LONG TERM ATHLETE DEVELOPMENT

“The health and well-being of the nation and the medals won at major Games are simple by-products of an effective sport system” – Istvan Balyi

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Long Term Athlete Development (LTAD)

- Made in Canada Model
- Gaining worldwide recognition (Ireland, England)
- Need to buy into the philosophy
- Implementation / Transition will take time

- Presentation focus:
  - Highlights
  - Wet your appetites
  - You as coaches have a role to play in ensuring your athletes long term success

WHY?

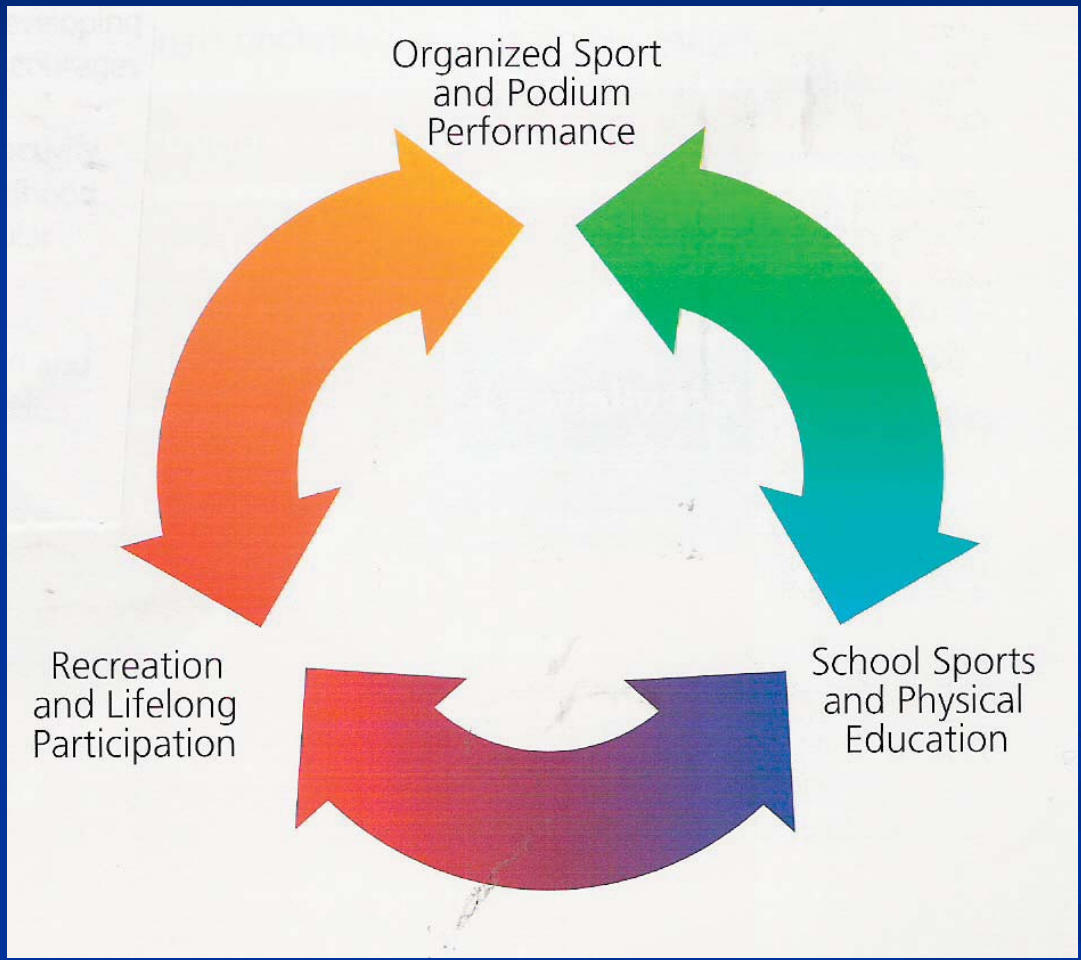
- Declining international performances of Canadian athletes in some sports
- Difficulty in identifying and developing the next generation of internationally successful athletes
- Participation in recreational sport and physical activity has been declining - physical education programs in schools are being marginalized

LTAD

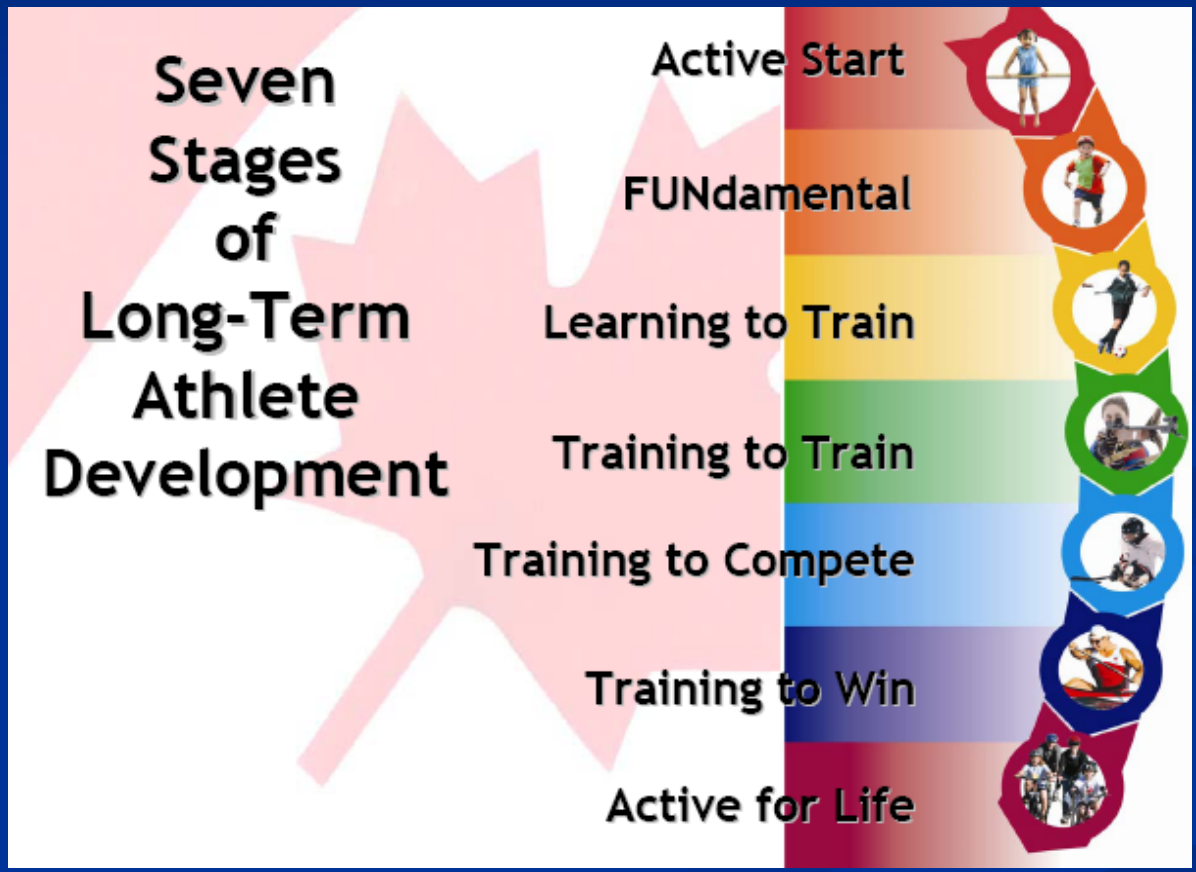
- A vehicle for change - acknowledges that physical education, school sports, competitive sports, and recreational activities are mutually interdependent
- Positively affects the quality of training and competition
- Builds athletic ability beginning with a foundation of fundamental movement skills
- Introduces fitness and sport skills at the appropriate developmental age

Circle of a Physically Active Life

An integrated model



LTAD - Stages


Seven Stages of Long-Term Athlete Development
Active Start
FUNdamental
Learning to Train
Training to Train
Training to Compete
Training to Win
Active for Life

LTAD - Stages

Active Start Stage

Chronological Age
Males and Females 0-6

FUN and part of daily life

Fitness and movement skills development

Focus on learning proper movement skills such as running, jumping, wheeling, twisting, kicking, throwing, and catching

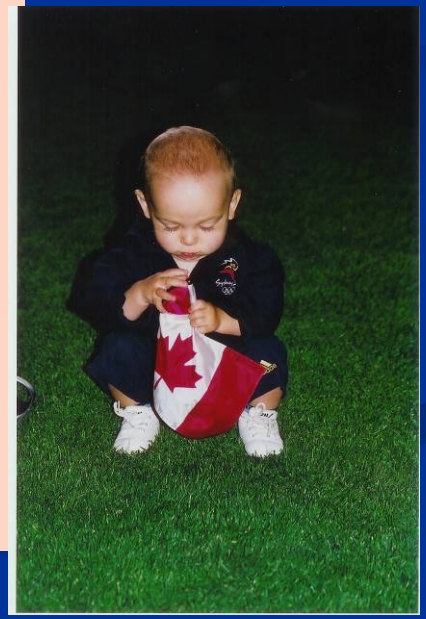
Not sedentary for more than 60 minutes except when sleeping

Some organized physical activity

Exploration of risk and limits in safe environments

Active movement environment combined with well-structured gymnastics and swimming programs

Daily physical activity



FUNdamentals Stage

Chronological Age
Males 6-9 and Females 6-8

- Overall movement skills
- FUN and participation
- General, overall development
- Integrated mental, cognitive, and emotional development
- ABC's of Athleticism: agility, balance, coordination, and speed
- ABC's of Athletics: running, jumping, wheeling, and throwing
- Medicine ball, Swiss ball, own body strength exercises
- Introduce simple rules of ethics of sport
- Screening for talent
- No periodization, but well-structured programs
- Daily physical activity

Learning to Train Stage

Chronological / Development Age
Males 9-12 and Females 8-11

Overall sport skills development

Major skill learning stage: all basic sport skills should be learned before entering Training to Train

Integrated mental, cognitive, and emotional development

Introduction to mental preparation

Medicine ball, Swiss ball, own body strength exercise

Introduce ancillary capacities

Talent Identification

Single or double periodization

Sport specific training 3 times week; participation in other sports 3 times a week

Training to Train Stage

Chronological / Developmental Age

Males 12-16 and Females 11-15

- Sport specific skill development
- Major fitness development stage: aerobic and strength. The onset of Peak Height Velocity (PHV) and PHV are the reference points
- Integrated mental, cognitive, and emotional development
- Develop mental preparation
- Introduce free weights
- Develop ancillary capacities
- Frequent musculoskeletal evaluations during PHV
- Selection
- Single or double periodization
- Sport specific training 6-9 times per week including complementary sports

Training to Compete Stage

Chronological / Developmental Age

Males 16-23 +/- and Females 15-21 +/-

Sport, event, position-specific physical conditioning

Sport, event, position-specific technical tactical preparation

Sport, event, position-specific technical and playing skills under competitive conditions

Integrated mental, cognitive, and emotional development

Advanced mental preparation

Optimize ancillary capacities

Specialization

Single, double, or triple periodization

Sport specific technical, tactical and fitness training 9-12 times per week

Training to Win Stage

Chronological Age
Males 19 +/- and Females 18 +/-

Ages are sport specific based on international normative data

Maintenance or improvement of physical capacities

Further development of technical, tactical, and playing skills

Modelling all possible aspects of training and performance

Frequent prophylactic breaks

Maximize ancillary capacities

High Performance

Single, double, triple, or multiple periodization

Sport specific technical, tactical, and fitness training 9-15 times per week

Active For Life Stage

Enter At Any Age

Minimum of 60 minutes moderate daily activity or 30 minutes of intense activity for adults

Transfer from one sport to another

Move from highly competitive sport to lifelong competitive sport through age group competition

Move from competitive sport to recreational activities

Move to sport careers or volunteering

There is a better opportunity to be Active for Life if physical literacy is achieved before the Training to Train stage

10 key Factors Influencing LTAD

1. **10 year rule**

- It takes a minimum of 10 years and 10,000 hours of training for a talented athlete to reach elite levels
- This translates into slightly more than 3 hours of training or competition daily for 10 years.

10 key Factors Influencing LTAD

2. The FUNdamentals

- Movements and skills introduced through fun and games.
- Sports skills follow and include basic overall sports skills.
- FUNdamental movements skills and FUNdamental sports skills = **physical literacy**

The FUNdamentals

10 key Factors Influencing LTAD

3. Specialization

- How do you define it?
- Early specialization sports- gymnastics, diving
- Most other sports are late specialization sports
- **If** FUNdamental movements skills and FUNdamental sports skills (physical literacy) are **acquired before an athlete reaches maturity (12-15yrs), athletes can be better prepared to succeed and even reach international stardom in a late specialization sport.**
- **Implications for hockey coaches?**

10 key Factors Influencing LTAD

4. Developmental Age

- Chronological age
- - the number of years and days elapsed since birth

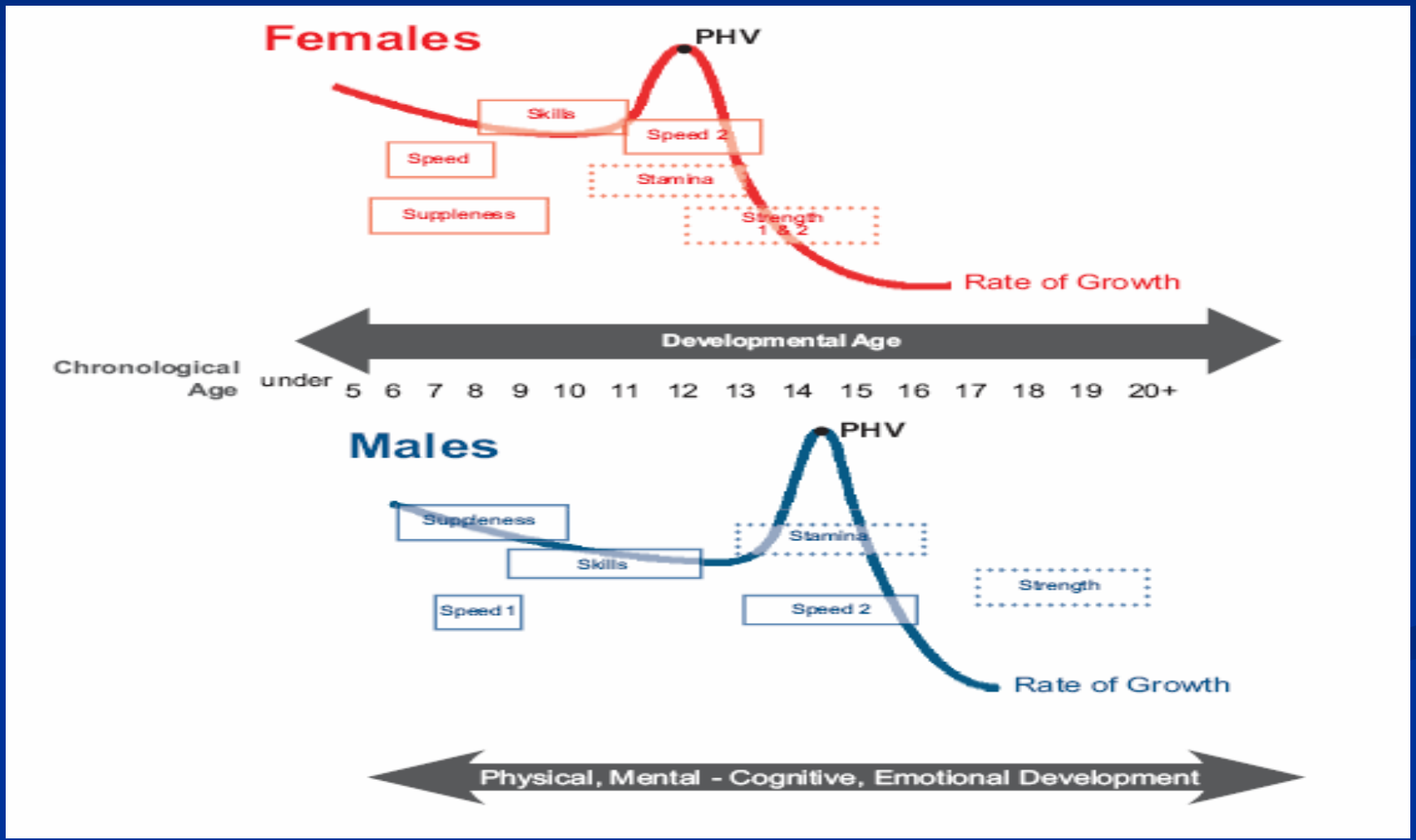
- Developmental age
- - the degree of physical, mental, cognitive, and emotional maturity

- LTAD requires that coaches identify early, average, and late maturers in order to design appropriate training and competition programs for all their athletes

- **Implications for the coach?**

10 key Factors Influencing LTAD

5. Trainability – optimal windows (Balyi and Way, 2005)



10 key Factors Influencing LTAD

6. **Developing the whole person -Physical, Mental, Cognitive, and Emotional**

7. **Periodization (phases of the season)**

- Pre-season
- Competition
- Post-season / recovery

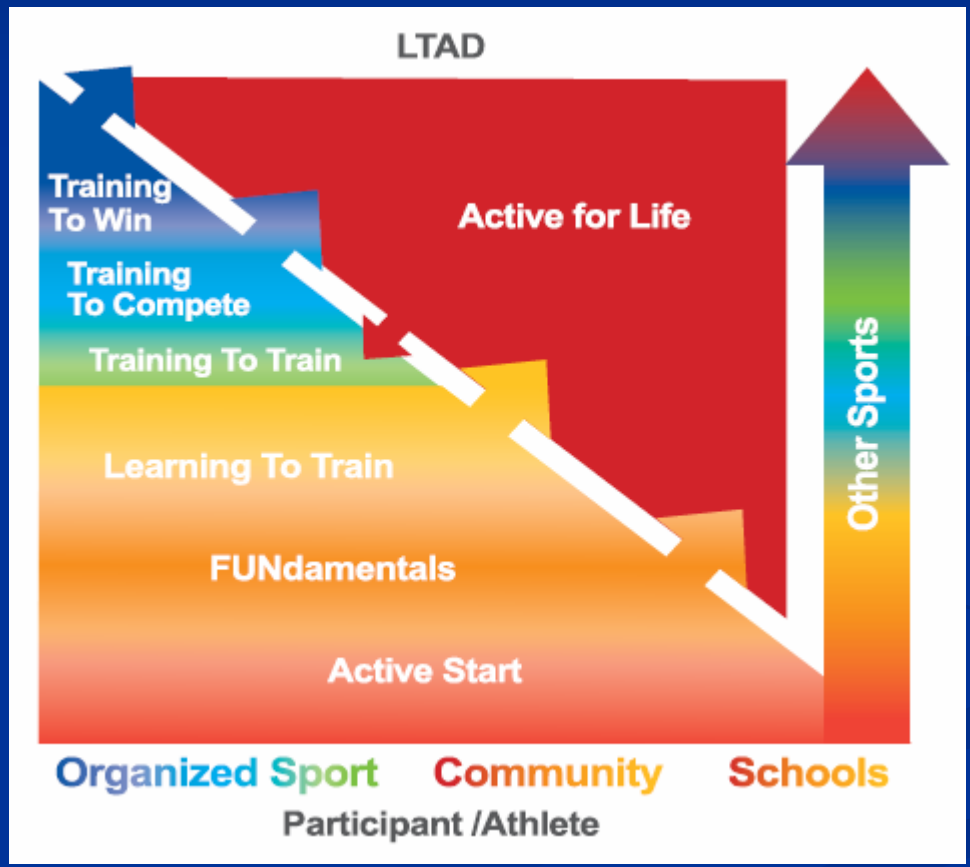
10 key Factors Influencing LTAD

8. **Calendar Planning for Competition**
   - Training to Competition ratios

STAGES	RECOMMENDED RATIOS	
Active Start	Training	Competition
FUNdamentals		
Learning to Train		
Training to Train		
Training to Compete		
Training to Win		
Active for Life		

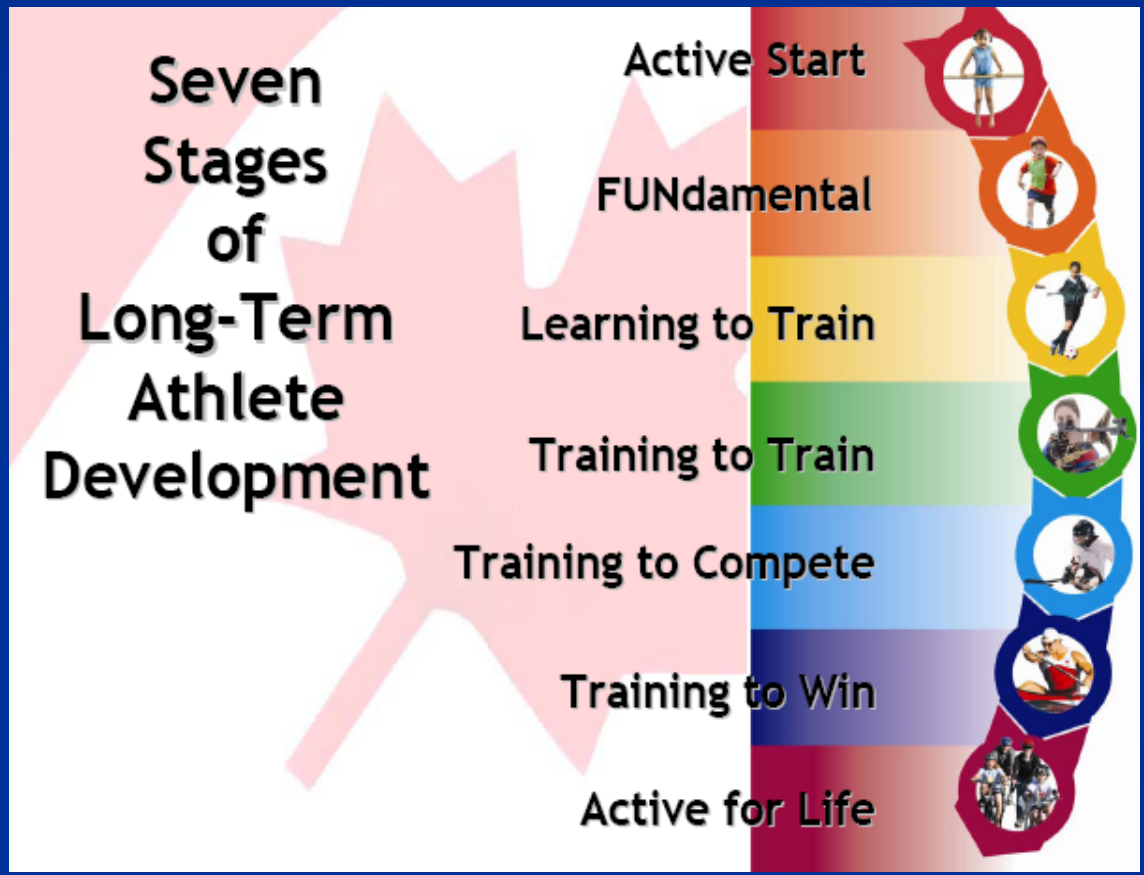
10 key Factors Influencing LTAD

9. **System Alignment and Integration**



10 key Factors Influencing LTAD

10. **Continuous Improvement**



LTAD – next steps

- Sport specific LTAD – in development by FHC
- Projected launch - Feb 2008
- Project leader: Sherry Doiron – Coaching Coordinator at Field Hockey Canada – coaching@fieldhockey.ca

Acknowledgements

- Resource Paper: Long-Term Athlete Development – Canadian Sport for Life. Published by the Canadian Sport Centers (www.ltad.ca)
- FHBC Coach Education Panel:
  - Eric Broom
  - Gail Wilson
  - Sally Bell – Women's National Coach
  - Louis Mendonca – Men's National Coach
  - Carolyn Gillespie – Regional Head Coach – Interior
  - Kimo Linders
  - Lesley Magnus – Regional Head Coach - Interior
  - John Sacre
  - Nick Sandhu
  - Inderpal Sehmbi
  - Krista Thompson – Regional Head Coach - Island
  - Giles Wheatley
- Pacific Sport Vancouver

Questions?