

Campaigns and Informational Approaches to Increase Physical Activity: Community-Wide Campaigns

Summary Evidence Table

Study	Intervention and comparison	Population	Effect measure	Value used in summary	FU time																				
<p>Author (Year): Tudor-Smith et al. (1998)</p> <p>Design Suitability: Greatest</p> <p>Study Design: quasi-experimental design with reference area</p> <p>Quality of Execution: Good</p> <p>Setting: Nationwide</p>	<p>Location: Wales</p> <p>Components: Mass media campaigns (newspapers, radio TV), national health initiatives, provision of fitness trails, health clubs for primary school students, joint ventures with business/industry, competition and award schemes</p> <p>Comparison: assessments only</p>	<p>Probability sample of entire Welsh population ages 12-64</p> <p>Response rates 61-88% for mail-in survey (low) and home interview (high)</p>	<p>Net % Δ from baseline, intervention group - control</p>	<p>Outcome Δ 1985-1990</p> <p>Mod/Strenuous exer \$ 2x/wk -2.9%</p> <p>for \$ 20 min/ session</p> <p>BMI greater than 24 (W), 25 (M) 3.0%</p> <p>*Community-level analysis intervention effect = 1.02 (NS) for overweight 0.96 (NS) for exercise</p>	5 years																				
<p>Author (Year): Meyer (1980)</p> <p>Design Suitability: Greatest</p> <p>Study Design: Nonrandomized group trial</p> <p>Quality of Execution: Fair</p> <p>Setting: Community-wide</p>	<p>Location: Watsonville, Gilroy and Tracy, CA</p> <p>Components: Mass media campaign (television and radio ads and programming, newspaper columns, billboards, bus ads, direct mail); Face-to-face communication</p> <p>Comparison: 1) media only (no counseling); 2) assessment only (no counseling or media)</p>	<p>Probability sample of high-risk individuals within communities W1: n=67; W2: n=37; G: n=85; T: n=90</p> <p>Follow-up/response rate: > 70%</p>	<p>Net % Δ from baseline, intervention group - control (C1 and C2: media only) (C3: no intervention)</p>	<p>Media & counseling vs controls</p> <table border="1"> <thead> <tr> <th>Outcome</th> <th>Diff (C1)</th> <th>Diff(C2)</th> <th>Diff (C3)</th> </tr> </thead> <tbody> <tr> <td>METs expended</td> <td>17.1%</td> <td>20.4%</td> <td>21.4%</td> </tr> <tr> <td>Relative wt</td> <td>0.004%</td> <td>-0.8%</td> <td>0.0%</td> </tr> <tr> <td>Knowledge</td> <td>268.4%</td> <td>203.5%</td> <td>379.3%</td> </tr> <tr> <td>Log risk</td> <td>-5.9%</td> <td>-12.9%</td> <td>-21.0%</td> </tr> </tbody> </table>	Outcome	Diff (C1)	Diff(C2)	Diff (C3)	METs expended	17.1%	20.4%	21.4%	Relative wt	0.004%	-0.8%	0.0%	Knowledge	268.4%	203.5%	379.3%	Log risk	-5.9%	-12.9%	-21.0%	3 year follow up
Outcome	Diff (C1)	Diff(C2)	Diff (C3)																						
METs expended	17.1%	20.4%	21.4%																						
Relative wt	0.004%	-0.8%	0.0%																						
Knowledge	268.4%	203.5%	379.3%																						
Log risk	-5.9%	-12.9%	-21.0%																						

Study	Intervention and comparison	Population	Effect measure	Value used in summary	FU time																																			
<p>Author (Year): Owen et al. (1995)</p> <p>Design Suitability: Moderate</p> <p>Study Design: Time-series</p> <p>Quality of Execution: Fair</p> <p>Setting: Nationwide</p>	<p>Location: Australia</p> <p>Components: national television ads; Radio public service announcements; publicity tours and promos; scripted TV show episodes; state-level activities; news coverage</p> <p>Comparison: Pre-campaign measurements</p>	<p>1990: 2426 Pre-2474 Post-1991: 2584 Pre-2517 Post-Response rates: ~ 45-60%</p>	<p>Net % Δ from baseline, (I-C)</p> <p>Net % Δ from pre-campaign (I-C)</p>	<table border="1"> <thead> <tr> <th>Outcome</th> <th>Diff (1990)</th> <th>Diff (1991)</th> </tr> </thead> <tbody> <tr> <td>% recall</td> <td>67.4%</td> <td>59.8%</td> </tr> <tr> <td>% intend8 PA</td> <td>154.9%</td> <td>157.1%</td> </tr> <tr> <td>% recall</td> <td>67.4%</td> <td>17.6%</td> </tr> <tr> <td>% intend8 PA</td> <td>154.9%</td> <td>-3.7%</td> </tr> <tr> <td>OR walking</td> <td>40-49</td> <td>OR = 1.57</td> </tr> <tr> <td></td> <td>50-59</td> <td>OR = 1.79</td> </tr> <tr> <td></td> <td>60+</td> <td>OR = 1.92</td> </tr> </tbody> </table>	Outcome	Diff (1990)	Diff (1991)	% recall	67.4%	59.8%	% intend8 PA	154.9%	157.1%	% recall	67.4%	17.6%	% intend8 PA	154.9%	-3.7%	OR walking	40-49	OR = 1.57		50-59	OR = 1.79		60+	OR = 1.92	5-6 wks											
Outcome	Diff (1990)	Diff (1991)																																						
% recall	67.4%	59.8%																																						
% intend8 PA	154.9%	157.1%																																						
% recall	67.4%	17.6%																																						
% intend8 PA	154.9%	-3.7%																																						
OR walking	40-49	OR = 1.57																																						
	50-59	OR = 1.79																																						
	60+	OR = 1.92																																						
<p>Author (Year): Wimbush et al. (1998)</p> <p>Design Suitability: Moderate</p> <p>Study Design: Time-series</p> <p>Quality of Execution: Fair</p> <p>Setting: Nationwide</p>	<p>Location: Scotland</p> <p>Components: national television ads (2 rounds 6 months apart); local radio programming; toll-free telephone information/helpline (Fitline)</p> <p>Comparison: Pre-campaign measurements</p>	<p>Random samples of Scottish adults (16-74) N= ~800</p> <p>Random sample of Fitline callers (490 at 10 wks, 283 at 1 yr)</p>	<p>Net % Δ from baseline, (intervention only)</p> <p>% strongly agreeing with belief</p> <p>Net % Δ from baseline, (intervention only)</p> <p>% strongly agreeing with belief</p>	<table border="1"> <thead> <tr> <th>Outcome</th> <th>Δ</th> </tr> </thead> <tbody> <tr> <td>Ad awareness</td> <td>69%</td> </tr> <tr> <td>Walking uses same energy as running</td> <td>1300.0%</td> </tr> <tr> <td>Walking is good exercise</td> <td>62.2%</td> </tr> <tr> <td>Exercise doesn't need to make you sweaty etc. to benefit</td> <td>69.2%</td> </tr> <tr> <td>Need 30 mins. day for benefit</td> <td>88.9%</td> </tr> <tr> <td>Intend to exercise</td> <td>3.6%</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Outcome</th> <th>Δ1</th> <th>Δ2</th> </tr> </thead> <tbody> <tr> <td>Walking uses same energy as running</td> <td>17.5%</td> <td>14.0%</td> </tr> <tr> <td>Walking is good exercise</td> <td>-1.0%</td> <td>0%</td> </tr> <tr> <td>Exercise doesn't need to make you sweaty etc. to benefit</td> <td>-2.3%</td> <td>4.6%</td> </tr> <tr> <td>Intend to exercise</td> <td>B</td> <td>36.7%</td> </tr> <tr> <td>% Increasing activity</td> <td>50%</td> <td>48%</td> </tr> <tr> <td>% in action stage of change</td> <td>B</td> <td>100%</td> </tr> </tbody> </table>	Outcome	Δ	Ad awareness	69%	Walking uses same energy as running	1300.0%	Walking is good exercise	62.2%	Exercise doesn't need to make you sweaty etc. to benefit	69.2%	Need 30 mins. day for benefit	88.9%	Intend to exercise	3.6%	Outcome	Δ1	Δ2	Walking uses same energy as running	17.5%	14.0%	Walking is good exercise	-1.0%	0%	Exercise doesn't need to make you sweaty etc. to benefit	-2.3%	4.6%	Intend to exercise	B	36.7%	% Increasing activity	50%	48%	% in action stage of change	B	100%	<p>5-6 weeks after 2nd round</p> <p>BL = during campaign 10 weeks, 1 year</p>
Outcome	Δ																																							
Ad awareness	69%																																							
Walking uses same energy as running	1300.0%																																							
Walking is good exercise	62.2%																																							
Exercise doesn't need to make you sweaty etc. to benefit	69.2%																																							
Need 30 mins. day for benefit	88.9%																																							
Intend to exercise	3.6%																																							
Outcome	Δ1	Δ2																																						
Walking uses same energy as running	17.5%	14.0%																																						
Walking is good exercise	-1.0%	0%																																						
Exercise doesn't need to make you sweaty etc. to benefit	-2.3%	4.6%																																						
Intend to exercise	B	36.7%																																						
% Increasing activity	50%	48%																																						
% in action stage of change	B	100%																																						
<p>Author (Year): Luepker et al. (1996)</p> <p>Design Suitability: Greatest</p>	<p>Location: Upper Midwest, USA (urban, suburban, small-town communities)</p> <p>Components: Mass media messages; risk factor screening and education;</p>	<p>1) Random samples of adults in 6 communities (n = ~300-500 per survey; n = ~18K overall</p>	<p>Net % Δ from baseline</p>	<table border="1"> <thead> <tr> <th>Pop subgroup</th> <th>Δ1</th> <th>Δ2</th> <th>Δ3</th> </tr> </thead> <tbody> <tr> <td>% people regularly active</td> <td></td> <td></td> <td></td> </tr> <tr> <td>X section</td> <td>9.7%</td> <td>3.7%</td> <td>6.3%</td> </tr> <tr> <td>Cohort</td> <td>-3.8%</td> <td>-2.3%</td> <td>9.4%</td> </tr> <tr> <td>BMI</td> <td></td> <td></td> <td></td> </tr> <tr> <td>X section</td> <td>-1.5%</td> <td>0.0%</td> <td>-1.2%</td> </tr> </tbody> </table>	Pop subgroup	Δ1	Δ2	Δ3	% people regularly active				X section	9.7%	3.7%	6.3%	Cohort	-3.8%	-2.3%	9.4%	BMI				X section	-1.5%	0.0%	-1.2%	<p>T1 = 1 year; T2 = 3 yrs; T3 = 6 years</p>											
Pop subgroup	Δ1	Δ2	Δ3																																					
% people regularly active																																								
X section	9.7%	3.7%	6.3%																																					
Cohort	-3.8%	-2.3%	9.4%																																					
BMI																																								
X section	-1.5%	0.0%	-1.2%																																					

Study	Intervention and comparison	Population	Effect measure	Value used in summary	FU time																																
Study Design: Nonrandomized group trial Quality of Execution: Good Setting: Community-wide	community-based activities; environmental changes; school-based education Comparison: Pre-campaign measurements; comparison (no-intervention) communities	2) Cohort drawn from pre-intervention surveys, n= ~4700 (67.1% FU)		Cohort -0.4% 0.4% 0.0% Note: no significant effect on BMI	Cohort: T1 = 2 yr; T2 = 4 yrs; T3 = 7 yrs																																
Author (Year): Young et al. (1996) Design Suitability: Greatest Study Design: Nonrandomized group trial Quality of Execution: Fair Setting: Community-wide	Location: Northern CA (4 communities) Components: Mass media messages B print material, newspaper columns, TV segments, videotapes, public service announcements; workshops; events; clubs; worksite programs; community events, school programs Comparison: Pre-campaign measurements; comparison (no-intervention) communities	1) Random samples of adults in 4 communities (n = ~1800-2500/survey; n = ~7.5-10K overall? 2) Cohort drawn from pre-intervention surveys, n= 907 (39% FU)	Net % Δ from baseline	<table border="1"> <thead> <tr> <th>Arm/Grp Outcome</th> <th>Δ1</th> <th>Δ2</th> <th>Δ3</th> </tr> </thead> <tbody> <tr> <td>X, & Energy Exp</td> <td>NA</td> <td>NA</td> <td>7.6%</td> </tr> <tr> <td>Sum of usu act</td> <td>6.3%</td> <td>6.2%</td> <td>12.5%</td> </tr> <tr> <td>C, & Sum of usu act</td> <td>-12.5%</td> <td>12.5%</td> <td>6.2%</td> </tr> <tr> <td>X, % Exer Knowl</td> <td>18.5%</td> <td>13.6%</td> <td>24.1%</td> </tr> <tr> <td>Energy Exp</td> <td>NA</td> <td>NA</td> <td>16.3%</td> </tr> <tr> <td>Sum of usu act</td> <td>6.6%</td> <td>15.4%</td> <td>23.1%</td> </tr> <tr> <td>% in vig act</td> <td>-16.0%</td> <td>11.0%</td> <td>23.4%</td> </tr> </tbody> </table> Few consistent significant effects. & usu act increase in cohort and x-section	Arm/Grp Outcome	Δ1	Δ2	Δ3	X, & Energy Exp	NA	NA	7.6%	Sum of usu act	6.3%	6.2%	12.5%	C, & Sum of usu act	-12.5%	12.5%	6.2%	X, % Exer Knowl	18.5%	13.6%	24.1%	Energy Exp	NA	NA	16.3%	Sum of usu act	6.6%	15.4%	23.1%	% in vig act	-16.0%	11.0%	23.4%	BL, 25,51,73 months
Arm/Grp Outcome	Δ1	Δ2	Δ3																																		
X, & Energy Exp	NA	NA	7.6%																																		
Sum of usu act	6.3%	6.2%	12.5%																																		
C, & Sum of usu act	-12.5%	12.5%	6.2%																																		
X, % Exer Knowl	18.5%	13.6%	24.1%																																		
Energy Exp	NA	NA	16.3%																																		
Sum of usu act	6.6%	15.4%	23.1%																																		
% in vig act	-16.0%	11.0%	23.4%																																		
Author (Year): Osler et al. (1993) Design Suitability: Greatest Study Design: serial cross sectionals Quality of Execution: Fair Setting: Community-wide	Location: Slangerup and Helsing, Denmark Components: Mass media messages B health spots at local cinema, radio and newspaper reports, fitness tests, structured exercise. Comparison: (non-intervention community with different media system.	Random samples of adults (20-65) in community Year 1: I = 1010, C = 1092; Year 2: I = 1003, C = 1109	(Intervention - control)/ control) C Assume 0 Δ in control, i.e., control - baseline HNet % Δ from baseline	<table border="1"> <thead> <tr> <th>Outcome</th> <th>Δ</th> </tr> </thead> <tbody> <tr> <td>% considering more exercise</td> <td>17.6%</td> </tr> <tr> <td>% attempting more exercise</td> <td>-8.3%</td> </tr> <tr> <td>% exercising more</td> <td>0.0%</td> </tr> <tr> <td>% aware of local activities</td> <td>22.4%</td> </tr> <tr> <td>H% physically inactive</td> <td>-2.2%</td> </tr> </tbody> </table>	Outcome	Δ	% considering more exercise	17.6%	% attempting more exercise	-8.3%	% exercising more	0.0%	% aware of local activities	22.4%	H% physically inactive	-2.2%	6 months																				
Outcome	Δ																																				
% considering more exercise	17.6%																																				
% attempting more exercise	-8.3%																																				
% exercising more	0.0%																																				
% aware of local activities	22.4%																																				
H% physically inactive	-2.2%																																				
Author (Year): Goodman et al. (1995)	Location: Florence, SC Components: PA campaigns "Florence	All adults eligible Florence	I/Ipre – C/Cpre	<table border="1"> <thead> <tr> <th>Outcome</th> <th>Δ</th> </tr> </thead> <tbody> <tr> <td>% physically active</td> <td>2.1%</td> </tr> <tr> <td>% overweight</td> <td>-8.1%</td> </tr> </tbody> </table>	Outcome	Δ	% physically active	2.1%	% overweight	-8.1%	5 yrs																										
Outcome	Δ																																				
% physically active	2.1%																																				
% overweight	-8.1%																																				

Study	Intervention and comparison	Population	Effect measure	Value used in summary	FU time
<p>Design Suitability: Greatest</p> <p>Study Design: Non-randomized group trial</p> <p>Quality of Execution: Fair</p>	<p>Walks around the World” and “Florence Shoots for the Moon”; also used media billboards, church bulletins to provide health information, health fairs, distribution of health ed kits, development of walking trails</p> <p>Comparison: Anderson, SC</p>	<p>Int 2895 1173</p> <p>Phy ex 1642 1642</p> <p>Andersen Int 2538 1087</p> <p>phy ex 1511 1551</p>			
<p>Author (Year): Jason et al. (1991)</p> <p>Design Suitability: Moderate</p> <p>Quality of Execution: Fair</p>	<p>Location: Chicago, Illinois</p> <p>Components: 15, 2-4 min television news broadcasts over 3 weeks. Some participants encouraged to attend weight loss support groups</p> <p>Comparison: Media only</p>	<p>Volunteers; 89 pre; 74 post test, 66 post intervention follow-up</p>		<p><u>Outcome</u> <u>net effect</u></p> <p>Aerobic activity (min) 136.8%</p> <p>Nonaerobic activity (min) 46.6%</p> <p>Weight (lbs) -7.2%</p>	3 mo
<p>Author (Year): Malmgren et al. (1986)</p> <p>Design Suitability: Greatest</p> <p>Quality of Execution: Fair</p> <p>Setting: Community-wide</p>	<p>Location: Linkoping and Motala, Sweden</p> <p>Components: Newspaper (special weekly supplements), informational meetings with health specialist, formation of exercise groups and questions and answer segment.</p>	<p>Volunteer sample of adults in community</p> <p>2887 participants registered. Fitness test: 844 pre; 255 completed 1-yr follow-up.</p>	<p>% change from baseline post-pre/pre</p>	<p><u>Outcome</u> <u>% change</u></p> <p>Weight -1.4%</p> <p>% No Exercise -41.2%</p> <p>VO2 max 4.0%</p>	