

### **SUPPLEMENTAL FILE 3: RE-AIM DIMENSION SCORING**

This document specifies how the achievement of the aims of the RE-AIM dimensions were assessed based on data obtained and triangulated from across the sources described in Supplemental File 2.

The FootyFirst Project Manager (Author AD) and two Research Assistants identified, collated and agreed upon the available evidence from all data sources for each item, for each club. They then collaborated to complete a RE-AIM summary of evidence scoresheet for each club by describing the evidence relevant to each item in the RE-AIM framework. Where no evidence was available for a particular item (e.g. no club representative completed a survey/section of a survey or participated in an implementation activity), this was recorded as 'no evidence available'. A total of 78 RE-AIM summaries were created (22 Region 1 clubs, 25 Region 2 clubs and 31 Region 3 clubs).

The data identifying club, league or year was removed from each RE-AIM scoresheet. To ensure that it was not possible to identify the league with which a club was affiliated, three additional items were added to the scoresheets for each Region 1 and Region 2 club corresponding to the three pre-season survey items in the Reach, perceived Effectiveness and Adoption dimensions in the scoresheets for the Region 3 clubs. The evidence for Region 1 and Region 2 clubs for these three items was described as 'no evidence available'.

The 78 RE-AIM scoresheets were randomly ordered and provided electronically (as excel spreadsheets) to two independent assessors. Following instruction in how to conduct assessments from the FootyFirst Project Manager, these assessors rated the evidence presented for each of the 29 items in each of the 78 RE-AIM scoresheets. The assessors selected one of four options for rating the evidence presented:

- Evidence of Yes (i.e. evidence supported achievement of the dimension aim);
- Evidence of No (i.e. evidence supported non-achievement of the dimension aim);
- No Evidence; or
- Unsure.

Assessors then reflected upon the ratings they had given each item within each of the five RE-AIM dimensions and selected one of three options (Not achieved, Partially achieved, or Fully achieved) as an overall rating of achievement for the aim for that dimension (known as a RE-AIM dimension rating). The stated aim for each RE-AIM dimension was as follows:

- Reach—a club representative was aware of FootyFirst;

- perceived Effectiveness—a club representative believed that FootyFirst contributed to, or could contribute to, a reduction in lower limb injuries and/or improved team/individual player performance;
- Adoption—the club, team or coach tried (or intended) to implement FootyFirst;
- Implementation—the club, team or coach implemented FootyFirst as intended (all program components, at least twice a week, with all players, with appropriate progression of players through the levels); and
- Maintenance—the club, team or coach intended to implement FootyFirst on an ongoing basis.

Assessors were provided with RE-AIM scoresheets in batches of 10 in random order for the first 40 RE-AIM scoresheets and then with a larger batch of 38 scoresheets, also in random order. Following the approach used by O'Brien & Finch[1], once both assessors had completed their assessments of each batch of 10 scoresheets, they met, together with the Project Manager, to compare and discuss their ratings. Discrepancies between the assessors were resolved through discussion and further consideration of the available evidence, before moving on to the next batch of RE-AIM scoresheets. Discussions also resulted in agreement about how similar evidence or collections of evidence should be rated in future scoresheets. This process was intended to develop consensus and consistency on rating the evidence presented, and the RE-AIM dimension rating for each of the five RE-AIM dimensions, rather than to test inter-rater reliability.

Once consensus was achieved between the two assessors' ratings for all individual items and for each RE-AIM dimension for each of the 78 RE-AIM scoresheets, each RE-AIM dimension in each scoresheet was given a RE-AIM dimension score as follows:

- Rating of 'Not Achieved' scored as 0;
- Rating of 'Partially Achieved' scored as 1; and
- Rating of 'Fully Achieved' scored as 2.

A Total RE-AIM score (min 0–max 10) was generated for each club by summing the RE-AIM dimension scores.

After 20 scoresheets had been assessed, it was agreed that if the only evidence available for the Reach dimension was that the Research Assistants' notes indicated that a club representative responded to emails, phone calls etc. about FootyFirst, and that FootyFirst resources had been sent to the club via mail, then this would consistently be interpreted as the aim of the Reach dimension being "Partially Achieved".

For each batch of 10 RE-AIM scoresheets, the percentage level agreement between assessors for rating both the 29 individual items of evidence and the five RE-AIM dimensions, were calculated as follows: (number of items with matching ratings/total number of items) X 100; and number of RE-AIM dimensions with matching RE-AIM dimension ratings/total number of RE-AIM dimensions) X 100.

The table below summarises the level of agreement between assessors when using the RE-AIM scoresheets. This indicates that the process developed for the RE-AIM assessment and scoring was robust.

RE-AIM scoresheet batch	% agreement on item evidence rating (29 items per RE-AIM scoresheet)		% agreement on RE-AIM dimension rating (5 dimension per RE-AIM scoresheet)	
	n	%	n	%
1 (1–10)	265/290	91%	39/50	80%
2 (11–20)	276/290	95%	42/50	88%
3 (21–30)	284/290	98%	48/50	92%
4 (31–40)	280/290	97%	44/50	94%
5 (41–78)	1063/1102	96%	240/270	89%
Total	2626/2726	96%	417/470	89%

Below is an example of a completed RE-AIM scoresheet for one club

POTENTIAL EVIDENCE	DETAILED EVIDENCE	ASSESSOR 1 RATING OF EVIDENCE	ASSESSOR 2 RATING OF EVIDENCE	ASSESSORS CONSENSUS RATING OF EVIDENCE	SOURCE OF EVIDENCE
<b>R (Reach) = evidence that a club representative was aware of FootyFirst</b>					
Club representative responded to some form of communication about FootyFirst (email, phone call, SMS etc.)	Research assistant's notes indicate club representative responded to emails, phone calls etc. about FootyFirst	<b>Evidence of Yes</b>	<b>Evidence of Yes</b>	<b>Evidence of Yes</b>	Research assistant's club communication notes and recall data.
Club representative was provided with FootyFirst resources	FootyFirst resources sent to this club via mail	<b>Evidence of Yes</b>	<b>Evidence of Yes</b>	<b>Evidence of Yes</b>	Research assistant's club communication notes and recall data.
Club representative was visited by or attended a meeting with a representative of the NoGAPS research team or FootyFirst implementation team	No club representative participated in a meeting about FootyFirst	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Research assistant's club communication notes and recall data.
Club representative indicated awareness of FootyFirst in pre-season survey	No club representation completed a pre-season survey	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Pre-season online survey results.
Club representative indicated awareness of FootyFirst in post-season survey	Senior coach answered "yes" to awareness of FootyFirst in pre-season survey. Described FootyFirst as "implementing warm-up exercises to best prepare the body for the rigors of football training/games .... to prevent injuries common to footballers".	<b>Evidence of Yes</b>	<b>Evidence of Yes</b>	<b>Evidence of Yes</b>	Post season online survey results.
Club representative attended a FootyFirst training session	No club representative participated in a FootyFirst training session	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Research assistant's Coaching the Coaches attendance lists
Club representative was a member of the relevant league's FootyFirst Implementation Advisory Group	No club representative was a member of this group	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Relevant league FootyFirst Advisory Group member list
Club representative indicated awareness of FootyFirst in post-season interview	No club representative participated in a FootyFirst post-season interview	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Transcription of post-season interview with club representative.
Club representative attended FootyFirst launch	No club representative attended the FootyFirst launch	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	FootyFirst launch attendance list
Club representative followed @FootyFirstAFL on Twitter	No evidence available	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Twitter followers list for @FootyFirstAFL and relevant league twitter handle

Club representative participated in FootyFirst auto text messaging program	No club representative participated in the auto text messaging program	No Evidence	No Evidence	No Evidence	MessageNet database
Club representative attended official league function (e.g. Trade Show)	No club representative attend a league function where FootyFirst was represented and presented	No Evidence	No Evidence	No Evidence	League expo attendance list
<b>Assessor Rating for the Reach component for this club for this season</b>		<b>FULLY ACHIEVED</b>	<b>FULLY ACHIEVED</b>	<b>FULLY ACHIEVED</b>	<b>REACH DIMENSION SCORE = 2</b>
<b>E (Perceived Effectiveness) = evidence that a club representative believed that FootyFirst contributed to, or could contribute to, a reduction in lower limb injuries and/or improved team/individual player performance</b>					
Club representative indicated anticipating FootyFirst would be effective in pre-season survey	No club representative completed a pre-season survey	No Evidence	No Evidence	No Evidence	Pre-season online survey results.
Club representative indicated FootyFirst was effective in post-season survey	Senior Coach reported warm-up, dynamic stretches, hip, jumping & landing and change of direction exercises were "somewhat effective" in preventing injuries. Did not implement hamstring and groin exercises.	Evidence of Yes	Evidence of Yes	Evidence of Yes	Post-season online survey results.
	Senior Coach reported warm-up, dynamic stretches, hip, jumping & landing and change of direction exercises were "somewhat effective" in improving player performance. Did not implement hamstring and groin exercises.				
	Senior Coach reported warm-up and dynamic stretches were "very effective", and jumping & landing and change of direction exercises were "somewhat effective" in improving team performance. Hip exercises were "neither effective, nor ineffective". Did not implement hamstring and groin exercises.				

	Senior Coach reported "nearly all players" benefited from participating in warm-up, dynamic stretches, hip, jumping & landing and change of direction exercises. Did not implement hamstring and groin exercises.				
Club representative indicated FootyFirst was effective in post-season interview	No club representative participated in a FootyFirst post-season interview	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Transcription of post-season interview with club representative
<b>Assessor Rating for the <i>perceived</i> Effectiveness component for this club for this season</b>		<b>PARTIALLY ACHIEVED</b>	<b>PARTIALLY ACHIEVED</b>	<b>PARTIALLY ACHIEVED</b>	<b>PERCEIVED EFFECTIVENESS DIMENSION SCORE = 1</b>
<b>A (Adoption) = evidence that the club, team or coach tried (or intended) to implement FootyFirst</b>					
FootyFirst research assistant's notes indicate club had a go at implementing FootyFirst	Research assistant's notes do not indicate that club had a go at implementing FootyFirst	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Research assistant's club communication notes and recall data.
Club representative indicated club had a go at implementing FootyFirst in post-season interview	No club representative participated in a FootyFirst post season interview	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Transcription of end of season interview with club representative.
Observation of club training session indicated club had a go at implementing FootyFirst	No observations were completed for this club	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Research assistant's notes and recall of observation of club training session.
Club representative indicated club intended to have go at implementing FootyFirst in pre-season survey	No club representative completed this section of a pre-season survey	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Pre-season online survey results.
Club representative indicated club "had a go at implementing" FootyFirst in post-season survey	Senior coach answered "yes" to implementing FootyFirst at the club in the post-season survey.	<b>Evidence of Yes</b>	<b>Evidence of Yes</b>	<b>Evidence of Yes</b>	Post-season online survey results.
	Decision made by senior coach				
	Senior coach implemented the program				
	Had a go at the warm-up, dynamic stretches, hip, jumping & landing and change of direction exercises				
	"Nearly all" players participated in at least one FootyFirst session				
Club weekly FootyFirst implementation data indicates club had a go at implementing FootyFirst	Club did not complete weekly data forms	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Weekly training data recorded and provided by club representative

Club representative signed the FootyFirst intention to implement form indicating club intention to have a go at implementing FootyFirst	No club representative signed an intention to implement FootyFirst form.	No Evidence	No Evidence	No Evidence	Completed Intention to implement FootyFirst forms
<b>Assessor Rating for the Adoption component for this club for this season</b>		<b>FULLY ACHIEVED</b>	<b>FULLY ACHIEVED</b>	<b>FULLY ACHIEVED</b>	<b>ADOPTION DIMENSION SCORE = 2</b>
<b>I (Implementation) = evidence that the club, team or coach implemented FootyFirst as intended (all program components, at least twice a week, with all players, with appropriate progression of players through the levels)</b>					
FootyFirst research assistant's notes and mentors log indicated club regularly implemented FootyFirst properly	Research assistant's notes indicate club did not respond to opportunities to participate in FootyFirst	No Evidence	No Evidence	No Evidence	Research assistant clubs communication notes and recall data.
Club representative indicated club regularly implemented FootyFirst properly during post-season interview	No club representative participated in a FootyFirst post-season interview	No Evidence	No Evidence	No Evidence	Transcription of post-season interview with club representative.
Observation of club training sessions indicated club implemented FootyFirst properly	No observations were completed for this club	No Evidence	No Evidence	No Evidence	Research assistant's notes and recall of observation of club training session.
Club weekly FootyFirst implementation data indicated club regularly implemented FootyFirst properly	Club did not complete weekly data forms	No Evidence	No Evidence	No Evidence	Weekly training data recorded and provided by club representative
Club representative indicated club regularly implemented FootyFirst properly in post season survey	Senior coach reported FootyFirst was implemented regularly during the pre-season.	Evidence of No	Evidence of No	Evidence of No	Post season online survey results.
	Senior coach reported that warm-up, dynamic stretches, and change of direction exercises were implemented at "every" session during pre-season. Hip and jumping & landing exercises were implemented "less frequently than every second" training session. Hamstring and groin exercises were not implemented.				
	Senior coach reported that FootyFirst was regularly implemented during the playing season with "all" players.				

	Senior coach reported warm-up and dynamic stretches were implemented at "every" session during playing-season. Change of direction exercises were implemented "every second" training session. Hip and jumping & landing exercises were implemented "less frequently than every second" training session. Hamstring and groin exercises were not implemented.				
	Senior coach reported that the warm-up and dynamic stretches were implemented "very well". Hip and jumping & landing and change of direction exercises were implemented "well". Hamstring and groin exercises were not implemented.				
	Senior coach reported players performed warm-up, dynamic stretches and hip exercises "well". Jumping & landing and change of direction were performed "Ok". Hamstring and groin exercises were not implemented.				
<b>Assessor Rating for the Implementation component for this club for this season</b>		<b>NOT ACHIEVED</b>	<b>NOT ACHIEVED</b>	<b>NOT ACHIEVED</b>	<b>IMPLEMENTATION DIMENSION SCORE = 0</b>
<b>M (Maintenance) = evidence that the club, team or coach intended to implement FootyFirst on an ongoing basis</b>					
Club representative indicated club intended to implement FootyFirst in the following season in post-season interview	No club representative participated in a FootyFirst post season Interview	<b>No Evidence</b>	<b>No Evidence</b>	<b>No Evidence</b>	Transcription of post-season interview with club representative
Club representative indicated club intended to implement FootyFirst in the following season during post-season survey	Senior coach answered "yes" to implementing FootyFirst during the following pre-and playing season with all players.	<b>Evidence of Yes</b>	<b>Evidence of Yes</b>	<b>Evidence of Yes</b>	Post-season online survey results.
<b>Assessor Rating for the Maintenance component for this club for this season</b>		<b>FULLY ACHIEVED</b>	<b>FULLY ACHIEVED</b>	<b>FULLY ACHIEVED</b>	<b>MAINTENANCE DIMENSION SCORE = 2</b>
<b>TOTAL RE-AIM SCORE = 7</b>					



## REFERENCES

1. O'Brien J, Finch CF. The implementation of musculoskeletal injury-prevention exercise programmes in team ball sports: a systematic review employing the RE-AIM framework. *Sports Med.* 2014;**44**:1305-18.