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HOW SWIMMING CANADA PURSUES ITS DEFINITION OF HIGH PERFORMANCE

by Swimming Canada



[PHOTO COURTESY: ROB SCHUMACHER-USA TODAY SPORTS]

Swimming Canada enjoyed some of the country's greatest results ever at the Rio 2016 Olympic Games, especially compared to previous Games, including London 2012. But the success didn't happen overnight. When he joined the organization in 2013, High Performance Director John Atkinson inherited a country coming off a respectable, but modest two-medal performance in the London pool. He quickly realized, however, that the underlying depth was not necessarily putting Canada on track to match, let alone better, that success. Things needed to improve and begin moving in a new direction quickly.

One of the key focus points for Swimming Canada over the past four years has been improvement. In 2013, after the London Games and athlete retirements and with the equivalent of just five Olympic finals remaining in the program, the focus was on improvement—i.e., how a swimmer could improve between the Trials and the summer benchmark Championships and Games. This focus remained in 2014. In 2015, the focus turned toward progression, meaning all selection policies for all teams were established to see swimmers progress from heat swims into semifinals and/or finals. This past year, the focus was also on improvement and progression, and Swimming Canada began targeting conversion in final—i.e., putting athletes on the podium.

Atkinson identified in 2013 that relay team development would play a key part in target events for 2016, as well as maintaining targeted individual events. Having four relays make finals in Rio and two of them win medals shows how this strategy has worked and will continue to 2020.

All of these themes were key to Swimming Canada's targeted success at the Rio 2016 Olympic Games. Canadian swimmers won a total of six Olympic medals: one gold, one silver and four bronze (see *Fig. 1-next page*). This is more than in the previous four Olympics combined (5). The underlying numbers are also encouraging. Canadians competed in 15 finals (vs. 7 in 2012), set 14 Canadian records, four world junior records, two Americas records and one Olympic record.

Key highlights include:

- 11 swimmers won a medal
- 82 percent of swimmers progressed past heats (a key goal of selection strategy)
- 61 percent improvement rate from the Trials selection times (vs. 47 percent in 2012)
- 65 percent of swimmers improved in at least one event
- 72 percent of all swims improved or maintained on pre-competition ranking
- 40 percent personal best rate (vs. 32 percent in 2012)
- Taylor Ruck and Penny Oleksiak became the first swimmers born in the 2000s to win an Olympic medal

- The medal in the women's 4 x 100 freestyle relay was the first in this event since 1976—and the first medal in a women's relay at the Games since 1988 for Canada.
- The medal in the women's 4 x 200 freestyle relay was the first medal ever in that event for Canadian women.
- The team featured 20 females and 10 males (30 swimmers in total) and was supported by 19 staff members in Rio (The high performance director, six coaches, two managers and 10 IST members of staff).

Swimming Canada in the last quad, 2012 to 2016, proved itself to be a program capable of multi-medal success at the Olympic Games, both in individual events and relays. Following the 2012 Olympic Games, the program saw significant retirements from established athletes such as Brent Hayden, Scott Dickens and Julia Wilkinson, among others. In the quad from 2012 to 2016, the program rebuilt—and from three swimmers (including open water) winning a medal in 2012 at the Olympic Games, that number increased to 11 swimmers who returned with a medal from Rio.

The World Junior Championships (and Junior Pan Pacific Championships) also represent significant development opportunities for Canadian swimmers. Athletes who competed in these championships in 2013, 2014 and 2015 went on to transition to the 2016 Olympic Games, which is exactly what is required and was needed in order to rebuild between 2013 and 2016. The likes of Emily Overholt, Kennedy Goss, Taylor Ruck and Penny Oleksiak—all Olympic Games medalists—swam at the World Juniors in either 2013 and 2015, along with other swimmers such as Olympic finalists Markus Thormeyer, Sydney Pickrem and team member Javier Acevedo. This shows how the World Juniors will be an important development ground not only in 2024, but also 2020.

SWIMMING CANADA'S DEFINITION OF HIGH PERFORMANCE

Defining high performance was important for the Swimming Canada program. The definition is clear: "Top 8 world ranking with continual progression toward—and the achievement of—Olympic podium performances." That said, the pursuit of high performance is a continuum. Swimming Canada has three tiers of criteria: Olympic medals, followed by medals at the long course FINA World Championships, followed by swimming in a final at either of those major meets.

Swimming Canada also looks at identifying high performance potential through a variety of tools. This includes achieving Top 16 performances at the aforementioned meets or Top 8s at World Junior Championships or Junior Pan Pacific Championships. It also includes achieving published "On Track" times that show significant evidence of continued development potential. One thing that Swimming Canada has

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Rank	Country	Gold	Silver	Bronze	Total
1	USA	16	8	9	33
2	Australia	3	4	3	10
3T	Hungary	3	2	2	7
3T	Japan	2	2	3	7
5T	Great Britain	1	5	0	6
5T	China	1	2	3	6
5T	Canada	1	1	4	6

figure 1. 2016 Olympic Games—Medal Count in Swimming

50 performers in world rankings. The major changes have been made to the development card status in an effort to fund the right athletes with that option. Swimming Canada is trying to identify athletes progressing to world-class swimming four years prior to the historical age of peak performers in a given event. Priority is awarded to swimmers achieving On Track times (see “On Track Times as a Targeting Tool” -below).

done to build a strong national team—and will continue to do—is invest in those who are on track to high performance when it counts.

The system is in place in Canada for athletes to train and fulfill their goals at the highest possible level.

TRAINING ENVIRONMENTS

Swimming Canada offers high performance centers, carding funding and individual support for the right athletes at the age-appropriate level, wherever they choose to train.

Swimming Canada’s high performance strategy includes the funding of three high performance centers. The objective of these high-performance entities is to provide an environment aimed at developing identified swimmers to their potential. Each center is serviced by expert coaching tasked solely with the high-performance needs of the resident swimmers. The ultimate goal is to develop a training and competition environment where Canadian swimmers can win at the highest levels. Athletes also benefit from a variety of support services such as sport science, medical support and easy access to some of the country’s top academic institutions. Also, university-based athletes have the advantage to compete within the Canadian Interuniversity Sport (U Sports) circuit. Entry is through an application process. The centers offer outreach and regional visitation opportunities.

Swimming Canada also oversees nearly \$1 million in carding funding through Sport Canada’s Athlete Assistance program, which contributes to the pursuit of excellence. Carding seeks to relieve some of the financial pressures associated with preparing for and participating in international sport, and assists high-performance Canadian athletes to combine their sport and academic or working careers while training intensively in pursuit of world-class performances. The assistance helps swimmers with their training and competition needs, and is paid directly to the swimmer. This allows Swimming Canada to support athletes in the training environment the athlete thinks is best—if appropriate to their progression—anywhere in the world.

Senior carding is based on international results—e.g., Top

Swimming Canada also offers targeted opportunities for camps and competitions outside the national team. For example, a group of four young athletes with the potential to make an impact in Tokyo was taken to InnoSportLab based at the Pieter van den Hoogenband Swim Stadium in Eindhoven, Netherlands. Swimming Canada also funded a small group of swimmers—some at the senior level—to gain more international experience on the 2016 Mare Nostrum tour. In previous years, Swimming Canada has offered distance camps or World Cup tours.

All these efforts relate back to the definition of high performance, focusing on athletes with potential to be Top 8 in the world.

ON TRACK TIMES AS A TARGETING TOOL

On Track times are central to a strategy focused on improving the probability of investing in the right athletes who can progress and improve.

Swimming Canada introduced On Track times in 2013 as a tool to better identify developing swimmers. Performance data from international competitions and average progression rates of Canadian age group swimmers were used to develop a series of three tracks for each Olympic event. The three tracks were meant to capture everyone from early to late developers who had the potential to represent Canada internationally.

Since the spring of 2014, Swimming Canada has had the opportunity to work closely with a sports analytics group established by Canadian Tire Bank in collaboration with Own The Podium. As a result, Swimming Canada has gained access to a number of valuable resources and tools to further enhance the On Track times tool. The analysts worked with more than two million sets of results from world-class athletes to help provide insight into their career progression. On Track times are a first indicator of knowing an athlete is on track at a specific age in a specific event. From there, other aspects are analyzed to determine whether an athlete can progress to a Top 8 world finish and to the podium.

Nation	Projected Medals					Actual Medals				DIFF	RANK
	G	S	B	TOTAL		G	S	B	TOTAL		
Canada	0	0	0	0		1	1	4	6	6	1
United States	9	9	9	27		16	8	9	33	6	1
Russia	0	0	1	1		0	2	2	4	3	3
Spain	0	0	0	0		1	0	1	2	2	4
Hungary	3	1	1	5		3	3	1	7	2	4
Belgium	0	0	0	0		0	1	0	1	1	6
Belarus	0	0	0	0		0	0	1	1	1	6
Denmark	0	1	0	1		1	0	1	2	1	6
Italy	1	0	1	2		1	0	2	3	1	6
Singapore	0	0	0	0		1	0	0	0	1	6
Sweden	2	0	0	2		1	1	1	3	1	6
Great Britain	1	2	3	6		1	5	0	6	0	12
Kazakhstan	0	1	0	1		1	0	0	1	0	12
South Africa	0	2	1	3		0	3	0	3	0	12
Brazil	0	1	0	1		0	0	0	0	-1	16
China	1	2	4	7		1	2	3	6	-1	16
Lithuania	0	1	0	1		0	0	0	0	-1	16
New Zealand	0	1	0	1		0	0	0	0	-1	16
Turkey	1	0	0	1		0	0	0	0	-1	16
Germany	1	0	1	2		0	0	0	0	-2	21
Japan	1	4	4	9		2	2	3	7	-2	21
Netherlands	0	1	3	4		0	0	0	0	-4	23
Australia	11	6	3	20		3	4	3	10	-10	24

figure 2 - 2016 Olympic Games—Projected Medal Count vs. Actual Medal Count

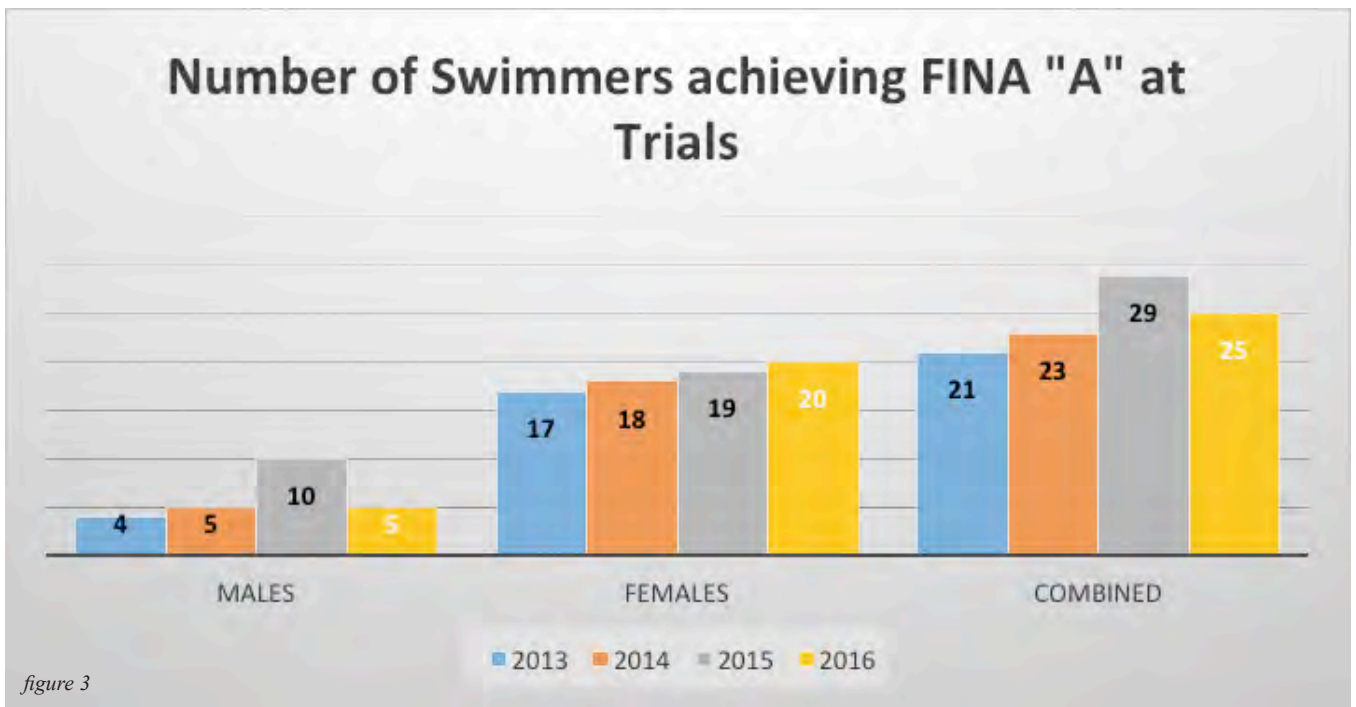
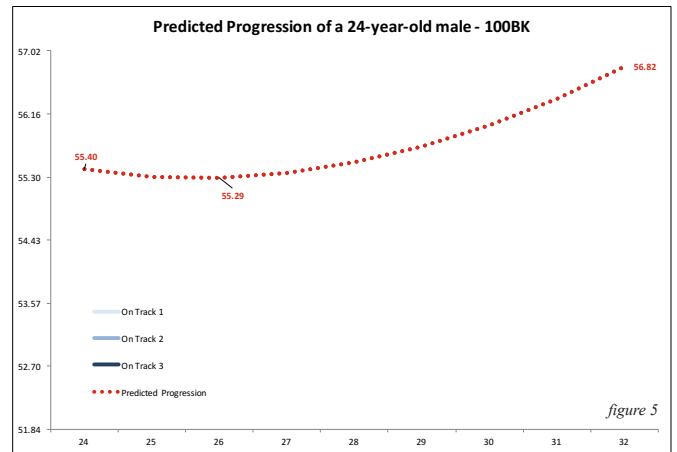
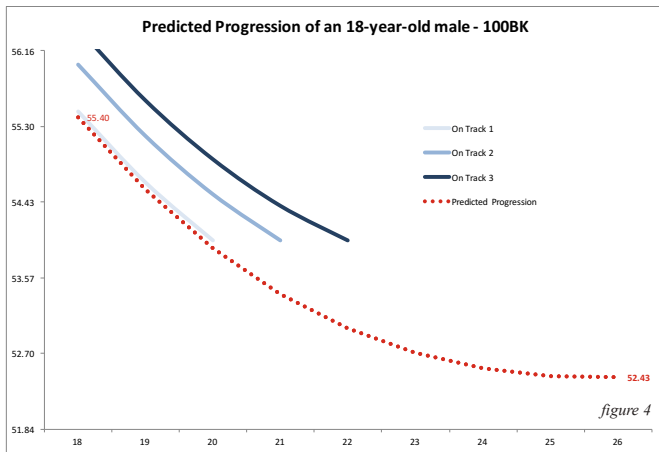


figure 3



Younger athletes are not as likely to be Top 8, but may swim a time that flags them as being five to eight years away from podium potential performances at international competitions such as the FINA World Championships and Olympic Games.

TEAM SELECTION AND MEANINGFUL COMPETITION PHILOSOPHY

High performance swimming is a level of performance not dictated by age or by simply being the best in Canada. Swimming Canada is selecting teams to perform in their environments—i.e., progress beyond heats. The philosophy is focused on progression at competitions that count—and converting those opportunities into medals (see Fig. 2-pg.27).

Many athletes and team staff—some with international experience all around the world—commented that the Rio 2016 Olympic team was the best team feeling they’ve ever experienced. This excitement rippled throughout the team as the competition continued, and the excitement was based on performance, not on team size. The goal is to select athletes who can progress and swim multiple events, which creates a focused team whose members are there to compete.

In some cases, even Canadian champions don’t qualify, such as was the case this summer with a handful of Canadians winning races at Trials, but just missing the Olympic qualifying time required to earn a spot at the Olympic Games (see Fig. 3-pg.27).

The 2016 Olympic qualifying times were outside Swimming Canada’s control. But, in general, just because a swimmer is fastest in Canada does not guarantee the potential to perform and progress on an international stage.

Take two swimmers performing at the same level, but at different ages. For example, an 18-year-old and a 24-year-old both swimming 55.40 in the 100 meter backstroke. Both would be ranked within the top 150 in the world, but at an average rate of progression, the 24-year-old is likely to improve only marginally. Meanwhile, the 18-year-old has the potential to produce a Top 8 or even a podium performance over time

(see Figs. 4 and 5).

Canada does not have the population, resources or funding of the United States, Japan, China, Great Britain or Australia. Canada, therefore, needed to develop a system that worked for Canada—and that’s to support targeted investment that gives Canada every opportunity to get to the podium.

“If an older athlete hasn’t improved for five years, is far from the podium and not making changes, it’s not a good investment. I’m not ashamed to say we’re about making the right investments. And that’s in athletes demonstrating high performance or improvement tracking to our definition of high performance.” —John Atkinson

Swimming Canada believes athletes develop best by swimming at appropriate events where they have a chance to progress in a meaningful competition, whether at the provincial, national or international level. A national champion ranked 200th in the world in his or her best event is not likely to be a competitive athlete at a major international competition. That athlete will have a more meaningful competition at a national championships, for example, where he or she can swim multiple events and further develop.

By having a coordinated competitive framework across the country, planning, developing and performing will all be part of a pathway to high performance in Canadian swimming. This includes national emphasis on aiming for peak performance twice per year in March/April and July/August, and allowing for proper blocks of training. This is preparing the whole Canadian swimming system for what is required to be successful international—i.e., performance on demand and done in a way that is unique for Canada

NEXT STEPS FOR 2017 ON THE ROAD TO TOKYO 2020 AND BEYOND

With the success of 2016 in the rearview mirror, Swimming Canada continues to identify and address gaps. That includes the competition framework, coach education and



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development, athlete education and development, and making training locations available across Canada for swimmers of any age.

Swimming Canada is focused on working with and providing professional development for coaches working with targeted athletes as well as with the next generation of athletes identified by using On Track times.

For example, the Select Coaches program, now in its third year, plays a significant role. Eight coaches were selected for financial support this year to visit a mentor coach, with a focus on peer learning environments, including a presentation on their experience. The selected coaches also attended the FINA Gold Medal Clinic in Windsor, Ontario, and the first two days of the FINA World Swimming Championships (25m).

When making changes such as these, it is critical to monitor their effectiveness continually. Swimming Canada will evaluate the changes on an ongoing basis and make adjustments as necessary. The improvement needed to meet the nation's goals means making the most of every opportunity, maximizing assets and working together as a community to build a stronger, faster and deeper pool of swimmers to represent Canada.

Next goals include rebuilding the men's team, which takes more time. Athletes in the system are now matching the age profile needed to perform at the Olympic Games.

Major steps include the recent appointment of Mark Perry as Swimming Canada's distance/open water coach, with the announcement of another internationally renowned coach to come soon in a new role of senior coach.

"What took three years to build can go away very quickly. We can't miss a day, we need to continue to evolve and progress—as it's easier to build something, but it's harder to stay there."
 —John Atkinson ♦