

Social Determinants of Health: High School Completion Programs

Task Force Finding and Rationale Statement

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Task Force Finding and Rationale Statement

Intervention Definition

High school completion programs aim to increase the likelihood that students receive either a high school diploma or a general educational development (GED) diploma. These programs take many forms and may be delivered in schools or other community settings. They may target at-risk students as individuals or as groups (e.g., students who are pregnant or have children), or they may include all students in schools with low high school completion rates. Programs may have a single focus, such as mentoring, or they may be multiservice programs that change several features of the school environment to promote high school completion.

Task Force Finding (December 2013)

The Community Preventive Services Task Force recommends high school completion programs for students at high risk for non-completion, based on strong evidence of effectiveness. The Task Force also recommends high school completion programs for a subset of students who are at risk for non-completion because they are pregnant or have children, based on strong evidence of effectiveness.

For this systematic review, program effectiveness is measured as the increased rate of high school completion by the intervention group when compared with the control group. Using this measure, evidence shows the following types of high school completion programs are effective for the general at-risk student population (listed in approximate order of effectiveness): vocational training; alternative schools; social-emotional skills training; college-oriented programming; mentoring and counseling; supplemental academic services; school and class restructuring; multiservice packages; attendance monitoring and contingencies; community service; and case management. For students who are at risk of high school non-completion because they are pregnant or have children, the only program types evaluated in included studies were attendance monitoring and multiservice packages, and both were found to be effective.

Based on economic evidence, interventions to increase high school completion produce substantial economic benefits to government and society. And for most programs, benefits exceed costs for all students at risk for non-completion, including students who are pregnant or have children.

Because academic achievement is linked with long-term health, and because high school completion programs are commonly implemented in racial and ethnic minority or low-income communities, these programs are likely to improve health equity. Equity in health is widespread, achievable equality in health *and* in the major social determinants of health among all the principal social divisions of a population.

Rationale

Basis of Finding

A meta-analysis published in 2011 (Wilson et al., search period 1985-2010/2011) met Community Guide systematic review standards in terms of intervention definition, search procedures, outcome assessment, study design and execution evaluation, and synthesis of effect estimates. The 167 included studies represented 368 independent study arms, of which 317 assessed programs for students at risk for non-completion, and 51 assessed programs for students who were pregnant or had children. (While the search strategy for programs for students who were pregnant or had children did not exclude student father participants, no such programs were identified, and all included studies were of programs for females.) An updated search for studies published between 2010 and August 2012 identified 10 additional studies, which had results consistent with those from the meta-analysis. No additional studies were found that focused

on students who were pregnant or had children. Evidence for both Task Force recommendations is considered strong based on the numbers of included studies, magnitudes of effect estimates, and consistency of effects on the receipt of a high school diploma or GED (Table 1).

Table 1: Overall Effectiveness of High School Completion Programs

Outcome	Measure	Wilson et al. Review (1985-2010/2011)	Community Guide Update (2010-August 2012)
High School Completion Rates	Percentage point difference in high school completion in intervention compared with control populations	<p>High-Risk Student Populations (317 samples) Median difference = 8.5 pct pts (Range: 3.6 to 15.9)</p> <p>Pregnant or Parent Students (51 samples) Median difference = 11.7 pct pts (Range: 11.0 to 12.4)</p>	<p>High-Risk Student Populations (10 studies) 8/10 favorable Median difference = 6.5 pct pts (Range: -11.4 to 9.5)</p> <p>Pregnant or Parent Students (0 studies)</p>

pct pts = percentage points

Findings for Each Type of High School Completion Intervention

Wilson et al. categorized programs into 11 mutually exclusive program types and a residual "other." Each study identified during the updated search period was assigned to just of these categories, and effect estimates were calculated (Table 2). The typology may exaggerate differences between the categories as many of them share elements; for example, college-oriented programs may use mentoring and counseling. Estimates are not reported here for programs assigned to the "other" category (e.g., recreational, residential services for homeless) because the programs in this category were too heterogeneous to allow meaningful interpretation of results.

The principal outcome assessed in the Wilson et al. review was high school completion or receipt of a GED diploma, though the review also reported on a variety of additional educational outcomes. As Wilson et al. did not assess intervention effects on rates of subsequent pregnancies for students who were pregnant or had children, the Community Guide review team used data from studies included in their analysis to calculate effect estimates for these outcomes.

A search for economic evidence identified 37 cost-effectiveness studies and 22 cost-benefit studies (search period January 1985–October 2012) that assess program costs, costs per additional high school graduate, intervention benefits per additional high school graduate from societal and governmental perspectives, and benefit-to-cost ratios. Intervention cost, cost-effectiveness, and cost-benefit results are included below with findings specific to each intervention reviewed. All economic values in this analysis are reported in 2012 U.S. dollars. The cost-effectiveness estimate, measured as cost per additional high school graduate, is calculated as the ratio of intervention cost per student to percentage point gain in the high school completion rate. When an economic study estimated program cost,

but determined the program to be ineffective (i.e., an effect of zero), the cost per additional graduate was reported as infinitely high (i.e., program cost/0 effect).

The cost-benefit estimate, measured as benefit-to-cost ratio, is calculated as the ratio of benefits from a governmental perspective per additional high school graduate to cost per additional high school graduate; data are from available studies of diverse programs in California, New York, and nationwide.

Table 2: Effectiveness and Economic Outcomes for High School Completion Programs

Intervention Type	Target Population	Comparison (control) High School Completion Rate	Added High School Completion Percentage Points Associated with Intervention	Range of Total Costs per Student¹	Range of Costs per Additional High School Completion¹	Benefit-to-Cost Ratio, Government Perspective¹
Vocational Training	High-risk student populations	70.3%	15.9 pct pts (51 study arms)	\$2,100 - \$10,500 (2 studies)	\$30,300 - \$69,500 (2 studies)	2.9:1 to 6.8:1 (2 studies)
Alternative Schools	High-risk student populations	53.8%	15.5 pct pts (30 study arms)	\$1,700 - \$12,900 (4 studies)	\$21,100 - \$322,800 (4 studies)	0.6:1 to 1.6:1 (2 studies)
Social-Emotional Skills Training	High-risk student populations	72.3%	13.7 pct pts (12 study arms)	\$1,100 - \$7,200 (2 studies)	\$8,600 - \$178,800 (2 studies)	NA
College-Oriented Programming	High-risk student populations	80.9%	10.4 pct pts (25 study arms)	\$3,400 - \$5,800 (3 studies)	\$30,600 - \$265,700 and one infinitely high (3 studies)	0.8:1 (1 study)

¹ Programs used to assess economic outcomes (columns 5 to 7) are not necessarily the same programs included in the effectiveness review (columns 2 to 4).

Intervention Type	Target Population	Comparison (control) High School Completion Rate	Added High School Completion Percentage Points Associated with Intervention	Range of Total Costs per Student¹	Range of Costs per Additional High School Completion¹	Benefit-to-Cost Ratio, Government Perspective¹
Mentoring and Counseling	High-risk student populations	83.7%	9.4 pct pts (27 study arms)	\$600 - \$4,500 (2 studies)	\$11,200 - \$90,400 (2 studies)	2.1:1 (1 study)
Supplemental Academic Services	High-risk student populations	81.0%	8.8 pct pts (28 study arms)	\$800 - \$14,100 (2 studies)	\$48,300 and one infinitely high (2 studies)	4.2:1 (1 study)
School and Class Restructuring	High-risk student populations	83.6%	8.3 pct pts (105 study arms)	\$2,200 - \$16,000 (9 studies)	\$20,100 - \$145,100 (9 studies)	1.3:1 to 9.3:1 (8 studies)
Multiservice Packages	High-risk student populations	81.6%	7.7 pct pts (23 study arms)	\$4,100 - \$22,500 (4 studies)	\$56,500 - \$131,100 and one infinitely high (4 studies)	1.6:1 - 2.8:1 (2 studies)
Multiservice Packages	Pregnant and parent students	32.0%	11.0 pct pts (47 study arms)	\$14,800 - \$17,800 (3 studies)	\$67,200 - \$194,600 (3 studies)	1.1:1 to 1.2:1 (2 studies)
Attendance Monitoring and Contingencies	High-risk student populations	73.4%	6.7 pct pts (26 study arms)	\$2,800 - \$5,700 (3 studies)	\$33,600 - \$70,900 (3 studies)	2.6:1 to 5.6:1 (2 studies)

Intervention Type	Target Population	Comparison (control) High School Completion Rate	Added High School Completion Percentage Points Associated with Intervention	Range of Total Costs per Student¹	Range of Costs per Additional High School Completion¹	Benefit-to-Cost Ratio, Government Perspective¹
Attendance Monitoring and Contingencies	Pregnant and parent students	18.0%	12.4 pct pts (39 study arms)	\$2,100 (1 study)	\$99,800 (1 study)	NA
Community Service	High-risk student populations	91.0%	6.3 pct pts (24 study arms)	\$300 (1 study) ²	\$3,000 (1 study)	68.2:1 (1 study)
Case Management	High-risk student populations	92.9%	3.6 pct pts (17 study arms)	\$22,800 (1 study)	Infinitely high (1 study)	NA

Summary of Program Types with Examples³ and Findings

Vocational Training

Vocational training prepares students for specific occupations. In addition to participating in the vocational curriculum, students commonly take a portion of the regular academic curriculum, participate in academic remediation, and learn life skills. Training may include occupational internships outside of school settings. Programs also may include training-related support services (such as transportation assistance and childcare), and assistance with job placement.

Students who received vocational training had high school completion rates that were, on average, 15.9 percentage points greater than those in the comparison populations—the largest percentage point difference among intervention types reviewed. The cost per student in the program ranged from \$2,100 to \$10,500. The cost per additional high school graduate ranged from \$30,300 to \$69,500 (2 studies). Two analyses estimated benefit-to-cost ratios of 2.9:1 and 6.8:1.

Alternative Schools

Alternative schools are designed to provide educational and other services to students whose needs are not adequately addressed in traditional schools. Alternative schools often include students who have been expelled from regular schools and students who have quit school or seem likely to do so, including students who are pregnant or have

² The community service program evaluated in this economic assessment used high school students to serve as tutors for elementary school students and thus did not have costs associated with teacher salaries.

³ Examples of programs are provided to illustrate the type; they are chosen because good descriptions are available and do not suggest either effectiveness or endorsement.

children. Alternative schools are commonly situated away from traditional high schools and offer small classes and intense remediation for problems students encountered in regular schools. They are often established in low-income communities, and may offer social services, such as childcare and support groups to address challenging issues. Teachers in alternative schools may act as mentors as well as instructors.

Students who attended alternative schools had high school completion rates that were, on average, 15.5 percentage points greater than those in the comparison populations. The cost per student in the program ranged from \$1,700 to \$12,900. The cost per additional high school graduate ranged from \$21,100 to \$322,800 (4 studies). Two analyses estimated benefit-to-cost ratios of 0.6:1 and 1.6:1.

Social-Emotional Skills Training

The type of social-emotional skills training used in high school completion programs most commonly aims to increase emotional self-awareness and regulation, improve self-esteem and attitudes about school, or prevent drug use. One example, the Social Problem Solving curriculum, "...focuses on the following major steps: stopping and calming down before acting, stating the problem and emotional reaction to it, setting a goal, generating possible actions to reach that goal, thinking about the consequences of each course of action, choosing the best plan of action, and acting out the plan" (Gottfredson et al., 2002).

One approach to social-emotional skills training, cognitive behavioral therapy, is used to address counterproductive emotions, behaviors, and cognitive processes. It commonly combines stress management or relaxation techniques, cognitive exploration (including correction of inaccurate cognitions), and the reframing of counterproductive cognitions and behaviors. Some programs train students who are pregnant or have children to be able to teach cognitive-behavioral management to their children.

Students who received social-emotional skills training, including cognitive behavioral therapy, had high school completion rates that were, on average, 13.7 percentage points greater than those in the comparison populations. The cost per student in the program ranged from \$1,100 to \$7,200. The cost per additional high school graduate ranged from \$8,600 to \$178,800 (2 studies). No cost-benefit analyses were identified for this review.

College-Oriented Programming

These programs help high school students prepare for college by providing remedial courses, college guidance counseling to help with school selection and application, assistance with scholarship applications, and in some cases actual scholarships. Talent Search is a federal program that funds this type of program in communities and schools serving disadvantaged students (U.S. Department of Education, 2012a).

Students who participated in college-oriented programs had high school completion rates that were, on average, 10.4 percentage points greater than those in the comparison populations. The cost per student in the program ranged from \$3,400 to \$5,800. Two studies reported estimated costs per additional high school graduate of \$30,600 and \$265,700, and one study reported an infinitely high⁴ estimate because the program was found to be ineffective. One analysis estimated a benefit-to-cost ratio of 0.8:1.

⁴ When an economic study estimated program cost, but determined the program to be ineffective (i.e., an effect of zero), the cost per additional graduate was reported as infinitely high (i.e., program cost/0 effect).

Mentoring and Counseling

These programs assign trained adult mentors or counselors who help students focus on their school work or career objectives and deal with personal issues. Mentors and counselors are expected to work within the context and framework of students' home and community environments. They work closely with students, encouraging respect and personal growth as students progress toward high school completion and, in some cases, college. Mentors are most often volunteers who work with students throughout high school to help them graduate and get accepted to college. Some programs that help students prepare for college also provide financial support for college.

Students who received mentoring and counseling had high school completion rates that were, on average, 9.4 percentage points greater than those in the comparison populations. The cost per student in the program ranged from \$600 to \$4,500. The cost per additional high school graduate ranged from \$11,200 to \$90,400 (2 studies). One analysis estimated benefit-to-cost ratio of 2.1:1.

Supplemental Academic Services

In these interventions, services such as remedial education, tutoring, or homework assistance are provided to students who have demonstrated academic difficulties in school or who may be at risk for having academic difficulties. Several federal programs fund these types of interventions, including the 21st Century Community Learning Centers and Supplemental Educational Services (U.S. Department of Education, 2012b); the latter funds free tutoring to students whose schools have failed Adequate Yearly Progress for more than 2 years in a row. The Community Preventive Services Task Force issued separate findings on Out-of-School-Time-Academic Programs.

Students who received supplemental academic services had high school completion rates that were, on average, 8.8 percentage points greater than those in the comparison populations. The cost per student in the program ranged from \$800 to \$14,100. The estimated cost per additional high school graduate was \$48,300 in one study, and another study reported an infinitely high estimate because the program was found to be ineffective. One analysis estimated benefit-to-cost ratio of 4.2:1.

School and Class Restructuring

Schools may be reorganized with the objective of improving school engagement and learning. Reorganization may include the creation of small learning communities, career academies designed to orient student learning to particular occupational fields, block schedules (i.e., longer class periods that increase concentrated learning and decrease transition time), or class size reduction that allows more attention to students' individual needs.

High school career academies allow students to gain experience related to a particular career path (e.g., business, health care) while following a routine academic curriculum. The California Peninsula Academies were an early effort by the State of California to retain high school students at risk for non-completion by offering them vocational classes to complement their core courses. In this program, academy mentors were closely linked with professionals working in the occupations students were learning about in school (Stern et al., 1988).

The First Things First program, used in several states, reduced student-teacher ratios, restructured schools so that students had the same teacher for several years, established high academic standards, and engaged students in learning-related decisions (Quint et al., 2003).

Students whose schools or classes were restructured had high school completion rates that were, on average, 8.3 percentage points greater than those in the comparison populations. The cost per student in the program ranged from

\$2,200 to \$16,000. The cost per additional high school graduate ranged from \$20,100 to \$145,100 (9 studies). Eight cost-benefit analyses estimated benefit-to-cost ratios ranging from 1.3:1 to 9.3:1.

Multiservice Packages

Multiservice packages combine more than one of the intervention types described in this review. Most often, multiservice packages are comprehensive programs that include an academic component, vocational training, and case management.

Some interventions, like the federally coordinated Job Corps (U.S. Department of Labor, 2013), also provide housing and health care for participants. Other programs, such as Communities in Schools, provide diverse services to students at risk of academic failure, and also include guidance, counseling, and enrichment activities (Communities in Schools, 2103). LA's BEST (Better Educated Students for Tomorrow) is an afterschool program for Los Angeles students enrolled in kindergarten through 5th grade. Students are provided homework assistance, socio-emotional development programs, recreational opportunities, and access to performing arts (Huang et al., 2005).

The New Chance Program, a community intervention for students in Pittsburgh who are pregnant or have children, contacts students around the time of their child's birth to inform them about educational opportunities. The first contact is followed by home visits and referrals for assistance with education, health care, social services, and day care (Solomon & Leifeld, 1998).

Multiservice packages were evaluated for high-risk students and students who were pregnant or had children. Among high-risk populations, students who received this intervention had high school completion rates that were, on average, 7.7 percentage points greater than those in the comparison populations. The cost per student in the program ranged from \$4,100 to \$22,500. The estimated cost per additional high school graduate ranged from \$56,500 to \$131,100 (3 studies), and one study reported an infinitely high estimate because the program was found to be ineffective. Two analyses estimated benefit-to-cost ratios of 1.6:1 and 2.8:1.

Students who were pregnant or had children and received this intervention had high school completion rates that were, on average, 11.0 percentage points greater than those in the comparison populations. The cost per student in the program ranged from \$14,800 to \$17,800. The cost per additional high school graduate for students who were pregnant or had children ranged from \$67,200 to \$194,600 (3 studies). Two analyses estimated benefit-to-cost ratios of 1.1:1 and 1.2:1.

Attendance Monitoring and Contingencies

In these programs, trained staff monitor students' attendance in school and provide mentoring services to increase attendance and school participation. Staff also review students' academic performance, provide feedback to students, and update parents on students' progress. They may also mentor students, model use of problem-solving skills, make themselves available for students to discuss personal concerns, and work with students to increase their level of school engagement. In the Check and Connect Program, used in multiple states, Canada, and New Zealand, trained mentors monitor students' attendance, tardiness, behavioral referrals, and grades, and work with students and their families to solve problems and develop skills (U.S. Department of Education, 2006).

Students in attendance monitoring programs may receive rewards or "contingencies" such as cash awards for their attendance and participation in school. In some cases, contingencies may be negative and involve withholding family

support payments following specified levels of unexcused school absences (e.g., Wisconsin's Learnfare program; State of Wisconsin Legislative Audit Bureau, 1996).

Attendance monitoring and contingencies programs were evaluated for high-risk students and students who were pregnant or had children. Among high-risk populations, students who received this intervention had high school completion rates that were, on average, 6.7 percentage points greater than those in the comparison populations. The costs per student in the program ranged from \$2,800 to \$5,700. The cost per additional high school graduate ranged from \$33,600 to \$70,900 (3 studies). Two analyses estimated benefit-to-cost ratios of 2.6:1 and 5.6:1.

Among students who were pregnant or had children, those who received this intervention had high school completion rates that were, on average, 12.4 percentage points greater than those in the comparison populations. Based on one available study, the cost per student in the program was \$300, and the cost per additional high school graduate was \$99,800. No cost-benefit analyses were identified for this review.

Community Service

Students participating in these interventions plan and carry out community service projects. These interventions are commonly coupled with a life-skills curriculum.

In the Coca-Cola Valued Youth Program, high school students at risk for dropping out tutor elementary school students who have been identified as being at risk for academic failure (Cardenas et al., 1992). Teen Outreach, a widely used community service program for students who are pregnant or have children, aims to increase high school completion and prevent subsequent pregnancies by engaging students in community activities coordinated by the Junior League (e.g., volunteer work with hospitals, nursing homes, or schools; participation in walkathons). Students work closely with Junior League volunteers and have classroom discussions about their volunteer experience (Philliber et al., 1992). Similarly, the Wyman Teen Outreach Program provides community volunteer opportunities for students between grades 6 and 12 who are at risk for dropping out. As part of the program, students discuss values, relationships, communication and assertiveness, influence, goal-setting, decision-making, human development, and sexuality (U.S. Department of Education, 2009).

Students who participated in community service programs had high school completion rates that were, on average, 6.3 percentage points greater than those in the comparison populations. Based on one available study, the cost per student in the program was \$300, and the cost per additional high school graduate was \$3,000. One analysis estimated benefit-to-cost ratio of 68.2:1.

Case Management

Case management connects students and families with appropriate services, and monitors students' progress.

The Cluster Plan for Dropout Prevention was conducted in a middle school with the objective of empowering students and promoting their success and retention by removing barriers and providing the necessary support, skills, and enabling partnerships. The project team consisted of the principal, the vice principal for discipline, a student services specialist, a drug and alcohol specialist, an attendance monitor, and a Department of Children's Services caseworker. Project staff often acted as student advocates, helping teachers understand why students might have been having difficulties in their classes and assisting with development of plans to resolve those difficulties. The Children's Services caseworker also served families whose children attended the school (Rossi et al., 1995).

Students who participated in a case management intervention had high school completion rates that were, on average, 3.6 percentage points greater than those in the comparison populations. Based on one available study, the estimated cost per student in the program was \$22,800, and the estimated cost per additional high school graduate was infinitely high⁴ because the program was found to be ineffective. No cost-benefit analyses were found.

Reproductive Outcomes of High School Completion Programs among Students Who Were Pregnant or Had Children

Data from studies included in the Wilson et al. meta-analysis were used to calculate the effects of high school completion programs on rates of subsequent pregnancies for students who were pregnant or had children. The effects of the intervention on subsequent pregnancies and births were negligible, even among studies that evaluated programs focused on pregnancy and childbirth prevention. As studies were only included in this review if there was a clear high school completion component, these results may not be representative of interventions specifically designed to prevent pregnancies among students.

Applicability and Generalizability Issues

Wilson et al. evaluated studies' applicability to different settings and populations, and assessed differences among interventions. Interventions considered in their review were conducted in the U.S., Canada, and the United Kingdom. In 75% of the study samples, most students were from racial or ethnic minorities; similarly, most samples predominantly included students from low-income families. Males and females were equally represented in programs for high-risk populations; as noted, only females were included in programs for students who were pregnant or had children.

Among potential methodological, program, and population effect modifiers for high-risk populations, the only statistically significant modifiers were program setting and lack of implementation problems. Programs offered in schools were more effective than those offered in community settings. Lack of implementation problems substantially improved intervention effectiveness. Neither participant age nor racial or ethnic composition was associated with program effectiveness. Program duration and independence of the program evaluator (from the program implementer) similarly were not associated with effectiveness.

Among potential effect modifiers for programs targeting students who were pregnant or had children, participant age, the independence of the program evaluator, and lack of implementation problems were associated with program effectiveness. Programs were more effective for older as compared with younger students; independent evaluators were associated with smaller effects; and programs that reported no implementation problems were substantially more effective than those that reported problems. Program duration and the racial or ethnic composition of the students were not associated with effectiveness.

Data Quality Issues

Study design quality was high due to the inclusion criteria established in the Wilson et al. review and adopted for the Community Guide update. Reporting on the effects of study characteristics as effect modifiers, as described above, also allowed assessment of the effects of methodological variations.

Other Benefits and Harms

Several non-academic benefits of high school completion programs were reported, including decreased need for social services, additional work time for parents (and associated income and other benefits), and improved nutrition.

Some studies also reported reduced subsequent births to teen parents. However, among the studies reviewed here, those that evaluated subsequent pregnancy and birth outcomes for students who were pregnant or had children found no effects. These findings may not be representative of all student pregnancy and childbearing prevention programs.

Additional benefits may include narrower skills gaps within the U.S. or between the U.S. and other countries. Potential harms of high school completion programs include loss of free or recreational time, and the loss of family time. Decreased part-time work opportunities for students may be a benefit, as part-time student work has been associated with increased risk behavior (Lustig & Liem, 2010). On the other hand, part-time work also may provide an opportunity for students to increase self-confidence and responsibility and to supplement family income.

Some attendance and monitoring programs have negative contingencies that deny families benefits when students fail to attend school. These programs raise ethical concerns and also make it harder for families to comply as students may need to prioritize work over school in order to make up for the financial loss (Howard, 2008).

Economic Evidence

The economic review identified 10 benefit analyses: four from a governmental perspective and six from a societal perspective. Intervention benefits were measured by lifetime economic benefits to society and to the government per additional high school graduate, including productivity loss averted, and healthcare, crime, and welfare costs averted.

Some studies also included negative benefits of the indirect education cost – the extra costs to families and school systems when students are newly motivated to continue their education and stay in school longer.

Lifetime benefits per additional high school graduate from the governmental perspective ranged from \$187,000 to \$240,000 and benefits from a societal perspective ranged from \$347,000 to \$718,000. Not included are the personal benefits to participants that are difficult to monetize.

Considerations for Implementation

Because many programs are voluntary, attendance is a major challenge to program implementation. Attendance is often especially low among those most in need. Exceptions to this are programs that include attendance and monitoring components that are based on administrative record systems and do not directly involve voluntary student participation.

Noncompliance with program requirements is a common challenge cited in the literature about supplemental academic service programs. For example, despite requirements to do so, schools failing Adequate Yearly Progress commonly do not inform parents about the availability of free tutoring services, resulting in substantial underuse of programs.

There also may be challenges with staff, including inadequate training and high turnover.

Evidence Gaps

More information is needed about the effectiveness of these interventions on GED program completion. The Wilson et al. review included GED diplomas as an outcome, but did not identify any studies of programs delivered exclusively to GED candidates.

It would be useful to understand the contributions of different components to the effectiveness of multiservice package programs. It also would be useful to assess the effectiveness of high school completion programs for students in confinement (e.g., prison or residential settings for various forms of treatment).

Budget data, a common source of information for economic analyses, often lack details on the nature of specific costs (e.g., salaries, rent, teaching materials) that are critical for program planning. The number of cost-effectiveness studies was small for some types of programs, such as social-emotional skills training, mentoring and counseling, case management, vocational training, and community service programs.

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

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