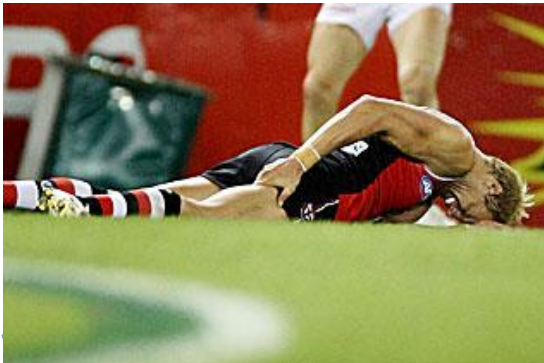




Developing the FootyFirst program and implementation plan to maximise the public health benefit

Alex Donaldson¹, Belinda Gabbe¹, Warren Young², David Lloyd³, Jill Cook¹ and Caroline F Finch¹

¹Monash University, ²University of Ballarat, ³Griffith University



Background

- NoGAPS (National Guidance for Australian Football Partnerships and Safety) project
 - A two year randomised group-clustered ecological study
 - Aim to develop and disseminate an exercise-training program to prevent leg injuries in community sport
- Maximising public health impact requires both the right program content and the right program delivery process

Study protocol

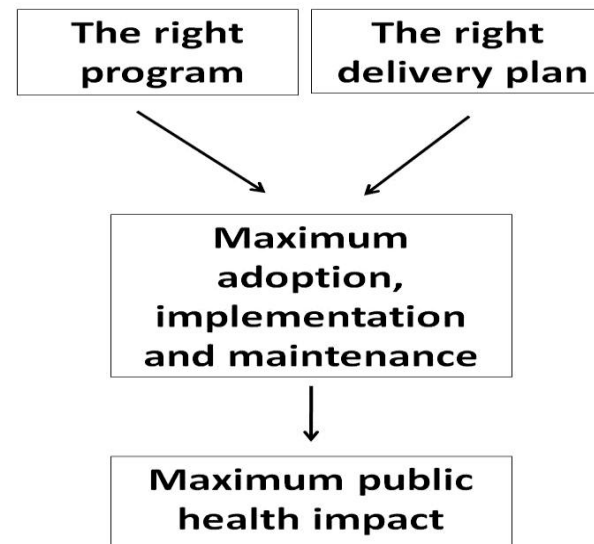
Towards a national sports safety strategy: addressing facilitators and barriers towards safety guideline uptake

Caroline F Finch,¹ Belinda J Gabbe,² David G Lloyd,³ Jill Cook,⁴ Warren Young,⁵ Matthew Nicholson,⁶ Hugh Seward,⁷ Alex Donaldson,¹ Tim L A Doyle⁸

Table 1 Overview of study and study phases

Overall research and partnership goals	Project phase	Study year
Develop evidence-based safety guidelines for lower limb injury in Australian football	1	2010–11
Refine guidelines and develop a delivery plan	2	2011
Implement and evaluate guidelines and delivery plan	3	2012–13
Develop and release of a national Australian football sports safety package	4	2014
Extension of sports safety package through national/state partners to other sports	5	2014
Promotion of general sports safety with partner agencies	5	2010–14

Injury Prevention 2011;17:e4. doi:10.1136/ip.2010.031385



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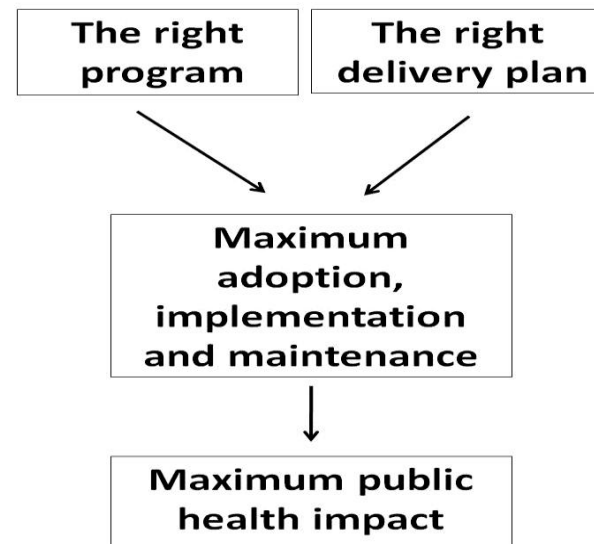
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Developing the right program

■ Identifying a need

- Reviewed published and unpublished injury data
- Consulted industry partners
- Confirmed lower limb injury prevention as a priority

■ Identifying a solution that works

- Reviewed published evaluations of exercise-based lower limb injury prevention programs
- Confirmed many leg injuries can be prevented through targeted training
- Identified that teams with less injuries win more

Incidence and risk factors for injury in non-elite Australian Football

A McManus¹, M Stevenson², CF Finch³, B Elliott⁴, P Hamer⁴, A Lower⁵ & M Bulsara⁶

Research in Sports Medicine, 20:239–262, 2012
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DOI: 10.1080/15438627.2012.680989



An Anterior Cruciate Ligament Injury Prevention Framework: Incorporating the Recent Evidence

ARTICLE

JOURNAL CLUB

Effect of Neuromuscular Warm-up on Injuries in Female Soccer and Basketball Athletes in Urban Public High Schools

Cluster Randomized Controlled Trial

Cynthia R. LaBella, MD; Michael R. Huszard, MEd, ATC; Joe Grissom, MPP; Kwang-Youn Kim, PhD; Jie Peng, MS; Katherine Kaufer Christoffel, MD, MPH

Short report

Low injury rate strongly correlates with team success in Qatari professional football

Cristiano Eirale,¹ J L Tol,¹ Abdulaziz Farooq,² Faten Smiley,¹ Hakim Chalabi³

Developing the right program

■ Making sure everyone agrees

Consensus process with experts

- AFL Medical Officers
- AFL Sports Scientists
- AFL Physiotherapists
- Other lower limb injury prevention experts

■ Identifying a solution that is likely to be used

Focus groups and trials with potential end-users

- Community level coaches and players
- Easily used
- Not too time consuming
- Easily integrated.

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Gaining expert consensus on lower limb injury prevention exercise guidelines for community Australian Football—the NoGAPS project

A. Donaldson^{1,*}, J. Cook³, P. White¹, C. Finch¹, D. Lloyd⁴, B. Gabbe²



Developing the right program

- Targeted at hamstring, groin, hip, knee and ankle injuries
- Warm up + 5 progressive levels of exercises
- Performed 2 X 20 mins per week
- Minimal equipment and skills required
- Easy to understand and follow
- Fits with usual practice
- Similar to elite level
- Common questions answered




LEVEL 1 Do FootyFirst Warm Up exercises first **WEEKS 1-4**

Hamstring lower



→ Player kneels with a partner holding his ankles

→ Slowly lean forward from the knees with hands by the side; keep the body as straight as possible for as long as possible before falling forward onto the hands

→ To get back to the start position, push up with the hands rather than using the hamstrings

6 reps

Ball squeeze



→ Lie on the back with the knees bent at 90°

→ Place a ball between the knees and squeeze as if trying to squash the ball

→ Tempo – 2-2-2 (2 second contraction, 2 second hold, 2 second release)

→ Do 5 repetitions with 5 second rest between repetitions

→ Repeat with the legs straight and the ball between the knees

5 reps

Side plank



→ Lie on the side with one leg on top of the other; distribute the body weight evenly over the forearm

→ Raise the hips and the top arm simultaneously to achieve a straight body

→ Exercise Tempo – 2-2-2 (2 seconds to raise, 2 second hold, 2 seconds to lower)

→ Lower arm and hips to floor simultaneously

5 reps each side

Single leg balance



→ Two players stand about 3 m apart, both balancing on one leg

→ Players handball to each other while maintaining balance

→ Perform 12 handballs, alternating hands (6 right hand, 6 left hand)

→ Repeat while balancing on the other leg

12 reps each leg

Single leg shallow squat



→ Two players stand about 1 m apart both balancing on one leg with one hand on each other's shoulder; both perform shallow (>90°) single leg squats

→ Move about 3 m apart, balance on one leg and perform single leg squat

→ Balance on one leg, facing each other, and do a single leg squat after receiving a handball from their partner

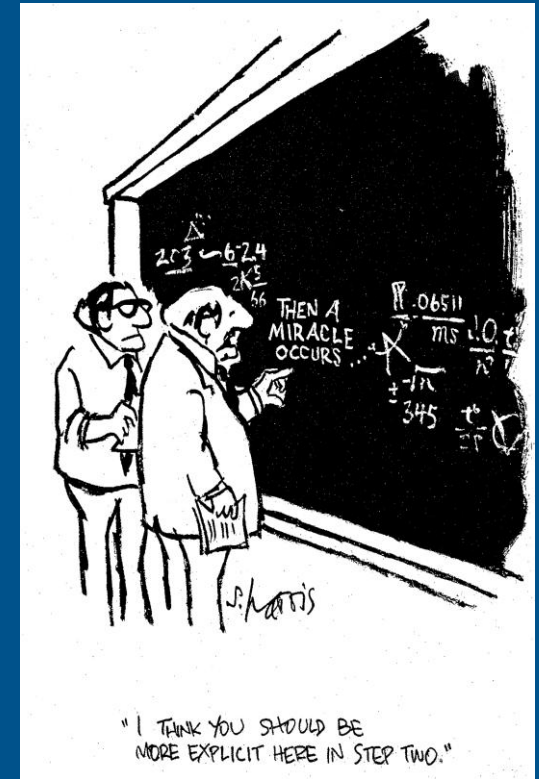
→ 6 handballs, alternating hands (3 right and 3 left)

→ Repeat on the other leg

6 reps each leg X 3 exercises

Developing the right delivery plan

- Program impact = effectiveness + implementation
- Current sports safety implementation strategies are not very effective
- Theories and frameworks can enhance implementation and dissemination activities (Tabak et al Am J Prev Med 2012).
- 1% of published sports injury prevention research investigated implementation and effectiveness (Klugl et al Clin J Sport Med 2010)



Developing the right delivery plan

Step 5 of Intervention Mapping (Bartholomew et al. 2011)

TASKS

Identifying potential program adopters and implementers

Establishing an adoption and implementation planning group

Stating program use outcomes and adoption and implementation performance objectives

Specifying determinant of program adoption and implementation

Creating matrices of change objectives for program adoption and implementation

Selecting theory informed methods and practical applications to enhance adoption and implementation

Designing interventions for program adoption and implementation

CORE PROCESSES

Pose a question

Brainstorm

Review literature

Access and use theory

Conduct new research and acquire new data

Formulate answers

STEP 5: ADOPTION AND IMPLEMENTATION

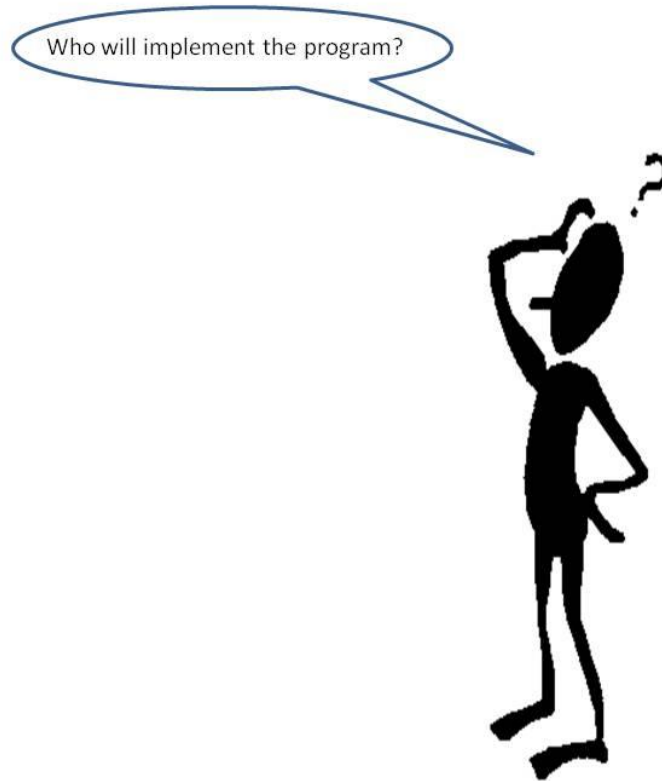
Developing the right delivery plan

Questions asked and answered when developing the FootyFirst delivery plan



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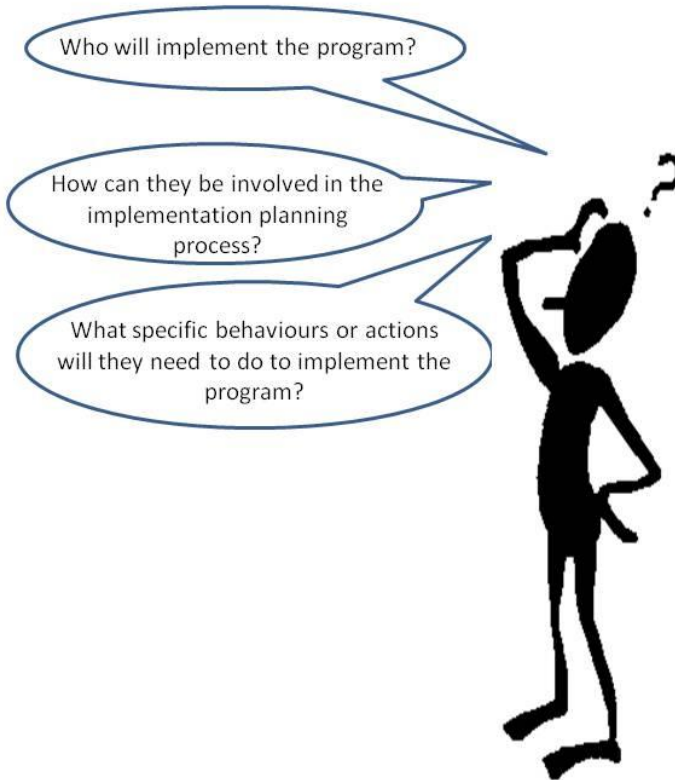
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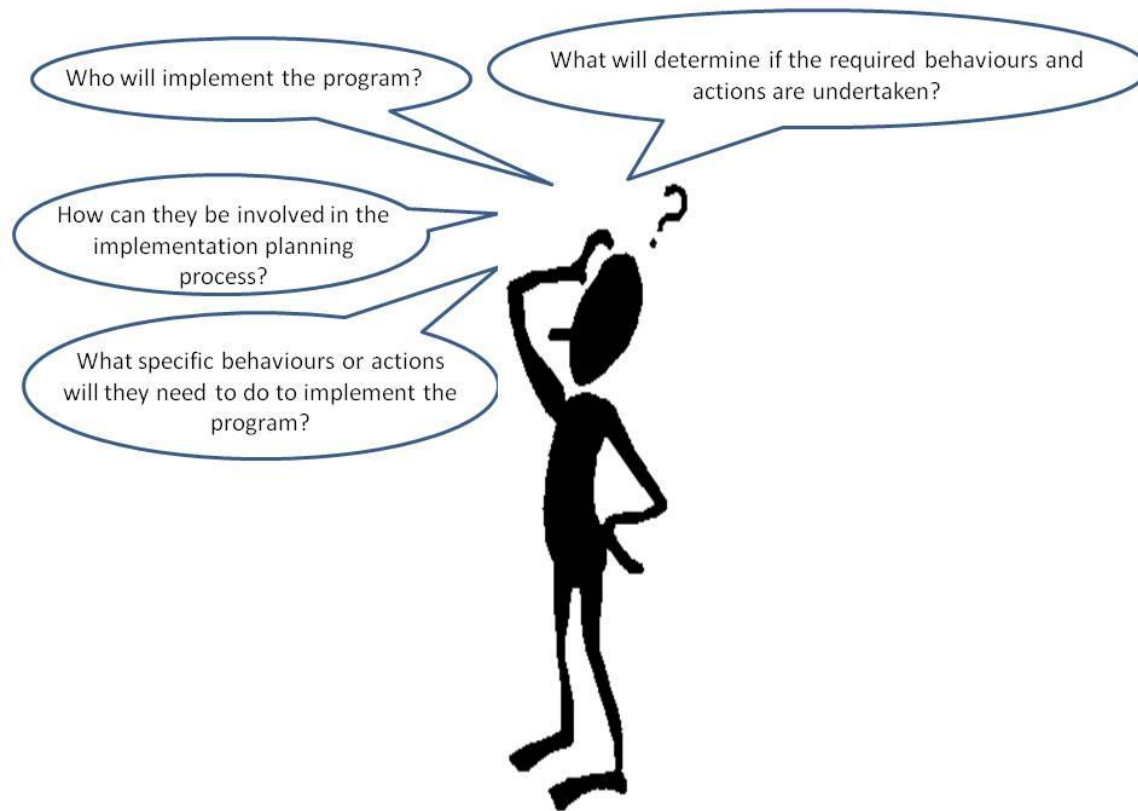
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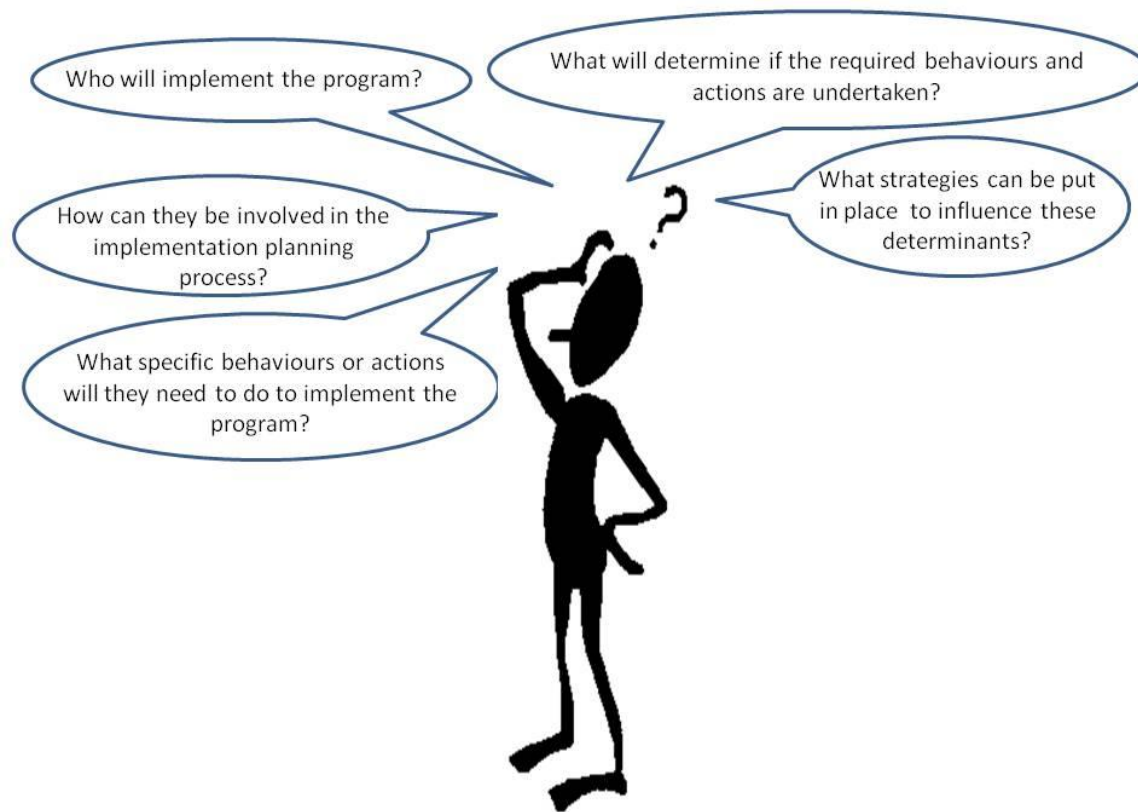
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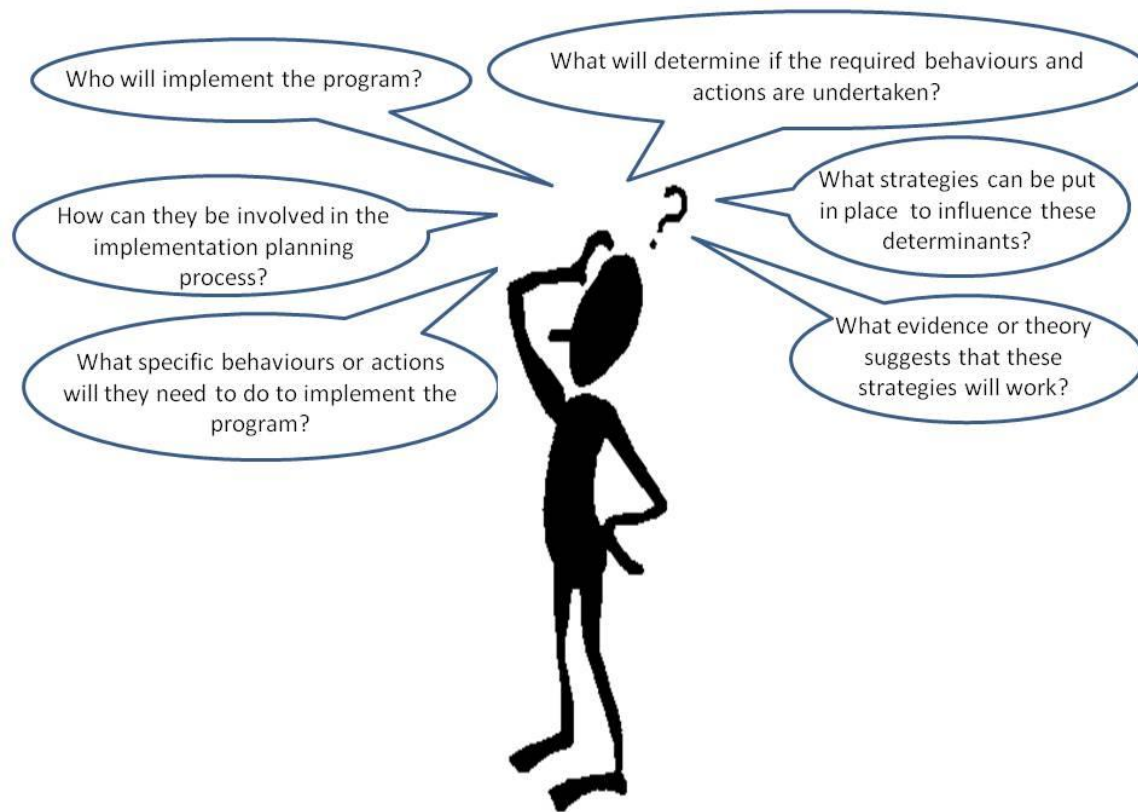
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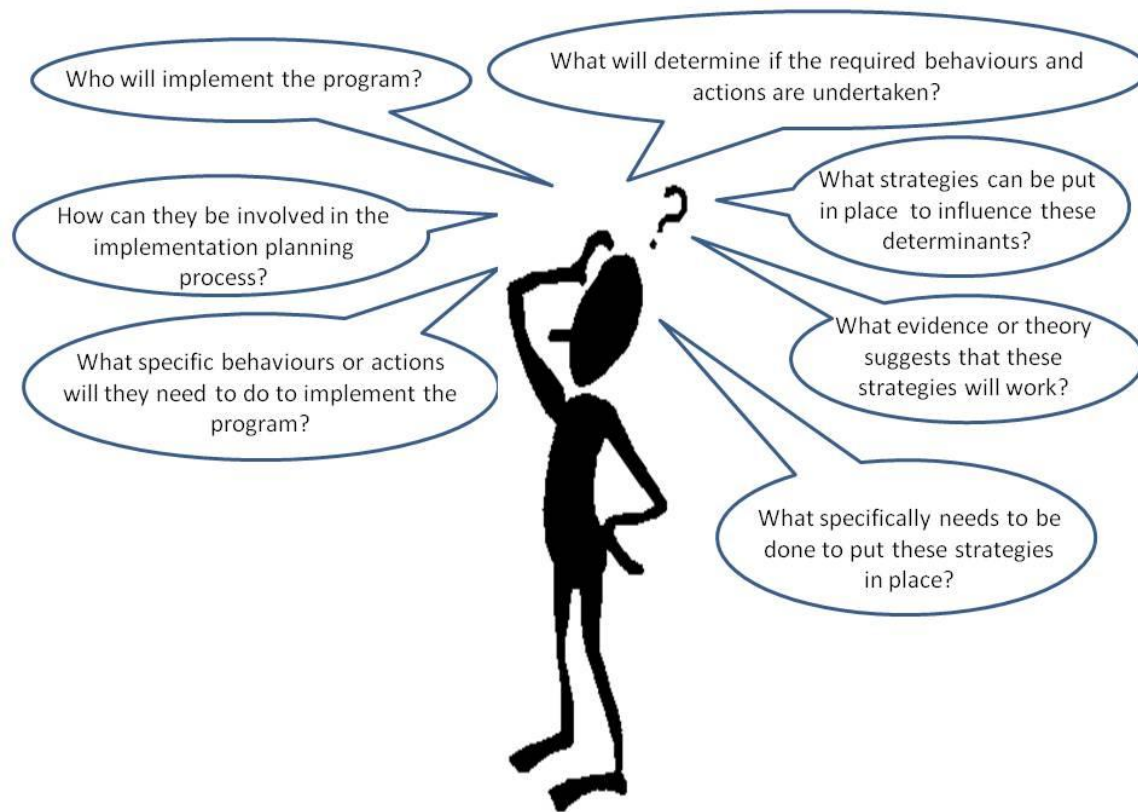
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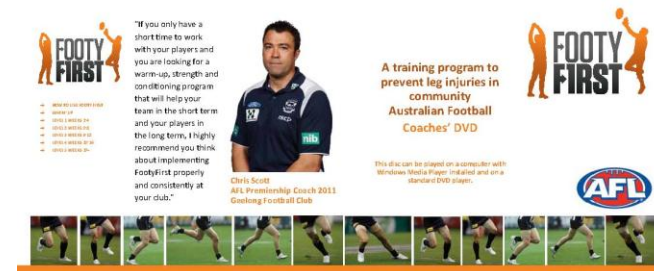
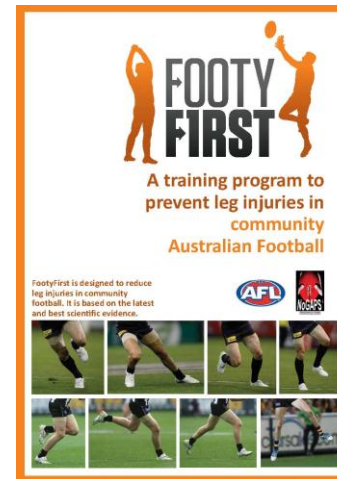
Developing the right delivery plan

Questions asked and answered when developing the delivery plan for FootyFirst



FootyFirst delivery plan

- Communication strategy
 - Mass media
 - Direct
- High profile launch
- Endorsement
 - AFL logo and premiership coach
 - Respected and recognised experts
- Resources
 - Manuals
 - Posters
 - Video
- Coach training
- Mentoring



Evaluation

- Comparing the reach, effectiveness, adoption, implementation and maintenance (RE-AIM) of FootyFirst
- Mixed methods
 - Online surveys
 - Interviews
 - Observations
 - Injury surveillance
 - Prospective, self-reported implementation

Original article

A sports setting matrix for understanding the implementation context for community sport

C F Finch, A Donaldson

Table 1 The RE-AIM Sports Setting Matrix (RE-AIM SSM): evaluation dimensions for community sport intervention delivery with demonstrable public health benefit

RE-AIM Dimension	Level of assessment/intervention setting or target					
	National Sporting Organisation (NSO)	State/Provincial Sporting Organisation (SSO)	Regional Association or League	Club	Team	Participant
Reach						
Effectiveness						
Adoption						
Implementation						
Maintenance						

Note: This table shows all possible intervention points. The relevance of each point will depend on the nature and target of each intervention

Key challenges and lessons learnt

- Limited scientific evidence
- What will work Vs what will be adopted and implemented
- Step 5 of Intervention Mapping is a useful implementation planning tool
- Researcher–End-user partnerships are important
- Language is a key challenge
- Gathering adoption and implementation data in the real-world is difficult
- Program adoption and implementation are continuous and on-going

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 - NSW Sporting Injuries Committee (NSWSIC)
 - JLT Sport, a division of Jardine Lloyd Thompson Australia Pty Ltd
 - Department of Planning and Community Development – Sport and Recreation Victoria Division
 - Sports Medicine Australia – National and Victorian Branches (SMA)