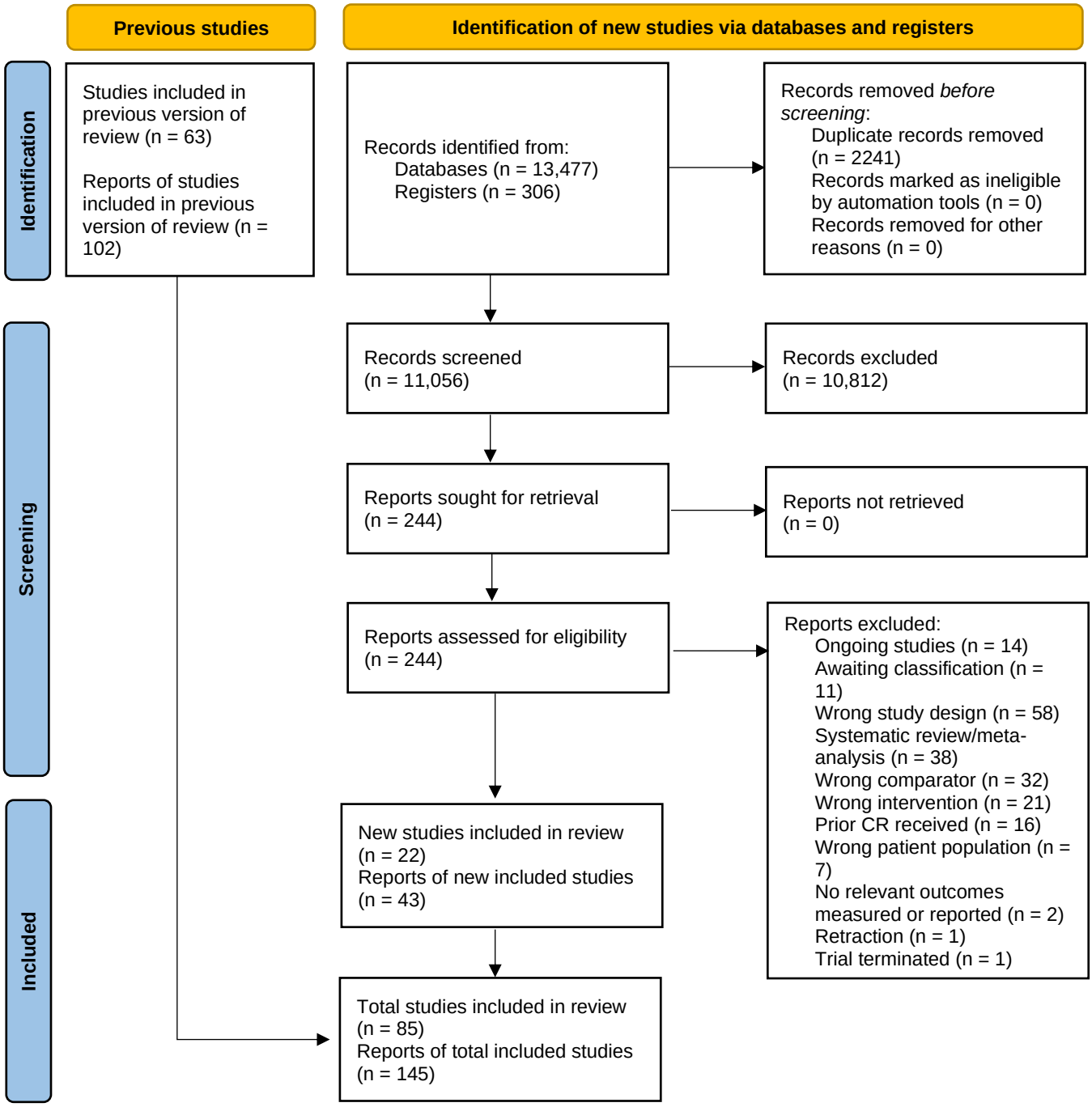
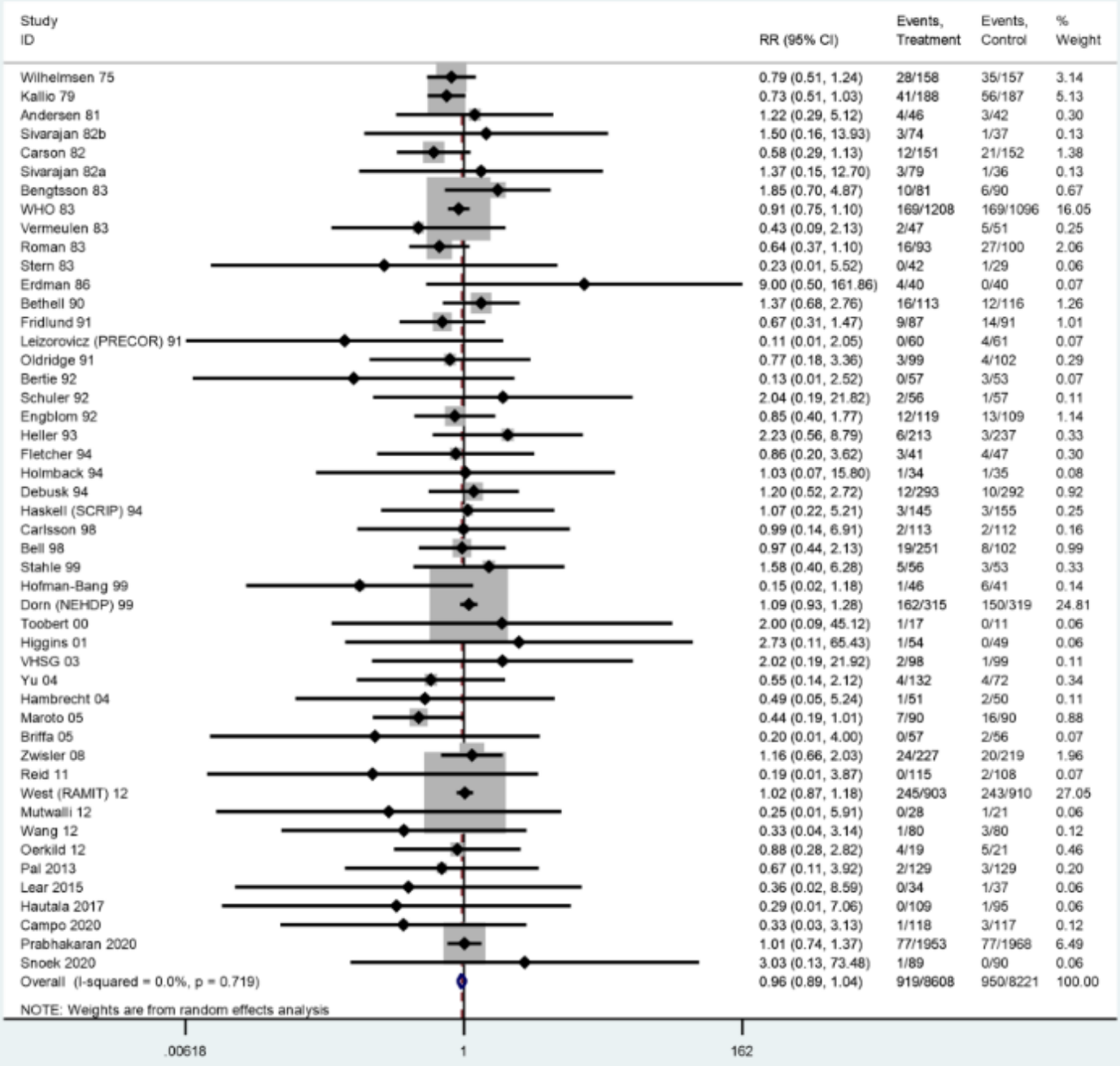
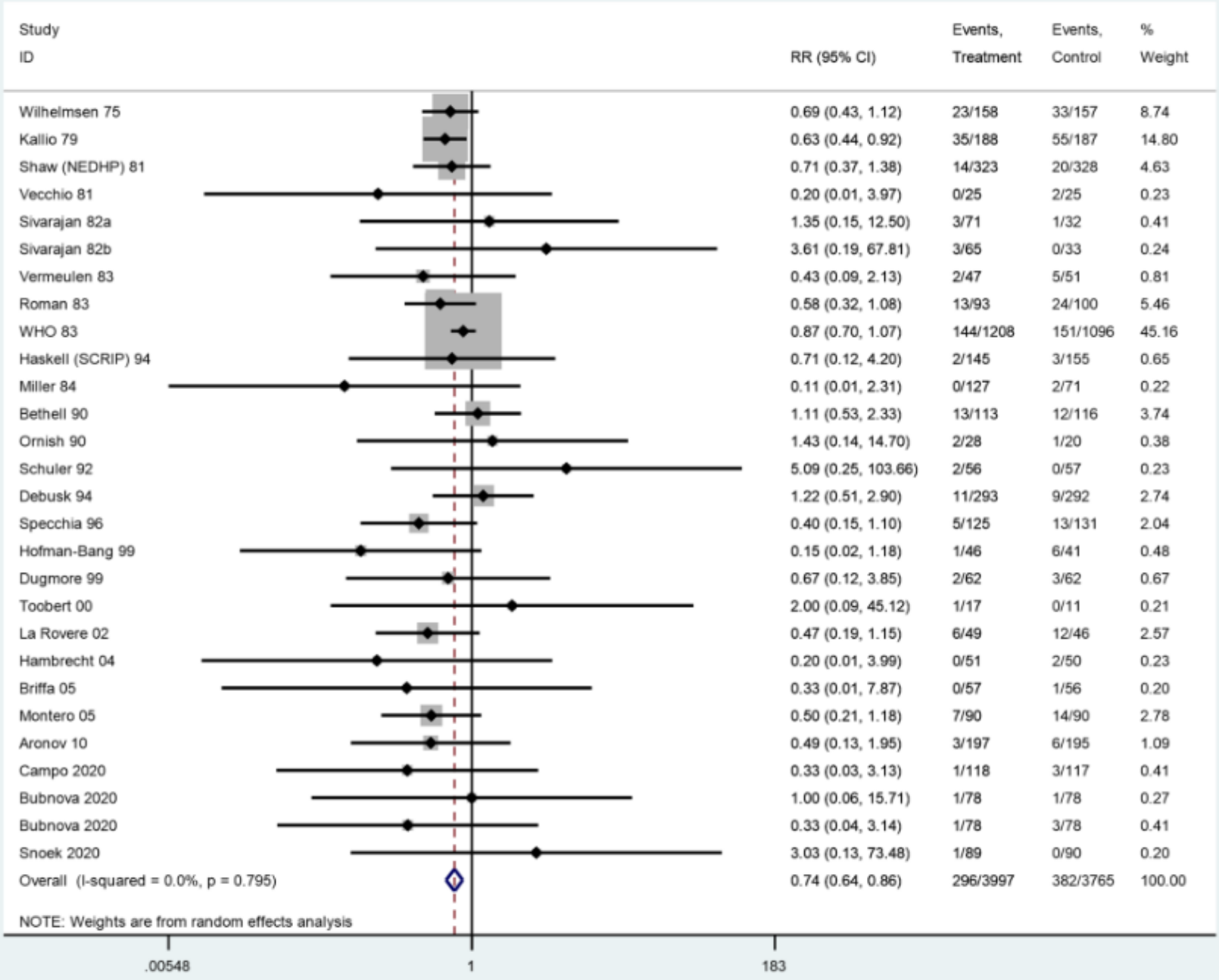
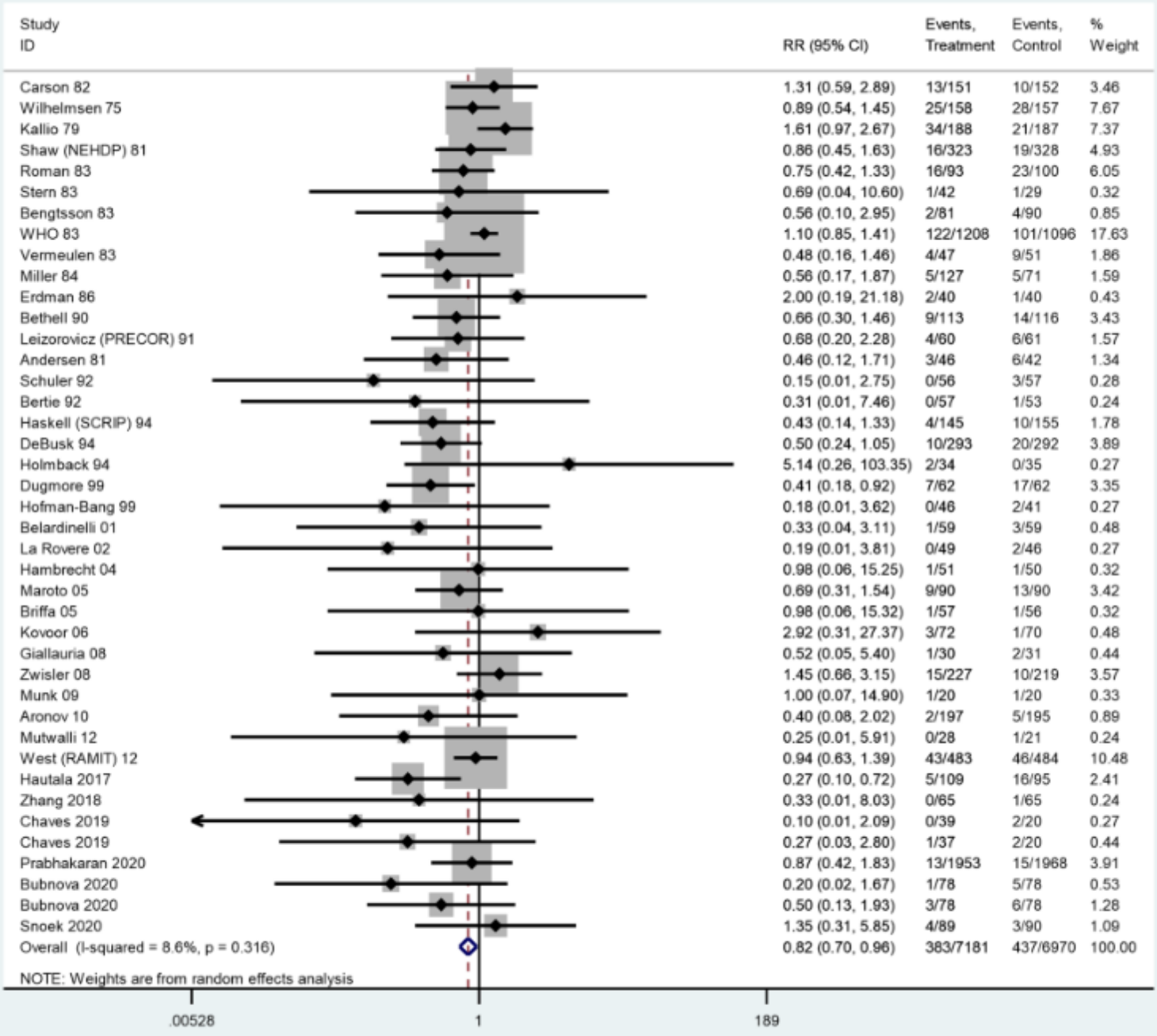
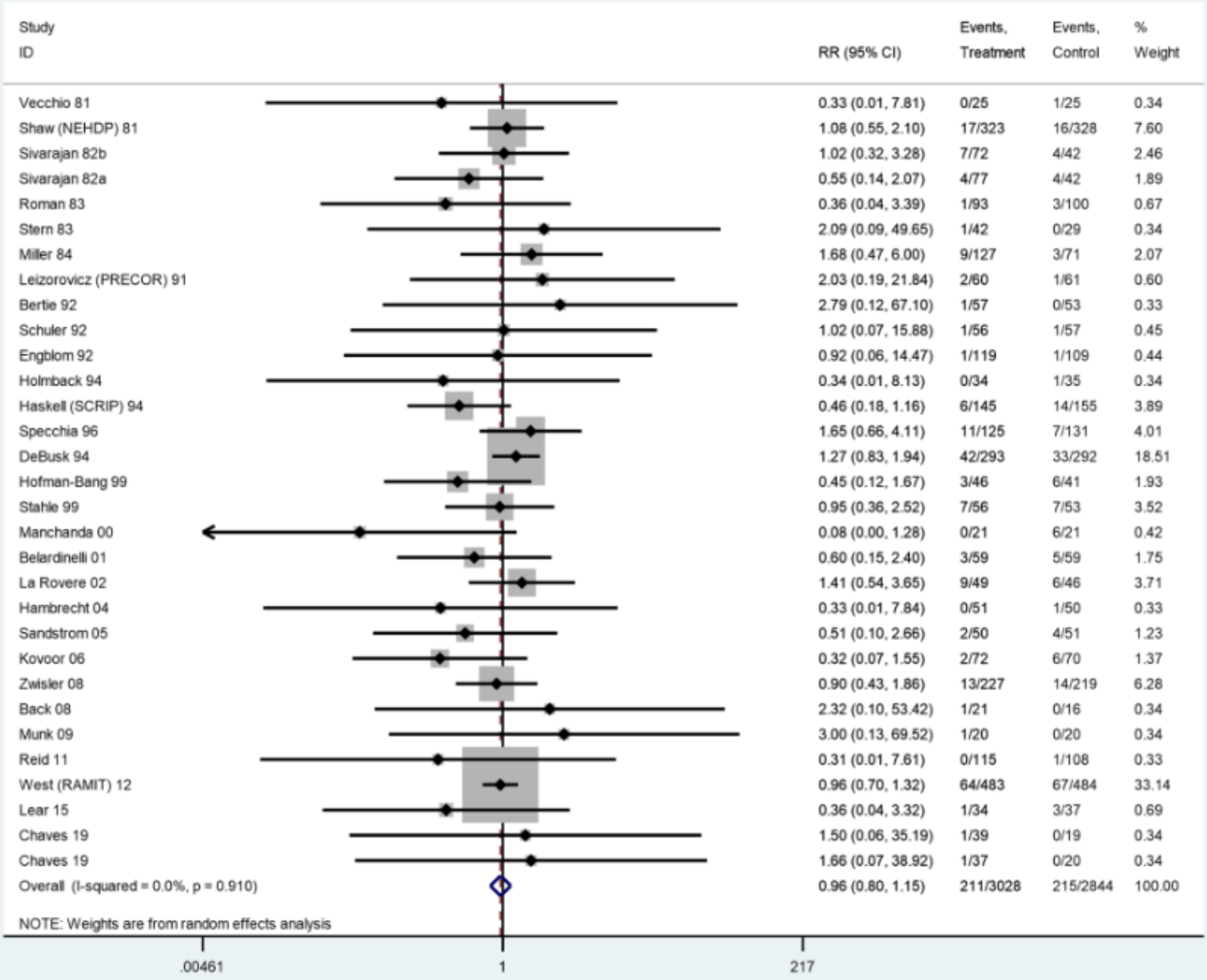
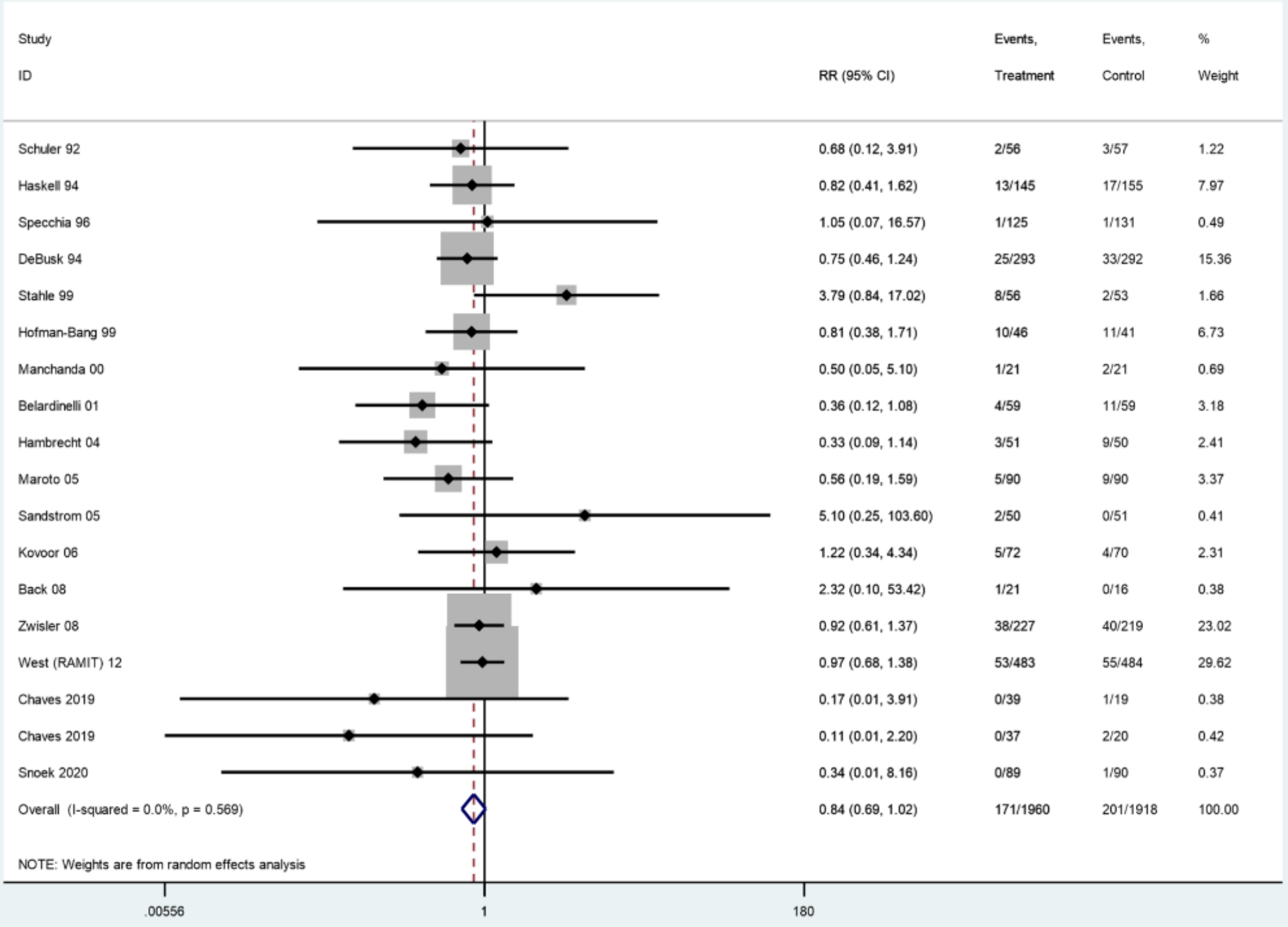

Previous studies
Identification of new studies via databases and registers
Identification
Screening
Included
Studies included in previous version of review (n = 63)
Reports of studies included in previous version of review (n = 102)
Records identified from:
Databases (n = 13,477)
Registers (n = 306)
Records removed *before screening*:
Duplicate records removed (n = 2241)
Records marked as ineligible by automation tools (n = 0)
Records removed for other reasons (n = 0)
Records screened (n = 11,056)
Records excluded (n = 10,812)
Reports sought for retrieval (n = 244)
Reports not retrieved (n = 0)
Reports assessed for eligibility (n = 244)
Reports excluded:
Ongoing studies (n = 14)
Awaiting classification (n = 11)
Wrong study design (n = 58)
Systematic review/meta-analysis (n = 38)
Wrong comparator (n = 32)
Wrong intervention (n = 21)
Prior CR received (n = 16)
Wrong patient population (n = 7)
No relevant outcomes measured or reported (n = 2)
Retraction (n = 1)
Trial terminated (n = 1)
New studies included in review (n = 22)
Reports of new included studies (n = 43)
Total studies included in review (n = 85)
Reports of total included studies (n = 145)

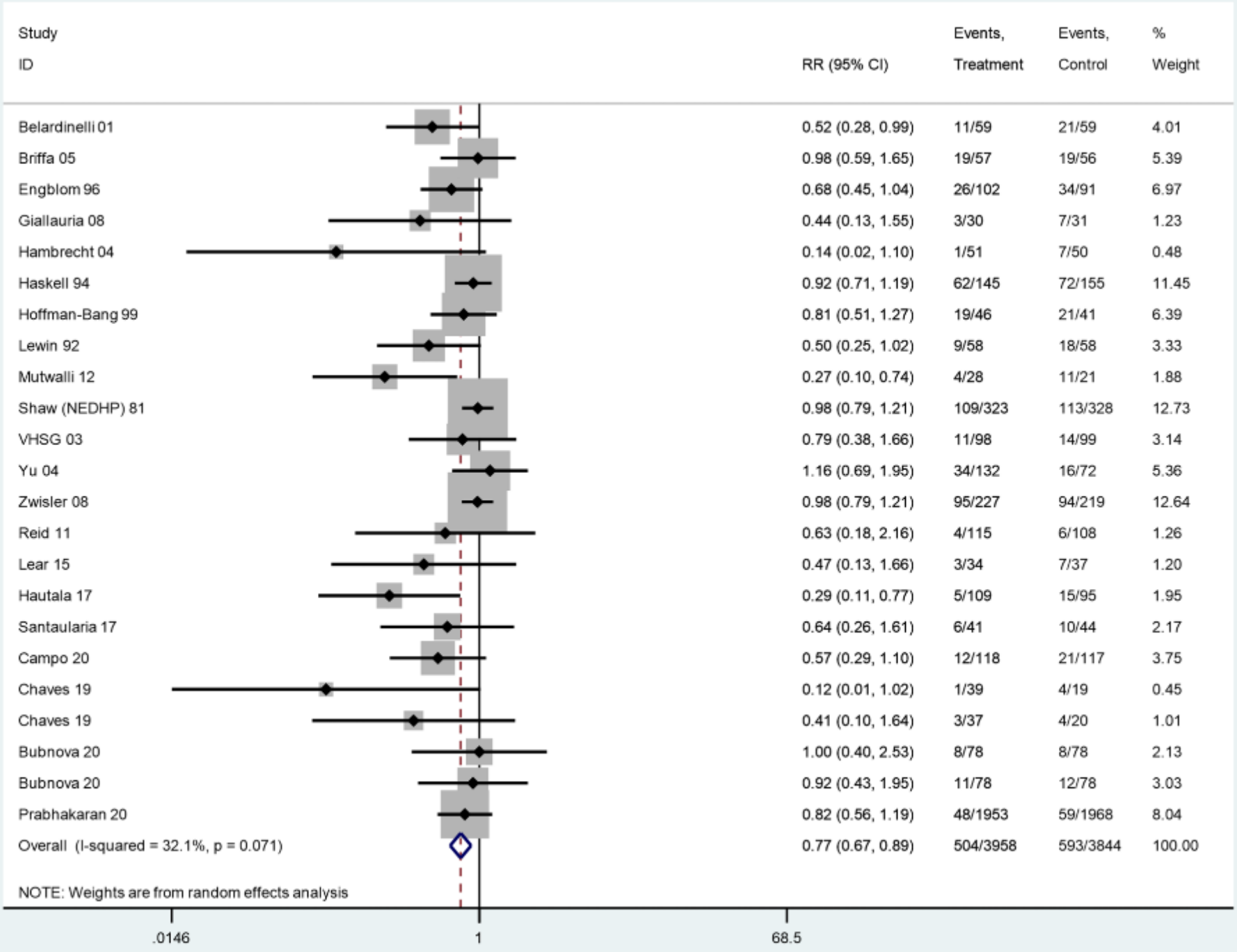

Study ID
RR (95% CI)
Events, Treatment
Events, Control
% Weight
Wilhelmsen 75 0.79 (0.51, 1.24) 28/158 35/157 3.14
Kallio 79 0.73 (0.51, 1.03) 41/188 56/187 5.13
Andersen 81 1.22 (0.29, 5.12) 4/46 3/42 0.30
Sivarajan 82b 1.50 (0.16, 13.93) 3/74 1/37 0.13
Carson 82 0.58 (0.29, 1.13) 12/151 21/152 1.38
Sivarajan 82a 1.37 (0.15, 12.70) 3/79 1/36 0.13
Bengtsson 83 1.85 (0.70, 4.87) 10/81 6/90 0.67
WHO 83 0.91 (0.75, 1.10) 169/1208 169/1096 16.05
Vermeulen 83 0.43 (0.09, 2.13) 2/47 5/51 0.25
Roman 83 0.64 (0.37, 1.10) 16/93 27/100 2.06
Stern 83 0.23 (0.01, 5.52) 0/42 1/29 0.06
Erdman 86 9.00 (0.50, 161.86) 4/40 0/40 0.07
Bethell 90 1.37 (0.68, 2.76) 16/113 12/116 1.26
Fridlund 91 0.67 (0.31, 1.47) 9/87 14/91 1.01
Leizorovicz (PRECOR) 91 0.11 (0.01, 2.05) 0/60 4/61 0.07
Oldridge 91 0.77 (0.18, 3.36) 3/99 4/102 0.29
Bertie 92 0.13 (0.01, 2.52) 0/57 3/53 0.07
Schuler 92 2.04 (0.19, 21.82) 2/56 1/57 0.11
Engblom 92 0.85 (0.40, 1.77) 12/119 13/109 1.14
Heller 93 2.23 (0.56, 8.79) 6/213 3/237 0.33
Fletcher 94 0.86 (0.20, 3.62) 3/41 4/47 0.30
Holmback 94 1.03 (0.07, 15.80) 1/34 1/35 0.08
Debusk 94 1.20 (0.52, 2.72) 12/293 10/292 0.92
Haskell (SCRIP) 94 1.07 (0.22, 5.21) 3/145 3/155 0.25
Carlsson 98 0.99 (0.14, 6.91) 2/113 2/112 0.16
Bell 98 0.97 (0.44, 2.13) 19/251 8/102 0.99
Stahle 99 1.58 (0.40, 6.28) 5/56 3/53 0.33
Hofman-Bang 99 0.15 (0.02, 1.18) 1/46 6/41 0.14
Dorn (NEHDP) 99 1.09 (0.93, 1.28) 162/315 150/319 24.81
Toobert 00 2.00 (0.09, 45.12) 1/17 0/11 0.06
Higgins 01 2.73 (0.11, 65.43) 1/54 0/49 0.06
VHSG 03 2.02 (0.19, 21.92) 2/98 1/99 0.11
Yu 04 0.55 (0.14, 2.12) 4/132 4/72 0.34
Hambrecht 04 0.49 (0.05, 5.24) 1/51 2/50 0.11
Maroto 05 0.44 (0.19, 1.01) 7/90 16/90 0.88
Briffa 05 0.20 (0.01, 4.00) 0/57 2/56 0.07
Zwisler 08 1.16 (0.66, 2.03) 24/227 20/219 1.96
Reid 11 0.19 (0.01, 3.87) 0/115 2/108 0.07
West (RAMIT) 12 1.02 (0.87, 1.18) 245/903 243/910 27.05
Mutwalli 12 0.25 (0.01, 5.91) 0/28 1/21 0.06
Wang 12 0.33 (0.04, 3.14) 1/80 3/80 0.12
Oerkild 12 0.88 (0.28, 2.82) 4/19 5/21 0.46
Pal 2013 0.67 (0.11, 3.92) 2/129 3/129 0.20
Lear 2015 0.36 (0.02, 8.59) 0/34 1/37 0.06
Hautala 2017 0.29 (0.01, 7.06) 0/109 1/95 0.06
Campo 2020 0.33 (0.03, 3.13) 1/118 3/117 0.12
Prabhakaran 2020 1.01 (0.74, 1.37) 77/1953 77/1968 6.49
Snoek 2020 3.03 (0.13, 73.48) 1/89 0/90 0.06
Overall (I-squared = 0.0%, p = 0.719) 0.96 (0.89, 1.04) 919/8608 950/8221 100.00
NOTE: Weights are from random effects analysis
.00618
1
162

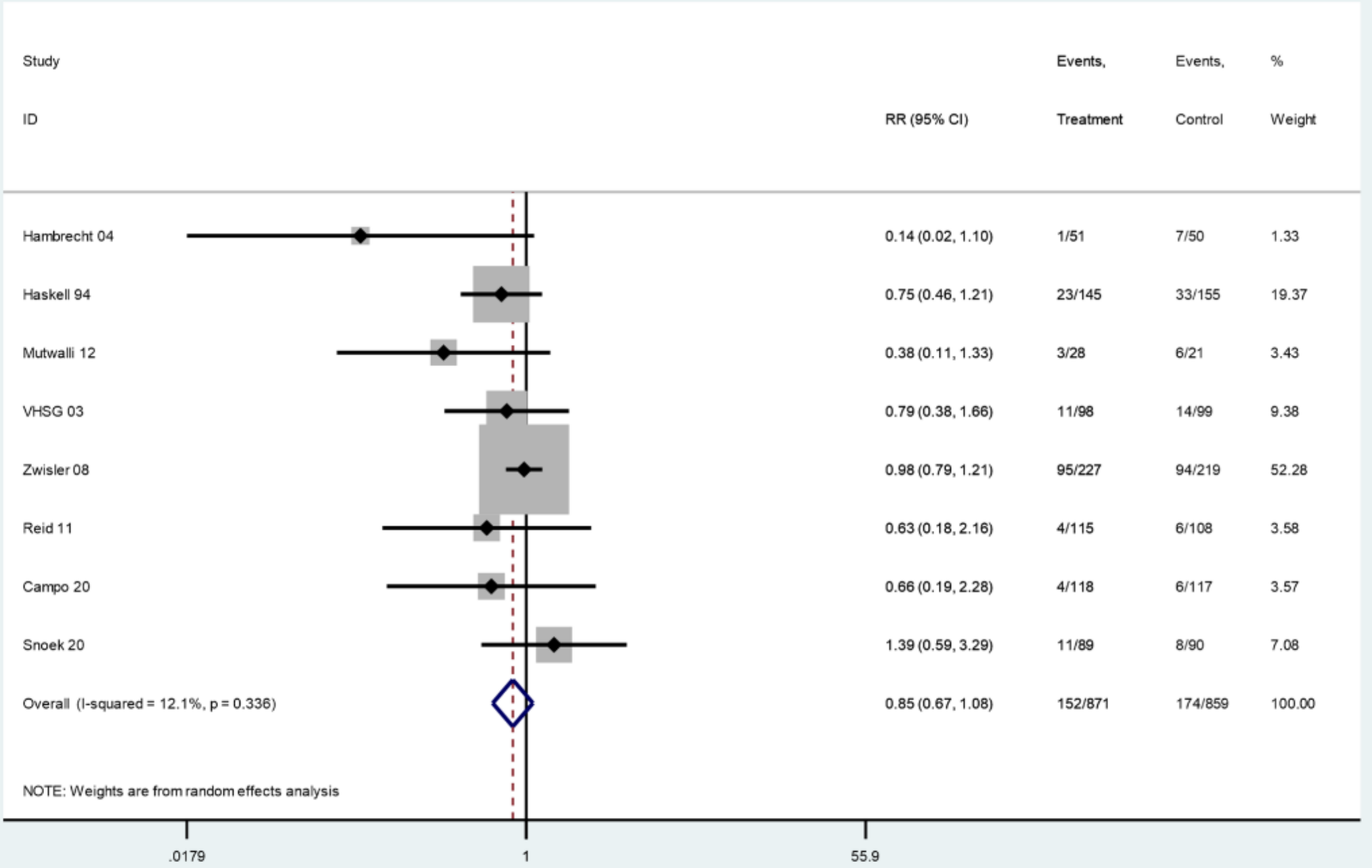

Study ID
RR (95% CI)
Events, Treatment
Events, Control
% Weight
Wilhelmsen 75 0.69 (0.43, 1.12) 23/158 33/157 8.74
Kallio 79 0.63 (0.44, 0.92) 35/188 55/187 14.80
Shaw (NEDHP) 81 0.71 (0.37, 1.38) 14/323 20/328 4.63
Vecchio 81 0.20 (0.01, 3.97) 0/25 2/25 0.23
Sivarajan 82a 1.35 (0.15, 12.50) 3/71 1/32 0.41
Sivarajan 82b 3.61 (0.19, 67.81) 3/65 0/33 0.24
Vermeulen 83 0.43 (0.09, 2.13) 2/47 5/51 0.81
Roman 83 0.58 (0.32, 1.08) 13/93 24/100 5.46
WHO 83 0.87 (0.70, 1.07) 144/1208 151/1096 45.16
Haskell (SCRIP) 94 0.71 (0.12, 4.20) 2/145 3/155 0.65
Miller 84 0.11 (0.01, 2.31) 0/127 2/71 0.22
Bethell 90 1.11 (0.53, 2.33) 13/113 12/116 3.74
Ornish 90 1.43 (0.14, 14.70) 2/28 1/20 0.38
Schuler 92 5.09 (0.25, 103.66) 2/56 0/57 0.23
Debusk 94 1.22 (0.51, 2.90) 11/293 9/292 2.74
Specchia 96 0.40 (0.15, 1.10) 5/125 13/131 2.04
Hofman-Bang 99 0.15 (0.02, 1.18) 1/46 6/41 0.48
Dugmore 99 0.67 (0.12, 3.85) 2/62 3/62 0.67
Toobert 00 2.00 (0.09, 45.12) 1/17 0/11 0.21
La Rovere 02 0.47 (0.19, 1.15) 6/49 12/46 2.57
Hambrecht 04 0.20 (0.01, 3.99) 0/51 2/50 0.23
Briffa 05 0.33 (0.01, 7.87) 0/57 1/56 0.20
Montero 05 0.50 (0.21, 1.18) 7/90 14/90 2.78
Aronov 10 0.49 (0.13, 1.95) 3/197 6/195 1.09
Campo 2020 0.33 (0.03, 3.13) 1/118 3/117 0.41
Bubnova 2020 1.00 (0.06, 15.71) 1/78 1/78 0.27
Bubnova 2020 0.33 (0.04, 3.14) 1/78 3/78 0.41
Snoek 2020 3.03 (0.13, 73.48) 1/89 0/90 0.20
Overall (I-squared = 0.0%, p = 0.795) 0.74 (0.64, 0.86) 296/3997 382/3765 100.00
NOTE: Weights are from random effects analysis
.00548
1
183


Study ID
RR (95% CI)
Events, Treatment
Events, Control
% Weight
Carson 82 1.31 (0.59, 2.89) 13/151 10/152 3.46
Wilhelmsen 75 0.89 (0.54, 1.45) 25/158 28/157 7.67
Kallio 79 1.61 (0.97, 2.67) 34/188 21/187 7.37
Shaw (NEHDP) 81 0.86 (0.45, 1.63) 16/323 19/328 4.93
Roman 83 0.75 (0.42, 1.33) 16/93 23/100 6.05
Stern 83 0.69 (0.04, 10.60) 1/42 1/29 0.32
Bengtsson 83 0.56 (0.10, 2.95) 2/81 4/90 0.85
WHO 83 1.10 (0.85, 1.41) 122/1208 101/1096 17.63
Vermeulen 83 0.48 (0.16, 1.46) 4/47 9/51 1.86
Miller 84 0.56 (0.17, 1.87) 5/127 5/71 1.59
Erdman 86 2.00 (0.19, 21.18) 2/40 1/40 0.43
Bethell 90 0.66 (0.30, 1.46) 9/113 14/116 3.43
Leizorovicz (PRECOR) 91 0.68 (0.20, 2.28) 4/60 6/61 1.57
Andersen 81 0.46 (0.12, 1.71) 3/46 6/42 1.34
Schuler 92 0.15 (0.01, 2.75) 0/56 3/57 0.28
Bertie 92 0.31 (0.01, 7.46) 0/57 1/53 0.24
Haskell (SCRIP) 94 0.43 (0.14, 1.33) 4/145 10/155 1.78
DeBusk 94 0.50 (0.24, 1.05) 10/293 20/292 3.89
Holmback 94 5.14 (0.26, 103.35) 2/34 0/35 0.27
Dugmore 99 0.41 (0.18, 0.92) 7/62 17/62 3.35
Hofman-Bang 99 0.18 (0.01, 3.62) 0/46 2/41 0.27
Belardinelli 01 0.33 (0.04, 3.11) 1/59 3/59 0.48
La Rovere 02 0.19 (0.01, 3.81) 0/49 2/46 0.27
Hambrecht 04 0.98 (0.06, 15.25) 1/51 1/50 0.32
Maroto 05 0.69 (0.31, 1.54) 9/90 13/90 3.42
Briffa 05 0.98 (0.06, 15.32) 1/57 1/56 0.32
Kovoor 06 2.92 (0.31, 27.37) 3/72 1/70 0.48
Giallauria 08 0.52 (0.05, 5.40) 1/30 2/31 0.44
Zwisler 08 1.45 (0.66, 3.15) 15/227 10/219 3.57
Munk 09 1.00 (0.07, 14.90) 1/20 1/20 0.33
Aronov 10 0.40 (0.08, 2.02) 2/197 5/195 0.89
Mutwalli 12 0.25 (0.01, 5.91) 0/28 1/21 0.24
West (RAMIT) 12 0.94 (0.63, 1.39) 43/483 46/484 10.48
Hautala 2017 0.27 (0.10, 0.72) 5/109 16/95 2.41
Zhang 2018 0.33 (0.01, 8.03) 0/65 1/65 0.24
Chaves 2019 0.10 (0.01, 2.09) 0/39 2/20 0.27
Chaves 2019 0.27 (0.03, 2.80) 1/37 2/20 0.44
Prabhakaran 2020 0.87 (0.42, 1.83) 13/1953 15/1968 3.91
Bubnova 2020 0.20 (0.02, 1.67) 1/78 5/78 0.53
Bubnova 2020 0.50 (0.13, 1.93) 3/78 6/78 1.28
Snoek 2020 1.35 (0.31, 5.85) 4/89 3/90 1.09
Overall (I-squared = 8.6%, p = 0.316) 0.82 (0.70, 0.96) 383/7181 437/6970 100.00
NOTE: Weights are from random effects analysis
.00528
1
189

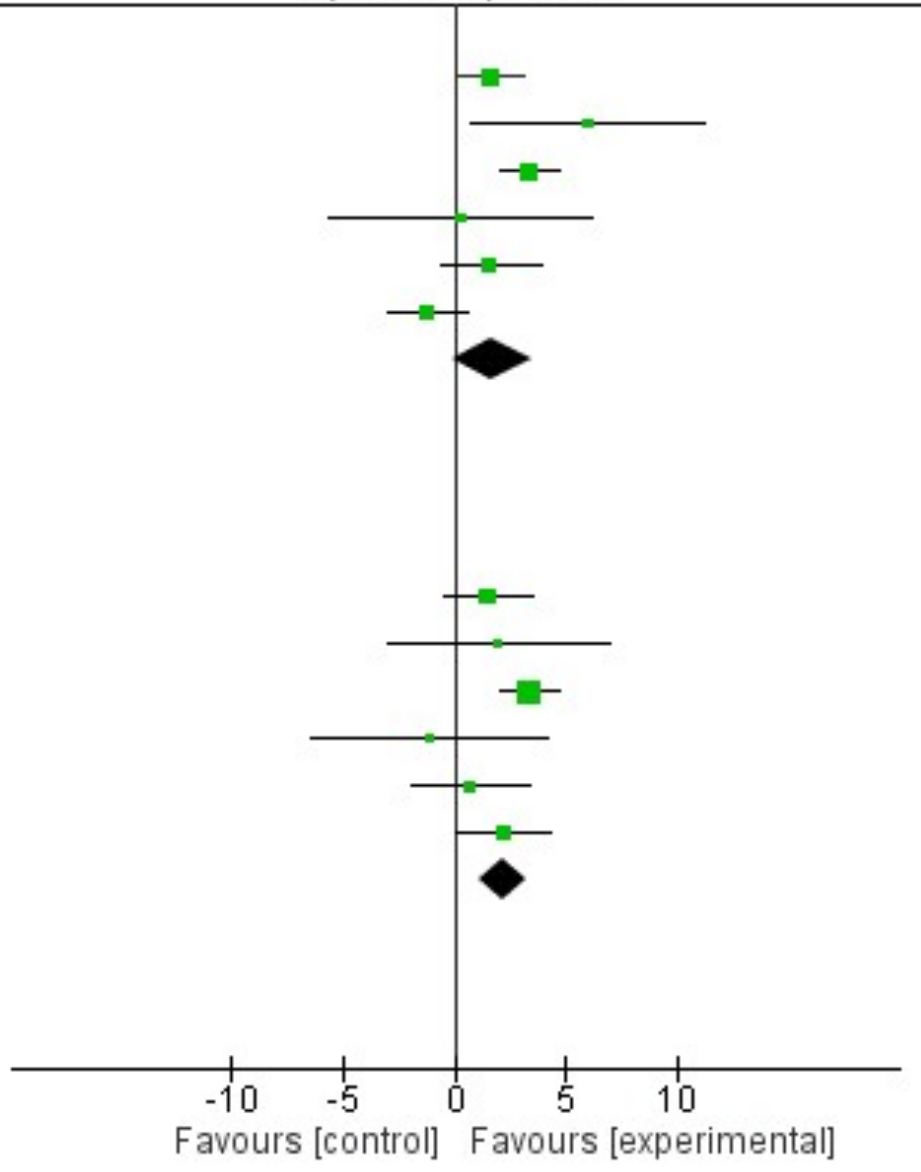

Study ID
RR (95% CI)
Events, Treatment
Events, Control
% Weight
Vecchio 81 0.33 (0.01, 7.81) 0/25 1/25 0.34
Shaw (NEHDP) 81 1.08 (0.55, 2.10) 17/323 16/328 7.60
Sivarajan 82b 1.02 (0.32, 3.28) 7/72 4/42 2.46
Sivarajan 82a 0.55 (0.14, 2.07) 4/77 4/42 1.89
Roman 83 0.36 (0.04, 3.39) 1/93 3/100 0.67
Stern 83 2.09 (0.09, 49.65) 1/42 0/29 0.34
Miller 84 1.68 (0.47, 6.00) 9/127 3/71 2.07
Leizorovicz (PRECOR) 91 2.03 (0.19, 21.84) 2/60 1/61 0.60
Bertie 92 2.79 (0.12, 67.10) 1/57 0/53 0.33
Schuler 92 1.02 (0.07, 15.88) 1/56 1/57 0.45
Engblom 92 0.92 (0.06, 14.47) 1/119 1/109 0.44
Holmback 94 0.34 (0.01, 8.13) 0/34 1/35 0.34
Haskell (SCRIP) 94 0.46 (0.18, 1.16) 6/145 14/155 3.89
Specchia 96 1.65 (0.66, 4.11) 11/125 7/131 4.01
DeBusk 94 1.27 (0.83, 1.94) 42/293 33/292 18.51
Hofman-Bang 99 0.45 (0.12, 1.67) 3/46 6/41 1.93
Stahle 99 0.95 (0.36, 2.52) 7/56 7/53 3.52
Manchanda 00 0.08 (0.00, 1.28) 0/21 6/21 0.42
Belardinelli 01 0.60 (0.15, 2.40) 3/59 5/59 1.75
La Rovere 02 1.41 (0.54, 3.65) 9/49 6/46 3.71
Hambrecht 04 0.33 (0.01, 7.84) 0/51 1/50 0.33
Sandstrom 05 0.51 (0.10, 2.66) 2/50 4/51 1.23
Kovoor 06 0.32 (0.07, 1.55) 2/72 6/70 1.37
Zwisler 08 0.90 (0.43, 1.86) 13/227 14/219 6.28
Back 08 2.32 (0.10, 53.42) 1/21 0/16 0.34
Munk 09 3.00 (0.13, 69.52) 1/20 0/20 0.34
Reid 11 0.31 (0.01, 7.61) 0/115 1/108 0.33
West (RAMIT) 12 0.96 (0.70, 1.32) 64/483 67/484 33.14
Lear 15 0.36 (0.04, 3.32) 1/34 3/37 0.69
Chaves 19 1.50 (0.06, 35.19) 1/39 0/19 0.34
Chaves 19 1.66 (0.07, 38.92) 1/37 0/20 0.34
Overall (I-squared = 0.0%, p = 0.910) 0.96 (0.80, 1.15) 211/3028 215/2844 100.00
NOTE: Weights are from random effects analysis
.00461
1
217


Study
ID
RR (95% CI)
Events, Treatment
Events, Control
% Weight
Schuler 92 0.68 (0.12, 3.91) 2/56 3/57 1.22
Haskell 94 0.82 (0.41, 1.62) 13/145 17/155 7.97
Specchia 96 1.05 (0.07, 16.57) 1/125 1/131 0.49
DeBusk 94 0.75 (0.46, 1.24) 25/293 33/292 15.36
Stahle 99 3.79 (0.84, 17.02) 8/56 2/53 1.66
Hofman-Bang 99 0.81 (0.38, 1.71) 10/46 11/41 6.73
Manchanda 00 0.50 (0.05, 5.10) 1/21 2/21 0.69
Belardinelli 01 0.36 (0.12, 1.08) 4/59 11/59 3.18
Hambrecht 04 0.33 (0.09, 1.14) 3/51 9/50 2.41
Maroto 05 0.56 (0.19, 1.59) 5/90 9/90 3.37
Sandstrom 05 5.10 (0.25, 103.60) 2/50 0/51 0.41
Kovoor 06 1.22 (0.34, 4.34) 5/72 4/70 2.31
Back 08 2.32 (0.10, 53.42) 1/21 0/16 0.38
Zwisler 08 0.92 (0.61, 1.37) 38/227 40/219 23.02
West (RAMIT) 12 0.97 (0.68, 1.38) 53/483 55/484 29.62
Chaves 2019 0.17 (0.01, 3.91) 0/39 1/19 0.38
Chaves 2019 0.11 (0.01, 2.20) 0/37 2/20 0.42
Snoek 2020 0.34 (0.01, 8.16) 0/89 1/90 0.37
Overall (I-squared = 0.0%, p = 0.569) 0.84 (0.69, 1.02) 171/1960 201/1918 100.00
NOTE: Weights are from random effects analysis
.00556
1
180

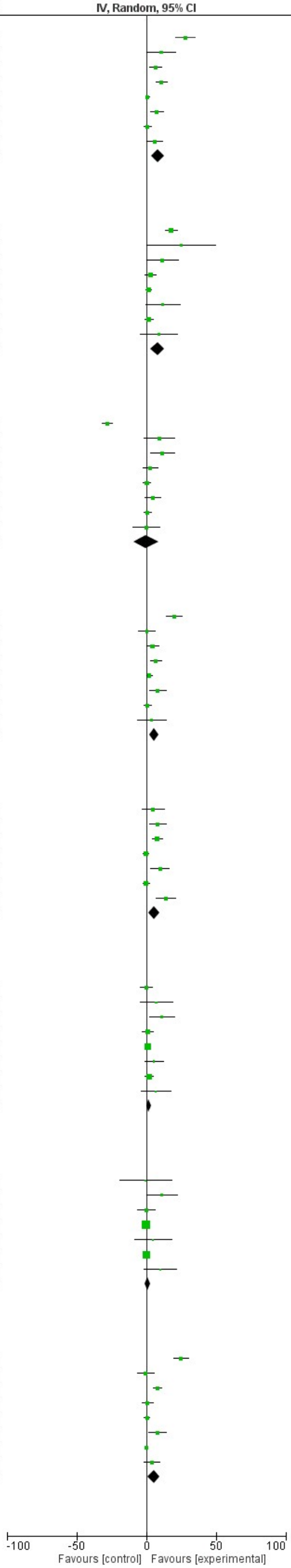

Study ID
RR (95% CI)
Events, Treatment
Events, Control
% Weight
Belardinelli 01 0.52 (0.28, 0.99) 11/59 21/59 4.01
Briffa 05 0.98 (0.59, 1.65) 19/57 19/56 5.39
Engblom 96 0.68 (0.45, 1.04) 26/102 34/91 6.97
Giallauria 08 0.44 (0.13, 1.55) 3/30 7/31 1.23
Hambrecht 04 0.14 (0.02, 1.10) 1/51 7/50 0.48
Haskell 94 0.92 (0.71, 1.19) 62/145 72/155 11.45
Hoffman-Bang 99 0.81 (0.51, 1.27) 19/46 21/41 6.39
Lewin 92 0.50 (0.25, 1.02) 9/58 18/58 3.33
Mutwalli 12 0.27 (0.10, 0.74) 4/28 11/21 1.88
Shaw (NEDHP) 81 0.98 (0.79, 1.21) 109/323 113/328 12.73
VHSG 03 0.79 (0.38, 1.66) 11/98 14/99 3.14
Yu 04 1.16 (0.69, 1.95) 34/132 16/72 5.36
Zwisler 08 0.98 (0.79, 1.21) 95/227 94/219 12.64
Reid 11 0.63 (0.18, 2.16) 4/115 6/108 1.26
Lear 15 0.47 (0.13, 1.66) 3/34 7/37 1.20
Hautala 17 0.29 (0.11, 0.77) 5/109 15/95 1.95
Santaularia 17 0.64 (0.26, 1.61) 6/41 10/44 2.17
Campo 20 0.57 (0.29, 1.10) 12/118 21/117 3.75
Chaves 19 0.12 (0.01, 1.02) 1/39 4/19 0.45
Chaves 19 0.41 (0.10, 1.64) 3/37 4/20 1.01
Bubnova 20 1.00 (0.40, 2.53) 8/78 8/78 2.13
Bubnova 20 0.92 (0.43, 1.95) 11/78 12/78 3.03
Prabhakaran 20 0.82 (0.56, 1.19) 48/1953 59/1968 8.04
Overall (I-squared = 32.1%, p = 0.071) 0.77 (0.67, 0.89) 504/3958 593/3844 100.00
NOTE: Weights are from random effects analysis
.0146
1
68.5


Study
ID
RR (95% CI)
Events, Treatment
Events, Control
% Weight
Hambrecht 04
0.14 (0.02, 1.10)
1/51
7/50
1.33
Haskell 94
0.75 (0.46, 1.21)
23/145
33/155
19.37
Mutwalli 12
0.38 (0.11, 1.33)
3/28
6/21
3.43
VHSG 03
0.79 (0.38, 1.66)
11/98
14/99
9.38
Zwisler 08
0.98 (0.79, 1.21)
95/227
94/219
52.28
Reid 11
0.63 (0.18, 2.16)
4/115
6/108
3.58
Campo 20
0.66 (0.19, 2.28)
4/118
6/117
3.57
Snoek 20
1.39 (0.59, 3.29)
11/89
8/90
7.08
Overall (I-squared = 12.1%, p = 0.336)
0.85 (0.67, 1.08)
152/871
174/859
100.00
NOTE: Weights are from random effects analysis
.0179
1
55.9

Study or Subgroup	Exercise Mean	SD	Total	Usual Care Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
1.8.1 Physical component score								
Dorje 2019	46.8	6.9	156	45.2	6.5	156	22.5%	1.60 [0.11, 3.09]
He 2020	79	29	232	73	29	236	8.0%	6.00 [0.75, 11.25]
Ma 2020	13.3	6	150	9.9	5.9	150	23.2%	3.40 [2.05, 4.75]
Oerkild 2012	-1.1	8.2	17	-1.4	9.8	19	6.8%	0.30 [-5.58, 6.18]
Snoek 2020	50.6	7.2	89	49	8.2	90	18.7%	1.60 [-0.66, 3.86]
Zwisler 2008	45.2	9.8	227	46.4	9.8	219	20.9%	-1.20 [-3.02, 0.62]
Subtotal (95% CI)			**871**			**870**	**100.0%**	**1.70 [-0.08, 3.47]**
Heterogeneity: Tau² = 3.07; Chi² = 18.67, df = 5 (P = 0.002); I² = 73%								
Test for overall effect: Z = 1.87 (P = 0.06)								
1.8.2 Mental component score								
Dorje 2019	51.5	9.3	156	50	8.6	156	21.4%	1.50 [-0.49, 3.49]
He 2020	73	28	232	71	27	236	4.4%	2.00 [-2.98, 6.98]
Ma 2020	12.4	5.4	150	9	6.2	150	36.4%	3.40 [2.08, 4.72]
Oerkild 2012	-1.4	7.3	17	-0.3	8.9	19	3.9%	-1.10 [-6.40, 4.20]
Snoek 2020	53.2	8.8	89	52.5	9.2	90	13.8%	0.70 [-1.94, 3.34]
Zwisler 2008	50.6	10.8	227	48.4	11.5	219	20.1%	2.20 [0.13, 4.27]
Subtotal (95% CI)			**871**			**870**	**100.0%**	**2.14 [1.07, 3.22]**
Heterogeneity: Tau² = 0.38; Chi² = 6.32, df = 5 (P = 0.28); I² = 21%								
Test for overall effect: Z = 3.91 (P < 0.0001)								



Study or Subgroup	Exercise Mean	SD	Total	Usual Care Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
1.9.1 Physical functioning								
Belardinelli 2001	82	18	59	54	20	59	11.3%	28.00 [21.13, 34.87]
Briffa 2005	17.6	27.7	55	6.8	26.7	51	8.7%	10.80 [0.44, 21.16]
Hassan 2016	83.5	6.5	30	76.7	10.6	30	13.1%	6.80 [2.35, 11.25]
He 2020	85	22	232	74	19	236	13.5%	11.00 [7.27, 14.73]
Maddison 2014	52.9	5.2	75	51.9	5.2	78	14.5%	1.00 [-0.65, 2.65]
Wang 2012	80.8	13.7	68	73.2	13	65	13.0%	7.60 [3.06, 12.14]
West 2012	65	29	795	64	30	811	14.0%	1.00 [-1.89, 3.89]
Yu 2003	88	12	72	82	17	40	12.0%	6.00 [0.05, 11.95]
Subtotal (95% CI)			**1386**			**1370**	**100.0%**	**8.47 [3.69, 13.24]**
Heterogeneity: Tau² = 40.31; Chi² = 83.40, df = 7 (P < 0.00001); I² = 92%								
Test for overall effect: Z = 3.47 (P = 0.0005)								
1.9.2 Physical performance								
Belardinelli 2001	76	9	59	58	14	59	16.5%	18.00 [13.75, 22.25]
Briffa 2005	100	74.1	55	75	55.6	51	3.5%	25.00 [0.17, 49.83]
Hassan 2016	62.5	23.4	30	50.8	20.2	30	10.1%	11.70 [0.64, 22.76]
He 2020	80	21	232	77	22	236	16.8%	3.00 [-0.90, 6.90]
Maddison 2014	52.6	6.6	75	50.8	6.6	78	18.0%	1.80 [-0.29, 3.89]
Wang 2012	68.2	17.3	68	56.2	46.8	65	9.2%	12.00 [-0.10, 24.10]
West 2012	69	31	795	67	33	811	17.4%	2.00 [-1.13, 5.13]
Yu 2003	75	33	72	66	35	40	8.4%	9.00 [-4.26, 22.26]
Subtotal (95% CI)			**1386**			**1370**	**100.0%**	**8.08 [2.89, 13.27]**
Heterogeneity: Tau² = 37.82; Chi² = 54.38, df = 7 (P < 0.00001); I² = 87%								
Test for overall effect: Z = 3.05 (P = 0.002)								
1.9.3 Bodily pain								
Belardinelli 2001	4	9	59	32	12	59	13.1%	-28.00 [-31.83, -24.17]
Briffa 2005	30.2	25.9	55	20.9	32	51	11.1%	9.30 [-1.83, 20.43]
Hassan 2016	79.6	18.4	30	67.9	15.9	30	11.9%	11.70 [3.00, 20.40]
He 2020	71	32	232	68	30	236	12.8%	3.00 [-2.62, 8.62]
Maddison 2014	52.4	8.2	75	51.9	8.2	78	13.3%	0.50 [-2.10, 3.10]
Wang 2012	68.2	17.3	68	63.5	14.6	65	12.8%	4.70 [-0.73, 10.13]
West 2012	69	28	795	68	29	811	13.3%	1.00 [-1.79, 3.79]
Yu 2003	80	25	72	80	25	40	11.6%	0.00 [-9.66, 9.66]
Subtotal (95% CI)			**1386**			**1370**	**100.0%**	**-0.06 [-8.97, 8.84]**
Heterogeneity: Tau² = 153.26; Chi² = 206.79, df = 7 (P < 0.00001); I² = 97%								
Test for overall effect: Z = 0.01 (P = 0.99)								
1.9.4 General health								
Belardinelli 2001	70	14	59	50	18	59	11.6%	20.00 [14.18, 25.82]
Briffa 2005	2.7	14.8	55	2.2	16	51	11.5%	0.50 [-5.38, 6.38]
Hassan 2016	43	7.9	30	38.5	8.8	30	13.5%	4.50 [0.27, 8.73]
He 2020	79	23	232	72	19	236	14.0%	7.00 [3.17, 10.83]
Maddison 2014	55.3	6.3	75	53.2	6.3	78	15.9%	2.10 [0.10, 4.10]
Wang 2012	57.4	20.3	68	49	16.2	65	11.1%	8.40 [2.17, 14.63]
West 2012	58	25	795	57	25	811	15.5%	1.00 [-1.45, 3.45]
Yu 2003	64	26	72	60	28	40	6.8%	4.00 [-6.55, 14.55]
Subtotal (95% CI)			**1386**			**1370**	**100.0%**	**5.66 [2.08, 9.25]**
Heterogeneity: Tau² = 20.00; Chi² = 43.59, df = 7 (P < 0.00001); I² = 84%								
Test for overall effect: Z = 3.10 (P = 0.002)								
1.9.5 Vitality								
Briffa 2005	11.9	22.2	55	6.9	19.6	51	10.6%	5.00 [-2.96, 12.96]
Hassan 2016	66	11.1	30	57.7	11.7	30	13.4%	8.30 [2.53, 14.07]
He 2020	81	17	232	73	25	236	16.0%	8.00 [4.13, 11.87]
Maddison 2014	55.7	6.2	75	55.9	6.2	78	18.1%	-0.20 [-2.17, 1.77]
Wang 2012	66.3	17.3	68	56.4	21.7	65	12.1%	9.90 [3.21, 16.59]
West 2012	65	24	795	65	24	811	17.7%	0.00 [-2.35, 2.35]
Yu 2003	79	18	72	65	17	40	12.1%	14.00 [7.29, 20.71]
Subtotal (95% CI)			**1327**			**1311**	**100.0%**	**5.78 [1.89, 9.67]**
Heterogeneity: Tau² = 20.78; Chi² = 39.47, df = 6 (P < 0.00001); I² = 85%								
Test for overall effect: Z = 2.91 (P = 0.004)								
1.9.6 Social functioning								
Belardinelli 2001	68	11	59	68	12	59	13.6%	0.00 [-4.15, 4.15]
Briffa 2005	23.6	35.1	55	16.4	24.9	51	2.2%	7.20 [-4.32, 18.72]
Hassan 2016	67.5	19	30	56.3	16.3	30	3.5%	11.20 [2.24, 20.16]
He 2020	75	22	232	74	19	236	16.1%	1.00 [-2.73, 4.73]
Maddison 2014	53.3	6.9	75	52.4	6.9	78	32.0%	0.90 [-1.29, 3.09]
Wang 2012	71.3	21.4	68	65.8	18	65	6.0%	5.50 [-1.21, 12.21]
West 2012	81	28	795	79	29	811	24.2%	2.00 [-0.79, 4.79]
Yu 2003	89	27	72	82	28	40	2.5%	7.00 [-3.69, 17.69]
Subtotal (95% CI)			**1386**			**1370**	**100.0%**	**1.98 [0.26, 3.70]**
Heterogeneity: Tau² = 1.16; Chi² = 8.71, df = 7 (P = 0.27); I² = 20%								
Test for overall effect: Z = 2.26 (P = 0.02)								
1.9.7 Emotional performance								
Briffa 2005	33.3	49.6	55	33.6	49.6	51	1.1%	-0.30 [-19.20, 18.60]
Hassan 2016	61.1	23.4	30	49.9	19.1	30	3.3%	11.20 [0.39, 22.01]
He 2020	65	34	232	65	33	236	9.7%	0.00 [-6.07, 6.07]
Maddison 2014	51.4	6.9	75	51.6	6.9	78	41.8%	-0.20 [-2.39, 1.99]
Wang 2012	80.8	37.9	68	75.9	39.7	65	2.3%	4.90 [-8.30, 18.10]
West 2012	85	23	795	85	25	811	38.8%	0.00 [-2.35, 2.35]
Yu 2003	93	18	72	83	35	40	2.9%	10.00 [-1.62, 21.62]
Subtotal (95% CI)			**1327**			**1311**	**100.0%**	**0.69 [-1.33, 2.71]**
Heterogeneity: Tau² = 1.29; Chi² = 7.32, df = 6 (P = 0.29); I² = 18%								
Test for overall effect: Z = 0.67 (P = 0.50)								
1.9.8 Mental health								
Belardinelli 2001	70	14	59	45	15	59	12.0%	25.00 [19.76, 30.24]
Briffa 2005	3.6	18.5	55	3.9	14.2	51	11.1%	-0.30 [-6.55, 5.95]
Hassan 2016	69.5	2.6	30	61.5	7.5	30	13.6%	8.00 [5.16, 10.84]
He 2020	72	23	232	71	23	236	12.7%	1.00 [-3.17, 5.17]
Maddison 2014	54.6	6.5	75	54	6.5	78	14.0%	0.60 [-1.46, 2.66]
Wang 2012	73.5	17.1	68	65.4	20.7	65	11.0%	8.10 [1.63, 14.57]
West 2012	76	13	795	76	13	811	14.2%	0.00 [-1.27, 1.27]
Yu 2003	84	16	72	80	15	40	11.4%	4.00 [-1.94, 9.94]
Subtotal (95% CI)			**1386**			**1370**	**100.0%**	**5.60 [1.21, 9.98]**
Heterogeneity: Tau² = 34.76; Chi² = 107.11, df = 7 (P < 0.00001); I² = 93%								
Test for overall effect: Z = 2.50 (P = 0.01)								



Study or Subgroup	Exercise Mean	SD	Total	Usual Care Mean	SD	Total	Weight	Mean Difference IV, Random, 95% CI
Campo 2020	0.75	0.13	112	0.65	0.22	110	35.4%	0.10 [0.05, 0.15]
Maddison 2014	0.86	0.16	75	0.83	0.16	78	34.2%	0.03 [-0.02, 0.08]
Sandström 2005	0.87	0.15	50	0.86	0.16	51	30.4%	0.01 [-0.05, 0.07]
Total (95% CI)			**237**			**239**	**100.0%**	**0.05 [-0.01, 0.10]**

Heterogeneity: Tau² = 0.00; Chi² = 6.47, df = 2 (P = 0.04); I² = 69%

Test for overall effect: Z = 1.74 (P = 0.08)