**Key Question 1. School-home based**

**Evidence Table 7. Study characteristics for studies taking place in a school setting with a home component**

| **Author, year****Location** | **Years of recruitment** | **Study Design** | **Inclusion Criteria** | **Goal of study is obesity prevention/ weight maintenance** | **Comments** |
| --- | --- | --- | --- | --- | --- |
| Burke, 19981Australia | 1993 | Randomized intervention | NR | No/Not reported | With sampling stratified by socioeconomic status 989 children from 18 schools were invited to take part. Schools were randomized to act as controls, receiving only the standard school curriculum (five schools) or to receive the up-dated WASPAN nutrition and physical activity program (13 schools). Of the 13 WASPAN schools, seven were randomly chosen for a physical activity enrKCPichment program targeting only children with higher levels of cardiovascular risk. In the other six WASPAN schools, both higher and lower risk children received only the WASPAN programs. The cardiovascular risk was based on systolic blood pressure, physical fitness, percent body fat, and blood cholesterol. |
| Caballero, 20032US | NR | Randomized intervention | Grade: 3rd gradeEthnicity: American Indian/Alaska NativeSchool selection was based on a projected 3rd grade enrollment of >15 children, 90% of 3rd grade children of American Indian ethnicity, retention from 3rd to 5th grade over the past 3 yrs of >70%, school meals prepared and administered on site, availability of minimum facilities to deliver a physical activity program at the school, and approval of the study by school, community, and tribal authorities. | Yes |  |
| Coleman, 20053US | 1998 | A pretest-posttest, matched control group, quasi-experimental design. | NR | Yes | Participants were third grade children predominantly Hispanic. |
| Danielzik, 20074Germany | 1996 | Randomized intervention | There were no eligibility criteria except willingness to participate. | Yes | Abstracted from Plachta-Danielzik, 20115. |
| Dzewaltowski, 20106US | 2005 | Nested cross-sectional group randomized controlled trial | Students in the after-school program were excluded if they were not in the 3rd or 4th grand or if they participated in the program in the previous year. | Yes | A three-year group-randomized controlled trial was conducted with random assignment at the school level after a baseline year of assessment (Figure 1). The study used a nested cross-sectional design with a baseline year (2005-2006), and two subsequent intervention years (2006-2007, 2007-2008). For each year of the study, new children in fourth grade and in after-school programs participated in the study. By using a “repeated cross-section” methodology the outcomes were tracked for the same places rather than for the same individuals [12]. If this study used a longitudinal design and attempted to follow students over three years, it is likely that participant dropout would have exceeded 30%.Study used a “repeated cross-section” methodology where the outcomes were tracked for students in the same grade (4th grade students over sequential years) rather than for the same students over time due to concern for dropout.Schools were stratified into two groups (High SES/Low Diversity; Low SES/High Diversity) based on the percentage of students who qualified for free and reduced lunch, and race/ethnic diversity. Schools were matched group within each group and randomized to intervention or control. The study had two components: an after-school component and a during-school component. |
| Foster, 20087US | NR | Randomized intervention | Grade: K-8th gradeTen schools were selected from among 27 Kindergarten through eighth gradeschools with at least 50% of students eligible for free or reduced-price meals. | Yes | Schools were the unit of randomizationand intervention. To obtain pairs of 2 schools per cluster, the 27 schools were first organized into 5 clusters of 4 to 7 schools each, based on school size and type of food service (e.g., full service [2 clusters] or heat and serve [3 clusters]). Schools within each cluster were approached to participate in a predetermined, random order. When 2 schools in each cluster agreed to participate, the schools were randomly assigned as intervention or control schools. |
| Hatzis, 20108Greece | 1992 | NR | NR | No/Not reported | This article reports on the 10 year follow up data; does not go in depth about initial intervention |
| Hendy, 20119US | NR | Randomized intervention | Needed to be a student at the school for throughout the KCP program.Needed to not have severe disabilities that would make it difficult for the child to understand the program. | Yes | This study extends a previous evaluation of the KCP program from a one-month application to a three-month application. |
| Hoelscher, 201010US | 2007 | Non-randomized intervention | NR | Yes | All 4th grade students in the 30 CATCH BP/BPC measurement schools were invited to participate in a self-administered survey along with measurement of height and weight. In addition, one class each of 3rd, 4th, and 5th grade students was randomly selected for direct observations of student PA during PE class. |
| Hollar, 201011US | 2004 | Non-randomized intervention | NR | Yes | Children in elementary schools. |
| Hopper, 200512US | NR | Randomized intervention | NR | No/Not reported | Participants are third grade students in elementary schools. |
| Kriemler, 201013Switzerland | 2004-2005 | cluster randomized controlled trial | Grade: 1st and 5th Participating schools fulfilled our eligibility criteria: rural or urban localization, a prevalence of 10-30% migrants as in the Swiss population, and the presence of at least a first grade and a fifth grade class in each school. | Yes | Randomization was conducted at the school level.Baseline (August 2005) and follow-up (June 2006) measurements took place at school within the same three week period for all children; the intervention period lasted nine months. |
| Lionis, 199114Greece | 1987 | Non-randomized intervention | Age: >13 - <14Grade: last class of high schoolStudents who attended the last class of high school (13-14 years old) in the two rural areas of the Agios Vassilios and the Amari provinces in Crete were selected as the target population for the intervention study. | No/Not reported |  |
| Manios, 199815Greece | 1992 | Non-randomized intervention | Grade: 1Participants in the intervention group are students from two counties in Crete (Iraklio and Rethimno) while the students in the control group are from Chania. | No/Not reported |  |
| Marcus, 200916Sweden | 2001-2004 | Cluster-randomized controlled, plus pre-, post-test, & continuous test designs for certain measures | NR | Yes | The study utilized a cluster-randomized, controlled design. Note that the research design was mixed with a cluster-randomized design pre- and post-test for assessing changes in Body Mass Index standard deviations score (BMI sds) and a cluster-randomized continuous test design for the measurement. A post-test design was used for eating behavior assessments. |
| Mihas, 201017Greece | 2007 | Randomized intervention | Age: >12 - <13Grade: 7No subjects who had an organic cause for high or low weightNo subjects who received any medication that might interfere with growth or weight controlNo subjects who were on specific diets | Yes | "In the study, 342 adolescents aged 12–13 years who were students (7th grade) of all (n 5) high schools located in Vyronas district, Athens, Greece, were initially eligible."So aged 12-13 and grade 7 is an inclusion criterion? |
| Nader, 199918US | 1991 | Randomized intervention | Grade: this follow up is specific to those in grade 3 at baseline 1991 and followed up in 1997 (grade 8) | Yes | This study is a 3 year follow-up study of the Catch II study, to determine whether changes observed at the end of the intervention (grade 5) were maintained through grade 8.Study characteristics were not explicitly reported here in detail: may have to look at these references for intervention design: Perry CL, Stone EJ et al, (1990) School-based cardiovascular health promotion: the child and adolescent trial for adolescent health (CATCH). J Sch Health 60(8): 406-13.Zucker DM, Lakatos E, Webber LS, et al. (1995) Statistical design of the child and adolescent trial for adolescent health (CATCH): implications of cluster randomization. Control Clin Trials. 16:96-118.and Luepker RV, Perry CL, McKinlay SM, et al. (1996) Outcomes of a field trial to improve children's dietary patterns and physical activity: the child and adolescent trial for adolescent health (CATCH). JAMA 275: 768-76. |
| Robinson, 199919US | 1996 | Randomized intervention | Grade: 3-4 | Yes |  |
| Schetzina, 200920US | 2005 | Non-randomized intervention | NR | Yes | The study school was identified by the Tennessee Department of Education as having over 50% of its students classified as economically disadvantaged. |
| Shofan, 201121Israel | 2004 | Non-randomized intervention | NR | Yes |  |
| Simon, 200822France | 2002 | Randomized intervention | NR | Yes | Cluster-randomized controlled intervention study, started in fall 2002, is based on a randomization of the intervention status at school level, with stratification on socio-geographical criteria.To ensure a broad socioeconomic representation, school randomization was stratified on geographical location, city size and location (or not) in a low economic neighborhood. Four pairs of matched schools were randomly selected out of the 77 public middle schools of the Department of Bas-Rhin (Eastern France). Intervention status of the schools was randomized in each pair of schools. |
| Simonetti D'Arca, 198623Italy | 1982 | Non-randomized intervention | NR | Yes |  |
| Speroni, 200724US | 2006 | Non-randomized intervention | Study eligibility criteria excluded children who were unable or unwilling to perform physical fitness activities or to complete food and activity study questionnaires and diaries. When participants were originally screened, no children were excluded based on these criteria. | Yes | There is a low response rate for children who chose to take part in the study, "letters were distributed to the approximately 1,700 parents of students in grades 2 through 5 at the four schools. A total of 194 children enrolled in the study." |
| Trevino, 200425US | 2001 | Randomized intervention | Age: <: 12 yearsGrade: Fourth gradeThose in elementary schools with no previous exposure to Bienestar, students not previously diagnosed as having type 1 or type 2 diabetes mellitus, students without extreme dietary values, and students with 3-day average calorie intakes of greater than 800 and less than 4800. Students not in alternative schools were also included. | No/Not reported |  |
| Story, 201226US | 2005 | Randomized intervention | Grade: Kindergarten | Yes | Inclusion/Exclusion criteria were not very clear. Study aim was to conduct intervention among American Indian population (specifically Lakota). By having intervention on the reservation, it was assumed the vast majority of participants would be American Indian, but ethnicity itself was not an exclusion/inclusion criteria reported. |
| Brandstetter, 201227Germany | NR2006 | Randomized intervention | Grade: Second grade  | Yes |  |
| Llargues, 201128Spain | 2006-2006 | Randomized intervention | Grade: First year of primary schoolingThe exclusion criteria were school children who need a special diet for a metabolic or digestive disorder, physical activity incapacity, no family acceptance or attendance to school | Yes | Cluster randomized prospective study with two parallel arms. The 16 schools were grouped into strata, depending on whether they were public or not, and they had the same number of classes of ﬁrst primary course. Each school in the groups was randomly assigned to the control or intervention group.Follow-up is two school years. Not reported in weeks. |
| Lloyd, 201229England | 2008-2008 | Randomized intervention | Age: 9-10 years old, Grade: Year 5 class (9 to 10 year olds) All state primary and junior schools in Exeter were eligible to take part if they had at least one single age Year 5 class (9 to10-year-olds) (ie, not mixed classes, 8 to10- or 9 to11-year-olds). Schools were recruited via the local network of primary school head teachers | Yes | Recruited participants at the school-level. |
| Williamson, 201230US | 2006 | Randomized intervention | Grade: Grades 4-6 From rural communities | Yes | Supplementary article used only for recruitment data |
| Siegrist, 201131Germany | 2006-2007 | Randomized intervention | Grade: Grades 2 & 3 Sixty primary schools throughout Bavaria, Germany were invited by mail or telephone to take part in this projectInclusion criteria at the student level: (1) attendance in the second or third grade and (2) written consent from parents | No/Not reported | Randomization was at the school level |

CATCH BP = Coordinated Approach to Child Health Basic Plus; CATCH BPC = CATCH BP and Community; K-8 = Kindergarten through 8th grade; KCP = Kid’s Choice Program; PA = Physical Activity; PE = Physical Education; SDS = Standard deviation score; SES = Socio-Economic Status; WASPAN = West Australian Schools Physical Activity and Nutrition Project