## Campaigns and Informational Approaches to Increase Physical Activity: Classroom-Based Health Education Focused on Providing Information

## Summary Evidence Table

| Study | Intervention and comparison | Population | Effect measure | Value used in summary | FU time |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Author (Year): <br> Holcomb et al. (1998) <br> Design Suitability: <br> Moderate <br> Study Design: time series <br> Quality of Execution: Fair <br> Setting: Elementary school | Location: $5^{\text {th }}$ grade classrooms, Webb County, TX <br> Components: Student workbook integrating health ed (NIDDM) with other subjects; interactive, hands-on activities, exercise section emphasizing obesity prevention. Recommended personal fitness goals <br> Comparison: Pre vs. Post | Teachers C N=30 from 13 campuses (Grp A); N=9 from six campuses who used JIA, but did not attend training (Grp B); Students C $\mathrm{N}=835$ at FU | $\Delta 1$ B Ipost-Ipre/ Ipre <br> $\Delta 2$ B IFU - Ipost/ Ipost <br> $\Delta 1$ and $\Delta 2$ measurements made on different sets of people | $\Delta 1$ $\Delta 2$ <br> Outcome $\mathbf{1 1 . 4 \%}$ <br> Knowl exer regimens (0-5) Exercise self-efficacy (5-20) <br> Freq. Ex-related behrs (5-15) $\mathbf{1 0 . 4 \%}$ | $\begin{aligned} & \Delta 1=3 \\ & \mathrm{mos} \\ & \Delta 2=1 \\ & \mathrm{mo} \end{aligned}$ |
| Author (Year): Killen et al. (1989) <br> Design Suitability: Greatest <br> Study Design: randomized group trial <br> Quality of Execution: Fair <br> Setting: High schools | Location: 4 high schools in 2 N. Calif school districts <br> Components: 20 classroom sessions of 50 mins, $3 x / w k$ for 7 weeks. Modules focused on PA, nutrition, smoking and delivered special, trained teachers as part of regular PE. Included selfchange project, personal change workbook, videos, homework. Student teams competed for prizes. <br> Comparison: not discussed. Assume standard health ed, PE | Schools C N = 4; I: 2; C: 2; <br> Students C $\mathrm{n}=$ $1130(\mathrm{I}=622, \mathrm{C}=$ 508) | net $\% \Delta$ from baseline, intervention group <br> - control | Outcome $\Delta$ girls $\Delta$ boys $\mathrm{p}^{*}$ <br> Exer score $48.2 \%$ $44.1 \%$ 0.0001 <br> BMI $-1.5 \%$ $-0.9 \%$ 0.05 <br> HR $-3.6 \%$ $-5.5 \%$ 0.0001 <br> Tricep SF $4.5 \%$ $-9.9 \%$ 0.004 <br> Supsc SF $1.1 \%$ $-11.0 \%$ 0.01 <br> * I vs. C    <br> \% becoming regular exercisers <br> S    <br> $=8.6$, p $=0.0003$    <br> I $*$ sex effects evident for TSF, SSF    |  |
| Author (Year): Davis et al. (1995) <br> Design Suitability: Greatest <br> Study Design: | Location: Fifth grade classrooms in 11 rural elementary schools in central and NW NM. <br> Components: Multi-factorial comprehensive, culturally sensitive CVD curriculum - CV system, nutrition, | Schools C N = 11 <br> (9 BIA, 2 public), <br> I: 8, C: 3; <br> Students $\mathrm{C} \mathrm{n}=$ $\begin{aligned} & 1766(\mathrm{I}=1352, \mathrm{C} \\ & =508) \end{aligned}$ | net \% $\Delta$ from baseline, intervention group <br> - control <br> Exercise: (IpostCpost)/Cpost | Pop Subgroup Outcome $\Delta$ p <br> Navajo girls <br> Gen Knowledge $27.7 \%$ 0.0001 <br> Navajo boys <br> Gen Knowledge $31.9 \%$  <br> Pueblo girls <br> Gen Knowledge $23.4 \%$ 0.0001 |  |


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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| randomized group trial <br> Quality of Execution: Fair <br> Setting: Elementary Schools | exercise, tobacco, obesity, habit change, and social influences. Taught 2 hrs/week for 13 weeks; divided into 5 teaching units by project staff, classroom teachers and tribal elders <br> Comparison: Comparison group received assessments only during years 1-3; received intervention in last two years at schools request |  |  | Pueblo boys Gen Know Navajo Pueblo $\quad \%$ ex All $\quad 4$ ex $H^{2}[2]=35.8, p<$ | $25.1^{\mathrm{c}}$ | 1.4\% <br> $4.1 \%$ <br> 7.3\% |  |
| Author (Year): Walter et al. (1985) <br> Design Suitability: Greatest <br> Study Design: randomized group trial <br> Quality of Execution: Fair <br> Setting: Elementary schools | Location: $4^{\text {th }}$ grade classrooms in 22 elementary schools in the Bronx, NY <br> Components: curriculum with units on nutrition, physical fitness and cigarette smoking prevention. PA component encouraged adoption of regular program of endurance exercise. Behavioral skills training. Intervention delivered by trained classroom teachers for 2 hrs/wk over entire school year. <br> Comparison: Control group did not receive Know Your Body | $\begin{aligned} & \text { Schools C N = 22; } \\ & \text { I: 14; C: 8; } \\ & \text { Students - N = } \\ & 2283 \text { eligible; } 1563 \\ & \text { (68.5\%) } \\ & \text { participated in BL; } \\ & 1115 \text { (71.3\%) } \\ & \text { completed FU. } \end{aligned}$ | net \% $\Delta$ from baseline, intervention group <br> - control | Outcome <br> Ponderosity index <br> Tricep SF Recovery indx score (step test) | $\begin{aligned} & \Delta \\ & \hline 0.0 \% \\ & -1.3 \% \\ & 1.4 \% \end{aligned}$ | $\begin{gathered} \frac{p}{} \\ \hline 0.368 \\ 0.787 \\ 0.744 \end{gathered}$ | 1 year |
| Author (Year): Walter et al. (1986) <br> Design Suitability: Greatest <br> Study Design: <br> randomized group trial <br> Quality of Execution: Fair <br> Setting: Elementary schools | Location: $4^{\text {th }}$ grade classrooms in 22 elementary schools in Westchester County (6 districts) <br> Components: curriculum with units on nutrition, physical fitness and cigarette smoking prevention. PA component encouraged adoption of regular program of endurance exercise. <br> Behavioral skills training. Intervention delivered by trained classroom teachers for 2 hrs/wk over entire school year. <br> Comparison: Control group did not receive Know Your Body | Schools C N = 22; <br> I: 11; C: 11; <br> Students - N=1822 <br> eligible; 1525 <br> completed BL <br> measurements ; <br> FU observed <br> N=1215, I: 590; <br> C: 625 | net \% $\Delta$ from baseline, intervention group - control | Outcome <br> Ponderosity index <br> Tricep SF Recovery indx score (step test) | $\begin{aligned} & \Delta \\ & \hline 0.9 \% \\ & 6.3 \% \\ & 0.5 \% \end{aligned}$ | $\begin{aligned} & \frac{p}{0.115} \\ & \mathbf{0 . 0 0 0} \\ & 0.546 \end{aligned}$ | 1 year |


| Study | Intervention and comparison | Population | Effect measure | Value used in summary | FU time |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Author (Year): Perry et al. (1987) <br> Design Suitability: Greatest <br> Quality of Execution: Good <br> Setting: High School | Location: 10 suburban high schools in the Twin cities Metropolitan area, MN <br> Components: 10 sessions (Slice of Life) high school curriculum. Included information on tracking and analyzing eating and activity patterns, goal setting, and identification of consequences <br> Comparison: Usual health science curriculum | $9^{\text {th }}$ graders; ages 14-15; largely white, 51.8\% female $\text { I: } n=173, C: n=97$ | net \% $\Delta$ from baseline, intervention group <br> - control <br> outcomes measured by 16 page questionnaire | Outcome $\Delta$  p <br> Males $-3.4 \%$ NS  <br> knowledge $-0.7 \%$ NS  <br> reg ex program $-0.1 \%$ NS  <br> intensity of ex $-1.4 \%$ NS  <br> intention to ex $-2.2 \%$ NS  <br> time in ex $-1.4 \%$ NS  <br> healthy ex choices    <br> Females $4.0 \%$ $\mathrm{p}<0.05$ <br> knowledge $-15.1 \%$ $\mathrm{p}<0.05$ <br> reg ex program $-22.2 \%$ $\mathrm{P}<0.01$ <br> intensity of ex $-1.4 \%$ $\mathrm{p}<0.05$ <br> intention to ex $-4.7 \%$ NS <br> time in ex $7.4 \%$ NS    <br> healthy ex choices    | $\begin{array}{\|l} 3 \mathrm{mo}(10 \\ \text { sessions) } \end{array}$ |
| Author (Year): Bush et al. (1989) <br> Design Suitability: Greatest suitability | Location: Elementary and middle school classrooms in Washington, DC. <br> Components: Know Your Body curriculum taught 45 min twice weekly through the school year. Parents received copies of baseline screening. Teacher training in curriculum was done. <br> Comparison: Received none of the curriculum or screening results | 4th-6th graders. Mean age 10.5, 54\% F, 36.4 low SES, 28.6 middle SES, 35\% upper SES $\begin{aligned} & \mathrm{N}=431 \\ & \mathrm{I}=283 \\ & \mathrm{C}=148 \end{aligned}$ | net\% change from baseline, intervention groupcontrol. <br> Adjusted net change from baseline. <br> Outcome measured by exam and Harvard Step Test | Outcome $\Delta$ p <br> Ponderosity index $(\mathrm{kg} / \mathrm{m} 2)$ $2.12 \%$ 0.000 <br> Triceps skinfold (mm) $4.03 \%$ NS <br> Fitness score $-10.00 \%$ NS <br> $\quad$ (1 =high, 6=low)   <br> Adjusted net change: $\begin{array}{\|rr} \mathrm{PI} & 0.23 \mathrm{p}=.070 \\ \mathrm{TS} & 0.24 \mathrm{p}=.636 \\ \mathrm{FS} & -0.38 \mathrm{p}=.011 \end{array}$ | Measurem ent after 2 years of 5 year interventi on. |
| Author (Year): <br> Petchers et al. (1988) <br> Design Suitability: <br> Greatest <br> Quality of Execution: <br> Fair | Location: 3 regions (residential urban, suburban, rural) in Northeast Ohio <br> Components: Chicago Heart Health Program taught at least three 45 min sessions during school year. Modules for CV system, anatomy/physiology, smoking, nutrition, exercise, risk factors. Teacher training involved. <br> Comparison: Usual curriculum | $6^{\text {th }}$ graders. <br> Mean age 11.1, 47.7\% M, 97.3\% White $\begin{aligned} & \mathrm{N}=325 \\ & \mathrm{I}=178(54.8 \%) \\ & \mathrm{C}=147(45.2 \%) \end{aligned}$ | net\% change from baseline, interventioncontrol group |  | 1 year F/U |
| Author (Year): Marcus et al. (1987) | Location: two CA school districts (Los Angeles and Santa Monica-Malibu, CA) | $4^{\text {th }}$ and $5^{\text {th }}$ grade 1508 elementary |  |  |  |

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\hline Study \& Intervention and comparison \& Population \& Effect measure \& \multicolumn{3}{|l|}{Value used in summary} \& FU time \\
\hline \begin{tabular}{l}
Design Suitability: Greatest \\
Study Design: nonrandomized group trial \\
Quality of Execution: Fair \\
Setting: Elementary school
\end{tabular} \& \begin{tabular}{l}
Components: Know Your Body curriculum, 10 modules ( 1 addressed physical fitness and exercise). Taught by public health nurse \\
Comparison: Control group did not receive any intervention
\end{tabular} \& school children, 2 CA school districts, 18 schools \& \& \& \& \& \\
\hline Author (Year): Dale et al. (2000) \& \begin{tabular}{l}
Location: AZ high school \\
Components: 2 successive classes were enrolled in program. Conceptual PE 1 day/wk (concepts of PA, and fitness, behavioral skills, goal setting, program planning) and CPE gym 1 day/wk (personal program-building skills, methods of performing lifetime PA). 3 days in traditional sports-based PE. \\
Comparison: students who transferred to Project Active Teens after completing \(9^{\text {th }}\) grade PE requirement at another school
\end{tabular} \& \begin{tabular}{l}
Ninth grade \\
1995 (144 \\
returned):
\[
\begin{aligned}
\& \mathrm{I}=99, \mathrm{C}=39 \\
\& 1996(208 \\
\& \text { returned): } \\
\& \mathrm{I}=151, \mathrm{C}=44
\end{aligned}
\]
\end{tabular} \& \begin{tabular}{l}
net \% change from baseline, interv control \\
strength, net \% change baseline and post grad
\end{tabular} \& \begin{tabular}{l}
Outcome \\
mod act 95 men mod act 96 men vig act 95 men vig act 96 men str 95 men str 96 men sed behav 95 men sed behav 96 men mod act 95 women mod act 96 women vig act 95 women vig act 96 women str 95 women str 96 women sed bahav 95 wome sed behav 96 wome
\end{tabular} \& Interv
106.40\%
\(7.14 \%\)
\(-20.62 \%\)
\(-16.53 \%\)
\(26.70 \%\)
\(-7.39 \%\)
\(7.64 \%\)
\(7.39 \%\)
\(-55.76 \%\)
\(60.29 \%\)
\(-33.41 \%\)
\(-35.54 \%\)
\(-16.27 \%\)
\(-4.17 \%\)
\(-22.86 \%\)
\(53.57 \%\) \& F/U
\(\mathbf{1 3 . 1 3 \%}\)
\(18.33 \%\)
\(-13.92 \%\)
\(46.41 \%\)

$-5.56 \%$
$9.09 \%$
$-6.76 \%$
$7.35 \%$
$-7.74 \%$
$-9.03 \%$
$-6.74 \%$
$-55.52 \%$ \& <br>
\hline
\end{tabular}

