Environmental and Policy Approaches to Increase Physical Activity: Creation of or Enhanced Access to Places for Physical Activity Combined with Informational Outreach Activities

Summary Evidence Table

Study Characteristics	Intervention and comparison elements	Study Population description; Sample size	Effect measure	Value used in summary	FU time
Author (year): Bertera RL (1993) **Design suitability**: Greatest	**Location:** 100 DuPont sites, U.S. **Components:** Fitness trails, exercise rooms, conditioning equipment; HRA=s; on-site classes; recognition awards. **Comparison:** Group started program at different sites at time of post measurement for intervention group, had received no intervention, their pre-measurements compared to pre-measurement of intervention group.	7,178 I 7,101 C Employees of Dupont Largely white, approx 70% male	Net% change from baseline. If Comparison group measure was no different than Intervention Pre-measure, Pre and Post are entered as equivalent and net % change= % change Intervention.	Outcome / Δ (%) / P Exercise 3+ times/wk / 36.4 / .001	2 year interv

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Author (year): Oswald SK (1989) **Design suitability:** Greatest **Execution:** Fair (4 limitations) **Setting:** Small private company	**Location:** Small private company in the upper midwest **Components:** 3 treatment groups; mild interv - all-day ed seminar, blood test with written interpretation, 3-mo received monthly newsletter; moderate interv - same as mild, plus further interp of lab results, a physical, treadmill test, and access to exercise facility; intensive interv - same as mod, plus individual ex prescription, ex classes, assistance from ex physiologist **Comparison:** no intervention for control group	1 company interv and 1 company control I = 293 eligible employees, 261 responded to survey; Mild = 30 Moderate = 23 Intensive = 25 Control = 343	net % Δ from baseline, intensive and moderate group net % change from baseline, intensive group only	**Change P** **Intensive vs Moderate** weight -4.41% .001 Inten, .651 mod %BF -3.76% .001 Inten, .015 mod term time -2.60% .136 Inten, .011 mod flexibility 3.30% .014 inten, .005 mod **Intensive** health practices 14.2% t-test = -2.11, p = .046 exercise practices 21.1% t-test = -2.23, p = .036	12 wk interv; measures 5 mo before and after interv

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Author (year): Henritze J (1992) **Design suitability**: Least **Execution:** Fair	**Location:** Coors Can Manufacturing, Golden, Colorado **Components:** 23,000 sf Wellness Center constructed with exercise facilities and weight equipment; 8 wk LIFECHECK program; PE classes. **Comparison:** Before and after	499 employees participated with complete pre- post-measurements Largely male and white	% change from baseline.	Outcome / Δ (%) / P PA (times/wk) 60.4 <.05 Weight -1.0 <.05	8 weeks between pre- and post- evaluation.

Study Characteristics	Intervention and comparison elements	Study Population description; Sample size	Effect measure	Value used in summary	FU time
Author (year): Linenger JM (1991) **Design suitability**: Greatest **Execution:** Fair	**Location:** San Diego, CA, Naval Air Station **Components:** Bicycle paths, new equipment at recreation facilities, running course, women=s fitness facility, social support, behavioral reinforcements. **Comparison:** No intervention.	Naval Air Station (NAS) personnel from NAS-North Island=I (n=1609) NAS personnel from NAS-Moffett=C1 (n=217) Navy-wide sample=C2 (n=546) 85% Male 70% W	Net % Change from baseline. Statistical significance if group*time interaction.	Outcome ΔC1 ΔC2 P Energy expenditure (kcal/wk) 17.3% 0.9% NS kcal/wk (sedentary) -28.9% 78.1% <.05 sit-ups 2.4% 2.5% NS push-ups -2.2% 3.8% <.05 % body fat -6.4% - 0.6% <.01 Physical readiness Score 10.4% 11.4% <.01 1.5 mi run (Min) -1.6% -3.2% <.01	1 year interv between pre and post

Study Characteristics	Intervention and comparison elements	Study Population description; Sample size	Effect measure	Value used in summary	FU time
Author (year): Heirich MA (1998) **Design suitability**: Greatest **Setting:** Michigan Worksite Study *Erfurt JC has the same study with costs outcomes*	**Location:** Four automotive plants, Dearborn, Mich **Components:** Fitness facility and trainers (Intervention B) Health education (Intervention C) Fitness facilities and social support (peer, counselling) (Intervention D) **Comparison:** Health ed and aerobics offered but dropped due to poor participation. (Group A)	A- (comparison) N=493 B-N=505 C-N=482 D-N=403 Largely white, male, hourly employees	Net % change from baseline. Calculated for each intervention separately. Level of significance applies only to the overall difference between groups by ANOVA	Outcome Δ Exercise score(B) -15.2% Exercise score(C) 0.0% Exercise score(D) -4.5% p<.001 by ANOVA	3 years of interv between pre and post

Study Characteristics	Intervention and comparison elements	Study Population description; Sample size	Effect measure	Value used in summary	FU time
Author (year): Brownson RC (1996) **Execution:** Fair	**Location:** Bootheel region of Missouri **Component:** Community coalitions developed walking clubs, exercise classes, screenings, media involvement, fitness and walking paths. **Comparison:** Communities without coalitions	Intervention conducted largely among black, high poverty, low education; 437 surveyed 1990, 381 surveyed 1994	Net % change pre-post, I-C	Outcome Δ P % NO LPTA -6.8% 0.03 % Overweight -6.1% 0.07	4 years between surveys
Author (year): Lewis CE (1993) **Design suitability**: Greatest **Execution:** Fair	**Location:** Public housing communities in Birmingham, AL **Components:** Community-based exercise program; Group exercises; behavioral interventions; Social support; Leader training; equipment for community recreation centers.	Almost exclusively black, low income. 599 interviews pre 647 interviews post 22% male 78% female mean age 39.7 Mean edu 9.5 yr	Net % change pre-post, I-C	Outcome Δ PA score ALL -174.3% PA score MEN 162.3% PA score WOMEN -257.5%	1 year between pre and post

Study Characteristics	Intervention and comparison elements	Study Population description; Sample size	Effect measure	Value used in summary	FU time
Author (year): Blair SN (1986) **Design suitability**: Greatest **Execution:** Fair **Setting:** 4 Johnson and Johnson worksites	**Location:** 4 Johnson and Johnson companies **Components:** Annual health screen; no cost exercise space, showers, lockers onsite or nearby; 3 hr lifestyle seminar; health promotion; telephone support. **Comparison:** Health screen only	I: 4 worksites N=1399 C: 3 worksites N=748	post measurements only @ year 1 and year 2. Net % change= (I(post1)-C(post1))/C(post1) Same for post2. Post1=year1 Post2=year2	Outcome Δ1 Δ2 P Global self-rated exercise 5.6% 6.2% <.0001 Total energy expend (kcal/kg/d) 1.7% 2.0% <.01 Energy expend in hard activity (kcal/kg/d) 18.6% 53.4% <.05 yr1 <.01 yr2 VO2 max 6.8% 5.4% <.0001 ——————————————————— % Δ from baseline reported for VO2 max (p923) I yr1=8.4%; I yr2=10.5% C yr1=1.5%; C yr2=4.7% Net % Δ Yr1= 8.4-1.5=6.9% Yr2=10.5-4.7=5.8%	2-year interv with baseline, 1 yr, and 2 yr assess-ment

Study Characteristics	Intervention and comparison elements	Study Population description; Sample size	Effect measure	Value used in summary	FU time
Author (year): Larsen P (1993)	**Location:** 9 federal agencies in Chicago **Components:** multifaceted: provided health info and activities; access to aerobic fitness facilities (equipment chosen for effect on CV health); counseling, seminars, workshops, self-help, and drop-in sessions, and health forums **Comparison:** non-participating employees and employees exercising outside group	I: 121 rescreened C: 38 non-participants; 24 exercised outside program	net % change from baseline	Comparison — Net change part vs no-part — -1.46% part vs outside — 38.22% *p<0.05 pre to post for participants	Not reported

Study Characteristics	Intervention and comparison elements	Study Population description; Sample size	Effect measure	Value used in summary	FU time
Author (year): King AC (1988) **Design suitability**: Greatest **Execution:** Fair	**Location:** Near Stanford University (Palo Alto, CA) **Components:** Fitness and behavior assessment; PA prescription/recommendation; Classes after work at **Parcourse**; encouragement for home exercise; contests for attendance. **Comparison:** Chose not to attend after work classes	Blue-collar employees of Stanford Univ. All men, mean age 44.9; 8% black; 8% Hispanic Population N=94 38 participants I=22 C=16	Net % change in weight and recovery HR (pre-post, I-C) % Diff in number of aerobic exercise bouts over the 4 month intervention (I mean-Cmean)/ Cmean	Outcome Δ P weight (kg) -2.0% <.05 1-min HR recovery -16.5% <.0001 % Difference in # of exercise bouts: 119.4%, p<.006	4 months