

- The Talent Challenge
- Research
- 5 Year Evolution of our Talent Development Approach
- Lessons Learned
- Where Next...









## **Background**

- Athletics NI Coach Development & Physical Preparation Lead
- MSc Human Performance
- Accredited Strength & ConditioningCoach
- Personal Coach-Javelin, Shot & Combined Events
- Team Coach (NI/GBR/AAI)
- Former Collegiate Athlete (NCAA Javelin)



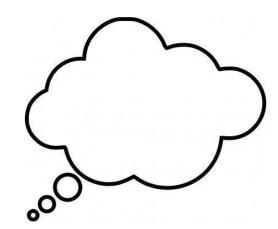
#### Milestones in N.I

- Rising Stars Multi Event Initiative established 2014
- Youth Academy established 2014
- Strategic Plan 2016
- Erasmus+ Funding 2016/18/19/20
- Athlete Development Pathway Launched in 2017
- Commonwealth Youth Games 2017
- Commonwealth Games 2018
- European U20 Championships 2019

What's your talent development environment?

What is your mission for talent?

What's are the challenges?



**The talent mission:** to develop a pipeline of junior athletes who go on to be successful senior athletes representing Northern Ireland at the Commonwealth Games

The talent challenge: defining talent, identifying and supporting those with the characteristics and potential to be successful seniors in the future

The talent debate: do talented performers arise because of nature (genetics) nurture (environment) or nature via nurture

The talent pathway: all the moving parts that support the development and progression of the athletes towards senior success

The Talent Challenge & Problems With Traditional Talent Identification

Can we assume that current youth performance is representative of ability?

What is the effect of relative age and biological maturation?

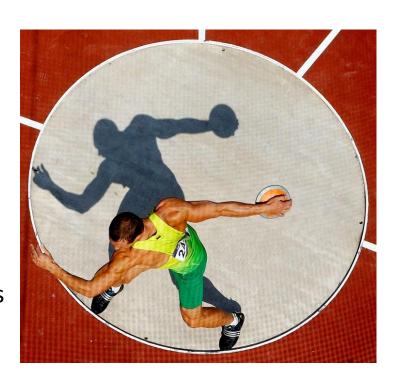
Athletic progress is complex and non linear

Psychological and environmental factors help transform potential into performance



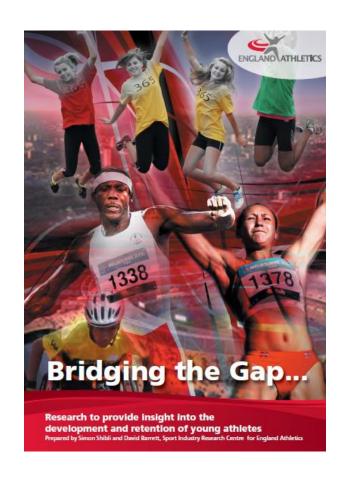
#### What We Can't / Don't Yet Do in Athletics...

- Predict adult height & body dimensions to determine future suitability for a given event
- Genetic profiling to determine predisposition for certain physiological attributes (V02max/fast twitch fibres/tendon health)
- Predict future success from U15 & U17 results
- Attract athletes from other sports at 18/19

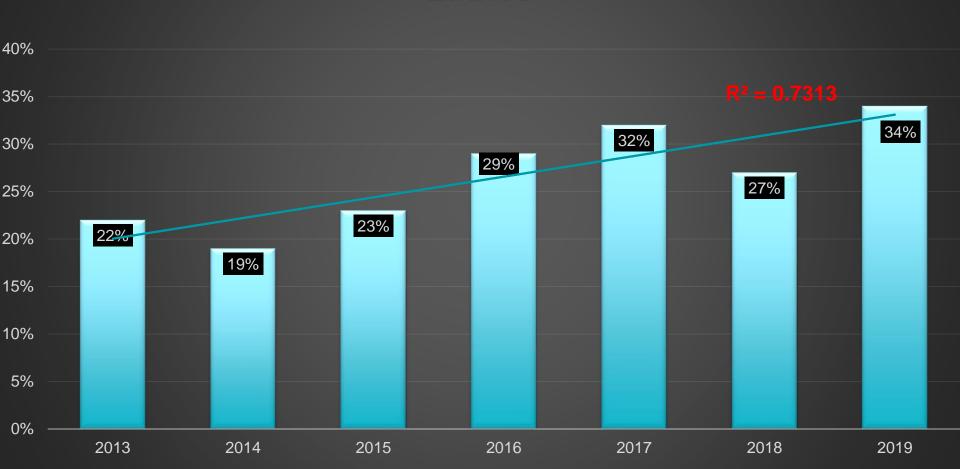


#### What we know...

- U15 success does not predict U20 success
- 12% of UK Top 20 at U15 retained UK Top 20 status as U20s
- Highest rate of athletics drop out is between U17 >U20
- A poor foundation undermines the whole system

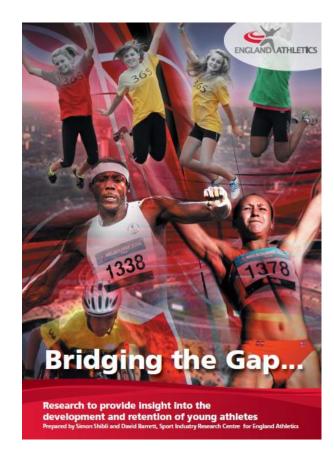


# N.I U20 Championships Entries as a % of U17 Entries



# Research on Youth Development in Athletics

- Athletics is a late specialization sport (based on average age of peak ~26)
- Teenagers competing in more than one event group are more likely to be retained in the sport as a senior and less likely to be injured
- Those that drop out most often cited injury boredom, stagnation (burnout)
- A number of senior high performers were multi event athletes as juniors (Warholm, Rudisha, Sharman, Spotakova, Schippers.)
- General athleticism is decreasing in the current generation due to sedentary behaviours



'The Syndrome'

"The more developed athletes are victims of the tools they possess.

The grinding that got you good will not get you great, and will eventually be your own undoing. The program must change and develop into a series of strategically placed, high intensity exercise bouts."



http://www.sacspeed.com/wp/

Boo Schexnayder

# The Role of the Talent Development Environment on Athlete Burnout

Burnout defined as "a syndrome of physical/emotional exhaustion, sport devaluation, and reduced athletic accomplishment" (Raedeke, 1997)

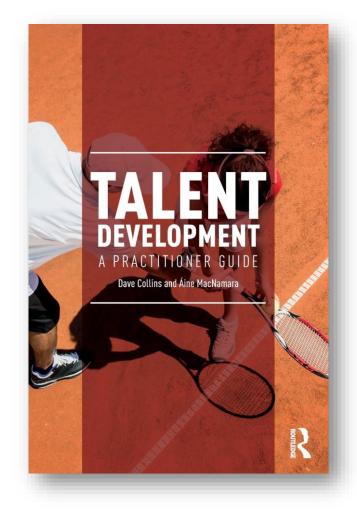
Talented youth athletes with high and low burnout levels were studied. 5 environmental factors impacted upon athlete drop out:

- Long-term development focus
- 2. Holistic quality preparation
- 3. Support network
- 4. Communication
- 5. Alignment of expectations.

Athletes with high burnout levels were likely to experience more detrimental and less conducive talent development environmental compared to those who were with low burnout levels.

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	Athletes Low on Burnout Scale	Athletes High on Burnout Scale
Training, Winning & LTAD	Skill Focus. Athletes understands the long journey to elite performance, rationale for training & peaking age.	Medals focus. Athletes do not realize the pathway to be an elite performer is very long.
Holistic quality preparation	Physically and Psycho-socially prepared	Physically Prepared.
Demands	Enough time for academics, athletics, social life. Distracted during exams.	Constantly trying to cope with conflicting demands on time. Lack of control.
Training	Feel recovered between sessions and training does not impact on hours of sleep	Training demands reduce time for sleep.  No mid week chance to recover. Accumulated fatigue.
Coaching, bond & communication	2 way communication. Improvement focussed. Emotionally bonded.	Repetition. Punishment and controlling behaviours. Negative.
Social lives	Balanced.	Feeling of sacrifice and giving up friends and social time.
School support	Relieves stress & pressure and allows flexibility to support athlete preferences	No autonomy. Restricted by school policy.
Facilities and equipment	Access to facilities & equipment that allow skills progress and increases opportunities to train.	Access is restricted and impacted by weather. Travel times excessive and low range of facilities lead to repetition monotony,
Parental support	Parents caring and encouraging and promote confidence and autonomy in decision making	Parents add to the idea of conflicted time and pressure.
Peer support	Friendships in sport. Role Models.	Low sense of belonging and relatedness.  "Just doing our work separately."
Goal setting	Goals are related to competence self improvement process. Coach has a goal for themselves	Team goals. System goals. Beating others.
Alignment of expectations	Mutual agreement on goals which feel realistic	Discrepancies between coach, parents and athlete goals and expectations



**Solution:** A Biopsychosocial Approachdesigning development systems on the basis of interaction between

- Biological factors (physical and mechanical)
- Psycho-behavioural factors
- Sociocultural (environment)

If we must select consider performance/training age & experience/mindset/ and potential to benefit

Provide maximum opportunity to the largest number of athletes

# **Evolution of Our Talent Development Approach in NI – A Five Year Journey**

#### **Beliefs:**

- Late specialization requires quality early exposure
- To promote best practice in clubs & schools we need to model it and demonstrate financial sustainability & scalability
- All athlete development programmes should be aligned with coach development programmes
- A movement skills & multi event approach through early teens (12-14) will enhance athletic development & create more physically prepared senior athletes

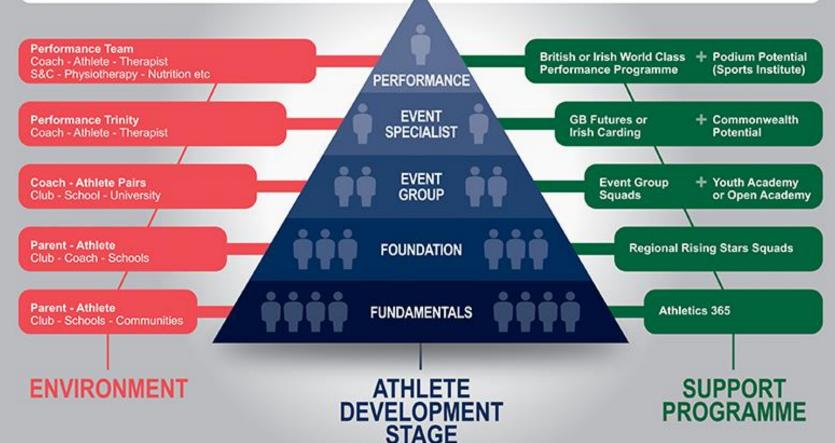
**Aim:** to increase retention of teens in one or more events at event group stage (15-17) and insure they are robust enough to tolerate loads of event specific training (17+,) possess a resilient mindset and have a support structure that enables progress.



#### ATHLETE DEVELOPMENT PATHWAY















**Rising Stars:** 90 minute Movement skills and RUN JUMP THROW curriculum delivered in 3x 12 week terms

**Term 1 Outcomes-** squat, lunge, hinge, brace patterns, double leg landing mechanics. Split stance acceleration start, 3 stride rhythm over 3 x18 inch hurdles, triple extension medicine ball chest push, A position skips and pogo series.

	2014	2019
Regions	1 Hub	7 Hubs
Capacity / Scale	30	200
Coaching & Delivery	Professional Staff	35 apprentice coaches have been supported for 1-2 years and majority return to their clubs
Competition	Poor transition to competition.  Competition structure is not aligned with ADP.	<ul> <li>Mini Multis -informal modified competition</li> <li>Finn Flyer</li> <li>Chest Push</li> <li>Jumps Quad</li> <li>60m H</li> <li>60m Sprint</li> </ul>
Output		Enhances production line of multi eventers/ Pipeline to Youth Academy/ Commonwealth Games/ European Competition/

#### **Benefits for Athletics NI**

- Improved quality of delivery
- More athletes trying more events
- Parents buying into LTAD/growth mindset
- Like for like approach across NI/extended geographic reach
- More coaches comfortable delivering a multi event approach (throws/hurdles/pacing etc)
- More robust Athletes creating an increased talent pool
- Athletes progressing on the pathway (e.g Youth Academy) demonstrate enhanced physical competencies, movement patterns and mechanics (front side running mechanics, efficient and safe landing mechanics, squat, lunge, hinge & brace)



**Rising Stars Competition** 

# **Youth Academy**

Athletics Northern Ireland's Youth Academy was established in September 2014 to support athletes aged 15-21 years old.

"Athletics NI seek to raise the potential of teenage athletes aspiring to achieve senior success. We hope to achieve this through early exposure to the physical preparation and lifestyle planning that facilitates high performance training."

Through Youth Academy sessions Athletics NI will deliver an athlete, parent, and coach curriculum focused on creating robust, load tolerant athletes with a broad range of movement competencies who are resilient enough to overcome obstacles/set back and display a mindset and behaviours conducive to athletic progress and competition performance.



# **Youth Academy Delivery**

- 2 sites for delivery/ 4 session options per week for Speed Development, Plyometrics & S&C with Integrated Performance Therapy.
- 35 athletes selected on performance against Euro standards (adjusted for age) and potential based on training age, experience, mindset and willingness of coach and athlete to engage
- Strength diagnostics (CMJ/ SQJ/ 10HOP/ ISOMTP)
- Warm weather training camps
- University transitions support
- Integrated physiotherapy
- IAP





# **Youth Academy Aims**

- ^ Retention of Northern Ireland's best age group athletes into the senior ranks.
- ^ Coaches understanding of long term athlete development & physical preparation.
- ^ Numbers of NI athletes on British & Irish U20/ U23 teams for major championships.
- ^ Pipeline for Commonwealth Games.
- ^ Physical competency & performance behaviours to allow athletes to engage in senior performance training <u>in any training environment in the world.</u>







**Sheffield Hallam** 



**Iowa State University** 

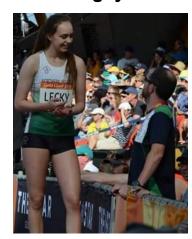
"The aim of the talent development is to equip them with the physical competence & performance behaviours to thrive in any training environment in the world."



400m Finalist-Davicia Patterson, High Jump Gold Medallist-Sommer Lecky, 200m Gold Medallist - Aaron Sexton, 100m Hurdler Anna McCauley.



**Ulster Rugby / Irish 7's** 



**Northern Ireland** 

Centralized camps have increased exposure to professional service providers and helped to embed performance behaviours and culture change.

Most psychological skills development should be driven through peers or coaches.

Athletes on camp learn to cope with pressures and climate of an international athletics environment before they arrive at a championships.







## Performance Teams



#### Coach Role

- Ultimate responsibility for programme
- Integration of support services with technical programme
- Evidence based decision making

#### NGB/ Sports Science Relationship

- Inform decision making
- Provision of services to enhance wellness, training adaptations and performance
- Consider all possible impacts (including negative before making an intervention.)

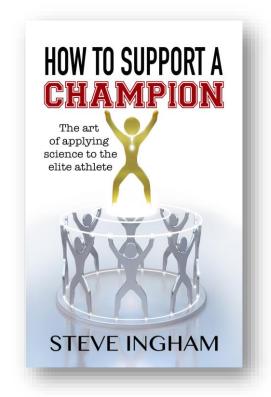
# Junior Performance Teams



Kate O'Connor-Commonwealth Games Heptathlon 8th/ European U20 Silver

Steve Ingham on embracing the resourcefulness of individuals in a team and extracting the best possible solutions from the people with the most information...

"It was very clear that we all had our own objectives and ambitions, ideas and opinions, but unless we were prepared to put down our own personal agendas, take off our egos and give ourselves to the overall team goal, then we would be a negative influence on achieving a goal that was worthy of the mantle - greater than the sum of our parts."



### **Successes**

- 2 Commonwealth Youth Games Gold Medals in 2017
- 3 World Junior Para Gold Medals
- •3 teenage athletes on Athletics' NI Senior Commonwealth Games Team for Gold Coast 2018 (all top 10 finishes)
- 5 in European U20 Top 5
- •12 Northern Ireland U20 Records broken since the Youth Academy was established in 2014 show rising performance standards of junior athletes
- Trends now show Youth Academy Graduates progressing to the Commonwealth Potential Programme aged 18+ (1000+ IAAF points) with several moving to UK universities for specialist support
- The Youth Academy was recognised as an example of "Best practice in Sport, Education and Training in the European Union" in 2018.







# **An Evolving View of Talent**

Performance at the highest level is a product of genetic tendency for certain physiological attributes and predispositions.....

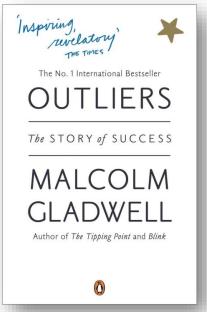
.....that have been nurtured to enhance athletic potential.

Coaching, parents, community, clubs and NGB support systems can all provide unique opportunities to shape the environment.

Mindset is also key to optimizing athletic potential (growth vs fixed, inherited or shaped?)

High performance is ground in a web of opportunities that have been maximized to increase the probability of success.





#### Recommendations

- Focus on skills, knowledge, behaviours, coaching and environment (biopsychosocial approach)
- Support the talent development environment through improving coaching, culture and integrated support from schools/parents/support personnel (physio/S&C)
- Provide a parent/coach/athlete curriculum with no performance based de-selection
- Keep the talent pool as wide as possible and keep the curriculum transparent
- Promote early exposure to an international athletics environment



# Parent's Guide To Youth Athletics In Northern Ireland





#### **Youth Academy Mindset**

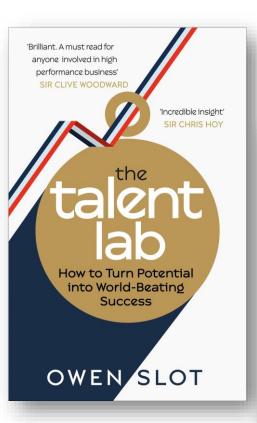
"Improving together (not at the expense of each other) so we can compete against the rest of the world.

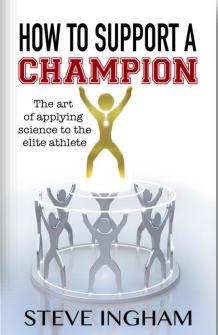
Contributing positively to our environment.

Respecting the services available to us and staff working on our behalf.

Using self control to make performance based decisions on sleep, nutrition, lifestyle.

Making friends in the sport and learning from each other."









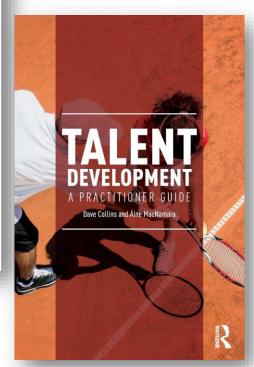
## **OUTLIERS**

The STORY of SUCCESS

## MALCOLM GLADWELL

Author of The Tipping Point and Blink







Scientist grew trees in a sealed biosphere and couldn't work out why they fell over before they matured. They eventually figured out whilst they provided the perfect growing environment, it was lacking wind which provides the stress to ensure the trees grew strong enough to support themselves.

# The Rocky Road to the Top Why Talent Needs Trauma

**Collins & Macnamara 2012** 







