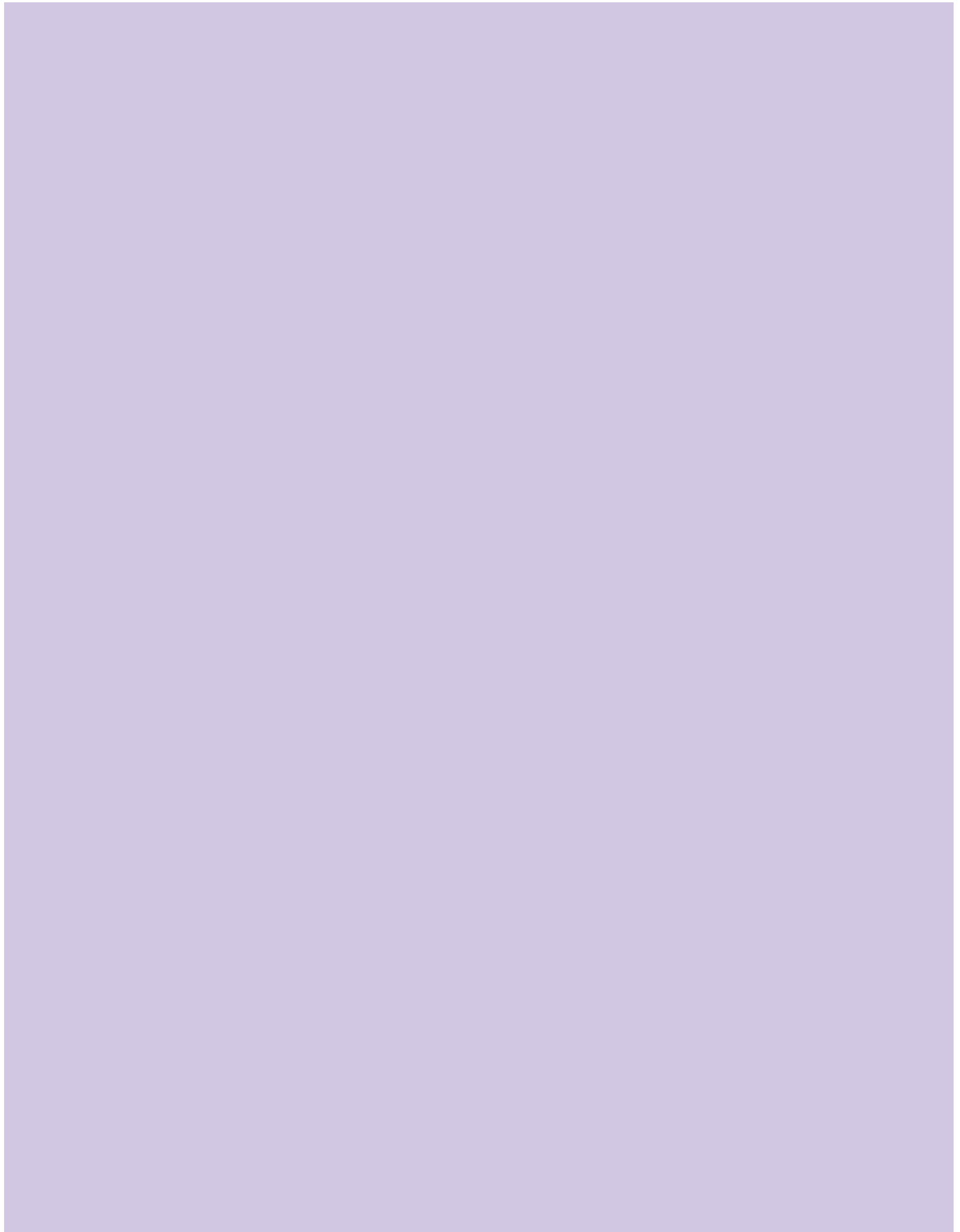


# Incorporating Health-Related Indicators in Education Accountability Systems





Incorporating  
Health-Related  
Indicators in  
Education  
Accountability  
Systems



The Council of Chief State School Officers (CCSSO) is a nationwide, nonprofit organization composed of the public officials who head departments of elementary and secondary education in the states, the District of Columbia, the Department of Defense Education Activity, and five extra-state jurisdictions. CCSSO seeks its members' consensus on major educational issues and expresses their view to civic and professional organizations, federal agencies, Congress, and the public. Through its structure of standing and special committees, the Council responds to a broad range of concerns about education and provides leadership on major education issues.

Because the Council represents the chief education administrators, it has access to the educational and governmental establishment in each state and to the national influence that accompanies this unique position. CCSSO forms coalitions with many other education organizations and is able to provide leadership for a variety of policy concerns that affect elementary and secondary education. Thus, CCSSO members are able to act cooperatively on matters vital to the education of America's young people.

The Council's Resource Center on Educational Equity was established by chief state school officers to provide services designed to ensure equitable, high-quality, developmentally appropriate education for all students, especially minorities, girls, students with disabilities, limited English proficient students, and low income students. The Resource Center conducts research and policy formulation, develops reports and other materials, operates grant and other action programs, provides capacity-building technical assistance to state education agencies, holds working conferences, and monitors federal and state civil rights and education programs focused on disadvantaged students.

The Resource Center is responsible for managing and staffing a variety of Council leadership initiatives to provide better educational services to children, especially those placed at risk of school failure. Major initiatives over the past several years include the drafting and adoption by the Council membership of policy statements on:

- Ensuring school success to children at risk, which includes guarantees of effective educational services;
- Early childhood and family education;
- Restructuring schools;
- Restructuring learning;
- Connecting school and employment;
- Student success through collaboration; and
- State responsibility for student opportunity.

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We wish to express our gratitude to the many people who helped to produce this document. The paper was written for the Council by Candace Sullivan of the Center on Effective Services for Children. We are especially grateful to the state and local officials with responsibilities for accountability systems and school health programs and the national experts who attended a working meeting to help shape the paper and suggest the sample results, indicators, benchmarks, action strategies, and program measures. We would also like to thank the Centers for Disease Control and Prevention's Division of Adolescent and School Health, (DASH). This paper was developed and published with resources from a cooperative agreement between the Council and DASH, however, the opinions expressed in the document are those of the Council and the author.



The establishment of standards for the content of elementary and secondary education, student performance, and programs and services that enable students to achieve the content standards is at the heart of improving education in the United States. In addition to establishing these standards, it is essential to have benchmarks and indicators to monitor progress on student achievement and to judge the effectiveness and efficiency of schools. These benchmarks and indicators are important for informing the public and education decision makers about key decisions affecting policy and practice and for accountability in the use of resources.

The Coordinating Committee  
State Education Improvement Partnership

Efforts to improve school performance that ignore health are ill conceived, as are health improvement efforts that ignore education. This means that increasing academic achievement will require attending to health in the broadest sense.

National Commission on the Role of the School and the  
Community in Improving Adolescent Health

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# I. Introduction

Healthy children who are ready to learn are essential for schools pursuing higher standards of student performance. State and local results-based accountability systems should reflect our knowledge about the link between health and education and incorporate health-related results and indicators (specifically those related to students' physical, social, and emotional health and safety). Failure to do so may unintentionally undermine school success in raising student academic achievement.

Growing numbers of children are coming to school with health-related problems that impede their learning. Many young people engage in unhealthy behaviors that sap their motivation to learn, endanger their health, and threaten their future. By incorporating health-related results and indicators in education accountability systems, states and schools can help ensure that schools work in partnership with families and communities to improve student health. This will increase the likelihood that all students are able to achieve high academic standards.

In this paper, we set forth criteria for selecting health-related indicators for incorporation in overall education accountability systems. Indicators must

- be meaningful and important to parents and the public,
- make a difference in terms of achieving desired results,
- be useful for a school to know in order to address problems either directly or through partnerships with others,
- be actionable by the state in order to influence local policies and practices, and
- be technically feasible and affordable to collect.

It is important to select the most important health-related results and indicators to be included in education accountability systems—ones that parents, the public, and educators understand to be important to student and school performance. In addition, high quality data with which to measure progress on a regular basis should be available.

Each state will need to set its own priorities regarding results sought, indicators, benchmarks, action strategies, and program measures that contribute to success. Appendix I, Sample Results, Indicators, Benchmarks, Action Strategies, and Program Measures, contains examples proposed by a focus group convened by the Council of Chief State School Officers. This focus group comprised state and local officials with responsibilities for accountability systems and school health programs, as well as national experts. The examples meet the criteria set forth in this paper (although data may not yet be available at the school or district level in all cases). They are intended to stimulate thought and discussion. For each indicator there are definitions, assessments of significance, pros, cons, issues to be considered, facts regarding prevalence, and potential data sources.

## II. Who Should Read This Paper

This paper is intended to (1) trigger discussion on health-related results, indicators, benchmarks, action strategies, and program measures in state education accountability systems and (2) help states determine what it is that they want to do to help schools work with families and communities to ensure the well-being and academic success of all students. For this reason, the paper will be helpful to the following audiences.

Chief state school officers, deputies, and other state education agency (SEA) staff. These individuals provide leadership and establish processes and criteria against which to develop results-based accountability systems. They are also responsible for developing and implementing education accountability systems and are in a position to incorporate health-related indicators into these systems. Staff involved in school reform and school improvement efforts need to work closely with SEA health program staff who can provide information on the various school health programs available in schools and what these programs can reasonably be expected to accomplish if properly implemented.

State Board of Education members and staff. Together with the chief state school officer, these individuals develop the policy framework to support development, implementation, and evaluation of results-based accountability systems.

Governor's staff and the cabinet officers responsible for the well-being of children and families. These individuals play key roles in developing policies and programs intended to achieve positive results for children and families. They are important partners.

State legislators and their staff with responsibility for child and family legislation. State legislative bodies play a key role both in establishing policies and programs related to children and families and in setting priorities for the state. Increasingly, they are requiring that agencies demonstrate how they are achieving results.

State task forces, advisory boards, and other bodies. Many states have established bodies to provide state officials with advice regarding school reform, standards, and other topics related to the establishment of results-based accountability systems. These bodies need to be made aware of how children's health influences achievement of broader education objectives and how results-based accountability systems can help ensure that children come to school healthy and ready to learn.

Local school district officials and board members, school officials, parents, and citizens. These parties need to be involved in developing results, indicators, benchmarks, action strategies, and program measures. Their participation is important in developing broad-based support for data collection and analysis and using findings for decisionmaking.

### III. Basic Principles of Results-Based Accountability Systems

Results-based accountability is a simple concept: Start with the desired results and work backward to the means of achieving those results. Results-based accountability systems provide frameworks that can be used for many purposes. The base of these frameworks are results, indicators, benchmarks, action strategies, and program measures.

**Results.** Results are what is important to accomplish and how well it must be accomplished—a bottom-line condition of well-being for children, families, or communities. Results include children safe, healthy, and ready to learn. Results cannot be achieved by schools alone. Parents and other agencies and organizations have roles. While schools do not have sole responsibility for results, they can influence them, sometimes significantly. Results provide a vision that can be both an inspiration—something for which to strive—and the endpoint for a plan of action.

**Indicators.** Indicators are measures for which there are data that describe intended results. They must be valid, useful, and technically sound. In some instances, “proxy” indicators may be used where

data are unavailable on the indicator itself. Indicators provide information needed to improve programs and achieve results. In some cases, indicators are used as a basis for rewards, penalties, or resource allocation decisions. These must be very specific and clear and enjoy strong community support if they are to be viewed as credible and fair. Examples of indicators are incidence of carrying weapons on school property; students' reported use of alcohol, illegal drugs, and tobacco; and enrolling student immunization rates.

**Benchmarks.** A benchmark is a desirable and achievable level for an indicator or program measure. It is the yardstick against which systems can measure their performance so that they know whether they are doing better or worse than what should be expected. Benchmarks can be derived from best practices elsewhere or improvement over time. Theoretically there can be absolute standards (e.g., water in school drinking fountains meets Environmental Protection Agency standards), but comparisons have more applicability in practice. An example of a benchmark is the incidence of carrying weapons on school property being reduced by 25% over the previous year—a decrease attained by a neighboring school with a similar population.

**Action strategies.** An action strategy proposes a set of activities to achieve results. It is an explicit step between program measures and indicators and results. Action strategies may be initiatives of a school, a school district, a program, or a partnership. An example of an action strategy to reduce the incidence of carrying weapons on school property is to provide students with the knowledge, skills, and opportunities to resolve conflicts in a non-violent, constructive manner.

**Program measures.** Program measures provide information on how well organizations and/or programs are working. Although program measures are essential to running programs well, they are very different from results and indicators. They have to do with how programs address conditions rather than how the actual conditions change for better or worse. Examples of program measures related to reducing the incidence of carrying weapons are (1) the health education curriculum includes a conflict resolution component that has been demonstrated to be effective in other school settings, and (2) student courts, peer mediation, and other programs are in place to resolve conflicts without violence.

## E X A M P L E

<b>RESULT</b>	Children are healthy
<b>INDICATOR</b>	Student use of (1) alcohol, (2) illegal drugs, and (3) tobacco
<b>BENCHMARK</b>	The percentage of students who report use of (1) alcohol, (2) illegal drugs, and (3) tobacco declines by 5% (a decline achieved by a neighboring county following an antisubstance abuse campaign)
<b>ACTION STRATEGIES</b>	<p>Provide students with knowledge, skills, and attitudes to resist peer pressure to use alcohol, drugs, and tobacco</p> <p>Provide students with constructive after-school activities between 3 p.m. and 6 p.m.—the unsupervised hours when students are most likely to engage in unhealthy behaviors.</p>
<b>PROGRAM MEASURES</b>	<p>Schools: School health education program contains modules on developing the knowledge, skills, and attitudes to resist peer pressure and to avoid alcohol, illegal drug, and tobacco use that have been demonstrated to be effective in schools serving comparable populations</p> <p>Health care providers: Local physicians routinely discuss alcohol, drug, and tobacco use with teen patients</p> <p>Local and state government: Regulations to restrict sales of alcohol, illegal drugs, and tobacco to minors are enforced</p> <p>Nonprofit and service organizations: Organizations offer after-school programs and/or provide volunteer support to such programs</p> <p>Parents: School staff and parents address substance abuse issues together at school conferences</p>

## IV. Results-Based Accountability In Education

Setting standards and managing by results have been encouraged by Goals 2000, the Improving America's Schools Act, and other federal and state legislative initiatives. At the state level, the focus has been on developing academic standards and assessments. However, increasingly states are taking a more encompassing view and are incorporating other indicators of progress. Appendix V, State Education Improvement Partnership, describes an initiative of state education policy groups to strengthen their results-based accountability systems. At the local level, this move toward results-based accountability is reflected in the growth of school report cards that describe how well the school is doing.

## V. Health-Related Indicators

To date, few states and localities have incorporated health-related indicators in their results-based accountability systems and report cards. (See Appendix III, Status of Health-Related Indicators in Current Education Indicators.) This is a serious omission. To a great extent, school success in ensuring that all students meet rigorous academic standards will depend on children coming to school healthy.

Educators have long recognized the relationship between education performance and health. They are well aware that a growing number of children come to school with health-related problems that impede their learning. They observe that many young people engage in negative health behaviors that sap their motivation to learn, endanger their health, and threaten their future. But to date, educators have not considered health to be a primary responsibility of the schools or something for which the schools should be held accountable.

The resistance of educators to assume accountability for health results has been a barrier to incorporating health results in report cards. Children's health depends in large part on actions of parents and health care providers. Community conditions and values also play a role. Thus, health status and behavior are influenced by multiple variables, only a few of which are controllable by schools. Schools are understandably reluctant to be held accountable for something over which they have limited control.

Yet, this is also the case with common education indicators, albeit to a lesser degree. Student academic achievement is also influenced by actions of parents and others. Students with parents or other caring adults who read to them, monitor their homework, provide a stimulating home environment, and engage them in constructive after-school activities display higher levels of school performance than those who do not. Student achievement depends on the actions of young people themselves, their parents, religious organizations, various health and human service providers, as well as their teachers.

Results-based accountability systems have the capacity to take into account what schools can reasonably be expected to accomplish regarding student health. They can also make achievement of some health results a shared responsibility among school, family, and community. Thus, schools can be held accountable for certain health results, recognizing that other health results depend on complementary activities by parents, health care providers, government in general, and others. Holding schools accountable for what they can accomplish will stimulate greater school activity vis-a-vis student health and result in students who are healthier and better prepared to learn.

### S T U D E N T   H E A L T H

The term student health, as used in this paper, incorporates physical, emotional, and social health. School health programs are those elements of school curriculum, instruction, and organization that specifically address student health. Health education, physical education, nutrition services, health services, psychological and counseling services, safe and healthy school environments, staff wellness, and parent and community involvement are among the elements of coordinated school health programs.

Health is a content area much as history or literature. Many states have health education curriculum requirements, and a number of states are establishing health education standards. Proficiency in health content areas should be included in state results-based accountability systems.

## VI. Audiences For Results-Based Accountability Systems

There are five particularly critical audiences for results-based accountability systems—the public, parents, the schools, school/community partnerships, and decision makers.

- The general public needs a regular report on results they can understand and see as important.
- Parents need information that tells them how their child is doing compared with other children and how well children in their child’s school are doing compared with children in other schools.
- School districts and schools need data on students and schools that can be used for school improvement.
- Schools and communities that are working together need data on students that can be used to improve student well-being and/or achieve other commonly sought results.
- State-level decision makers need the “big picture” as well as “up-close” detail that helps explain the gaps between desired and current results.

Incorporating health-related indicators in state and local education accountability systems requires establishing matches between what the general public, parents, school districts and schools, school/community collaboratives, decision makers, and school health program proponents believe are important to measure. Each audience needs to view information on health-related indicators as important to achieving education’s core mission.

### WHAT IS DRIVING THE MOVEMENT TOWARD RESULTS-BASED ACCOUNTABILITY?

Propelling the movement toward results-based accountability is citizen and taxpayer demand that publicly funded programs achieve results. Many citizens express dissatisfaction with various public programs and are skeptical about the ability of government to solve problems. If this dissatisfaction is not countered, the result may be tax reductions, spending limitations, and reduced government involvement in education and social programs. This need not be the case. Polls reveal that the public wants better education for their children and that citizens are willing to invest tax funds in education and other children’s programs. Many want evidence, however, that greater investment yields better results. Results-based accountability systems can provide that evidence.

Also propelling results-based accountability systems is the desire of states and the federal government to allow localities greater flexibility in designing and operating programs. Management by results is the best alternative to top-down centralized micromanagement that holds programs responsible for adhering to very specific program guidance and regulations. The use of common sense indicators of results (e.g., third graders’ ability to read at a third-grade level) helps focus attention on achieving goals rather than adhering to rules.

Currently, program operators may be granted waivers from regulations provided that they can demonstrate success in achieving objectives. They are increasingly requesting such waivers

in order to develop more effective services that take into account the local context. What works in one location or with one population does not necessarily work for another. Front-line discretion is crucial. Eventually, results-based accountability systems may be used in lieu of waivers to grant flexibility in exchange for results.

## VII. Not Schools Alone: Establishing Realistic Student Health Indicators

Most health-related results that would be valued by citizens, educators, and policy makers (e.g., low teen pregnancy and alcohol and drug use rates) will not be achieved by one or more school health programs or even by schools alone. As pointed out by a National Institute of Medicine report, family, neighborhood, and other conditions influence health behavior and status. (See Appendix II, Other Groups' Conclusions Regarding School Health Program Indicators, for a discussion of that report and other examples of how different groups have addressed this problem.)

By the same token, high-quality school health programs can significantly influence achievement of health-related results. There are two particularly promising ways to measure this influence and incorporate findings in results-based accountability systems:

1. **Ascertain the extent to which school health programs might realistically be expected to influence health status and behavior.** This would require the establishment of benchmarks based on research findings from various types of program interventions. For example, some alcohol/drug education curricula have demonstrated that they raised the age of first alcohol or drug use by one or more years. A school alcohol/drug education program could judge its success or failure by the extent to which it exceeded, matched, or failed to achieve this benchmark.
2. **Make achievement of results a shared responsibility among school, family, and community.** This would require formation of partnerships to achieve specific results. Partners would need to make commitments as to what they would do and for what they would be held accountable. Success or failure in achieving results would be attributed both to individual partner contributions and to the synergy among the partners. Adjustments affecting one or more partners would need to be made periodically to increase the likelihood of success. In this case, schools would be held specifically accountable for those elements over which they have control. Together with other agencies, they would be accountable for achieving desired results. (See Example on page 4.)

Schools and school districts may need encouragement if they are to accept even limited responsibility for achieving health objectives. States need to make it clear that in many areas, not just health, achieving results generally requires spanning systems. Significantly improving academic performance may require parent, volunteer, and community actions as well as school actions.

The same is true for achieving health-related results. For example, a state might have as an indicator reductions in the percentage of teens who smoke. Achieving this result would require actions outside schools to reduce cigarette availability (e.g., eliminating cigarette vending machines) and make cigarettes seem less desirable (e.g., projecting negative versus positive images of smokers in the media). The school's contributions to achieving this result would be (1) having a health education program that results in all students knowing the negative consequences of smoking on their health, (2) developing students' skills in resisting peer pressure to smoke, and (3) having a vigorously enforced no-smoking

policy on campus. The school could be held accountable for reductions in smoking that could reasonably be expected of health education programs and campus antismoking policies.

States need to make clear to school districts and schools that the primary purpose of indicators is to serve as monitoring tools for schools. Schools need to know how well things are going. If progress is disappointing, they can modify their programs accordingly. If progress is excellent, they can share their action strategies with other schools that might benefit from their experience.

## VIII. Indicator Selection Criteria

States and localities need to reach agreement on what they want to accomplish, that is, results sought. They then need to determine what indicators to include in their respective results-based accountability systems. Indicators need to be clear, valid, and meaningful to parents and the general public. This can be achieved by using the following selection criteria.

1. Indicators are meaningful and important to parents and the public. Such indicators are related to results sought for children; for example, children are safe, healthy, ready to learn; succeed in school; and are in stable and nurturing families.
2. Indicators make a difference. Such indicators are seen as clearly contributing to achieving desired results based on
  - research findings,
  - craft or practice knowledge (e.g., what experienced professionals have concluded works), and/or
  - common knowledge (e.g., what the general public has concluded works).
3. Indicators are useful for a school to know in addressing problems either directly or through partnerships with others. Such indicators
  - provide feedback and guidance for schools that enable them to improve their policies and practices, and
  - relate to actions schools can take that will contribute to their achieving results.
4. Indicators are useful for the state in setting the policy framework and supporting local action. Such indicators
  - enable the state to draw conclusions regarding district, school, or student performance;
  - meet information requirements of major federal programs;
  - are clearly defined and provide reliability and comparability across sites (making comparative benchmarking possible); and
  - can be used by states to influence district, school, and/or student performance through
    - (a) setting principles,
    - (b) establishing policies and processes (mandates, funding formulas, discretionary funding, technical assistance and support, accountability systems),
    - (c) making infrastructure investments,
    - (d) developing products (curriculum frameworks, guidance), and/or
    - (e) enlisting partners (e.g., public health department, hospital, managed care organization, parents, volunteers, and government in general).
5. Data regarding indicators are technically feasible to obtain and affordable to collect.

## IX. Data Issues

States need to bring local schools and school districts on board if health-related results, indicators, benchmarks, action strategies, and program measures are to be successfully incorporated in state education accountability systems. Schools need to understand the importance of achieving more positive health results for students' academic achievement and view themselves as at least partially responsible for ensuring that this occurs. And they need to collect and use data that enable them to know how they are progressing in achieving results.

### Parent and community support for data collection

It is important to involve all key parties in decisions regarding the health-related data to be collected. States and localities need to work with communities to develop active support for data collection activities. It is particularly important to involve parents and obtain their agreement. Parents need to support (or at least not oppose) collecting data on youth risk behavior and other sensitive health-related topics where such information is necessary to gauge success in achieving desired results.

Most states and localities have alarmed citizens who view collection of health-related data, particularly related to youth risk behavior, to be inappropriate. Some are protective of family privacy. Others fear that questioning young people about substance use or sexual activities may have the unintended consequence of encouraging experimentation with such activities. Because these kinds of concerns are likely to surface, they need to be addressed earlier rather than later.

There may be honest differences of opinion regarding acceptable indicators that cannot be fully resolved. In these cases, it is absolutely essential that there be broad-based parent and community support for the indicators to ensure that policy makers and administrators can collect related data knowing that they have strong parent and community backing.

### New data collection requirements

In selecting health-related indicators, states are well advised to start with indicators that can be measured with existing data such as data on the incidence of weapons in schools. In some instances, states could acquire data for school districts and schools from other agencies. This would have the dual benefit of starting dialogues with other child- and family-serving organizations that are potential partners in helping children learn and providing valuable information on students and their families to schools. Requiring school districts and schools to collect new data should be an absolute last resort. A heavy load of new data requirements could sink initiatives. Appendix VI, Data Sources, lists various existing health-related data sources.

### Unavailability of local data

Sometimes data needed to measure the achievement of an indicator viewed as important to states and localities are available only at the state level. In this case, states may wish to use these data for state-level planning efforts but not to hold school districts and schools accountable. If districts want to measure their performance against this indicator, arrangements might be made so that state or national instruments could be used at a local level.

### Motivation/incentives to collect data

Currently, much school data collection is done in response to state and federal reporting requirements. Negative data can have consequences ranging from withholding discretionary funds to state takeovers (although this is not occurring in relation to health data).

School cooperation is essential in collecting student and school performance data. Obtaining such data is hindered when schools do not use data they collect. In this case, data collection is seen as a burden and an unfunded mandate—rather than as a tool.

States could mitigate this situation by (1) taking raw data submitted by localities and presenting them in a user-friendly format and/or (2) providing schools with guidance on how to use these data for school improvement. As schools find that the use of data enables them to operate at a higher level, they will be more willing to invest the effort in collecting data. In this way, data collection would go beyond report cards and be a prelude to action.

States could spotlight and praise places that used data as a means to achieve positive change. Case studies could illustrate how this can be done. For example, the West Virginia State Department of Education was able to document that school health programs led to demonstrable improvements in physical fitness.

## Eliminating obsolete data requirements

In some cases, states and localities will want to include indicators in their results-based accountability system for which there are no data. States and school districts can make new data collection less onerous by eliminating obsolete or lower-priority reporting requirements in exchange for collection of new data.

## Competing interests in data collection

States need to be realistic about competing interests in data collection. Program staff and advocacy groups have their own data needs and often press for states to require collection of these data. Acquiescing to their demands can lead to over-collection of data and undue burdens on schools. Furthermore, as such data are often not deemed valuable by schools for their own purposes, school resistance to data collection and use increases.

## Required and optional data collection

States could consider differentiating between what the state needs and what schools might need. They could require all districts to report on some items that are important for the state to know in order to judge whether districts and schools are meeting state standards and/or whether there are serious problems that need to be addressed (e.g., numbers of suspensions and expulsions) and not on others (e.g., student purchase of healthy versus less healthy food items from school vending machines). The latter may be important for the school to know in terms of the success of its nutrition education program and/or decisions regarding less healthy food items, but it is unlikely to be a state priority.

The state would require all schools to report on core state indicators (preferably selected in consultation with the schools). In addition, states would make suggestions regarding indicators that might provide schools with helpful information and assist them in locating extant data and, where needed, in developing and administering data collecting instruments. Schools would use data to meet their specific needs and priorities but would not transmit these data to the states.

It is important to distinguish between data that need to be collected from all schools or on all children and data that do not. For example, schools in communities that were built after the banning of lead paint should not be asked to report on what they are doing to control or eliminate lead paint in schools. If only a few children need special services or are affected, it is not necessary to require collecting such data on all children.

## Federal requirements

States will continue to have to meet federal reporting requirements. This means that they will need to require school districts to provide federally mandated data. It should be noted that the Government

Results Performance Act requires government agencies to move toward results-based accountability. Government agencies will be seeking data from states to be able to demonstrate results. States need to be prepared to work with federal officials to ensure that any added data collection requirements are reasonable and mutually beneficial. Appendix IV, Current Health Indicators, describes actions federal health agencies are taking to establish results-based accountability systems.

## Customizing data

All states and localities have some issues that are of particular importance to their citizens. It is important that states become aware of these issues so that data collection requirements will result in data that directly address citizen questions and concerns. For example, a community may be particularly concerned about the extent to which middle school students are drinking. These data need to be provided separately from data on all students' drinking.

## Inconsistent boundaries

In most states, school district boundaries do not coincide with those of other jurisdictions. In most cases, health, social services, and census tract data are not consistent with school attendance areas. However, complete comparability may not be essential, and data may still be used for decision making.

For example, a county sheriff's department may cover several school districts. Some county subdivisions may have experienced recent increases in youth offenses, including illegal drug use. Schools need to be aware of this so they can anticipate increases in antisocial behavior and drug use among students from these subdivisions and take preventive action.

Similarly, census tract data may indicate an increased number of low-income non-English speaking families. School officials can use these data as a first alert that students entering their schools in the near future may be in need of a publicly supported preschool offering English-language instruction.

## Sampling versus universal collection

It should be noted that matrix sampling (sampling by categories of students, geographic locations, or other characteristics) can be very useful to states: it is less expensive, yet gives them a view of what is happening statewide. However, to be useful to schools, data must preferably be school-specific, and at a minimum, district-specific. Schools do not believe data apply to them if they are not in the sample, even where districts are similar. It is important to weigh the pros and cons in making decisions regarding universal collection (collecting data on every student) versus sampling (collecting data on representative students).

## Confidentiality issues

Confidentiality of data is a major concern, especially regarding health data elements. It is extremely important to be sensitive to issues related to gender, race, ethnicity, and culture. Individually identifiable data are a particular problem when dealing with small numbers. For example, some schools may have only one or two African-American or Hispanic students who would be easily recognizable in any racial or ethnic data breakdowns.

## Trigger mechanisms

States may not need to require all school districts and schools to report on all dimensions of student and school performance. However, they may wish to establish trigger mechanisms so that when school districts and schools either fail to meet standards and expectations or fail to make progress, they can institute expanded reporting requirements. The information generated can be used to analyze strengths and weaknesses and inform remedies.

## CONSIDERATIONS IN DEVELOPING INDICATORS

In many instances, school health programs are intended to have long-term results. For example, students who develop better eating and exercise habits are less likely to suffer from cardiovascular disease. Such long-term indicators are useful but not sufficient. For better or worse, policy makers, parents, and the general public are impatient and want evidence that programs make a difference. Therefore, it is essential to find meaningful shorter-term indicators such as levels of obesity and percentage of students who fail minimum physical fitness tests.

Furthermore, some health-related issues are in the mainstream each year and others are not. Currently, “safety” is a hot-button issue, but health education is not. This means that safety must be included in any indicator system, but it does not mean that health education should be excluded. Employers and the public may value longer-term effects of health education programs.

For example, West Virginia recently conducted a survey of employers and found that positive health behaviors were among the top five items on their “desirable qualities for employees” list. Specifically, they wanted employees who engaged in health-promoting behavior (e.g., did not abuse drugs or alcohol, smoke on the job, spread infections or diseases, or fail to function at peak due to lack of sleep or poor nutrition), made sensible use of the health care system (so as not to increase the companies’ health insurance rates), and could manage the kind of conflict that exists in a work situation.

Policy makers, parents, and the public can be capricious in their interests and concerns. For example, a shooting at a middle school may precipitate demands for metal detectors and security guards, while longer-term safety concerns may necessitate teaching children to deal with conflict in a more constructive manner — something that will carry them through life.

Getting at these longer-term effects of programs requires follow-up studies of graduates. States should consider funding such studies. In addition, some indicators of results differ by age or grade level. States and schools need to make certain indicators and program measures are age- and grade-level appropriate and culturally sensitive.

It is important to have the same high expectations regarding both health behaviors and academic achievement. Regardless of socio-economic status, all groups can and do meet high expectations. Schools can make the difference.

## X. Selecting a Limited Set of Indicators

It is important to select the most important health-related results and indicators to be included in education accountability systems. These should be ones that parents, the public, and educators understand to be important to student and school performance. In addition, they should have quality data available with which to measure progress on a regular basis.

To the extent possible, indicators should be “iceberg” indicators, that is, denote more than one thing and/or serve as a bellwether for conditions that influence student health and readiness to learn. For example, an iceberg indicator in health is the percentage of low birth-weight babies in a community. Knowing this enables one to estimate the extent of a constellation of possible problems such as lack

of prenatal care, too-young pregnancy, smoking or drinking during pregnancy, poor nutrition, and other poor health habits.

Each state will need to set its own priorities regarding results sought, indicators, benchmarks, action strategies, and program measures that contribute to success. Appendix I, Sample Results, Indicators, Benchmarks, Action Strategies, and Program Measures, contains examples proposed by a focus group convened by the Council of Chief State School Officers. This focus group comprised state and local officials with responsibility for accountability systems and school health programs, as well as national experts. The examples meet the criteria set forth in this paper, although data may not yet be available at the school or district level in all cases. They are intended to stimulate thought and discussion. For each indicator, there are definitions, assessments of significance, pros, cons, issues to be considered, facts regarding prevalence, and potential data sources.

## XI. Conclusion

Educators have long recognized the relationship between education performance and health. They are well aware that growing numbers of children come to school with health-related problems that impede their learning. They observe that many young people engage in negative health behaviors that sap their motivation to learn, endanger their health, and threaten their future. They hear from employers that workers who are healthy are valued as more productive and cost less for health insurance. By incorporating health-related results and indicators in education accountability systems, states and schools can help ensure that actions are taken to improve student health and academic performance.

## Sample Results, Indicators, Benchmarks, Action Strategies, and Program Measures

### RESULT #1: STUDENTS ARE SAFE

**Indicator #1:** Incidence of carrying weapons on school property

**Benchmark:** Incidence of carrying weapons on school property is reduced by 25% over the previous year—a decrease attained by a neighboring school with a similar population following a school anti-weapon campaign

▶ **Action Strategy:** Provide students with the knowledge, skills, and opportunities to resolve conflicts in a constructive, non-violent manner

*Program Measures for Action Strategy:*

- The health education curriculum includes a conflict resolution component that has been demonstrated to be effective in other school settings
- Student courts, peer mediation, and other programs to resolve conflicts without violence are in place

▶ **Action Strategy:** Establish effective deterrents to bringing weapons to school

*Program Measures for Action Strategy:*

- School policies on carrying weapons on school property are considered fair by school staff, parents, and students
- Security systems are in place to check for weapons

▶ **Action Strategy:** Place security issues on the School Improvement Program agenda

*Program Measure for Action Strategy:*

- School improvement initiatives address security issues and use data to guide their activities

▶ **Action Strategy:** Ensure that students are safe when traveling to and from school and do not feel they need to carry weapons for protection

*Program Measure for Action Strategy:*

- Schools and law enforcement officials join forces to see that children’s trips to and from school are safe, for example, by having community police officers meet school buses in housing projects and escort students home

See page 21 for supportive information regarding this indicator.

## RESULT #1: STUDENTS ARE SAFE

**Indicator #2:** Percentage of suspensions and expulsions (the cause of which is typically fighting and disruptive behavior)

**Benchmark:** Suspensions and expulsions are reduced by 15% over the previous year

▶ **Action Strategy:** Prepare teachers to use classroom management and instructional practices that preclude disruptive behavior

*Program Measure for Action Strategy:*

- School psychologists are assigned to work with teachers who report disruptive students and help teachers modify classroom management and instructional practices to reduce the incidence of disruption

▶ **Action Strategy:** Reduce precipitating events leading to fighting and disruptive behavior

*Program Measures for Action Strategy:*

- School has suspension and expulsion policies and procedures considered fair by school staff, parents, and students
- School has in place peer mediation, conflict resolution programs, and other programs to reduce the incidence of fighting and other disruptive behavior

▶ **Action Strategy:** Place issues related to suspensions and expulsions on the School Improvement Program agenda

*Program Measure for Action Strategy:*

- School improvement initiatives address suspension and expulsion issues and use data to guide their activities

▶ **Action Strategy:** Remove seriously disruptive students from regular classrooms

*Program Measure for Action Strategy:*

- Alternative education programs provide counseling, mentoring, tutoring, employment-related learning opportunities, and other activities to foster healthy growth and development and address problems as well as education programs

▶ **Action Strategy:** Develop a community juvenile delinquency prevention program

*Program Measure for Action Strategy:*

- Schools are partners in designing and operating after-school and summer youth development programs, early intervention programs, and family support programs

See page 22 for supportive information regarding this indicator.

## RESULT #1: STUDENTS ARE SAFE

**Indicator #3:** Number of students experiencing child abuse and neglect

**Benchmark:** The number of students experiencing child abuse and neglect is reduced by 10%—a rate decrease achieved by a neighboring county with a similar population and noted for its successful abuse and neglect prevention programs

► **Action Strategy:** Prepare school staff to identify and report potential cases of child abuse and neglect

*Program Measures for Action Strategy:*

- School staff participates in an annual staff development program to recognize signs of child abuse and neglect and apply reporting procedures
- Schools have in place teacher advisor or other programs that ensure each child is well known by an adult who can spot problems early
- School improvement initiatives address school responses to possible child abuse and neglect and use data to guide activities

► **Action Strategy:** Develop a community child abuse and neglect prevention and intervention program

*Program Measure for Action Strategy:*

- School staff participate on interagency teams that work with abusive and neglectful parents to help them change their behavior and develop positive parenting skills

See pages 22-23 for supportive information regarding this indicator.

## RESULT #2: STUDENTS ARE HEALTHY

**Indicator #1:** Student use of (1) alcohol, (2) illegal drugs, and (3) tobacco

**Benchmark:** The percentage of students who report use of (1) alcohol, (2) illegal drugs, and (3) tobacco declines by 5% (a decline achieved by a neighboring county following an antisubstance abuse campaign)

► **Action Strategy:** Provide students with knowledge, skills, and attitudes to resist peer pressure to use alcohol, illegal drugs, and tobacco

*Program Measures for Action Strategy:*

- School health education program contains modules on developing the knowledge, skills, and attitudes to resist peer pressure and to avoid alcohol, illegal drug, and tobacco use that have been demonstrated to be effective in schools serving comparable populations
- School has in place character education, mentoring, after-school, and other programs that stress avoidance of alcohol, illegal drugs, and tobacco

► **Action Strategy:** Establish deterrents to using alcohol, illegal drugs, and tobacco on campus

***Program Measure for Action Strategy:***

- School has policies and procedures on use or possession of alcohol, illegal drugs, or tobacco on campus that are considered fair by school staff, parents, and students

- ▶ **Action Strategy:** Place issues related to alcohol, illegal drug, and tobacco use on the School Improvement Program agenda

***Program Measure for Action Strategy:***

- School improvement initiatives address alcohol, illegal drug, and alcohol use issues and use data to guide their activities

- ▶ **Action Strategy:** Provide students with constructive after-school activities between 3 p.m. and 6 p.m.—the unsupervised hours when students are most likely to engage in destructive activities

***Program Measure for Action Strategy:***

- Schools make school facilities available to youth development organizations offering constructive after-school activities

See pages 23-24 for supportive information regarding this indicator.

## RESULT #2: STUDENTS ARE HEALTHY

**Indicator #2:** Student engagement in early sexual activity

**Benchmark:** The percentage of students who report engaging in sexual activity does not exceed the percentage of students reporting sexual activity in schools with similar populations using family life, sex education, and abstinence education programs that research indicates are effective in reducing sexual activity

- ▶ **Action Strategy:** Provide students with knowledge, attitudes, and skills to resist peer pressure to engage in sexual activity

***Program Measures for Action Strategy:***

- School health education program contains modules on resisting peer pressure and avoiding early sexual activity that have been demonstrated to be effective in schools serving comparable populations
- School has in place character education, mentoring, after-school, and other programs that stress avoidance of early sexual activity

- ▶ **Action Strategy:** Provide students with constructive after-school activities between 3 p.m. and 6 p.m.—the unsupervised hours when students are most likely to engage in destructive activities

***Program Measure for Action Strategy:***

- Schools make school facilities available to youth development organizations offering constructive after-school activities

See page 24 for supportive information regarding this indicator.

## RESULT #2: STUDENTS ARE HEALTHY

**Indicator #3:** Student health subject matter assessment results

**Benchmark:** Students' performance in health subject matter shows that X% possess knowledge and skills needed to avoid high-risk behavior and lead healthy lives—the percentage achieved by schools using highly rated, research-based health education programs with comparable populations

► **Action Strategy:** Provide students with effective health education

*Program Measures for Action Strategy:*

- School curriculum incorporates state content standards for health and physical education
- Health education programs used in the school have been demonstrated to be effective with comparable student populations
- Teachers of health education are prepared to teach skills-oriented health education
- Schools incorporate health education in schoolwide activities such as health fairs

► **Action Strategy:** Develop a communitywide media campaign to encourage good health practices

*Program Measure for Action Strategy:*

- School system health education personnel participate in the development of local public service announcements that provide information leading to more positive health practices, for example, on the food pyramid

See pages 24-25 for supportive information regarding this indicator.

## RESULT #2: STUDENTS ARE HEALTHY

**Indicator #4:** Student health records regarding preventable or untreated health problems

**Benchmark:** The percentage of students with preventable or untreated health problems is reduced by 10% over the previous year

► **Action Strategy:** Provide or refer students with health problems to health services and follow up to ensure that the problem is treated

*Program Measures for Action Strategy:*

- Schools employ school nurses or have school-based health centers to address student health needs either by treating the problem or by referring the student to a health care provider
- School or center staff follow procedures to ascertain whether the health care provider was able to ameliorate the health problem, and if not, to find an alternative way to treat the problem
- School nurses screen entering students for health problems
- Students eligible for the EPSDT (Early Periodic Screening, Detection, and Treatment) Program financed by Medicaid are enrolled in that program at the school site

► **Action Strategy:** Establish school-based health centers at schools with high percentages of students with unmet health needs to provide students with health services

*Program Measure for Action Strategy:*

- The health department outstations three nurse practitioners at school-based health centers

See pages 25-26 for supportive information regarding this indicator.

## RESULT #3: STUDENTS ARE READY TO LEARN

**Indicator #1:** Entering student immunization rates

**Benchmark:** Entering school health records show that X% of students have been properly immunized—the percentage achieved in the top 25% of the state’s counties

► **Action Strategy:** Schools increase parent awareness of the importance of proper immunizations for their children

*Program Measures for Action Strategy:*

- Children are screened for proper immunizations at the time of school entry, and parents of those who have not been immunized are referred to health care providers to obtain immunizations
- Immunization information is sent home to parents with a reminder to immunize other children in the household
- School nurse calls parents of students with younger siblings to check whether they have been properly immunized, and if not, to provide them with information on how to obtain immunizations

► **Action Strategy:** Develop a community plan to provide convenient, accessible immunization services to parents

*Program Measure for Action Strategy:*

- Once a month, school facilities are made available to the public health department to provide immunizations

See pages 26-27 for supportive information regarding this indicator.

## RESULT #3: STUDENTS ARE READY TO LEARN

**Indicator #2:** Student performance on school readiness tests

**Benchmark:** Assessments show that X% of students demonstrate readiness to learn in key dimensions (e.g., physical well-being and motor development, social and emotional development, approaches toward learning, language development, and cognition and general knowledge)—the percentage achieved in schools located in three districts with similar populations noted for their effective early childhood programs

► **Action Strategy:** Provide parents with guidance on how to be effective first teachers of their children and to care for their emotional, social, physical, and nutritional needs

*Program Measures for Action Strategy:*

- Schools operate parents-as-first-teacher programs in collaboration with other agencies
- School district provides X student parents with on-site child care and development programs that include effective parenting components

► **Action Strategy:** School district staff participate in local child care resource and referral agency activities to increase the availability of high- quality child care and development programs in the community

***Program Measures for Action Strategy:***

- Funding is arranged to provide all children with opportunities to participate in Head Start or other high-quality child development programs that address children’s multiple needs
- School district provides bimonthly training to child care providers on effective early childhood practices attended by X child care providers

See pages 27-28 for supportive information regarding this indicator.

**RESULT #3: STUDENTS ARE READY TO LEARN**

**Indicator #3: Birth-weight health records**

**Benchmark:** Community health records indicate that X% of babies are born at normal birth weight—the percentage achieved in communities where 95% of pregnant women receive prenatal services

▶ **Action Strategy:** Ensure pregnant students receive prenatal care

***Program Measures for Action Strategy:***

- School nurses refer pregnant students to prenatal care and follow up to ensure that they receive care
- School nurses meet regularly with pregnant students to monitor their participation in prenatal care
- School nurses provide pregnant students and prospective student fathers with parent education that includes guidance on proper prenatal and postnatal care

▶ **Action Strategy:** School district participates in community education campaign to inform pregnant teens of importance and availability of prenatal care

***Program Measure for Action Strategy:***

- School health fairs present engaging displays and programs on importance and availability of prenatal care

See page 28 for supportive information regarding this indicator.

Other possible indicators are

**RESULT #1: STUDENTS ARE SAFE**

- Students are not placed at increased risk of harm to person or property because of the school facility (e.g., exposure to radon or lead-based paint, entrances or spaces that cannot be effectively monitored)
- School environment is caring and supportive
- Schools offer (or connect with) structured extracurricular or other productive activities for time out of school or home
- Parents are involved

**RESULT #2: STUDENTS ARE HEALTHY**

- Students do not attempt to commit suicide
- Students with learning and behavior problems (as contrasted with obvious health and mental health problems) are checked for health and mental health problems

- Students with special health needs receive appropriate medication and support
- Students demonstrate health-related fitness, that is positive exercise habits and positive nutrition practices

## Supportive Information on Proposed Indicators

### SUPPORTIVE INFORMATION ON RESULT #1: STUDENTS ARE SAFE, INDICATOR #1: INCIDENCE OF CARRYING WEAPONS ON SCHOOL PROPERTY

<b>DEFINITION</b>	Weapons include guns, knives, clubs, and other objects that can be used to inflict bodily harm.
<b>SIGNIFICANCE</b>	Weapons contribute to intentional and unintentional injuries. Students who carry weapons generally intend to use them to intimidate or punish others or to protect themselves against hostile acts.
<b>PROS</b>	There are consequences to weapon carrying. The Safe and Drug-Free Schools and Communities Act requires that students possessing weapons be suspended for a year. Furthermore, parents and the public are very concerned about weapons on campus.
<b>CONS</b>	Weapons are symptomatic of other problems, such as student lack of affiliation with school or lack of an orderly, disciplined learning environment. Addressing these problems directly might be more appropriate.
<b>ISSUES</b>	It will be necessary to address the issue of nonstudents carrying weapons on to the campus. While not a reporting issue per se, some weapons-carrying students are doing so to protect themselves and would be punished for the wrong reason if enforcement were to be automatic.
<b>FACTS</b>	<p>The prevalence of weapon-carrying on school property was 9.8% nationwide. Overall, male students (14.1%) were significantly more likely than female students (4.9%) and Hispanic students (14.1%) were significantly more likely than white students (9.0%) to have carried a weapon on school property. Hispanic and black female students (8.9% and 8.8%, respectively) were significantly more likely than white female students (3.1%) to have done so.</p> <p>Nationwide, 8.4% of students were threatened or injured with a weapon on school property. Overall, male students (10.9%) were significantly more likely than female students (5.8%) and Hispanic students (12.4%) were significantly more likely than white students (7.0%) to have been threatened or injured. Hispanic and black male students (15.2% each) were significantly more likely than white male students (9.2%) to report such behavior. Source: Youth Risk Behavior Surveillance—United States, 1995.</p>
<b>DATA SOURCES</b>	State-level and some district-level (large cities) data are available from the Centers for Disease Control and Prevention’s Youth Risk Behavior Surveillance. In addition, many school districts collect this kind of data.

**SUPPORTIVE INFORMATION ON RESULT #1: STUDENTS ARE SAFE, INDICATOR #2: PERCENTAGE OF SUSPENSIONS AND EXPULSIONS (THE CAUSE OF WHICH IS TYPICALLY FIGHTING OR DISRUPTIVE BEHAVIOR)**

<b>DEFINITIONS</b>	Suspensions are generally short term and may be in alternative school settings. Expulsions prohibit the student from attending school and are generally for a year or permanent. Behavior precipitating suspensions and expulsions may range from being incorrigible and seriously disruptive to fighting, harassing, intimidating, stealing, or vandalizing.
<b>SIGNIFICANCE</b>	Disruptive and antisocial behavior interferes not only with a student's ability to learn, but also negatively affects other students in the student's classroom and school.
<b>PROS</b>	Students cannot learn in a disruptive environment.
<b>CONS</b>	Although schools collect data on suspensions and expulsions, this information is not typically reported to the state.
<b>ISSUES</b>	Suspensions and expulsions may be disproportionately applied to minority students, raising equity issues.
<b>DATA SOURCES</b>	Schools typically collect data on suspensions and expulsions.

**SUPPORTIVE INFORMATION ON RESULT #1: STUDENTS ARE SAFE, INDICATOR #3: NUMBER OF STUDENTS EXPERIENCING CHILD ABUSE AND NEGLECT**

<b>DEFINITION</b>	States have legal definitions of child abuse and neglect that generally require children's safety, health, or well being to be threatened.
<b>SIGNIFICANCE</b>	Neglected and abused children generally do very poorly in school and are at greater risk of becoming delinquents and of mistreating their own children. They may experience physical harm, profound developmental and behavioral problems, or death. Alternative home placement or significant improvements in family functioning may be required. The best way to deal with the negative effects of abuse and neglect is to prevent it through stronger family and child support programs for at-risk families when children are very young. For schools, this means greater involvement in early childhood programs.
<b>BENCHMARK</b>	A national goal of fewer than 25.2 reported (as opposed to substantiated) cases per 1,000 children by the year 2000 has been set by the federal government as part of its Healthy People 2000 effort. In 1991, the rate was approximately 45 per 1,000.
<b>PROS</b>	Children need a safe and nurturing family environment to thrive. Stimulating schools to work with other agencies in reducing the number of abused and neglected children could pay considerable dividends. In today's world it is important that schools pay attention to children before age five and their families. They could become involved in helping parents understand appropriate growth and development of children and practice positive parenting skills. Furthermore, they could have special programs for pregnant and parenting students to prepare them for responsible parenthood.
<b>CONS</b>	Schools have little control over child abuse and neglect. Partnerships with other agencies that could help are weak. The public is unlikely to see schools as having a prominent role in this area.

<b>ISSUES</b>	Increasing awareness of child abuse and neglect is not helpful if there are no interventions or treatments available to alleviate the problem. There is limited foster care and minimal funds for family preservation and other programs intended to enhance family functioning.
<b>FACTS</b>	In 1984, out of every 1,000 children nationwide, 28 were involved in reports of abuse or neglect. By 1993, the count had risen to 43 out of every 1,000 children—an increase far out of proportion to any increase in child population during the same period. Source: Child Maltreatment 1993: Reports From the States to the National Center on Child Abuse and Neglect.
<b>DATA SOURCES</b>	The U.S. Department of Health and Human Services, National Center on Child Abuse and Neglect, collects state statistics. Most city or county jurisdictions maintain a central registry of reported as well as substantiated cases of child abuse and neglect in the division of child protective services within the social services department. Data across states may not be comparable because states have different ways of recording data. Also, there are jurisdictional variations in definitions.

### SUPPORTIVE INFORMATION ON RESULT #2: STUDENTS ARE HEALTHY, INDICATOR #1: STUDENT USE OF (1) ALCOHOL, (2) ILLEGAL DRUGS, AND (3) TOBACCO

<b>DEFINITION</b>	<p>NOTE: Communities will vary in terms of what they consider problem behavior. The following are examples of limited-tolerance objectives. Communities may elect zero tolerance objectives.</p> <p>Low alcohol use: Students report no binge drinking (consumption of five or more drinks of alcohol on a single occasion) in the past 30 days.</p> <p>Low illegal drug use: Students report no use of marijuana or cocaine in the past 30 days.</p> <p>Low tobacco use: Students report no smoking on 20 or more of the previous 30 days.</p>
<b>SIGNIFICANCE</b>	<p>The consumption of alcohol and use of illicit drugs place adolescents at risk of health, education, and social problems and physical danger. Drug use and alcohol consumption are both a precursor and reflection of low self-expectation, poor performance, lack of parental and community supports, and lack of options. Illicit drug use is higher among those teens who have no post-high-school plans. Students who use alcohol and illegal drugs are also at risk for intentional and unintentional injuries.</p> <p>Early smoking is associated with other high-risk youth behavior. In addition, youth who smoke cigarettes are far more likely to use illegal drugs.</p> <p>High-risk activity at an early age is often a predictor of later problem behavior.</p>
<b>PROS</b>	Parents and the public care about high-risk behavior that can negatively affect children's education, health, and future.
<b>CONS</b>	Large numbers of districts do not have health data, and it is impractical for them to get the data.
<b>ISSUES</b>	It may be difficult to obtain consensus on what constitutes problem behavior. There are individuals and organizations that oppose collecting data on student behavior.

<b>FACTS</b>	<p>In 1995, a survey of students in grades 9-12 revealed that 51.6% had consumed alcohol in the previous 30 days, 32.6% had consumed five or more drinks on one or more occasions, 25.3% had smoked marijuana, and 3.1% had used cocaine within the past 30 days. Source: Youth Risk Behavior Surveillance—United States, 1995.</p> <p>Between 1992 and 1995, rates of 12th grade students who reported smoking cigarettes daily increased from 17.2% to 21.6%. Eighth and 10th grade student smoking also increased from 7.2% to 9.3% and 12.6% to 16.3%, respectively. Source: Trends in the Well-Being of America’s Children and Youth: 1996.</p>
<b>DATA SOURCES</b>	The Centers for Disease Control and Prevention conducts an annual survey through its Youth Risk Behavior Surveillance System that has state-level data and some district-level data (in big cities). State police may have some data.

### SUPPORTIVE INFORMATION ON RESULT #2: STUDENTS ARE HEALTHY, INDICATOR #2: PERCENTAGE OF STUDENTS ENGAGING IN EARLY SEXUAL ACTIVITY

<b>DEFINITION</b>	Low level of early sexual activity: Students under 13 report no sexual encounters.
<b>SIGNIFICANCE</b>	Early sexual activity can result in sexually transmitted diseases, pregnancy, and parenthood. High-risk activity at an early age is often a predictor of later problem behavior.
<b>PROS</b>	Parents and the public care about high-risk behavior that can negatively affect children’s education, health, and future.
<b>CONS</b>	Large numbers of districts do not have health data, and it is impractical for them to get the data.
<b>ISSUES</b>	It may be difficult to obtain consensus on what constitutes problem behavior. Some individuals and organizations oppose collecting data on student behavior.
<b>FACTS</b>	The percentage of students nationwide who had initiated sexual intercourse before 13 years of age was 9.0%. The percentage of students nationwide who had had sexual intercourse to date with four or more partners was 17.8%. More than one-third (37.9%) of students nationwide had had sexual intercourse during the 3 months preceding the survey, (current sexual activity). Female students in grade 11 (48.1%) were significantly more likely than male students in the same grade (36.8%) to have had current sexual activity. Source: Youth Risk Behavior Surveillance—United States, 1995.
<b>DATA SOURCES</b>	The Centers for Disease Control and Prevention conducts an annual survey through its Youth Risk Behavior Surveillance System that has state-level data and some district-level data (in big cities). Health departments may have data on teen pregnancy and rates of sexually transmitted diseases.

### SUPPORTIVE INFORMATION ON RESULT #2: STUDENTS ARE HEALTHY, INDICATOR #3: STUDENT HEALTH SUBJECT MATTER ASSESSMENT RESULTS

<b>DEFINITION</b>	<p>The benchmark for this indicator relates to students possessing knowledge and skills to avoid high-risk behavior and lead healthy lives.</p> <p>High-risk behavior includes substance abuse, early sexual activity, failure to use seat belts, and other actions that result in negative outcomes.</p>
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	Living a healthy life includes practicing proper exercise, nutrition, safety, and other good habits that will enhance health and well-being.
<b>SIGNIFICANCE</b>	Whereas knowledge and skills may not ensure good health habits and avoidance of high-risk behavior, failure to possess them increases the likelihood of developing damaging habits and behaviors.
<b>PROS</b>	Demonstrating mastery of knowledge is a measure of program performance in an education sense. It is more difficult to measure skills. Research shows that some high-quality programs (e.g., high-quality drug education programs) positively influence behavior.
<b>CONS</b>	Health education does not enjoy the same prominence and support as other academic subjects do. Furthermore, research suggests students who receive health education only marginally exhibit better health behavior than those who do not. Some health education-related programs remain popular even though research suggests that they have no effect (e.g., DARE).
<b>ISSUES</b>	It may be necessary to define what constitutes a high-quality health education program. Must it be taught by a certified health educator? Can health education be effectively incorporated as a module in science or physical education courses? Can health education that does not include skills practice be considered a high-quality health education program?
<b>FACTS</b>	More than 30 states belong to the State Collaborative on Assessment and Student Standards (SCASS) Health Education Project, which has developed health education assessment items that can be used by member states and local education agencies within those states.
<b>DATA SOURCES</b>	Many state education agencies require health subject matter assessments. Data are available from the State Collaborative on Assessment and Student Standards (SCASS) Health Education Project and from the School Health Education Profile (SHEP).

## **SUPPORTIVE DATA FOR RESULT #2: STUDENTS ARE HEALTHY, INDICATOR #4: STUDENT HEALTH RECORDS REGARDING PREVENTABLE OR UNTREATED HEALTH PROBLEMS**

<b>DEFINITION</b>	<p>The benchmark for Indicator #4 relates to the percentage of students with preventable or untreated health problems.</p> <p>Health problems include physical, mental, and social health problems.</p>
<b>SIGNIFICANCE</b>	Children with persistent health problems are more likely to miss school and require regular medical attention and follow-up. Unhealthy children, children with untreated hearing and vision problems, and children with mental and social problems do not achieve their learning potential. In some cases, they may also spread infections or disease and/or disrupt others' learning, particularly when they have untreated mental health or social health problems.
<b>PROS</b>	When children have appropriate health support, they have less absenteeism and more time for school. Children with chronic health problems have management needs. Working parents are increasingly depending on schools to help with their children's health because they are not available during the day. Examining chil-

children's health needs will motivate schools to cultivate partnerships with health care providers and other community groups to the benefit of the children.

<b>CONS</b>	Screening makes sense only if treatment resources are available. Universal screening may divert money that could be better used for treatment.
<b>ISSUES</b>	What, if any, actions should schools take regarding sexually active teens?
<b>FACTS</b>	<p>Roughly 80% of children under 18 are reported to be in very good or excellent health. Respiratory conditions are the most prevalent type of chronic health problem experienced by children younger than 17 years of age. Between 1982 and 1993, per 1,000 children, rates of chronic bronchitis, chronic sinusitis, and asthma increased from 34 to 59, from 43 to 80, and from 40 to 72, respectively. In 1993, rates per 1,000 children were 36 for dermatitis, 28 for serious acne, 29 for deformity or orthopedic impairment, 20 for speech impairment, 17 for visual impairment, 14 for heart murmurs, 13 for migraine headaches, 9 for anemia, 5 for epilepsy, and 2 for diabetes. Source: Trends in the Well-Being of America's Children and Youth: 1996.</p> <p>In 1990, the U.S. Department of Health and Human Services estimated that about 1 million children (1% to 2%) have hearing impairments. By age 16, nearly 20% have simple refractive errors (such as near-sightedness or far-sightedness) that impair vision. Source: Finding the Data: A Start-Up List of Outcome Measures with Annotations.</p> <p>In addition, many children suffer occasional illnesses. Working parents increasingly send these children to school because they perceive they have no way of dealing with the illness. Source: National Association of School Nurses interview.</p>
<b>DATA SOURCES</b>	<p>National Center for Health Statistics collects data on chronic diseases.</p> <p>Although there is no centralized state data system for reporting data on untreated vision and hearing problems, some data for specific populations may be available from state health or education departments (e.g., for EPSDT children).</p>

### **SUPPORTIVE DATA FOR RESULT #3: STUDENTS ARE READY TO LEARN, INDICATOR #1: ENTERING STUDENT IMMUNIZATION RATES**

<b>DEFINITION</b>	The U.S. Public Health Service currently recommends that children receive nine different vaccines (all requiring multiple doses) given in five to seven visits between birth and school entry, most before age 2. Essential immunizations by age 2 include immunizations against diphtheria, tetanus, pertussis, measles, mumps, rubella, and polio.
<b>SIGNIFICANCE</b>	Proper and timely immunization effectively protects children from a host of debilitating and sometimes deadly childhood diseases.
<b>PROS</b>	This issue could stimulate important partnerships between schools and health care providers.
<b>CONS</b>	Schools have a limited role in immunizing children.
<b>ISSUES</b>	Partnerships need to be put in place among schools, health care providers, and others if this result is to be achieved.
<b>FACTS</b>	Between 1989 and 1991, several major outbreaks of measles occurred across the United States, refocusing national attention on childhood immunization. Of all

routine childhood vaccinations, 80% are recommended to be administered within the first few years of life. Although between 97% and 98% of children receive their complete series of immunizations before or shortly after starting school, estimates of complete immunization among preschool children are considerably lower. In 1994, the proportion of 2-year-olds who had received the full 4:3:1 series of vaccines was 75%. Source: Trends in the Well-Being of America's Children and Youth: 1996.

**DATA SOURCES** The Centers for Disease Control and Prevention has national data. Schools have entering student immunization data.

### SUPPORTIVE DATA FOR RESULT #3: STUDENTS ARE READY TO LEARN, INDICATOR #2: STUDENT PERFORMANCE ON SCHOOL READINESS TESTS

**DEFINITION** A number of school readiness tests exist to measure progress according to a variety of dimensions. These include Behavior Problems Index (Zill 1990), Early Screening Inventory (Meisels et al. 1988), MacArthur Communicative Development Inventories (Fenson et al. 1993), and Social Skills Rating System—Elementary Teacher Form (Gresham and Elliott 1990).

**SIGNIFICANCE** Children who enter school socially, emotionally, physically, and cognitively ready to learn have a head start.

**PROS** Tests exist, albeit imperfect, to measure social and emotional readiness. Many schools, preschools, and child development programs already use these tests for their purposes.

Measuring school readiness could stimulate schools to pay greater attention and provide greater support to early childhood programs.

**CONS** Tests for young children can be developmentally inappropriate and misleading. They can result in teaching to the tests, which would be extremely inappropriate for young children. There is a danger that tests will be used for high stakes decisions, such as placing students in tracks or denying or advancing promotion.

Few schools operate preschool programs.

**ISSUES** It is important that assessments embrace multiple dimensions of school readiness (e.g., physical well-being and motor development, social and emotional development, approaches toward learning, language development, and cognition and general knowledge). Furthermore, assessment systems need to collect data (1) at multiple points in time; (2) from multiple sources, including parents, teachers, and children themselves; and (3) using multiple strategies that are respectful of, and appropriate to, children's development. Source: National Education Goals Panel, Goal I Technical Planning Group, Reconsidering Children's Early Development and Learning: Toward Common Views and Vocabulary, June 1995.

Partnerships need to be developed among parents, schools, Head Start, and other child care and child development programs.

**FACTS** Research has demonstrated that children who participate in preschool and other child development programs had IQ gains; however, these gains faded two or three years after the children entered public school. There were, however, two solidly established longer-term effects: These children were less often referred for

special education and they were retained in grade through the end of high school. Source: Consortium of Longitudinal Studies, ed. *As the Twig Is Bent...Lasting Effects of Preschool Programs*. Hillsdale, NJ: Erlbaum, 1983.

**DATA SOURCES** A number of school districts administer one or more school readiness tests. In addition, Head Start and a number of other early childhood programs conduct school readiness assessments.

### **SUPPORTIVE DATA FOR RESULT #3: STUDENTS ARE READY TO LEARN, INDICATOR #3: BIRTH-WEIGHT HEALTH RECORDS**

**DEFINITION** Low birth-weight infants are defined as those weighing less than 5.5 pounds.

**SIGNIFICANCE** Weight at birth is a key indicator of an infant's ability to survive and thrive. Low birth-weight infants are at an increased risk of suffering severe physical and developmental complications and death. Compared to babies of normal weight, underweight babies who survive are seven to ten times more likely to have school problems. Women who do not receive early prenatal care are much more likely to give birth to low birth-weight babies.

**PROS** Low birth weight is an iceberg indicator of multiple conditions affecting healthy birth.

**CONS** This area is far beyond the ability of schools to influence.

**ISSUES** Partnerships among schools, health care providers, and other community organizations need to be in place if this result is to be achieved.

**FACTS** There are serious disparities in the proportion of healthy births by race/ethnicity, marital status, and education. For example in 1991, 43.3% of births to black women were defined as healthy, compared with 49.8% to Hispanic women and 65.0% to white women. The percentage of healthy births to married women was 68.6% compared with 43.1% for single women; 67.1% of mothers with at least a high school education had healthy births compared with 43.3% of mothers with less than a high school education. Source: *Trends in the Well-Being of America's Children and Youth*: 1996.

**DATA SOURCES** State-level data are available in the annual Kids Count Data Book: State Profiles of Child Well-Being.

## Other Groups' Conclusions Regarding School Health Program Indicators

A number of variables affect behavioral and health status outcomes. The following are examples of how various groups have addressed this problem.

### National Institute of Medicine

The National Institute of Medicine's Report of the Committee on Comprehensive School Health Programs in Grades K-12 considered what outcomes are appropriate and reasonable for comprehensive school health programs (CSHPs). They asked, "Should health education be expected to produce behavior change, or is the acquisition of knowledge and skills sufficient? Should health services be required to improve health status, behaviors, and long-term health outcomes, or is simply access to and utilization of services a sufficient endpoint?"

The committee concluded that although influencing behavior and health status is an ultimate goal of CSHPs, such endpoints involve personal decision making beyond the control of the school. Schools should be held accountable for conveying health knowledge, providing a health-promoting environment, and ensuring high-quality services. Schools, however, cannot be held responsible for outcomes based on individual choices and decisions. Table I points out the multiple variables that influence student health behaviors and outcomes.

At the same time, the committee recognized the importance of carrying out research and evaluation on comprehensive school health programs in order to understand what outcomes might reasonably be expected and measured. It called for launching a major research effort to establish model comprehensive programs and examine specific program outcomes such as changes in education (achievement, attendance, graduation), personal health (resistance to "new morbidities," improved biologic measures), mental health (not depressed or stressed out), health systems (medical home, reduction in use of emergency room/hospital), and self-sufficiency (higher education or job).

### State of California

The State of California cited 10 benefits of comprehensive school health systems in "Healthy Kids for the Year 2000: An Action Plan for Schools." These benefits could be used as indicators.

- |  |   |
|--|---|
| 1. Less school vandalism   | 6. Stronger self-confidence and self-esteem           |
| 2. Improved attendance by students and staff                               | 7. Noticeably fewer students using tobacco            |
| 3. Reduced health care costs   | 8. Improved cholesterol levels for students and staff |
| 4. Reduced substitute teaching costs                                       | 9. Increased use of seat belts                        |
| 5. Better family communication, even on sensitive issues such as sexuality | 10. Improved physical fitness                         |

### School Health Policy Initiative (regarding school-based health centers)

School-based health centers or clinics now number some 700 and their numbers are increasing. Table II lists sample performance measures for these centers developed by the School Health Policy Initiative, a project of the Montefiore Medical Center.

**TABLE I**  
**ASSETS AND DEFICITS IN STUDENT'S ENVIRONMENT THAT INFLUENCE**  
**ADOPTION OF HEALTH BEHAVIORS**

Factors Leading to Health- Debilitating Behaviors	Factors Leading to Health-Promoting Behaviors
<p><b>Family deficits</b></p> <ul style="list-style-type: none"> <li>Parental addiction<sup>1,2,3</sup></li> <li>Time at home without an adult<sup>3</sup></li> <li>Overexposure to television<sup>3</sup></li> <li>Family management problems<sup>2</sup> <ul style="list-style-type: none"> <li>Lack of clear expectations for children's behavior<sup>2</sup></li> <li>Lack of monitoring<sup>1,2</sup></li> <li>Inconsistent or excessively severe discipline<sup>2</sup></li> <li>Lack of caring<sup>2</sup></li> </ul> </li> <li>Low expectations for children's success<sup>1,2</sup></li> <li>Family history of alcoholism<sup>2</sup></li> </ul>	<p><b>Family assets</b></p> <ul style="list-style-type: none"> <li>Care and support<sup>3,4</sup></li> <li>Parental monitoring<sup>3,4</sup></li> <li>Parental standards<sup>3</sup></li> <li>Time at home<sup>3</sup></li> <li>Parental discipline<sup>3</sup></li> <li>Parent communication<sup>3</sup></li> <li>Parents as social resources<sup>3</sup></li> </ul>
<p><b>Friends/peers deficits</b></p> <ul style="list-style-type: none"> <li>Negative peer pressure<sup>1,3</sup></li> <li>Early antisocial behavior<sup>2</sup></li> <li>Alienation and rebelliousness<sup>2</sup></li> <li>Antisocial behavior in late childhood and early adolescence<sup>2</sup></li> <li>Favorable attitudes toward drug use<sup>2</sup></li> <li>Early first use of drugs<sup>2</sup></li> <li>Greater influence by and reliance on peers than parents<sup>2</sup></li> </ul>	<p><b>Friends/peers assets</b></p> <ul style="list-style-type: none"> <li>Absence of negative behavior<sup>4</sup></li> <li>Avoidance of overly hedonistic values<sup>4</sup></li> <li>Presence of prosocial behavior<sup>4</sup></li> <li>Endorsement of personal values<sup>4</sup></li> <li>Presence of responsible behavior/values<sup>4</sup></li> </ul>
<p><b>School deficits</b></p> <ul style="list-style-type: none"> <li>Allowing academic failure<sup>1,2</sup></li> <li>Absenteeism<sup>1</sup></li> <li>Lack of a clear school policy regarding tobacco, alcohol, and other drugs<sup>2</sup></li> <li>School transitions<sup>2</sup></li> <li>Lack of involvement in school activities<sup>2</sup></li> <li>Little commitment to school<sup>2</sup></li> </ul>	<p><b>School assets</b></p> <ul style="list-style-type: none"> <li>Caring and supportive school environment<sup>3,4</sup></li> <li>Motivated and committed students<sup>3,4</sup></li> <li>Involved parents<sup>3,4</sup></li> <li>Structured extracurricular activities<sup>3,4</sup></li> <li>Teaching social skills that promote bonding through active participation<sup>2</sup></li> </ul>
<p><b>Community deficits</b></p> <ul style="list-style-type: none"> <li>Economic and social deprivation<sup>1,2</sup></li> <li>Low neighborhood attachment and high community disorganization<sup>1,2</sup></li> <li>Community norms and laws favorable to the use of tobacco, alcohol, and other drugs<sup>2</sup></li> <li>Availability of tobacco, alcohol, and other drugs<sup>2</sup></li> </ul>	<p><b>Community assets</b></p> <ul style="list-style-type: none"> <li>Attendance in religious services<sup>3,4</sup></li> <li>Structured youth activities<sup>3,4</sup></li> <li>Connections to other adults<sup>3,4</sup></li> </ul>

**References**

1. Dryfoos J. *Adolescents at Risk: Prevalence and Prevention*. New York, NY: Oxford University Press, 1990.
2. Office of Healthy Kids, Healthy California. *Not Schools Alone*. Sacramento, CA: California Department of Education, 1991.
3. Benson PL. *The Troubled Journey*. Minneapolis, MN: Search Institute, 1992.
4. Blyth DA, Roehlkepartain DA. *Healthy Youth: How Communities Contribute to Positive Youth Development*. Minneapolis, MN: Search Institute, 1993.

**TABLE II**  
**SCHOOL-BASED HEALTH CENTERS**  
**PARTNERSHIP MISSION AND SAMPLE PERFORMANCE MEASURES**

Mission Component	Sample Performance Measures
Access	<ul style="list-style-type: none"> <li>■ Utilization of school-based health center services by health plan members</li> <li>■ Visits per member per year</li> </ul>
Prevention	<ul style="list-style-type: none"> <li>■ Periodic comprehensive assessments including screening for risk behaviors (with or without physical examination)</li> <li>■ Immunization rates</li> <li>■ Annual Pap smear rates</li> </ul>
Early and Effective Intervention	<ul style="list-style-type: none"> <li>■ Screening and treatment of sexually transmitted diseases</li> <li>■ Asthma diagnosis and treatment</li> <li>■ Mental health referrals</li> <li>■ Injury rates</li> <li>■ Emergency room visit rate</li> <li>■ Hospitalization rate</li> <li>■ Evaluation for students with school-related problems such as disciplinary incidents and suspensions</li> </ul>
Satisfaction	<ul style="list-style-type: none"> <li>■ Waiting time</li> <li>■ Satisfaction with confidentiality</li> <li>■ Overall impression</li> </ul>
Continuum of Care	<ul style="list-style-type: none"> <li>■ Follow-up rates for identified problems</li> <li>■ Collaboration and communication between providers</li> <li>■ 24-hour access to care</li> </ul>

“A Partnership for Quality and Access: School-Based Health Centers and Health Plans,” The School Health Policy Initiative, Montefiore Medical Center, 1996.

## Status of Health-Related Indicators in Current Education Indicators

In September 1989 at a national education summit, the president and the nation's governors agreed to establish National Education Goals. Included were the goals that all children will come to school ready to learn (interpreted to be a preschool objective) and every school in America will be free of drugs and violence and will offer a safe, disciplined environment conducive to learning. The goals call for measuring student performance in English, mathematics, science, history, and geography (supplemented in 1994 arts, civics, and foreign languages), but not health education. Most health-related objectives were incorporated in 1994 after the initial summit and fall under a secondary category of directives.

This relatively lower attention to health-related goals and objectives is reflected in current state indicators of education system functioning. The Council of Chief State School Officer's National Elementary/Secondary Education Data and Information System Project reviewed state indicator reports, accountability reports, and report cards produced by 47 state education agencies between 1991 and 1995.

The project found that states had no health-related background or outcome indicators and very few health-related process and resource indicators. Thirty-seven states reported data on average subject area proficiency, 33 on graduation rates, and 37 on drop-out rates. On the other hand, no states reported data about the percentage of children receiving routine health care or about the number of vandalism occurrences in schools.

### EDUCATION INDICATORS HEALTH EXCERPTS

Domain	Generic Name	No. Exact Matches	No. Approx. Matches	Total No. States Reporting
Process	% of students suspended or expelled as a disciplinary action	2	5	7
Resources	% of students using substances at school by grade level	0	8	8
Resources	Availability of support services for students	1	4	5
Resources	Extent of school and community coordination by service type	0	1	1

Urban school systems in which students face a disproportionate number of health-related problems recognize the need to address health issues but give them low priority. In a February 1996 survey conducted by the Council of the Great City Schools, approximately 177 urban school leaders were asked to rank 35 current needs of urban schools in order of importance. At the top of the list were academic achievement, issues of funding, parental involvement, public confidence in schools, and higher standards. At the bottom of the list were teen pregnancy, health programming, drugs and alcohol, child abuse, homelessness, and HIV/AIDS.

Educators recognize the relationship between education performance and health. However, they generally have not considered health to be a primary responsibility of the schools and an issue for which schools should be held accountable.

## Current Health Indicators

Health professionals are well versed in the use of results-based accountability systems. Nationally, leadership has been provided through the establishment of Healthy People 2000 health promotion and disease prevention objectives. State and local health departments are required to report on their progress in meeting these objectives. Of the 300 Healthy People 2000 objectives, approximately one-third can be attained either directly or indirectly through schools and school-based programs. Healthy People 2000 objectives were merged with related Goals 2000 goals and objectives to demonstrate the interconnectedness between health and education objectives. Source: Novello AC, DeGraw C, and Kleinman DV, "Healthy Children Ready to Learn: An Essential Collaboration Between Health and Education," Public Health Reports 107,1 (January- February): 3-15, 1992.

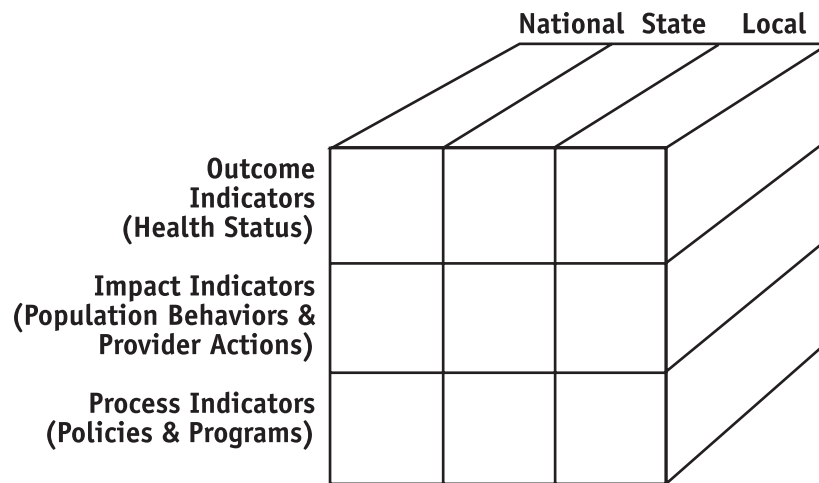
The U.S. Public Health Service is in the process of updating Healthy People 2000 objectives to Healthy People 2010. It is performing a gap analysis as part of this effort.

The Centers for Disease Control and Prevention's grantees, including state education agencies, are required to report on a variety of measures.

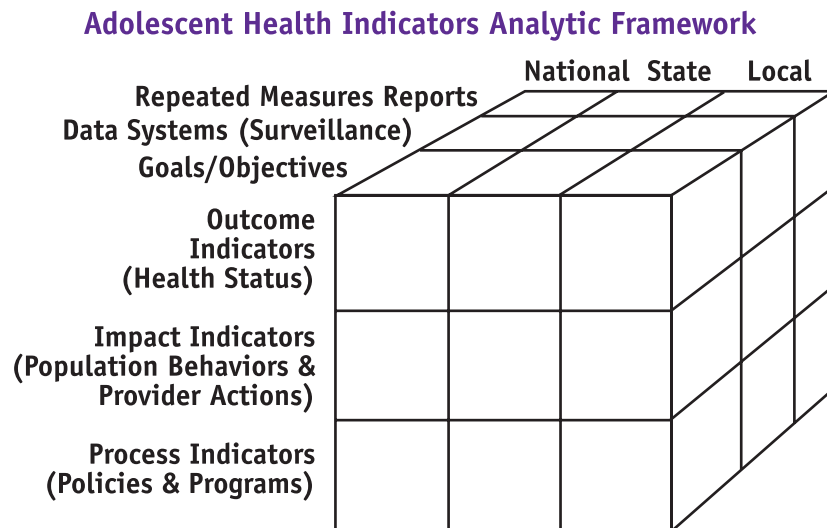
Tables III and IV illustrate CDC's Health Indicators Analytic framework.

**TABLE III  
CDC HEALTH INDICATORS ANALYTIC FRAMEWORK #1**

### Adolescent Health Indicators Analytic Framework



**TABLE IV**  
**CDC HEALTH INDICATORS ANALYTIC FRAMEWORK #2**



## A P P E N D I X V

### State Education Improvement Partnership

The State Education Improvement Partnership is composed of the Council of Chief State School Officers, the Education Commission of the States, the National Association of State Boards of Education, the National Conference of State Legislatures, and the National Governors' Association. Its Coordinating Committee continuously discusses emerging concerns of state policy makers as they move forward with systemic education improvements. The committee also meets with key leaders in the U.S. Department of Education who also actively work with state leaders on school improvement issues. CCSSO is providing staff support to the Partnership.

In April 1997, the Partnership issued *Measuring Results: Overview of Performance Indicators*. This document provides information on using performance indicators to guide systemic education reform efforts. This guidance includes a set of indicators and performance measures for state review and consideration.

The Partnership's *Measuring Results* presents possible indicators of (1) student performance in the K-12 education system, (2) student performance beyond the K-12 system, and (3) schools' capacity to improve students' performance (or program measures). There are no health-related indicators in the first two categories. However, there are some in the third. These fall under the following categories:

Teaching and Learning: The percentage of schools meeting standards for “effective learning communities”

- Students are not distracted by discipline problems, concerns for safety, administrative matters, or other interruptions.
- The school works with families, employers, and community organizations to help administrators, teachers, and students achieve the standards.

Supports for Learning

- Percentage of schools reporting that all students are able to participate in student meal programs
- Percentage of schools reporting that counseling and community health care services are sufficiently available to remove significant barriers to student learning

It should be noted that these health-related performance measures are construed as ways to help ensure that systemic reform achieves results related to student achievement, completion of high school, postsecondary education, employment, and citizenship. Desirable health results are not cited explicitly. This helps explain why there are no sample health-related indicators, only performance measures that lead to the achievement of more general results.

## A P P E N D I X V I

### Data Sources

- Annie E. Casey Foundation, *Kids Count Data Book: State Profiles of Child Well-Being*
- Federal Interagency Forum on Child and Family Statistics: *America's Children: Key National Indicators of Well-Being (1997)*
- Robert Wood Johnson Foundation: *School-Based Health Centers*
- National Center on Educational Statistics: *Weapons and Discipline*
- National Health and Nutrition Examination Survey (NHANES)
- State Collaborative on Assessment and Student Standards (SCASS) - Health Education Project
- School Health Education Profile (SHEP)
- U.S. Department of Education: *Youth Indicators 1996*
- U.S. Department of Health and Human Services, Centers for Disease Control and Prevention: Youth Risk Behavior Surveillance System—risk behavior at the state level and in some cases at the school district level.
- U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation: *Trends in the Well-Being of America's Children and Youth: 1996*
- U.S. Department of Health and Human Services, *Healthy People 2000: Midcourse Review*

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