

Social Determinants of Health: Expanded In-School Learning Time

Task Force Finding and Rationale Statement Ratified April 2017

Table of Contents

Intervention Definition	2
Task Force Finding.....	2
Rationale	2
Basis of Finding	2
Applicability and Generalizability Issues	2
Data Quality Issues.....	3
Other Benefits and Harms	3
Considerations for Implementation.....	3
Evidence Gaps	3
References	4
Disclaimer.....	5

Suggested Citation:

The Community Preventive Service Task Force (CPSTF). *Social Determinants of Health: Expanded In-School Learning Time*. The Community Guide [www.thecommunityguide.org]. The Community Preventive Service Task Force, Atlanta, Georgia, 2017. <https://doi.org/10.15620/cdc/168584>

Task Force Finding and Rationale Statement

Intervention Definition

Programs that expand in-school learning time increase learning opportunities for students in grades K-12 by adding hours to the school day, days to the school week, or weeks to the school year. Academic achievement is an established social determinant of long term health (Hahn et al., 2015).

Task Force Finding (April 2017)

The Community Preventive Services Task Force finds insufficient evidence to determine the effectiveness of expanded in-school learning time programs to improve students' academic achievement. Evidence is considered insufficient based on small and inconsistent program effects on standardized achievement tests for math and reading. In addition, included studies do not provide information about how added time was used. Because the Task Force finds insufficient evidence to connect intervention effectiveness with academic achievement, the potential impact of expanded in-school time on health outcomes and health equity remains unknown.

Rationale

Basis of Finding

The Task Force finding is based on evidence from a systematic review of 11 studies. Five of the included studies were identified from reference lists of 2 existing systematic reviews (Patall et al., 2010, search period 1960 – 2009; Redd et al., 2012, search period not reported). The remaining 6 studies were identified through a Community Guide search for evidence (search period 2010 – February 2015).

Time spent in school does not equal time spent learning. School time can be divided into four categories (Silva, 2007):

- Allocated time (total time in school)
- Allocated class time (total time in class)
- Instructional time (time devoted to instruction)
- Academic learning time (time for students to gain and retain subject knowledge)

Included studies reported the number of hours added to school, but provided little information on how the added time was used. This made it difficult to draw a conclusion that would be useful for practitioners or policy makers.

Studies examined the effects of expanded school years and days (5 studies), expanded school years (1 study), and lengthened school days (5 studies). Studies reported students' scores on standardized tests administered at national or state levels or tests developed for the research study. Effect sizes were small and inconsistent.

Three of the included studies examined public charter schools that implemented other program changes in addition to expanded in-school time (Angrist et al., 2013; Dobbie et al., 2013; Hoxby et al., 2009). For example, some of the schools provided teachers with feedback, used data to guide instruction, offered high intensity tutoring, or cultivated a culture of high expectations. Taken together, these policies improved student achievement. Improvement was greatly reduced, however, when authors limited the analysis to the impact of expanded in-school time alone.

Applicability and Generalizability Issues

Studies were from the United States (9 studies), Chile (1 study), and Israel (1 study). Only one study was conducted in a rural area. Programs were implemented in public charter (5 studies), traditional (5 studies), or magnet (1 study) schools

and encompassed grades K-12. Programs varied in the number of hours added per school year (9 studies reporting), ranging from 90 to 300 or more hours.

Five of the evaluated programs were implemented in schools or school districts with high percentages of students who were black (median of 50%) or Hispanic (median 27%). The majority of students in these studies qualified for free or reduced price lunch (median 82%).

Data Quality Issues

To understand the impact of time, it is best to examine the association between added academic learning time and student achievement. Academic time, however, is difficult to measure and was not consistently reported in the included studies, which limits understanding.

In addition, time may not be a good measure of teaching quality or learning experience. Within the same amount of time, more skilled teachers are likely to accomplish more than their less skilled peers.

Other Benefits and Harms

The following potential benefits and harms were identified in the broader literature.

Potential benefits of longer school days and years:

- Reduced need and cost for child-care
- Increased opportunities for parental employment
- Decreased student involvement in violence after school

Potential harms of longer school days and years:

- Reduced opportunities for additional employment for teachers or school staff
- Decreased family and play time

Considerations for Implementation

Two national reports, *A Nation at Risk* in 1983 and *Prisoners of Time* in 1994, discussed factors that affect students' achievement in the United States. Both reports highlighted the importance of instructional time and argued that U.S. standards might not be adequate to achieve desired student outcomes.

Findings from this review suggest that adding time alone may not be enough to improve students' academic achievement or associated long-term health. It is likely, however, that the way extended time is used makes a difference. In 2013, the Community Preventive Services Task Force recommended out-of-school time academic programs ([reading-focused](http://www.thecommunityguide.org/findings/health-equity-out-school-time-academic-programs-reading-focused) [www.thecommunityguide.org/findings/health-equity-out-school-time-academic-programs-reading-focused], [math-focused](http://www.thecommunityguide.org/findings/health-equity-out-school-time-academic-programs-math-focused) [www.thecommunityguide.org/findings/health-equity-out-school-time-academic-programs-math-focused], and [general](http://www.thecommunityguide.org/findings/health-equity-out-school-time-academic-programs-general) [www.thecommunityguide.org/findings/health-equity-out-school-time-academic-programs-general]) to improve students' academic achievement. They noted, however, that programs were not as effective as they might have been because some students who would have benefitted did not participate and overall attendance was poor (Knopf et al., 2015). Because expanded in-school time programs affect all students, it is possible that adding academic programs during the extended time could improve students' test scores.

Evidence Gaps

Additional research and evaluation are needed to answer the following questions and fill existing gaps in the evidence.

- How is added school time used? Specifically,
 - Is time added as allocated school time, allocated class time, instructional time, or academic learning time?
 - Is added time used for a specific subject or across subjects?
 - Are there other changes to make use of added time, such as curriculum changes, or offers of tutoring for students in need?
- How does this intervention apply to private schools or schools in high income communities?

The data presented here are preliminary and are subject to change as the systematic review goes through the scientific peer review process.

References

Angrist JD, Pathak PA, and Walters CR. Explaining charter school effectiveness. *American Economic Journal: Applied Economics* 2013;5(4):1-27.

Dobbie W and Fryer RG. Getting beneath the veil of effective schools: evidence from New York City. *American Economic Journal: Applied Economics* 2013;5(4):28–60.

Gardner DP, et al. A Nation at Risk: The Imperative for Educational Reform. Washington (DC): United States Department of Education, 1983.

Hahn RA, Truman BI. Education improves public health and promotes health equity. *International Journal of Health Services* 2015;45(4):657-78.

Hoxby CM, Murarka S, and Kang J. How New York City's Charter Schools Affect Achievement, August 2009 Report (second report in series). Cambridge (MA): New York City Charter Schools Evaluation Project, September 2009.

Knopf JA, Hahn RA, Proia KK, Truman BI, Johnson RL, et al. Out-of-school-time academic programs to improve school achievement: a Community Guide health equity review. *Journal of Public Health Management & Practice* 2015;21(6):594–608.

National Education Commission on Time, and Learning. Prisoners of time: schools and programs making time work for students and teachers: report of the National Education Commission on Time and Learning. Washington (DC): the Commission, 1994.

Patall EA, Cooper H, and Allen AB. Extending the school day or school year: a systematic review of research (1985-2009). *Review of Educational Research* 2010;80(3):401-36

Redd Z, Boccanfuso C, Walker K, Princiotta D, Knewstubb D, and Moore K. Expanding Time for Learning Both Inside and Outside the Classroom: A Review of the Evidence Base. New York (NY): The Wallace Foundation, August 2012.

Silva E. On the Clock: Rethinking the Way Schools Use Time. Washington (DC): Education Sector Reports, 2007.

Disclaimer

The findings and conclusions on this page are those of the Community Preventive Services Task Force and do not necessarily represent those of CDC. Task Force evidence-based recommendations are not mandates for compliance or spending. Instead, they provide information and options for decision makers and stakeholders to consider when determining which programs, services, and policies best meet the needs, preferences, available resources, and constraints of their constituents.

Document last updated June 15, 2017