaborate with the IF to ensure the minimum number of tests are planned for these athletes (i.e., 3 OOC test for each RTP athlete and 1 OOC test for each TP athlete).

How types of testing should be prioritized (out-of-competition vs. in-competition)?

You now have a clear idea of the sports, sport disciplines, nations and athletes that should be prioritized within your testing program. What's next? You now need to determine how you will allocate out-of-competition and in-competition testing using the outcomes of your risk assessment!

For example, in your risk assessment you identified the prohibited substances (or methods) likely to be used in each sport or sport discipline. You also determined at what points in the sporting season they could be used (i.e., which period of the year or season could be deemed a higher risk for athlete to dope). All testing programs need a mix of in-competition and out-of-competition testing, but for sports and disciplines where the risk is higher there should be a majority of out-of-competition testing.

a. Allocating out-of-competition testing in your TDP

The ability for an ADO to conduct a test on an athlete at any time outside of an event means that out-of-competition testing is that it can be used to target certain risk factors and periods in the athletes' training cycles. Most of the risk factors discussed previously – athletes preparing for an important competition or event, rehabilitating after injury or between competitions during a long season, suspicious whereabouts patterns, etc. – can only be properly addressed by testing out-of-competition. Being able to test at any time is particularly important if you have identified risks that involve intermittent use of doping substances, micro-dosing or other doping behavior where detection windows are small.

The key with out-of-competition testing is to ensure it is unpredictable. From your risk assessment you will know the prohibited substances that athletes in each sport or sport discipline are more likely to take, as well as the times during the sporting season when they are more likely to take them. Combined with the discipline's calendar of events, this can influence your test planning to address risks associated with pre-competition periods, recovery from injury, etc.

Let's look at our risk assessment.

Sport	Discipline	Prohibited substances and/or methods	Statistics/ Research on doping trends	Outcomes of previous TDP cycles	Sport/discipline career patterns	Seasonal patterns
Basketball	Basketball	Stimulants, steroids	Studies demonstrated that stimulants are used before games and **steroids to recover from injury and during the off season**. Recent stats demonstrate ADRVs in-competition for stimulants.	Testing allocation was higher in-competition and 3 ADRVs for stimulants. Continue in-competition testing but must increase out-of-competition testing.	A few athletes on national team are getting older. Pay attention to up and coming athletes.	Long season from May to November; with many games. **Off season:December to April.**
Basketball	Wheelchair Basketball	Stimulants, steroids	Studies demonstrated that stimulants are used before games and **steroids to recover from injury and during the off season**.	**Testing allocation was similar in-competition and out-of-competition but all out-of-competitition tests took place in the summer last year. Ensure out-of-competition during winter months.**	National team includes fairly new players at the prime of their careers.	No leagues. Main competitions are national championships (August) and International competitions (October and November)

Based on the assessment conducted, the information in red would guide the allocation of out-of-competition testing in your TDP. Specifically:

- **Basketball:** It was identified that steroids could be abused during the off-season to help with recovery and build muscle mass. The off season is identified as being from December to April. Based on this information, you need to ensure that an adequate number of out-of-competition tests are allocated between December and April.
- **Wheelchair Basketball:** Using the outcomes of your previous TDP, you noted that all out-of-competition tests took place during summer months. This year, to ensure your TDP remains unpredictable, and further to the note you made regarding the possible use of steroids during the off season (mostly winter months), you need to ensure that some out-of-competition tests are allocated during those winter months.

b. Allocating in-competition testing in your TDP

The aim of in-competition testing is to protect the integrity of the events and competitions, by providing a level of deterrence to discourage those who may be tempted to dope and detecting those athletes that do. For each sport and discipline, you will have an annual or seasonal calendar of events and competitions. Your risk assessment will also have identified the key events in the competition season, especially in those sports where the whole season revolves around only a small number of them.

There are some prohibited substances that are only prohibited in-competition – stimulants, narcotics, cannabinoids and glucocorticoids. If your risk assessment has identified these as being likely to be used in a particular sport or discipline, this should influence your testing plans.

2021 Code, In-Competition definition: The period commencing at 11:59 p.m. on the day before a Competition in which the Athlete is scheduled to participate through the end of such Competition and the Sample collection process related to such Competition. Provided, however, WADA may approve, for a particular sport, an alternative definition if an International Federation provides a compelling justification that a different definition is necessary for its sport; upon such approval by WADA, the alternative definition shall be followed by all Major Event Organizations for that particular sport.

While concentrating the majority of your in-competition testing on events in sports and disciplines you have assessed as being high risk or where the risk of doping in-competition is higher, you also need to conduct testing at a variety of events and competitions, throughout the year or season, and at different levels of the sport or discipline (e.g., elite, junior, etc.) to maintain an effective deterrent. For example, based on the event calendar, you decide to conduct testing at the events and competitions where your high-priority athletes regularly compete, such as national championships, Olympic qualifying tournaments, professional domestic league matches. But you also add in some junior events, some events in lower-risk sports and disciplines, and some smaller events in the high-risk disciplines.

ADAMS

If you are establishing a policy for selecting the events or competitions where you will plan testing, this policy must always be based on the outcomes of your risk assessment and should be flexible. For example, you should vary where you test from year to year to avoid becoming predictable. It is important that this selection policy is not published anywhere to ensure testing is conducted at no-advance notice and remains as unpredictable as possible.

How types of samples should be prioritized?

There are different types of samples to consider in your planning and as you develop your TDP: urine, blood and ABP blood samples. Not all tests necessarily have the same objective, and the "right" test needs to be planned (and then implemented) for the "right" time to maximize the probability of detection and to address the relevant risks effectively.

a. Urine

Most prohibited substances can be detected in urine, including ERAs and GHRFs. Urine samples are also the basis for the steroidal module of the ABP. Urine samples are the easiest samples to collect, as, unlike venous blood samples, you do not need a certified phlebotomist who has the relevant qualifications and practical skills required to perform venipuncture, and the transport requirements to the laboratory are less complex than for venous blood. All doping controls should include a urine sample unless you have a specific reason not to collect urine when collecting either a venous blood sample or DBS sample.

b. Venous blood

Certain prohibited substances and methods are only detectable via venous blood, whether whole blood, plasma, or serum. In general, blood is the only matrix in which growth hormone (GH), blood transfusions, certain types of ERA like Continuous Erythropoiesis Receptor Activators (CERA), and Hemoglobin Based Oxygen Carriers (HBOCs) can be detected. Based on your risk assessment you may have indicated substances or methods that some athlete groups (in some sports or sport disciplines) might be more likely

to use and are only detectable in blood. The TDSSA may also recommend a certain level of blood samples be collected for the detection of GH. If that's the case, it is important that blood samples be allocated in your TDP.

All analysis methods might not be available at all laboratories. Consult ADAMS or the TDSSA Supporting Document A (Tables 1 and 2) to see which analysis methods and preferred matrices are available at which WADA-accredited laboratory.

c. Venous blood for the hematological module of the ABP

The hematological module of the ABP requires a specific type of venous blood sample that must meet the requirements set out in ISTI Annex I. These relate to the sample collection conditions, transport and analysis. If you have athletes from endurance sports or sport disciplines in your RTP (that is those that have a minimum level of analysis (MLA) for ERAs of 30% or greater according to the TDSSA), you must implement the hematological module of the ABP program and include those athletes. For every athlete you have included in your hematological module of the ABP program, you must plan to collect at least three ABP samples throughout the year. This needs to be reflected accordingly in your TDP. While not mandatory, it is strongly recommended that RTP athletes from sports and sport disciplines with an ERAs MLA of 15% are also included in your hematological module of the ABP program.

d. Capillary blood (DBS)

The current scope of DBS testing covers the detection of Non-Threshold Substances with no Minimum Reporting Levels (MRL) only. Since it is currently not mandatory for all WADA-accredited laboratories to conduct analysis of DBS samples, it is important to contact the relevant laboratory to discuss the availability of analyses in advance of incorporating DBS into your TDP.

CHAPTER 4:

Finalizing your TDP and documenting it

You have now completed your prioritization exercise and have a good idea of the decisions that should guide your testing program. You now need to use those decisions and document your TDP.

The goal of your TDP is to have an effective, efficient and proportionate testing plan that is documented and that addresses the doping risks you have identified (e.g., risks associated to sports, sport disciplines, countries, events, etc.).

To meet these goals, you need to use the outcomes of your risk assessment and the outcomes of your prioritization exercise to determine:

- the total number of tests you will conduct;
- how many you will assign to each sport and sport discipline;
- how many will be assigned to out-of-competition and in-competition;
- how many of each type of samples you will collect (urine, venous blood, hematological module of the ABP, DBS, etc.); and
- how you will allocate tests/samples throughout the year.

To assist you in determining in the total number of tests to allocate in your TDP, there are a few factors to keep in mind:

- the number of athletes in your overall athlete pool (and in specific whereabouts pools);
- the doping risk in each sport and sport discipline, for each country (as relevant) and for each event; and

- your resources, both financial and human.

The total number of tests you conduct must be proportionate to the risk of the sport and the overall number of athletes you must test. The higher-risk disciplines will be tested proportionately more than the lower-risk ones (i.e., number of samples per athlete). However, the total number of tests per sport or discipline will generally be a factor of the total number of athletes; team sports in particular tend to have large numbers of athletes, so may have more tests assigned to them than individual sports, even if they are lower risk.

CASE SCENARIO

You are an IF that has a pool of 500 athletes in a high-risk sport, and 100 of those athletes are in your RTP and you have allocated 75 out-of-competition (OOC) tests. This is clearly not enough as the minimum for those 100 athletes alone is at least 300 tests (i.e., 3 OOC x 100 athletes).

On the other hand, quantity alone does not guarantee effective testing: a program that is based on risk, intelligently targets its testing, and collaborates well with other ADOs and laboratories will be more effective than one that just aims to randomly test a large number of athletes.

To determine when you will conduct tests, you need to look at the calendar of events and competitions for each sport and sport discipline. This will of course allow you to plan your in-competition testing schedule and will also enable you to identify the timeframes of when to conduct out-of-competition tests.

Your risk assessment will also give you guidance on seasonal doping risks in each sport and sport discipline, as well as feedback on previous years' TDP outcomes and other relevant intelligence. It should be noted that even if your risk assessment indicates that certain times of the year are higher risk than others, you still need to ensure that athletes are tested over the whole course of a year.

It is also recommended that you consider including in your TDP a pool of tests (or budget) as contingency, i.e., tests that are not allocated to a specific sport or sport discipline. You can use these tests (or the allocated budget) from this 'contingency pool' when, for example:

- you receive additional information on doping practices in a specific sport discipline, on a specific group of athletes or on a given athlete during the year and you have already allocated your resources in other sport disciplines; and/or
- there are many unsuccessful attempts to locate RTP/TP athletes and you need to conduct additional tests; and/or
- you receive recommendations from your APMU to collect additional samples on certain athletes or to conduct specific analyses on samples that have already been collected.

ADAMS

ADAMS NextGen offers a TDP tool where you can upload your TDP at the start of the year/cycle. When you do so, you can monitor test numbers in real time over the course of the year as the laboratory results for samples analyzed will be automatically updated for the relevant sport and discipline in your TDP.

Let's not forget the TDSSA requirements!

The TDSSA is intended to ensure that certain prohibited substances which are not part of laboratories' standard routine urine analysis – Erythropoietin receptor agonists (ERAs), Growth Hormone (GH), and Growth Hormone Releasing Factors (GHRFs) – are still regularly analyzed for, especially in those sports and sport disciplines where there is a higher risk that those substances will be abused.

As such, the TDSSA requires you to conduct specific extra analysis for ERAs and GHRFs. The TDSSA also makes recommendations on analysis for GH. For each prohibited substance within the scope of the TDSSA, a minimum level of analysis (MLA) is specified for each sport or sport discipline, expressed as a percentage of the total number of tests conducted. Each MLA is based on a physiological risk assessment of that sport or sport discipline. The full MLA list for each sport or sport discipline is provided in Appendices 1 and 2 of the TDSSA.

When planning your annual TDP you need to consider the TDSSA MLAs for each sport and sport discipline to ensure you are analyzing at least the minimum number of samples required. The TDSSA document provides detailed explanations and examples regarding how the MLAs must be applied based on the total number of tests you have assigned for each sport and sport discipline (see Article 5.2 of the TDSSA).

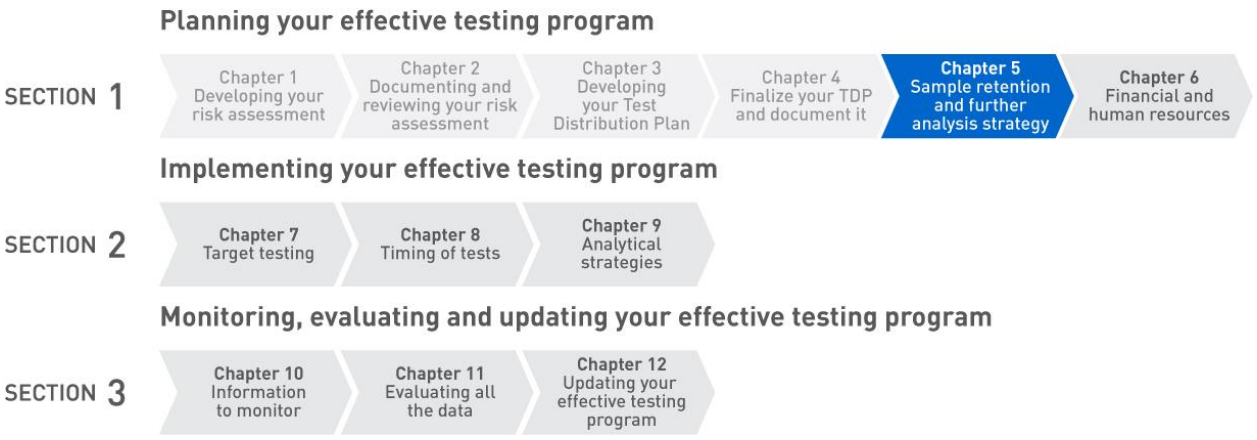
It is important to note that the MLAs apply to testing conducted by all ADOs on international-level and national-level athletes, as defined by each ADO. If you collect samples from recreational-level or other athletes, you can have them analyzed for TDSSA substances, but these analyses will not be considered when WADA is monitoring your compliance and determining whether you have met the applicable MLAs

ADAMS

ADAMS NextGen offers a TDSSA monitoring tool where you can review your TDSSA data in real time over the course of the year, identify any shortfalls and adjust your testing program accordingly.

CHAPTER 5:

Sample retention and further analysis strategy



The statute of limitations period for charging an athlete with an ADRV is ten years. Code Article 6.6 allows a sample that has been analyzed by a laboratory and reported as negative to be stored and analyzed further at a later date. Over time, scientific developments regularly lead to new ways of detecting prohibited substances and analytical methods become more sensitive. So, a sample that is reported as negative when first analyzed and which is then stored may following further analysis with improved detection capabilities result in a positive finding years later. Sample retention and further analysis is therefore an effective strategy available to you. For example, samples collected at recent Olympic Games have led to numerous new ADRVs, with athletes caught doping retrospectively being banned years after the event, and in many cases clean athletes rightfully being awarded medals.

Sample retention criteria

When developing a strategy for long-term sample storage, you need to establish criteria for deciding which samples you retain, and you also need to consider the logistical aspects of storage. Your sample retention strategy is aimed at guiding you identify for example, how many samples you want to store based on several criteria, where those samples will be stored, the costs involved, etc.

You must have clear criteria for deciding which samples you keep for long-term storage and potential further analysis. At a minimum you must consider the following criteria:

a) **Laboratory and APMU recommendations**: many of these criteria require you to have regular discussions with the laboratories that analyze the samples you collect. These discussions may be about the analysis results for individual samples, or about new developments in detection methods for certain prohibited substances or methods. For example:

- some samples may be deemed suspicious by the laboratory or APMU without having been identified as 'adverse' or 'atypical'. They may therefore recommend retaining the sample so it can be analyzed further in the future;
- the possible need for retroactive analysis in connection with the ABP program. The laboratory or APMU may recommend keeping some urine samples from athletes included in the blood APB in case an analysis that was not previously conducted needs to be done (i.e., sample was not originally analyzed for ERAs);
- new detection methods to be introduced in the future: laboratories will be able to tell you what new detection methods are being developed. You will then have to work out how these developments may be relevant to athletes, sports or disciplines under your testing authority. For example, if you were told that a new, more sensitive, detection method for certain anabolic steroids would soon be available, once the samples have been analyzed, you may decide to store samples from certain high-risk athletes in sports that would benefit from anabolic steroids; and
- some samples may be useful for reference DNA analysis and therefore the laboratory or APMU may recommend keeping certain samples.

b) **Samples collected from high-performing athletes**: although you may not have any specific intelligence, you should consider keeping samples from athletes:

- from your higher-risk sports, sport disciplines, or nations and who perform well at the highest level of competition (e.g., medal winners or top finishers at World Championships or other major events, or top national-level athletes); and/or
- at key stages in their career (e.g., top-performing junior athletes about to enter the elite category).

c) **Samples from high-risk athletes**: consider keeping samples from athletes who meet some or all the "high risk" criteria set out in ISTI Article 4.5, especially if you have received specific intelligence on the matter.

d) Any **other information** made available to you that justifies long-term storage or further analysis of samples. This could include, for example, specific intelligence about certain athletes, or the outcomes of your risk assessment.

Logistics

When developing a long-term sample storage policy, there are other, logistical, factors that you also need to consider. For example, ask yourself the questions outlined below.

Where will I store my samples? You need to determine where your samples will be stored which could be at the laboratories that conducted the original analysis or at another laboratory or storage facility

(provided that the requirements for long term storage, as outlined in the International Standard for Laboratories [ISL] are followed).

How will the samples be transported to the long-term storage facility? If the samples will not be stored at the laboratory where they were initially analyzed, they will have to be transported to the long-term storage facility. This requires some logistical planning and you will need to work closely with the laboratory and the long-term storage facility to determine: how often will you transport the samples (e.g., every 3 months just before the samples would otherwise be disposed of), how many samples at a time will be moved, what transport method will you use, what is the cost of transport, etc.

How many samples do you plan to store? Samples can be kept for up to 10 years, so the number of samples you retain each year needs to be calculated as part of your budgeting process to cover the costs for annual storage and potential further analysis.

How long do you plan to store samples for? The statute of limitations is 10 years, but storage costs or space limitations may force you to consider storing samples for a shorter period (e.g., for one or two Olympic or Paralympic cycles).

How will you maintain a record of all your samples in long-term storage? You will need to keep a record of all the samples you have in storage, what analysis was originally done on each sample, how long each sample has been in storage, the volume of each sample, and any further analysis that has been done since the original analysis. This information could be stored in a database or using a simple Excel spreadsheet.

How will you store the associated sample documentation? For all the samples you have in long-term storage, you will also need to store and maintain a record of all the associated documentation for each sample. This must be done securely and in compliance with the ISPPPI.

Once you have established a strategy for sample retention, you should discuss it with other ADOs that also have testing jurisdiction over your athletes and that may also be storing samples from the same athletes. This way you can coordinate which samples you store and ensure that, between you, you are not storing more samples than necessary.

Further analysis

When further analyzing samples that have been kept in long-term storage, you should bear in mind the directives in the ISL and ISPPPI:

- samples in long term storage will only be further analyzed for substances and methods that were prohibited at the time the sample was collected;
- the further analysis of samples will be performed under the ISL and Technical Documents that are in effect at the time the further analysis is performed; and
- samples can be stored for up to 10 years. At the end of this period, stored samples must either be discarded, or made anonymous and used for research (provided that the athlete has given their original consent which will be documented on the doping control form for that athlete's sample).

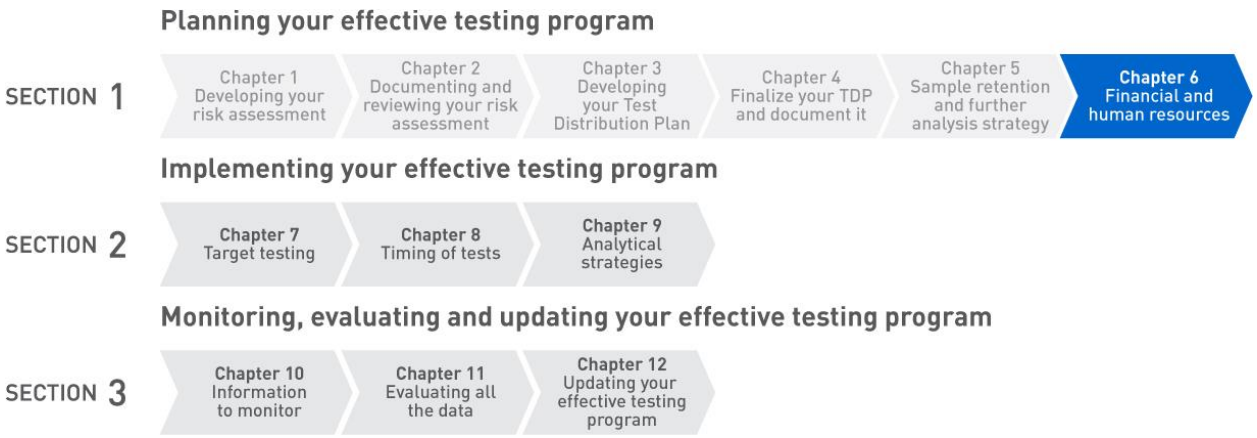
You should plan to regularly review the samples you hold in long-term storage to see which samples could potentially be analyzed further (e.g., every 1-2 years is a reasonable period). For further guidance on this, please consult Chapter 9 below.

ADAMS

The ISTI requires you to have a written strategy for the retention and further analysis of samples. WADA has developed a *Template: Policy for Sample Retention and Further Analysis Strategy* to help you meet this requirement. The strategy should be reviewed and updated as necessary each year, based on the outcomes of your risk assessment, your TDP, and the results of any further analysis that you have conducted.

CHAPTER 6:

Financial and human resources



Code Article 23.3 requires signatories to devote sufficient resources, both financial and human, to implement testing programs in all areas that are compliant with the Code and International Standards. Therefore, a lack of resources should not be an excuse for having an ineffective testing program. Regardless, all ADOs must work within limits, and should always look to make the most of the resources they have.

Establishing a testing budget

While there could be others, an ADO's testing budget needs to cover:

- sample collection personnel (e.g., salaries/compensation, expenses, travel, etc.);
- sample collection equipment;
- sample transport (e.g., courier services);
- sample analysis (including ensuring the TDSSA MLAs are met);
- long-term sample storage;
- staff (even if staff costs may come out of a different budget, an ADO needs to have enough staff dedicated to coordinate and implement a testing program); and
- APMU contract costs.

The testing budget should be linked to the outcomes of your risk assessment and TDP. If you have 2000 athletes under your testing jurisdiction, and your risk assessment and prioritization exercises have shown that you need to conduct 4000 tests per year, then a budget that only allows 1500 tests is insufficient. Likewise, if your risk assessment has shown that you have certain high-risk athletes who should be included in a RTP, but because of a lack of resources (whether a lack of financial resources for testing, or a lack of human resources for RTP administration) you have decided they cannot be included in your RTP, then you would not be fulfilling your responsibilities under the Code and the ISTI.

It is acknowledged that it can be difficult to obtain the budget you need. However, Code signatories have pledged to provide sufficient resources for their testing programs. If you can demonstrate a clear link between the outcomes of your risk assessment and prioritization exercises, the number of athletes in your overall testing pool, the number of tests you need to conduct, and the human resources needed to manage the testing program (planning tests, entering DCFs, whereabouts pools administration, liaising with laboratories, APMU, etc.), then you will have a stronger case to make when making a proposal for a budget that provides the resources you need.

EXAMPLE

While everyone has some level of resource limitations, sometimes compromises need to be made or efficiencies found. Below are some examples of where insufficient budget or lack of human resources can have an impact on testing programs:

- implementing a TDP that does not include any out-of-competition tests in the most high-risk sports identified in the risk assessment; and/or
- not testing at important national championships or Olympic qualification events; and/or
- predictable testing strategies based on repeating previous years' testing plans; and/or
- only conducting testing at training camps; and/or
- not testing for a number of months due to insufficient funds or delays obtaining funds; and/or
- not meeting the TDSSA MLAs; and/or
- not having a hematological module of the ABP program as required by the TDSSA; and/or
- not being able to organize the required number of testing missions; and/or
- not being able to test your high-risk athletes who train in another country; and/or
- other ADOs consistently reporting AAFs on athletes also under your jurisdiction, where you report none, due to insufficient testing; and/or
- athletes under your jurisdiction testing positive at major events because you didn't test them beforehand; and/or

- not gathering intelligence or responding to APMU recommendations in time; and/or
- receiving an information request or Corrective Action Report from WADA as part of its compliance monitoring program.

If you are faced with these challenges, it is time to consider a plan to obtain additional budget or additional human resources.

Optimizing resources

An important part of maximizing the effectiveness of your testing program, is to consider ways to optimize the resources you have. Making efficiencies in your daily activities could allow you to free up additional resources for more testing, additional analysis, or expanding your ABP program. The aim is to deliver the most effective testing program with the resources you have. As previously stated, collaboration with other ADOs is a cost-free way of increasing effectiveness, for example sharing costs in the testing of an athlete in an RTP and which both organizations have an interest in. Below are some suggestions that should be considered:

- Consider organizing combined testing missions with other ADOs in situations where athletes of varied nationalities may be training together, especially in remote locations where travel costs may be high. This way you can share the costs of sample collection personnel and courier services.

- Consider whether 'batching' your samples when sending them to the laboratory could save some costs (ensuring the chain of custody is maintained and that they are still sent within a few days of sample collection).

- Review laboratory analysis costs (available in ADAMS) and evaluate whether you could save money by using a different laboratory or re-negotiating with your existing laboratory. The closest laboratory to you may not be the cheapest, and sometimes, even with extra courier costs involved, you can make savings by switching to another laboratory that is farther away. Likewise, when considering the cost of long-term sample storage, it may be cost effective to use a facility that is not at the laboratory where your samples are usually analyzed.

- Carefully review the costs of different service providers to ensure you are getting the best value for the services you need. This includes courier services, sample collection agencies, laboratories, long-term sample storage facilities, etc.

- Consider establishing reciprocal testing agreements with other relevant ADOs. This means that you would test athletes on their behalf, while they would do the same for you. Conducting tests in this way could be less expensive for both parties, and easier to organize.

- Evaluate the costs of hiring some full-time DCOs who would be "on call" at all times, rather than using only part-time DCOs or private sample collection agencies. This could make your testing

program more effective and may also be less expensive than using private sample collection agencies.

- Consider the adoption of WADA's paperless doping control platform to save costs on the printing and shipping of paper forms. This could also lead to efficiencies in processing.

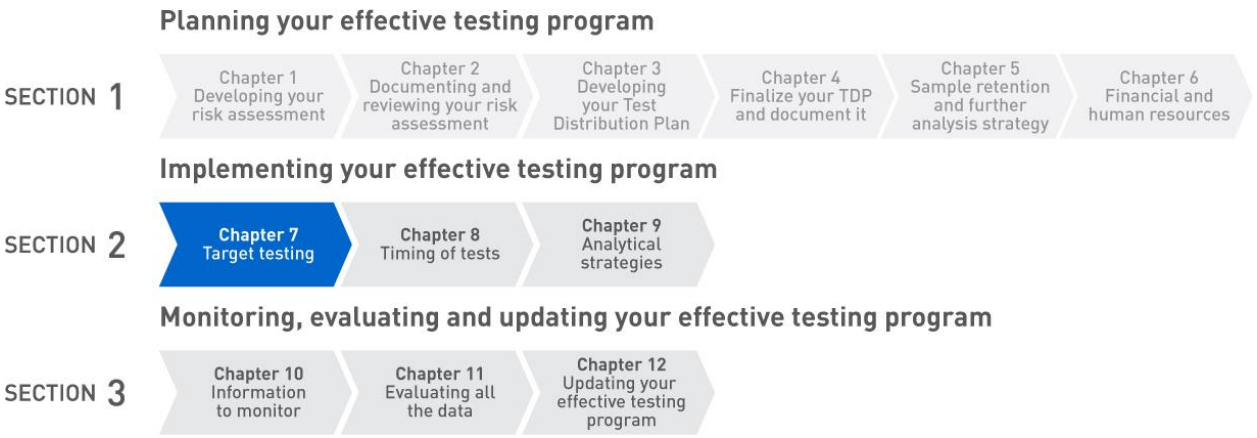
HELP! Use the following tool to help ensure your planning is complete: *Checklist: Planning an Effective Testing Program.*

SECTION 2:
IMPLEMENTING YOUR EFFECTIVE TESTING PROGRAM

Section One detailed the steps required in planning and preparing an effective testing program. Section Two is designed to assist you implement those plans. In this Section we will look at target testing, the timing of tests, and analytical strategies with the goal of maximizing the chances of detecting prohibited substances and methods.

CHAPTER 7:

Target testing



Using as much information as possible to determine which athlete should be tested when, is crucial to an effective testing program. Testing should be as targeted as possible, and when determining which athletes need to be tested when, you should consider the following information (based on ISTI Article 4.5.3):

- an athlete's test history, including whether they have any prior anti-doping rule violations, or any abnormal biological parameters (in particular, athletes who have a "suspicious" or "likely doping" ABP status); and/or
- an athlete's sport performance history, including any unusual performance patterns, or a history of high performance without having been regularly tested (you should establish a means to track athletes' sport performance and to highlight anything of interest, such as outstanding performances by junior athletes about to enter elite level); and/or
- repeated failure to comply with whereabouts requirements or suspicious whereabouts filing patterns (e.g., athletes who frequently have one or two current whereabouts failures, athletes who regularly update their whereabouts at the last minute, athletes who regularly make updates before the start of the 60-minute time slot, etc.); and/or
- moving to or training in a remote location (e.g., for a NADO this could mean either domestically or abroad); and/or
- withdrawal or absence from expected competition; and/or
- association with a third party (such as a team-mate, coach, doctor, or other athlete support personnel) with a history of involvement in doping; and/or
- injury (since frequent testing often isn't conducted on injured athletes, this period may be abused for doping, especially if the athlete has incentives to speed up their recovery); and/or

- age/stage of career (e.g., move from junior to senior level, nearing end of contract, approaching retirement); and/or
- reliable information from a third party, or intelligence gathered or shared with the ADO.

When you prepared your TDP (using the outcomes of your risk assessment), you identified the sports and sport disciplines that were high risk, and you prioritized a group of athletes who participate in those disciplines. You then decided whether some athletes should be included in your RTP or TP.

When it's time to decide, which athletes should be tested when, you can consider the information listed above. You also need to constantly monitor the information and adapt testing plans accordingly. This could involve changing the scheduling of a test in collaboration with another ADO, requesting specific extra analysis on an individual athlete's samples (for example, in some team sports, athletes with different playing positions may have different doping risks and be more likely to use different types of prohibited substance, so tests on teammates may not be the same), or planning several tests in short succession on an athlete based on specific laboratory or APMU recommendation(s).

Random selection options

Random selection is any means of selecting athletes for testing that is not target testing. Although target testing should always be the priority for ADOs, random selection testing can play a role, for example in creating deterrence strategies or helping to protect the integrity of an event. In some sports or disciplines where there has historically not been much testing, and so not enough intelligence exists to direct target testing, then random selection can be a means to build up testing data.

Random selection can be either weighted (where athletes are ranked using pre-determined criteria in order to increase or decrease the chances of selection) or completely random (where no pre-determined criteria are considered, and athletes are chosen arbitrarily from a list or pool of athlete names or numbers). Weighted random selection should be prioritized where possible.

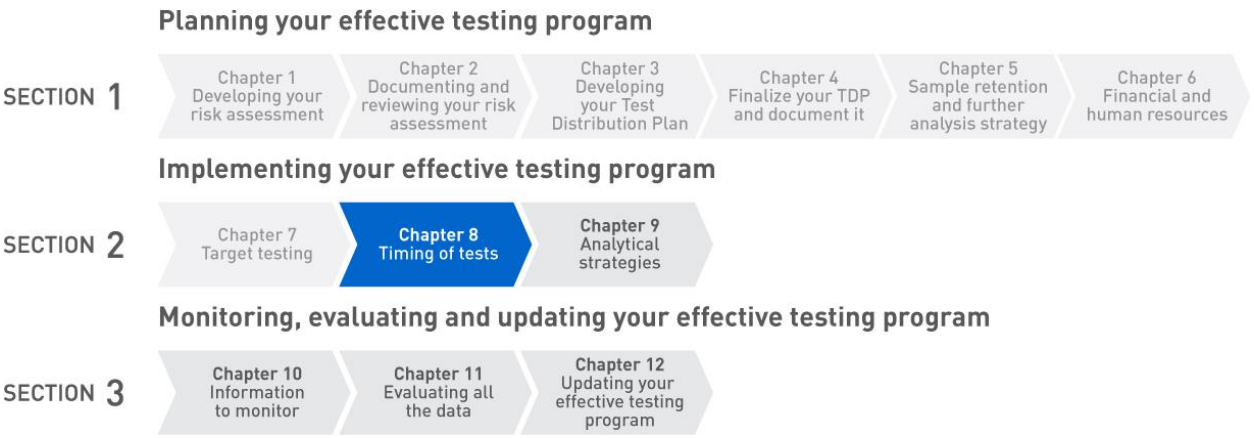
For weighted random selection, you use a set of pre-determined criteria to increase the chances of selecting athletes with a higher risk of doping. These criteria could be based on the factors listed in ISTI Article 4.5.3 or any other factors that are appropriate to the circumstances. For example, when using finishing positions as a basis for random selection, you ensure that at least one of the athletes selected finished in the top three positions or when conducting random selection testing in-competition for team sports (using shirt/jersey/vest numbers), you could consider ensuring that some of the athletes selected are some that have not tested as frequently.

Whether you use weighted random selection or completely random, the system you use must be documented. This must include the criteria you use for weighting.

Overall, target and weighted random selections should make up most of the tests conducted.

CHAPTER 8:

Timing of tests



The timing of when a test is conducted should include as much information, intelligence and data as possible and include a combination of key considerations, such as:

- unpredictability;
- competition schedules and upcoming major events;
- scientific inputs:
  - known administration and excretion patterns for a substance that an athlete is potentially using;
  - scientific direction of an APMU, Expert Panel or laboratory; and
- intelligence.

The effectiveness of the test should be the key factor in deciding on the timing. While you want to keep in mind the athlete's schedule and minimize any training interruptions for example, minimizing the inconvenience to an athlete (or team, or officials), must not negatively impact the effectiveness of the test.

Unpredictability

A testing program that becomes predictable to an athlete is when, from the athlete's experience they can work out when they are likely to be tested. If an athlete identifies a trend or pattern as to when they are tested, they can simply design a doping program around it. For example, if an athlete in a RTP is always tested in their 60-minute time slot or only tested within one month of their national championships or has

only ever been tested in-competition, this athlete can use this information to dope by taking a calculated risk.

An effective testing program is as unpredictable as possible to the athlete. Examples of implementing an unpredictable testing program include:

- testing in and outside of the athletes 60-minute time slot;
- testing at different times in the day, different days in the week and different months in a year;
- testing at different locations identified in an athlete's whereabouts (e.g., switching between a home address and training session);
- testing athletes abroad and not just in the country they reside in;
- testing athletes when they are injured;
- repeated testing over a short period of time;
- testing throughout the year and not just before a major event;
- not only testing athletes during training camps;
- not only testing winners of a competition; and
- not always testing at the same competitions each year.

Competition schedules

An athlete's competition schedule should provide great insight towards establishing when an athlete is trying to peak their training and performance towards a particular event. This could be a national championship, a qualifying event for a major event or a major event itself. Coupled with knowledge gained below regarding substance knowledge and scientific inputs to the testing program, the timing of a test should be the key ingredient to an effective testing strategy for an athlete. For example, steroids are more likely to be used in the months or weeks leading up to a competition rather than in the days beforehand.

Scientific inputs

There are many research papers and articles that detail the known administration and excretion patterns for doping substances abused by athletes, together with other scientific data on substances that may be used to mask these substances. If you have intelligence that a particular athlete is potentially using a particular substance, coupled with information above on their competition schedule and likely targeted event for peaking their performance, the timing of a test can be calculated accordingly. This information can also be combined with analytical strategies detailed in Chapter 9 below.

The input and guidance provided by APMUs, expert panels and laboratories through ADAMS is also invaluable in an effective testing program. You have access to expert input as part of your APMU and laboratory agreements which should be prioritised in implementing follow up target tests based upon

previous tests analysed and reviewed. In addition, if you share testing jurisdiction over an athlete with another ADO then you can discuss testing strategies.

ADAMS

Ensure that you have APMU notifications set up in your ADAMS account and prioritise information and guidance provided by your APMU and laboratory in your testing program.

Good communication with your APMU is critical to the effective operation of an ABP program. Likewise, you must follow up on the feedback you receive from the APMU after they review passports. For example, if the APMU requests that you need to collect a further sample in the next 5 days, and at the same time collect a urine sample to be analyzed for ERAs, then the relevant athlete needs to be tested (unless there is a good reason not to).

Laboratories also provide some feedback in ADAMS following their analysis. This may include information on sample degradation, alcohol content or any other unusual occurrence reported during their analysis. Patterns and trends can be established on athletes and follow up target tests should be arranged if suspicions are identified.

Intelligence

Intelligence received or gathered from your own testing program is vital in the timing of tests. Intelligence as determined by you as being credible could lead you to decide to test an athlete between the hours of 11pm and 5am. When deciding whether to conduct a test during these hours you should have intelligence or information that gives you reason to believe that an athlete may be using certain prohibited substances during this time period in particular those that have a short half-life in the body, such as GH, GHRFs, Insulin and ERAs. For example, there could be information provided to you by your APMU that suggests that several samples for a specific athlete seem suspicious. They mention that this athlete could be ingesting a prohibited substance late at night that is almost impossible to detect the next morning. They recommend this athlete be tested between 11pm and 5am.

TIP

You should ensure that clear instructions that accurately reflect your testing strategy are communicated clearly to the DCO who is going to attempt the test. The timing of tests is crucial, and you must make clear to your DCOs that tests should be conducted at the best time to detect

doping, rather than at the time that is most convenient for the DCO. You should also ensure that the DCO is given, or has access to, the most up-to-date whereabouts information provided by the athlete for the day(s) in which the test is planned. This means checking (or having the DCO check) as close to the beginning of the mission as possible whether the athlete has updated their whereabouts.

CHAPTER 9:

Analytical strategies

Laboratories conduct a standard in-competition or out-of-competition "routine" analysis on all urine samples received, with ADOs having the discretion to request additional analyses.

This discretion should be based initially upon the requirements of the TDSSA, the outcomes of your risk assessment and your TDP. You should maintain regular communications with the laboratories you use to help you make informed decisions about the additional analyses that may be appropriate for any given sample. The key to effective testing is being able to analyze samples for the right substance, using additional analysis when needed to ensure that you have a high chance of detecting doping.

Role of the TDSSA in implementing an effective testing program

While we have already mentioned the TDSSA in Section One when outlining how to plan and allocate the TDSSA MLAs in your TDP, it is very important to implement the TDSSA analysis on the right athletes and at the right time. For example, you may decide to allocate the additional analysis to a specific group of athletes in one testing mission or focus the analysis on one athlete over a period of time where multiple tests are collected.

Specific guidance in this area can be found in WADA's Testing Guide for ERAs, Testing Guide for GH and Testing Guide for GHRFs. Please contact tdssa@wada-ama.org to request these Testing Guides (which are only available to ADOs).

ADAMS

As mentioned earlier, you are encouraged to continue conducting GH testing, especially in the higher-risk sports and sport disciplines identified in the TDSSA, even though TDSSA GH MLAs are not mandatory at this stage. It is also strongly recommended that you request long-term storage for samples from athletes who may be high-risk for GH doping, so they can be analyzed for GH later when further technological advancements for GH analysis are available.

Role of the ABP in implementing an effective testing program

In addition to the hematological module of the ABP being mandatory when linked with the TDSSA as described in Chapter 3, the ABP provides valuable information that can be used to decide on target testing and it is very effective when used to complement other tests – for the hematological module, guiding tests for ERAs or homologous blood transfusion (HBT), and for the steroidal module, directing the use of GC/C/IRMS to detect endogenous steroids administered exogenously.

The ABP can also be used in investigations and to pursue an ADRV for use of a prohibited substance without having to rely on traditional analytical approaches.

The ABP consists of two separate modules – the hematological (venous blood) module, which is used to detect blood doping, and the steroidal module, which uses urine samples to detect abuse of anabolic steroids and other anabolic agents. All samples (urine and blood ABP) for which an ADO has entered a DCF in ADAMS are automatically included in the hematological and steroidal passports of the tested athletes – this underlines the importance of entering DCFs promptly into ADAMS as part of a compliant and effective testing program.

a) Hematological (venous blood) module

The hematological module of the ABP collects information on markers of blood doping and aims to identify the use of prohibited substances or methods for the enhancement of oxygen transport or delivery, including ERAs and any form of blood transfusion or manipulation.

As mentioned earlier, any athlete in your RTP and from a sport or sport discipline that has a TDSSA MLA of 30% or more for ERAs must be incorporated into your blood ABP program. You must then, at a minimum, plan an average of three blood ABP tests on all the athletes concerned over the course of the year, so if you have 30 such athletes you must plan 90 tests.

Strategies for an effective testing program include:

- RTP athletes with atypical or suspicious passports (as identified by the APMU), should have more than three blood ABP tests during the year;
- RTP athletes who are entering the ABP program for the first time (i.e., they have no previous blood ABP tests), you should plan to do at least three blood ABP tests within the first year in order to establish a baseline for their passport. You can then adjust the frequency of testing in consultation with your APMU; and
- athletes with normal passports over several years should have at least one blood ABP test per year.

IMPORTANT: Remember that reaction time is crucial! You must have the ability to rapidly plan additional tests according to APMU recommendations.

b) Steroidal module

The steroidal module collects information on markers of steroid doping to identify endogenous anabolic androgenic steroids (EAAS) that have been administered exogenously, as well as other anabolic agents such as selective androgen receptor modulators (SARMS). The steroidal module is also an effective means to identify samples which may have been tampered with or exchanged with the urine from another individual (impersonator or doppelganger).

Unlike for the blood module, there are no mandatory requirements in terms of a minimum number of tests that must be done on athletes for the steroidal module, however this module is also reviewed by your APMU and recommendations must be actioned.

Specifically, information gathered from using the steroidal module and provided by your APMU can:

- assist in determining when to initiate a confirmation procedure including IRMS analysis;
- inform which samples should be kept for long term storage; and
- identify samples suspicious of urine exchange, which can be confirmed by DNA analysis.

ADAMS

Ensure you are aware of who the passport custodian is – you or another ADO with jurisdiction over the athlete. Passport custodianship is identified in ADAMS under the athlete profile. This is important to know as the APMU recommendations are sent to the athlete's passport custodian. If you are the passport custodian, you need to follow-up on APMU recommendations and are responsible for any Results Management associated with a passport.

Other analysis

Laboratories can analyze for other prohibited substances and methods, such as Haemoglobin Based Oxygen Carriers (HBOCs), Homologous Blood Transfusion (HBT), steroid esters, insulins, etc. It is likely that an ADO would only request analysis for such substances or methods if they had specific intelligence (most likely from their APMU) concerning a high-risk athlete and following close communication with laboratory experts. Analysis for other prohibited substances and methods therefore should be part of a target testing strategy that is guided by intelligence.

TIP

The TDSSA FAQs (Supporting Document A), specifically Table 2, provides a full list of other types of analysis. ADOs are encouraged to contact their laboratory to request for their availability.

Sample retention and further analysis

In your planning, you developed and documented a sample retention and further analysis strategy. While it is important to keep samples for further analysis, it is also important to review the samples you have in storage and evaluate, on a regular basis, whether some samples could be further analyzed.

You should look at relevant factors for the athletes whose samples you have stored, including:

- the athletes current situation (what level are they performing at, have they retired?);
- any intelligence received about an individual or group of athletes;
- upcoming major events or important competitions they will participate in; and

- timelines for the statute of limitations (i.e., how much time do you have left to analyze the sample?).

TIP

No ADRV proceeding may be commenced against an athlete or other person unless they have been notified of the anti-doping rule violation as provided in Article 7 of the Code or notification has been reasonably attempted, within 10 years from the date the violation is asserted to have occurred.

In consultation with the relevant laboratories, you should look at what analysis was originally done on those samples, whether any have been analyzed further subsequently, the remaining volume of each sample, and evaluate the costs associated with further analysis, and consider:

- any analysis for specific substances or methods that were not analyzed for during the initial analysis;
- analysis using any new or updated detection methods;
- retroactive analysis in connection with the ABP program; and
- DNA comparison in sample switching or manipulation cases.

When you have completed the review you should decide, for each sample that you have in storage, whether to conduct further analysis, keep the sample in storage without doing any further analysis, or discard the sample.

There are no fixed requirements in terms of how many samples are analyzed further, or how often (although the recommendation would be to conduct an annual review), but you should consider the following points:

- Samples in long-term storage are frozen, and each time a sample is analyzed further, it has to be thawed before it can be analyzed. With each thaw, the sample degrades. Likewise, each time a sample is analyzed further, the volume decreases, which makes it harder to do further analysis.

- You should always have a reason to analyze further samples. You shouldn't analyze them further just because, for example, they have been stored for five years, or because a major event is approaching (although, as described above, that may be a reason to assess *whether* to analyze them further or not). Decisions to further analysis should be driven by intelligence – either specific intelligence about a certain athlete or sample, or if you know that a sample was not originally analyzed for a particular substance that is high risk for the athlete's sport, or there have been improvements in specific analytical methods, or the results of recent research on doping trends.

All WADA-accredited laboratories can detect prohibited substances in a standard urine sample to the minimum threshold limits. However, there are several laboratories that offer additional types of analysis for urine and blood samples and you should consider this when analyzing samples further. For additional

information regarding the status of laboratories' specific analysis methods, please consult Tables 1 and 2 of the TDSSA FAQs (Supporting Document A).

SECTION 3:
MONITORING, EVALUATING AND UPDATING YOUR EFFECTIVE TESTING PROGRAM

In Section Two we discussed the strategies associated with implementing an effective testing program. However, for a testing program to continue to be effective over time, there is a requirement to monitor, evaluate and update your TDP and testing strategies on an ongoing basis. This final Section will focus on these aspects.

A TDP is a dynamic document. Effective testing requires you to regularly monitor all sources of information that could have an impact on your risk assessment and testing program. When new information becomes available, you need to assess it and then respond appropriately.

ISTI Article 4.1.4 requires that you monitor, evaluate, and update your risk assessment and TDP "during the year or cycle". In practice, this means you should be reviewing them almost constantly, feeding back relevant information into your risk assessment and adapting your testing plans as required. Ultimately there are two questions you need to be answering:

- **Am I testing the right athletes at the right time for the right substances?**
- **What can I do to improve my TDP?**

CHAPTER 10:

Information to monitor

There are many metrics you can use to monitor your TDP, both overall and on a per athlete basis, that will help you answer these questions and ensure that your annual testing plan becomes part of a cycle of continuous improvement. Here we show you the sort of information you need to be monitoring, and when to do it.

After every test

After each test you need to review all the information that has been reported, including:

- **Unsuccessful attempt report**: if the test was unsuccessful you should immediately follow up on the report so you can understand the circumstances and decide whether another test attempt should be made and/or a different testing strategy applied.
- **Doping Control Form (DCF)**: when completing the DCF, athletes are required to declare any medications or supplements they may be taking. This information can be helpful to identify an athlete who may be injured for example. Other information that can be found in the DCF includes the names of coaches and doctors, which can be useful for tracking those previously implicated in doping. You can also review the athlete's address to ensure it is the same one the athlete provided in their whereabouts filings. You can also review whether this athlete has a history of providing dilute samples.
- **DCO report**: the information collected during a test that is in a DCO's report can also provide useful information. This may include:
    - athletes who only present themselves towards the end of their 60-minute time-slot; and/or

- athletes who rely on a telephone call at the end of their 60-minute time-slot (if the ADO includes this in their procedures); and/or
- the role of third parties in accessing the athlete i.e., is there always a delay in accessing the athlete; and/or
- a difficult coach or spouse/partner who prevents no advance notice to the athlete; and/or
- difficulties accessing the athlete at their chosen locations i.e., incomplete or inaccurate whereabouts information which requires the DCO to make unnecessary enquiries to locate the athlete.

TIP

DCOs and other sample collection personnel are your "eyes and ears" on the ground and can provide you with information about the sample collection session, the athlete's mood and behavior, who was in the athlete's entourage (e.g., athlete support personnel), and any other information that you could use to determine whether you need to organize follow-up testing. If you have your own sample collection personnel program, your DCOs should be trained in knowing what sort of information can be helpful to you, identifying suspicious behavior and how they can best record it.

- **Laboratory and APMU feedback:** once samples have been analyzed, you may get feedback from the laboratory or from your APMU. This feedback will often contain guidance on specific actions you need to take, such as further sample analysis or organizing follow-up tests. It may contain information that you need to incorporate into your risk assessment. The ABP program relies on the evaluation of data by experts in an APMU and their feedback to ADOs. Based on the relevant samples collected, the APMU will review the parameters, interpret the data in the context of the athlete's passport, and provide comments to the passport custodian. Further tests or analysis will then lead to more review, evaluation, and guidance on further actions. The ABP program is a feedback loop, with each step leading to more data being collected and then evaluation giving guidance on improvements to make. Laboratories also make comments regarding degradation of samples or other analytical comments in ADAMS (i.e., in ADAMS, see the tab entitled 'Analysis results' in the lab results section) which the ADO should review and follow up on. Key to this process is the ADO acting on the feedback they receive.

After every whereabouts submission deadline

ISTI Article 4.8.8.1 requires that you review athlete whereabouts submissions. Therefore, whenever you have a whereabouts submission deadline you should check that all athletes have provided their whereabouts by the deadline, and you should also check the contents, not only to ensure that all required information is filed, but also to note if any athletes have submitted unusual whereabouts (e.g., travel to a remote training location, frequent changes of overnight address, etc.). More generally, you should note any

patterns in an athlete's whereabouts, such as if they regularly travel to specific locations during specific periods in the year.

IMPORTANT: WADA, as part of its compliance monitoring program, will be reviewing whether IFs and NADOs are conducting such review.

After an athlete's whereabouts update

You should check and record how often an athlete may be changing their whereabouts and when they make updates (e.g., shortly before the start of their 60-minute time slot) to identify suspicious behavior. You should keep track of this information. You should also check whether updates will directly affect any tests you may have planned.

Whenever you receive information or intelligence

Intelligence and investigations are an important area that need to be monitored. Every time you receive information, you need to assess it and determine what action you need to take. This may be including it in your risk assessment, planning a target test, or launching an investigation. See the *Guidelines for Information Gathering and Intelligence Sharing* for additional information.

Periodic review of testing statistics

A review of testing statistics is part of effective monitoring. Therefore, consider asking the following questions:

- How many tests did I plan to conduct this month?
- How many have I actually conducted?
- Am I on track to do at least three out-of-competition tests on my RTP athletes this year and three blood ABP tests on those athletes in the RTP from sport disciplines with an ERA MLA over 30%?

Other statistics that you gather over the course of conducting tests need to be reviewed periodically to see whether there are trends and patterns that either reveal interesting information that can inform your testing plans or show you areas you need to improve. This may include:

- timing of tests: a report (e.g., the sample collection report) that tells you the time of day, day of the week, months of the year and frequency of when tests are conducted. Testing must be unpredictable, but if DCOs are given a certain amount of freedom as to when they conduct tests, it is likely they will choose times that are convenient for them, but also predictable to the athlete. Also, you should ensure athletes are tested on different days of the week;
- location of tests: again, it is predictable for an athlete if they are always tested in the same place;

- number of times a specific athlete was tested by the same DCO;
- any history of dilute samples or partial samples provided by a given athlete;
- number of times an RTP athlete could not be found outside of their designated 60-minute time slot, or at other designated locations for athletes in the TP or other whereabouts pool; and
- a pattern of laboratory comments on the samples of a particular athlete (e.g., degradation, dilution, absence of proteins).

ADAMS TDP and TDSSA monitoring tools

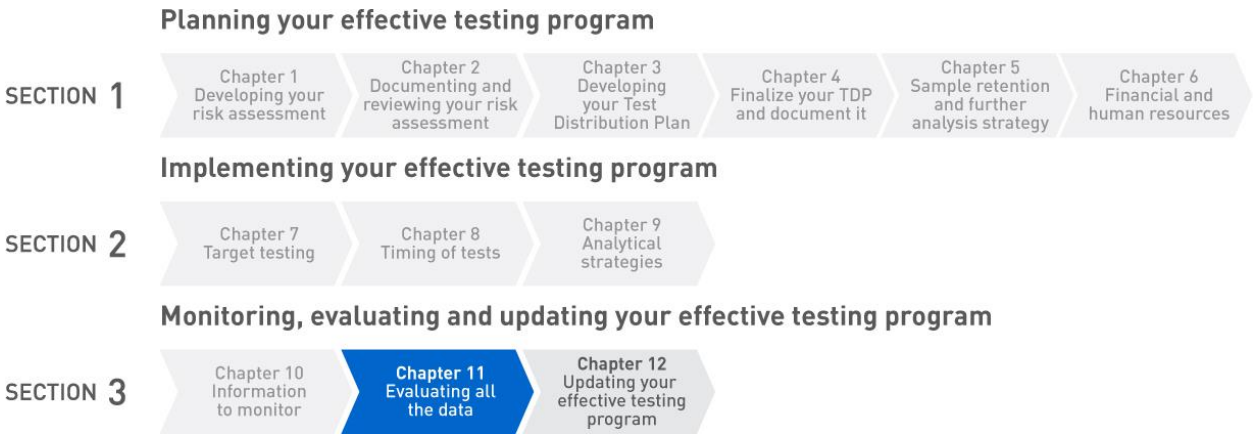
ADAMS Next Gen has two easily accessible and useful tools to help you monitor your testing – the TDP monitoring tool and the TDSSA monitoring tool.

The TDP monitoring tool provides you with a real time picture of the progress and status of your annual TDP, and so can alert you to an area that might require some attention. It can show you the number of each type of sample you have planned to collect, and the samples you have collected, for one month, several months, or a whole year. The data is broken down by sample type – urine, blood, blood ABP, and DBS – and by test type – in-competition or out-of-competition – and also shows the additional analyses for ERAs, GH, and GHRFs that you have either planned or completed. It is recommended to enter your initial TDP in the TDP tool in ADAMS Next Gen and subsequently be in the position to use the TDP monitoring tool to monitor real time progress.

The TDSSA monitoring tool helps you monitor your TDSSA MLAs. For each discipline it shows the number of tests you have conducted, the number of each type of sample you have collected, and then shows in simple graphic form the status of your TDSSA MLAs for each discipline. This way you can identify any shortfalls and adjust your testing program accordingly.

CHAPTER 11:

Evaluating all the data



To evaluate the effectiveness of your testing program, you should develop a system to review and assess all the data you monitor. You should meet with colleagues and experts regularly to review the reports to identify trends and adjust the TDP and testing strategies. Looking at all the monitoring activities above in isolation will not inform your evaluation, therefore you should present all your data and then analyze it to identify trends.

A key input into your evaluation should be tests that led to AAFs or that led to an ADRV via an investigation. To learn from these outcomes, you should always ask yourself:

- What happened at that specific test that led to the AAF?
- What was the timing of the test, time of the day, location of the test?
- Was this test conducted based on intelligence you had?
- Did you believe the athlete was doping in preparation for a major event?
- Did you include additional analysis on that sample?
- Did your APMU recommend the test?

Alternatively, if another ADO recorded an AAF on an athlete also under your testing jurisdiction, you could contact the ADO to evaluate their approach and build any effective strategies into your program. Or if the AAF literally came from no tangible inputs, look back at the timing of the test and use the monitoring activities listed above to see if trends can be identified retrospectively. These can then be applied when updating your testing strategy for a particular athlete or group of athletes.

IMPORTANT: ISTI Article 12.1 requires you to conduct investigations to learn more about the circumstances of several matters such as Atypical Findings, Atypical Passport Findings, Adverse Passport Findings, Adverse Analytical Findings, etc. A suggested way to learn more about the circumstances of an AAF is to interview the athletes concerned.

Reports

ADAMS can generate several extremely usual reports. The reports can be easily customized to your requirements and you can sort and filter the results by dozens of variables (e.g., sport, sport discipline, athlete nationality/sport nationality, country/region, test type, analysis, laboratory, dates, and ABP results). It is recommended that you save a few report templates which you run regularly to evaluate your program.

For example, to evaluate the unpredictability of your testing program, you can run a report and through your analysis you identify that over the last two years, all your tests in weightlifting are always conducted between April and September. While there could be a good reason for this, there should still be tests in the other months. Otherwise, those athletes notice quickly that they are only ever tested between April and September.

One key factor in obtaining accurate reports is ensuring that the information you are responsible for in ADAMS (e.g., athlete profiles) is up to date.

TIP

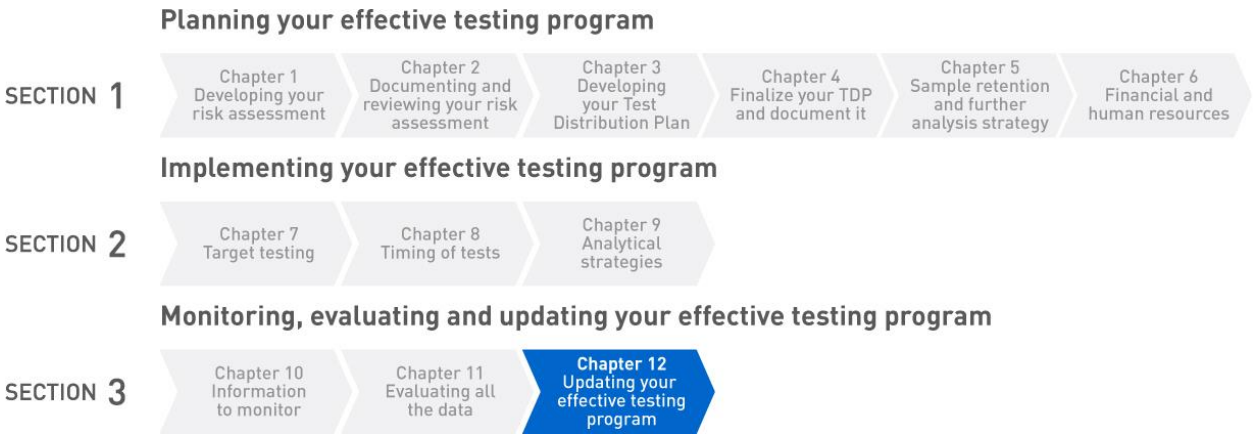
WADA's Reporting Guide to Monitor Testing was developed to assist ADOs with this monitoring. The Guide provides step-by-step instructions to: 1) generate the relevant reports in ADAMS; 2) cross check the data; and 3) take the necessary action to eliminate any data entry errors.

It is mandatory for ADOs to enter all DCFs into ADAMS within 21 days of the samples being collected. Entering DCFs into ADAMS is critical for the functioning of the ABP modules and enables other ADOs and WADA to access relevant doping control data. It is therefore vital that you have a process in place to comply with this requirement and monitor that you are doing so.

In order to evaluate some of your testing strategies, for example the target testing of a specific team or group of athletes, at some point in time you will need to assess whether the strategy has been effective or if it is time to focus on an alternative strategy or allocate resources elsewhere. You will only be able to do this by a thorough review of the strategies and the outcomes, using reports and the input of your experts.

CHAPTER 12:

Updating your effective testing program



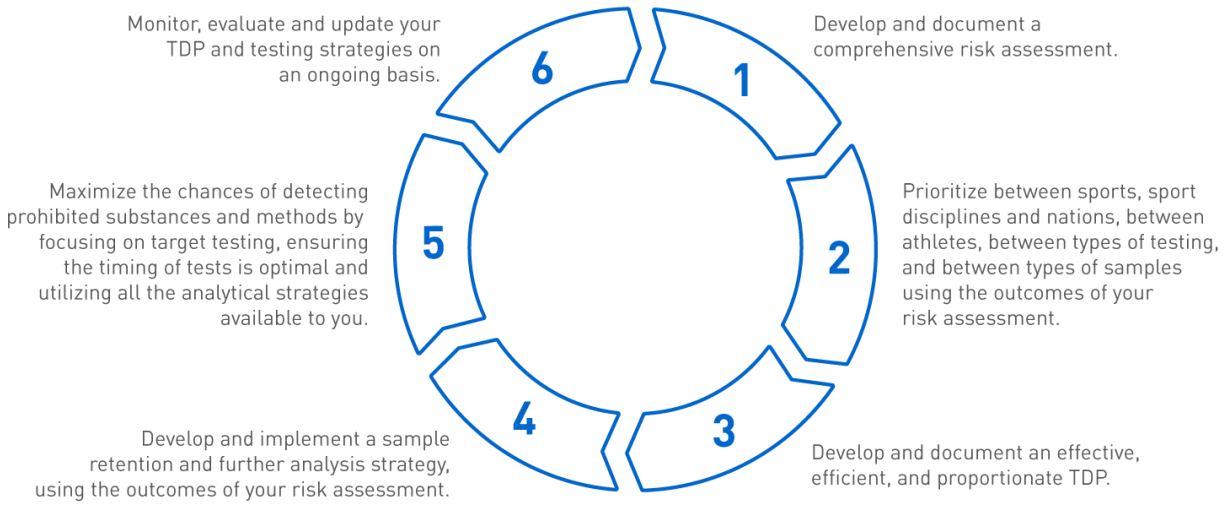
Once you have thoroughly evaluated all the data you possess and decided that updates are required, you need to feed these back into your risk assessment, TDP, RTP and ABP program. Again, this needs to be done in coordination with other priorities, which may include upcoming major events. The updates could include:

- updating your risk assessment, in particular the history of doping, intelligence received, stages of athletes' career, etc.;
- updating your TDP, allocating more tests to those sports and athletes from where you have discovered AAFs or received intelligence and reducing them in lower risk disciplines (and you can use the 'contingency pool' of tests mentioned in Chapter 4);
- increasing the test frequency on some athletes and reducing it on others;
- allocating additional urine and/or blood tests to certain sports and/or athletes based on APMU recommendations;
- focusing TDSSA analysis on a specific group of athletes;
- adding or removing athletes from your RTP (and other whereabouts pool) based on information/intelligence received; and
- adding or removing athletes from your blood ABP program.

You should afford some time to see if your testing strategies have been effective or not. Changing strategies after one test is not recommended. Also, once you make updates, you then need to repeat the cycle of monitoring and evaluating before making new updates.

Summary

In summary, whether you are developing a testing program for the first time or if you want to review and ensure your testing program meets the requirements of the ISTI and is as effective as possible, follow the following steps!



Where can I find help?

As we have mentioned in the introduction, while WADA is always here to help, we encourage you to also consult with other organizations, to collaborate and learn more about developing and implementing effective testing programs and to exchange ideas.

To assist you in getting started, the resources identified throughout these Guidelines are listed below. They can all be found on WADA's website here. Several more can also be found on ADEL.

- *Checklist: Risk Assessment*
- *Template: IF (and MEO) Risk Assessment and TDP*
- *Template: NADO Risk Assessment and TDP*
- *Template: Policy for Sample Retention and Further Analysis Strategy*
- *Template: RTP Inclusion Notice*
- *Template: RTP Inclusion Notice – Whereabouts to Other ADO*
- *Template: TP Inclusion Notice*
- *Template: RTP or TP Remove Notice*
- *Checklist: Planning an Effective Testing Program*

APPENDIX A:

Example of a completed risk assessment

Sport	Discipline	Physiological requirements & physical demands		Rewards/ Incentives	History of doping	Available Intelligence	Total Risk Score	Risk Level High (22 – 25) Medium high (18 – 21) Medium (13 – 17) Medium low (9 – 12) Low (5 – 8)	Comments on quantitative factors	Prohibited substances and/or methods	Statistics/ Research on doping trends	Outcomes of previous TDP cycles	Sport/discipline career patterns	Seasonal patterns
		Cardiovascular Endurance	Power, Strength & Muscular Endurance											
		Score 1-5	Score 1-5	Score 1-5	Score 1-5	Score 1-5								
Basketball	Basketball	3	3	5	3	3	17	Medium	Intel: Several DCOs have reported suspicious behaviors from athletes from one specific team (i.e., team name: Dark Coffees). This sport is very popular with women and men's teams very successful; lots of funding available.	Stimulants, steroids	Studies demonstrated that stimulants are used before games and steroids to recover from injury and during the off season. Recent stats demonstrate ADRVs in-competition for stimulants.	Testing allocation was higher in-competition and 3 ADRVs for stimulants. Continue in-competition testing but must increase out-of-competition testing.	A few athletes on national team are getting older. Pay attention to up and coming athletes.	Long season from May to November; with many games. Off season:December to April.
Basketball	Wheelchair Basketball	2	2	4	3	1	12	Medium low	Intel: No information received to date. Continues to grow in popularity and additional funding available. Good ranking internationally.	Stimulants, steroids	Studies demonstrated that stimulants are used before games and steroids to recover from injury and during the off season.	Testing allocation was similar in-competition and out-of-competition but all out-of-competition tests took place in the summer last year. Ensure out-of-competition during winter months.	National team includes fairly new players at the prime of their careers.	No leagues. Main competitions are national championships (August) and International competitions (October and November)
Skating	Figure Skating	3	3	5	2	1	14	Medium	Intel: No information received to date.	Diuretics	Studies found that athletes may use diuretics to keep their weight down.	No tests were conducted in the lead up to National Championships last year. Ensure some testing is conducted in Dec and Jan.	Top figure skaters close to retirement. Focus on new and upcoming athletes.	Season from October to March with main competitions in February/March.
Skating	Short Track	4	3	4	4	1	16	Medium	Intel: No information received to date.	Stimulants, steroids	Studies found that athletes may use stimulants before races and steroids to build muscle during the off sason and/or to recover from injury.	No tests were conducted in the off-season last year. Need to change that.	National team slipping in World ranking; pay attention to this.	Season from October to April with main national competition in January and main International competition in April.
Skating	Speed Skating 1500m or less	4	3	4	4	4	19	Medium high	Intel: Received information that team is training in remote location (i.e., location name: Green Forest) with potential suspicious activities.	Stimulants, steroids	Studies found that athletes may use stimulants before races and steroids to build muscle during the off sason and/or to recover from injury. Stats have shown an increase in ABP related ADRVs.	No junior athletes were tested last year but junior team is now winning major championships!	Many top athletes and many strong up and coming junior athletes.	Season from October to April with new major competition in February with higher prize money.
Skating	Speed Skating greater than 1500m	5	3	5	4	4	21	Medium high	Intel: Received information that team is training in remote location (i.e., location name: Green Forest) with potential suspicious activities.	EPO, steroids	Research demonstrated that EPO could help with building endurance and that steroid use could assist in muscle development and/or recovery from injury.	Many suspicious passport profiles. Consider increasing number of athletes in ABP program.	Many top athletes.	Season from October to April with new major competition in February with higher prize money.
Skating	Synchronized Skating	3	2	2	2	1	10	Medium low	Intel: No information received to date.	Diuretics	Studies found that athletes may use diuretics to keep their weight down.	Mainly in-competition testing.Consider some OOC in the summer.	National athletes at the prime of their career.	Season from October to March with no International competition this year. Only National Champs in February.

APPENDIX B:

Whereabouts pool(s) administrative process

Developing appropriate whereabouts pool(s) based on your risk assessment is key to the success of your testing program. While the ISTI (Article 4.8) outlines the administrative requirements needed, this Annex outlines key steps to follow to ensure you meet those requirements and manage your whereabouts pool(s) appropriately. Below you will find information on the administrative processes for: 1) Registered Testing Pool (RTP); 2) Testing Pool (TP); and 3) Other pool(s).

1. Registered Testing Pool (RTP) administrative process

There are many requirements associated to managing a RTP including an administrative process that has several mandatory requirements that ADOs have to follow. The administrative process for the RTP is detailed below.

Collaboration Reminder

Once you have decided on the inclusion criteria for your RTP, and have assessed which athletes meet those criteria, you will need to contact other ADOs that share testing jurisdiction over your athletes to assess the status of the athlete with the other ADO, including whose RTP the athlete should be included in. Athletes should only be in one RTP at a time and file one set of whereabouts information. For example, an athlete has been selected for inclusion in the IF's RTP and in the NADO's RTP. The NADO and the IF discuss in who's RTP this athlete should be included. As a starting point, consider the following: if this athlete is classified as an "international-level athlete", they could be in the IF's RTP. If so, then the NADO can decide to include another athlete from that sport or sport discipline in its RTP. Alternatively, if agreed that the athlete remains in the NADO's RTP then the IF can allocate resources to another country where the anti-doping program may be less developed. Another example could be if an athlete has dual nationality and has been included in the RTP of two different NADOs. Those two NADOs should agree between them which NADO will be the whereabouts custodian and will receive the athlete's whereabouts. In any case, the other NADO will be able to access the athlete's whereabouts in ADAMS. Including athletes in one RTP is clearer for the athlete and helps ensure that even more athletes are subject to an effective testing program by extending the reach of the RTP.

Notice of inclusion in RTP

Each athlete you have decided to include in your RTP needs to be notified, in writing, individually of their inclusion into your RTP, their responsibilities and consequences for failing to provide the necessary and timely information. To assist with this important task, WADA has developed the following templates: *Template: RTP Inclusion Notice* and *Template: RTP Inclusion Notice – Whereabouts to Other ADO*.

The notice of inclusion must inform the athlete:

- that they have been included in the RTP;
- the date their inclusion in the RTP starts;
- what whereabouts information they have to provide;
- when they have to provide it;
- what happens if they fail to provide the required whereabouts information on time; and
- that they may be tested by other ADOs with testing authority over them.

The notice of inclusion can be sent directly to the athlete or sent to them via a National Federation or National Olympic Committee. You should give athletes a reasonable amount of notice before the start of their inclusion in the RTP and when they must start submitting whereabouts information into ADAMS. It should be noted that athletes can be included in the RTP at any point during the year or during a quarter. If an athlete is included for an upcoming quarter, it should be noted that filing deadlines can now be brought forward to the 15th of the month preceding the start of a quarter – so, for example, for the start of the quarter beginning on 1st April, you can now ask for whereabouts to be provided by 15th March. By bringing the filing date forward by two weeks this enables you to start conducting tests from the very start of the quarter.

You also have an obligation to educate and inform athletes about the whereabouts system, and what they need to do to meet their obligations. This includes teaching athletes how the whereabouts system works, what whereabouts requirements apply to them and how they satisfy them (including guidance on how to make whereabouts submissions in ADAMS via the Athlete Central application), and the consequences of not meeting the requirements, including what filing failures and missed tests are, and their right to contest whereabouts failures that are asserted against them. WADA's ADEL platform contains relevant educational materials that can help you educate your RTP athletes.

ADAMS

RTP athletes must submit their whereabouts information in ADAMS. This ensures that the whereabouts information provided by athletes can be accessed by all ADOs with testing authority over the athletes to plan tests. It also means the information is stored safely and securely and is maintained in strict confidence at all times, is used exclusively for the purposes set out in Code Article 5.5 and is destroyed in accordance with the ISPPPI once it is no longer relevant.

Besides educating athletes when they are first included in your RTP, you should also aim to support athletes for as long as they are in your RTP by helping them to avoid filing failures. While ADAMS sends notifications to athletes you can consider sending additional reminders via email for example. A follow-up to those who have still not provided their whereabouts filing a couple of days before the deadline will probably prevent several filing failures over the course of a year and help ensure you have adequate information to conduct testing at no-advance notice. **Whereabouts filing requirements**

An athlete in your RTP must provide the following whereabouts information:

- A **complete mailing address and email address**. This is where correspondence may be sent to the athlete if they need to be formally notified of something. Any notice or other item mailed to that address will be deemed to have been received by the athlete seven days after it was deposited in the mail and immediately when notification of a sent e-mail receipt is generated/obtained (subject to applicable law). The athlete should therefore give an address where they live or where they know that mail received there will immediately be brought to their attention.
- For each day of the following quarter, **the full address of the place where the athlete will be staying overnight** (home, hotel, etc.).
- The **full address of each location where the athlete will train, work, or conduct any other regular activity, as well as the timing of that activity.** This requirement applies only to activities that are part of the athlete's *regular* routine. For example, if the athlete's regular routine includes training at the pool, regular physio sessions, as well as time studying at university, then the athlete should provide the name and address of the pool, physio and university lecture halls and library in their whereabouts filing, and then set out their usual routine, e.g., "Mondays: 6-9 pool, 10-16 lectures; Tuesdays: 6-9 pool, 10-15 lectures, 16-18 physio; Wednesdays: 6-9 pool, 10-15 lectures, 17-19 pool; Thursdays: 6-9 pool, 10-14 lectures, 15-17 physio; Fridays: 6-9 pool, 10-15 lectures; 17-19 pool; Saturdays: 7-10 pool, 13-15 physio; Sundays: 13-15 pool". If the athlete is not currently training, they should specify that in their whereabouts filing and then detail any other routine that they will be following in the forthcoming quarter, e.g., their rehab routine, and identify the name and address of each location where that routine is conducted and the timeframe it takes place in. For athletes who are in a team sport, their regular activities are likely to include most, if not all, of their team activities.
- Their **schedule of competitions or events** for the following quarter, including the name and address of each location where they will be competing (as well as the dates of the competition(s) if possible).
- For each day, **a specific 60-minute time slot between 5 a.m. and 11 p.m. when the athlete will be available for testing at a specific location (address to be provided)**. Athletes are free to choose their time slot and the location. It could be their home, school, training venue, competition venue, or a hotel, while athletes in a team sport may specify a time slot when they are taking part in a team activity. The important thing is that during the period in question they are present and can be found by a DCO with no advance notification to the athlete, and any failure to be accessible and available for testing at the specified location during the time slot shall be pursued as a missed test.

Athlete Responsibilities

It is the athlete's responsibility to ensure that they provide all of the whereabouts information required accurately and in sufficient detail to enable them to be located for testing at any time and location they have specified, both inside and outside the 60-minute time slot. In particular, the athlete must provide enough information to enable a DCO to find the location, to gain access to it, and then find the athlete without giving any advance notice to them. If an athlete does not know exactly where they will be on a given day, they should provide information based on their best knowledge at the time and then update it later when they know for sure.

Athletes must update their information as soon as possible after they become aware of the change in circumstances and can updated their 60-minute time slot up until the start of the 60-minute time slot specified in their filing for the relevant day. A failure to do so may be pursued as a filing failure and/or (depending on the circumstances) as evasion of sample collection under Code Article 2.3, or tampering or attempted tampering under Code Article 2.5.

You should provide as much help as you can to athletes to help them file whereabouts updates. While updates should all be done via ADAMS or Athlete Central, as an alternative, you may allow updates by phone, email, SMS, approved social networking sites or apps.

IMPORTANT: If the athlete chooses somewhere that requires a DCO to pass via a security guard, locked gate, hotel reception etc., then it is the athlete's responsibility to ensure the DCO can pass without any advance warning being given to the athlete. As such, the athlete should inform the hotel reception that a DCO may be coming to test them and that in such a case the DCO should immediately be directed to the athlete's room; or they should brief the security guard that anyone who identifies themselves as a DCO (and provide evidence) be immediately allowed to enter the restricted area. Teams that have security guards at the entrance to their training grounds must brief those guards appropriately on the possibility of DCOs wishing to gain access.

Reviewing whereabouts filings

A new inclusion in the ISTI (ISTI Article 4.8.8.1) is the obligation on ADOs to monitor athlete whereabouts submissions to ensure they are **provided on time** and **contain all the required information**. Good athlete education and timely reminders to athletes to provide complete whereabouts filings will help reduce the amount of time this takes ADOs. Reviewing whereabouts filings is extremely important to support an effective testing program. As such, if whereabouts information is not submitted on time or is incomplete, the ADO must consider whether a filing failure should be issued. Some examples of what may constitute a filing failure:

1. If an athlete has not filed their whereabouts information by the deadline.
2. If an athlete has not provided a complete mailing address and email address.
3. If an athlete has not provided the full address of the place where they will be staying overnight.
4. If an athlete has not provided the full address of each location where the athlete will train, work, or conduct any other regular activity, as well as the timing of that activity.
5. If an athlete has not provided their schedule of competitions or events, including the name and address of each location where they will be competing and the dates of the competition.
6. If the athlete has not provided a specific 60-minute time slot between 5 a.m. and 11 p.m. when they will be available for testing at a specific location.
7. If an athlete fails to update any of the above (specifically, #2 to #6) during the quarter.
8. If an athlete does not provide sufficient information to enable the DCO to find the location, to gain access to the location, and to find the athlete at the location with no advance notice.

More information on the process related to filing failures can be found in the Standard for Results Management and the Guidelines for Results Management.

Identifying RTP athletes in ADAMS

Once you have decided on the athletes who will be included in your RTP, and have properly notified them, you need to identify those athletes in ADAMS so that other ADOs that share testing jurisdiction can see it. The list needs to be updated when athletes are added to and removed from your RTP.

Reviewing RTP composition

You need to review the list of athletes in your RTP regularly to ensure that each athlete continues to meet the criteria for inclusion. Likewise, you need to see whether there are athletes not in the RTP who now meet the criteria. Athletes who no longer meet the criteria should be removed from the RTP and those who now meet the criteria should be added. It is important to note that athletes can be added to the RTP at any time during a quarter. Once you have updated the composition of your RTP, you must update the list of RTP athletes in ADAMS.

Notice of removal from your RTP

Once an athlete no longer meets the criteria for inclusion in your RTP, you should inform them in writing that they are no longer in the RTP and no longer have to provide RTP whereabouts. To do so, you can consider using WADA's template: *Template: RTP or TP Remove Notice.*

2. Testing Pool (TP) administrative process

Like the RTP, a TP also has an administrative process that ADOs must follow.

Collaboration with other ADOs

Once you have decided on the athletes that meet your criteria for inclusion in the TP, you need to contact other ADOs that share testing authority over those athletes to see if any have also included any of the athletes in their TP or RTP. If for example an athlete is in one whereabouts pool of their IF and another whereabouts pool for their NADO, the athlete must file their whereabouts and comply with whichever whereabouts pool has the greater whereabouts requirements. So, if an IF has put an athlete in their TP, while the NADO has included the athlete in their RTP, the athlete will remain in the NADO's RTP and file RTP whereabouts to the NADO. Given RTP athletes must file their whereabouts via ADAMS, the IF is able to access the whereabouts and plan tests accordingly in collaboration with the NADO.

As per the instructions for an RTP, it is strongly recommended for ADOs to coordinate whereabouts pool selection to avoid duplication, minimize unnecessary administrative work, and maximize use of resources. Rather than two ADOs including the same athlete in both their TPs, they should consider the athlete being in only one ADO's TP and the other ADO adding another athlete to theirs as this ensures a wider range of athletes can be tested out-of-competition.

Notice of inclusion in TP

Athletes included in a TP must also be individually notified in writing. The notification must inform the athlete:

- that they have been included in the TP;
- what whereabouts information they must provide, and when they have to provide it; and
- what happens if they fail to provide the required whereabouts information on time or if the athlete is unable to be located for testing based on the information provided.

Unlike RTP whereabouts, which must be filed quarterly, you have flexibility in deciding the schedule for TP whereabouts submission. You should base your decision on the athletes you have included in your TP and the sports and disciplines they practice. It is strongly recommended that filing is still done on a quarterly basis and then for team sports, filing a training schedule every two weeks or monthly may be more suited to their demands than a quarterly one.

There are responsibilities for athletes in a TP as well as consequences for athletes who fail to provide the required whereabouts on time or who are not able to be located for testing based on the information they provide. Such consequences must be included in your ADO's rules and procedures and must be appropriate and proportionate. It is important to note that consequences for athletes in a TP cannot be Code article 2.4 consequences (i.e., an athlete in a TP cannot get a filing failure or missed test that leads to three strikes in twelve months and a possible ADRV). However, the consequences need to be meaningful to ensure that whereabouts is filed accurately and on time and that if an athlete is not able to be located based on the whereabouts information provided without good reason then consequences should be applied. There is flexibility for each ADO to determine what such consequences are, but they are critical to ensuring your TP whereabouts and testing program is effective. Examples for not meeting the filing deadlines or a failure to be available for testing could lead to the following:

- elevating TP athletes to your RTP; and/or
- issuing a fine to the athlete/team; and/or
- potential loss of funding; and/or
- inability to be selected for a team.

To assist you with the notification requirement, WADA has developed the following template: *Template: TP Inclusion Notice*.

TP whereabouts information

As a minimum, an athlete in your TP must provide the following whereabouts information for the period in question:

- The **full address of the place where the athlete will be staying overnight** (home, hotel, etc.);
- Details of **regular training activities**. This must include the full address of each location where the athlete will train, as well as the timing of that activity. For team sport athletes, their regular training activities are likely to include most, if not all, of their team activities; and
- Their **schedule of competitions or events**, including the name and address of each location where they will be competing and the dates and times of the competition.

The ISTI is clear that the above is the minimum that must be provided by TP athletes. If you decide that you need further whereabouts information, you may request it. For example, if a team sport athlete is not participating in team activities because of rehabilitation after an injury, or during an off-season you may require them to provide more individualized whereabouts such as a daily 60-minute time slot so you can conduct testing. It is preferable that such requests for additional whereabouts information are only requested for a short period of time. If a daily 60-minute time slot is needed for longer periods, you should consider adding the athlete in your RTP.

Publishing your list of TP athletes

Once you have decided on the athletes who will be included in your TP, and have properly notified them, you should consider publishing the list of those athletes so that other ADOs that share testing jurisdiction can see it (e.g., using ADAMS or publishing on your website). While it is not mandatory to identify those athletes in ADAMS, it is strongly recommended. If you do publish a list, remember to update it when athletes are added to and removed from your TP.

Reviewing TP composition

You need to review the list of athletes in your TP regularly to ensure that each athlete meets the criteria for inclusion. Likewise, you need to see whether there are athletes not in the TP who now meet the criteria. Athletes who no longer meet the criteria should be removed from the TP and those who now meet the criteria should be added. It is important to note that athletes can be added to the TP at any time during a quarter. Once you have updated the composition of your TP, you must update the published list of TP athletes.

Notice of removal from TP

Once an athlete no longer meets the criteria for inclusion in your TP, you should inform them in writing that they are no longer in the TP and no longer must provide TP whereabouts. To do so, you can consider using WADA's template: *Template: RTP or TP Removal Notice*.

3. Other pool(s)

There is no specific administrative process linked to the other whereabouts pool(s) nor any fixed mandatory or minimum whereabouts requirements on athletes in an 'Other' whereabouts pool. You are therefore free to decide what you need based upon your risk assessment and TDP. A reasonable starting place might be an athlete's (or a group of athletes) training or competition schedule.

Whereabouts for this 'Other' pool should not be requested from athletes but be obtained from open sources or requested from National Federations or other organizations to whom the athlete(s) may be a member of. If you need to request whereabouts from an athlete directly then that athlete should be considered to be in a higher whereabouts pool.