

PENNSYLVANIA

2021

Statewide

Youth Behavioral Health

Risk and Protective
Factor Assessment

A report prepared on behalf of the
Pennsylvania Cross-Systems
Prevention Workgroup (CSPW)

Pennsylvania's Cross-Systems Prevention Workgroup

Primary prevention is a necessary approach to reducing youth and community problems and promoting health and well-being. It requires strategic planning, collaboration, evidence-based decision-making, and sufficient resources to ensure effective and sustainable impact. However, tight budgets and limited resources present challenges to executing and maintaining strategic prevention efforts.

The Cross-Systems Prevention Workgroup (CSPW) aims to address these challenges through prioritizing proven effective primary prevention strategies and promoting coordinated efforts across systems and sectors. The CSPW is a multi-agency, cross-systems collaborative of primary prevention stakeholders who are proactively addressing youth and community behavioral and mental health resource needs for the Commonwealth of Pennsylvania (PA).

CSPW members represent 30+ state-, regional-, and local-level strategic decision-making agencies that directly assist youth, families, and communities across PA. This broad representation includes policy and systems change leadership, human services providers, social and public servants, public- and private-sector decision-makers, and prevention specialists.

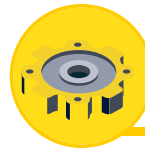


CSPW's VISION

Supporting healthy youth development by building a comprehensive continuum of effective prevention strategies with sufficient and sustained funding

The workgroup's current focus is on developing comprehensive strategic guidance and planning recommendations that support reducing six costly youth health risk behaviors that continue to present social, public, and economic concerns for PA residents.

The evidence of prevention science shows that youth and community health and resilience can be achieved through promoting inter-agency collaboration, data interoperability across systems, community capacity-building, and blended and braided funding streams; the CSPW prioritizes these efforts to support primary prevention planning, implementation, and sustainability.



CSPW's GOALS

The CSPW aims to support more substantial, more durable, and longer-lasting effects of prevention efforts through:



Ensuring and expanding the utilization of effective primary prevention approaches and strategies



Increasing sustainable funding and resources for broadly disseminating prevention initiatives



Ensuring the effective stewardship of taxpayer dollars

Acknowledgements

We would like to thank the following CSPW individual partners who participated, both past and present, in the inception of CSPW and with the development of this report. Only through the expert input and tireless support of these representatives from many of Pennsylvania's systems, could CSPW and the creation of this vast report come to fruition.

System Represented	Participant Names
Attorney General's Office	Diane Buckwash, Sarah Charles Janene Holter, Michelle Nutter
Commonwealth Prevention Alliance	Debby Fye Jeff Hanley
Community Coalitions/ Prevention Coalition Advisory Council	Kelly Canally-Brown Amy Eisert Sharron Michels
County Commissioners/ County Commissioners Association of PA	Brian Bornman, Michele Denk, Donna Gority Brittney McCarthy, Deb Neifert, Brinda Penyak Tom Stark
Drug & Alcohol Programs	Maureen Cleaver, Grace Kindt, Tammy Taylor
Education	Carol Kuntz, Nick Slotterback, Lisa Sviben Miller
Health	Thomas Aguilar, Cynthia Malinen, Aerielle Waters Naomi Zeiset
Human Services	Kim Bowman, Shaye Erhard, Gloria Gilligan Karen Grimm-Thomas, Jonathan Hudson Scott Talley, Desiree Weissner, Randie Yeager
Juvenile Justice	Mark Benedetto, Steve Bridger, Geoff Kolchin Josh Leskovac, Zoe Miner, Ted Rice
Law Enforcement	Francia Done-Henry
Liquor Control Board	Corinne Dinoski, Todd Merlina
Parks & Recreation	Emily Gates, Tim Herd, Jason Lang
Research/ Prevention Science	Stephanie Bradley, Lee Ann Cook, Tara Dechert Jochebed Gayles, Nic Knepp, Stephanie Lanza Phyllis Law, Meredith Matone Roger Spaw, Janet Welsh



CSPW Leadership

A special thank you also goes out to the CSPW Leadership Team without whom CSPW would not exist and its unprecedented work would not be a reality.

- Geoff Kolchin, Project Lead
- Nic Knepp, Former Project Coordinator
- Kim Bowman, Founding Chair
- Kelly Canally-Brown, Current Chair



Report Development Team

Many thanks also go out to the report content and development team for their time, effort, and expertise they provided in the research and production of this report. Through their dynamic efforts and creative abilities, this report not only reflects the work of CSPW but also engages the reader through clear explanations of complex concepts that have a significant impact on communities across Pennsylvania.

- Jochebed Gayles, PhD
- Nic Knepp
- Lee Carpenter
- Marina del Carmen Armendariz, PhD
- Janet Welsh, PhD
- Nataly Barragan
- Phyllis Law
- Jane Theriault, PhD



Participating State Agencies & State Associations

- Commonwealth Prevention Alliance
- County Commissioners Association of Pennsylvania
- PA Commission on Crime and Delinquency
- PA Department of Drug and Alcohol Programs
- PA Department of Education
- PA Department of Health
- PA Department of Human Services
- PA Liquor Control Board
- PA Office of Attorney General
- PA Recreation and Park Society
- Pennsylvania State University
- PolicyLab at Children's Hospital of Philadelphia
- Prevention Coalition Advisory Council



Table of Contents

Front Matter i

Cross-Systems Prevention Workgroup Mission and Vision.....i
 Acknowledgements.....ii

Executive Summary 1

Call to Action for Prevention Stakeholders.....2

Chapter 1: Introduction 3

1.1 A Focus on Six Costly Youth Health Risk Behaviors.....4
 1.2 Key Ingredients to Addressing Costly Youth Outcomes.....5
 1.3 Why is Primary Prevention Important?.....6
 1.4 Purpose of This Report.....7

Chapter 2: Prevention Science Framework for Healthy Youth Development 8

2.1 The Science Behind Risk and Protective Factors.....9
 2.2 Attending to Different Levels of Influence: The Socioecological Model.....10
 2.3 Attention to Health Determinants, Disparities, and Inequities.....11
 2.4 Adopting the Science-based Approach to Primary Prevention.....13
 2.5 A Focus on Youth and Community Resilience and Strengths.....14

Chapter 3: Statewide Risk and Protective Factor Assessment **15**

3.1 Summary of Methods.....	16
3.2 Assessment of Individual-Level Risk and Protective Factors.....	18
3.3 Assessment of Peer-Level Risk and Protective Factors.....	31
3.4 Assessment of Family-Level Risk and Protective Factors.....	35
3.5 Assessment of School-Level Risk and Protection.....	43
3.6 Assessment of Community-Level Risk and Protection.....	48
3.7 Assessment of Societal- and Environmental-Level Risk and Protection.....	55
3.8 Unobserved Risk and Protective Factors.....	60

Chapter 4: Youth Health Risk Behavior Profiles **61**

4.1 Substance Misuse: Prevalence, Measures, and Consequences.....	62
4.2 Depression and Anxiety: Prevalence, Measures, and Consequences.....	68
4.3 Violence: Prevalence, Measures, and Consequences.....	73
4.4 School Dropout: Prevalence, Measures, and Consequences.....	77
4.5 Delinquency: Prevalence, Measures, and Consequences.....	81
4.6 Teen Pregnancy: Prevalence, Measures, and Consequences.....	85
4.7 Effective Strategies and Approaches for Costly Youth Health Risk Behaviors.....	90

Chapter 5: Conclusion **91**

5.1 Limitations.....	91
5.2 Recommendations.....	92
5.3 Closing Remarks.....	94

References **95**

EXECUTIVE SUMMARY

Evidence shows that youth's mental and behavioral health challenges not only impact youth, but also their families and their communities. Addressing these problems AFTER they occur is both socially and economically burdensome to the systems and settings serving youth and communities. What's more, services to mitigate the resulting consequences can become exponentially costly to Pennsylvania taxpayers.

Primary prevention is a proven effective approach to reducing youth problems and their resulting costs. And, when efforts are coordinated across sectors and systems, prevention impact is likely to be sustained.

The CSPW strategically prioritized six costly youth health risk behaviors to focus on in this report. They are:

- **substance misuse;**
- **depression and anxiety;**
- **violence;**
- **school drop-out;**
- **delinquency; and,**
- **teen pregnancy.**

The health risk behavior data profiles in this report include multiple measurement indicators, changing over time, with notable subgroup differences. The statewide risk assessment incorporates information across systems, sectors, and settings. In addition, attention is given to health determinants, disparities, and inequities to further illuminate risk and protection across Pennsylvania's diverse contexts. This report is the result of the CSPW's efforts to:

- 1 Prioritize data-informed decision-making**
- 2 Use science-based approaches for strategic planning for prevention**
- 3 Align efforts across systems and sectors**
- 4 Monitor and assess performance and increase local evaluation capacity**
- 5 Provide evidence-informed guidance and recommendations to primary prevention stakeholders**
- 6 Consider health determinants, disparities, and inequities in risk and protection**



Each section within this report can stand alone. However, in sequence, the report takes the reader on a prevention pathway that includes the:

1. Basics for leveraging primary prevention
2. Science behind why prevention works
3. Assessment of risk and protective factors in Pennsylvania
4. Health risk behavior data profiles
5. Concluding recommendations

Together, the report sections can inform policymakers', funders', and prevention and systems specialists' decision-making and strategic planning efforts for problem reduction and health promotion. Attention to these guidelines and recommendations promotes upstream strategies and approaches for addressing local-, regional-, and state-level health priorities. Additionally, this report builds on existing efforts within PA and highlights the cost-effectiveness and public-health benefits of scaling up effective primary prevention.

Following the Executive Summary is a Call to Action for Primary Prevention Stakeholders. It provides actionable suggestions that can be taken immediately by policymakers and funders AND prevention and systems change collaboratives.

CALL TO ACTION FOR PREVENTION STAKEHOLDERS



Policymakers, state and county-level decision-makers, and funders can:

- Identify opportunities for blended and/or braided funding initiatives for primary prevention
- Make primary prevention a priority in future decision-making efforts by ensuring that strategies for universal, secondary, and tertiary prevention strategies are supported
- Fund efforts that build local evaluation capacity
- Assess existing prevention efforts already taking place and identify what is working to support broad dissemination
- Focus on barriers to prevention implementation and sustainability and provide support for resources needed to address barriers
- Gain a deeper understanding of prevalence, consequences, and costs of youth health behaviors and their disproportionate impact across marginalized and underserved subgroups within Pennsylvania
- Expand strategic prevention plans to include social determinants, health inequities, and resilience and strengths

Local strategic prevention planning stakeholders and participants can:

- Collect local data and information to identify community- and region-specific areas of need
- Include monitoring and evaluation as priorities when developing strategic prevention plans and proposals
- Identify resources and support for evaluation, implementation, and valid data assessments
- Learn about prevention efforts currently being implemented and resourced in PA
- Explore and learn about the science-based approach to prevention planning to ensure that all approaches taken in the future meet high standards





INTRODUCTION

In 2019, Pennsylvania's youth under the age of 19 made up 21% of the state's population, totaling 2,634,613 (1). The population rate has remained relatively stable since 2012; however, youth exposure to risks and stressors continues to be a concern and a social and economic burden to the state (2).

Risks and stressors can include adverse conditions, attitudes, and relationships that challenge youth's healthy development. These challenges cut across systems and contexts where youth live, learn, play, and develop. When these challenges are not addressed, youth are at greater risk of developing behavioral and adjustment *problems* - such as underage drinking, poor school performance, low self-esteem, depressive symptoms, etc. In turn, youth problems further exacerbate risks to healthy development and have long-term, life-altering impacts on youth, their families, and their communities. Additionally, addressing youth problems later in development produces exorbitant costs to systems that serve youth and families.

A prevention science framework is essential to effectively reduce problem occurrence and foster conditions for optimal healthy youth development. Research has shown frequently that youth behavior problems can successfully be reduced or delayed by identifying and addressing the underlying risk and protective factors that lead to these undesirable outcomes (3). Identifying and implementing evidence-based strategies and approaches can help reduce problem behaviors, protect youth and families, and, ultimately, save taxpayer dollars.

In 1736, Benjamin Franklin stated that "*An ounce of prevention is worth a pound of cure.*" Today, 285 years later, evidence from numerous preventive intervention trials corroborates this statement. This report focuses on how prevention science and adopting the prevention science-based framework can be leveraged to address six costly youth outcomes that are a public health burden on the state of Pennsylvania. The six youth health risk behaviors of focus in this report are:

- Substance Misuse
- Depression & Anxiety
- Violence
- School Drop-out
- Delinquency
- Teen Pregnancy



**AN OUNCE OF
PREVENTION IS
WORTH A
POUND OF
CURE**

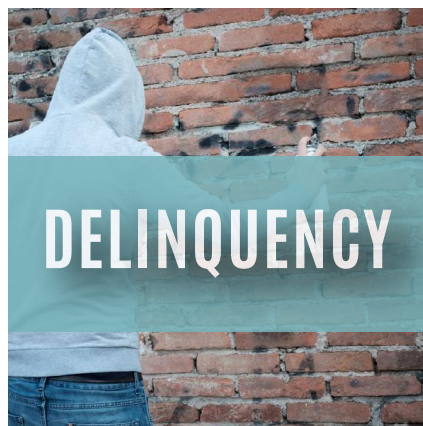
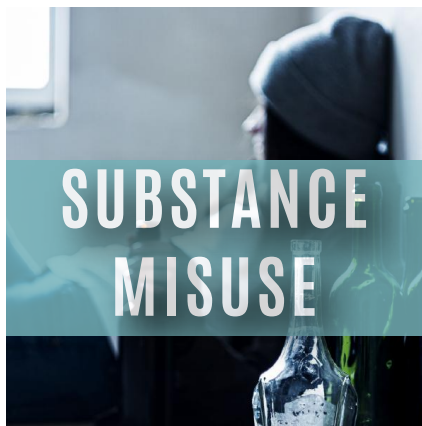
**-BENJAMIN
FRANKLIN
1736**



A FOCUS ON SIX COSTLY YOUTH HEALTH RISK BEHAVIORS

The six focused youth health risk behaviors are costly to systems, sectors, and settings. Costs arise from **services provided to assist youth, families, and communities**. Costs result from **systems working to treat and/or mitigate problems and related consequences**. Costs are also associated with administrative policies and practices implemented across systems and settings.

Research has proven that youth health risk behaviors can be prevented by identifying and addressing the underlying risk factors and promoting protective factors associated with the epidemiology of these problems (3-4).



Adopting a science-based approach to identifying problems, their related consequences, and risk and protective factors promote evidence-informed decision-making (4). These are key to prioritizing and selecting effective health promotion or early preventive intervention approaches. Ultimately, **sustaining the science-based approach can result in population-level impacts on youth problem reduction (4-5)**.

KEY INGREDIENTS FOR ADDRESSING COSTLY YOUTH HEALTH RISK BEHAVIORS

Wide-scale adoption of science-based approaches

This science-based approach focuses on improving healthy youth behaviors and adjustment, through:

1. reducing underlying causes or risk factors (e.g., family conflict);
2. increasing buffers or protective factors (e.g., school attachment);
3. utilizing structured, manualized strategic processes to plan, implement, and evaluate proven-effective prevention strategies; and,
4. coordinating across community sectors, systems, and resources to impact sustainably impact risk and protective factors (5-6).



Proactive implementation as early as possible

Proactively applying prevention strategies is critical. Targeting youth behaviors and adjustment **BEFORE** a problem develops is the proven effective way to sustain effects. Prevention strategies and approaches target conditions and attitudes that foster healthy behaviors, thus equipping youth with tools for healthy development. These strategies can be delivered to general populations or to a subset of a population that is at increased risk for problems (6).



Utilizing low-cost health promotion and universal approaches

Health promotion efforts focus on promoting behaviors and community characteristics that lead to healthy human development. These strategies target large, public audiences, often using marketing and social media campaigns or school curriculums to promote well-being and build social competencies (5-6).



WHY IS PRIMARY PREVENTION IMPORTANT?



Before beginning to explore the risk and protective factor model when addressing prevention, it is important to note that sound science-based prevention work is grounded in what was once referred to as the Continuum of Care (7).

As seen in Figure 1-1, the continuum of care and services outlines four areas that address mental, behavioral, and emotional health challenges: Promotion, Prevention, Treatment, and Maintenance.

This report will focus on the Promotion and Prevention sections of the Spectrum that **address the problems BEFORE they occur**. This is also known as **Primary Prevention (4)**. Implementing prevention programs, policies, and practices that fall into this part of the Spectrum greatly reduces the likelihood that a young person will enter the later stages of the Spectrum, thereby greatly reducing the need for the costly types of services provided when in treatment.

A great way to think about primary prevention is that it mitigates the likelihood that problems and more serious issues will develop as youth navigate their environments and transition through childhood, adolescence, and into young adulthood.

HEALTH PROMOTION

Interventions that enable people to increase control over their health and overall quality of life by developing personal skills such as:

- Self-Regulation
- Self-Efficacy
- Goal Setting
- Positive Relationships

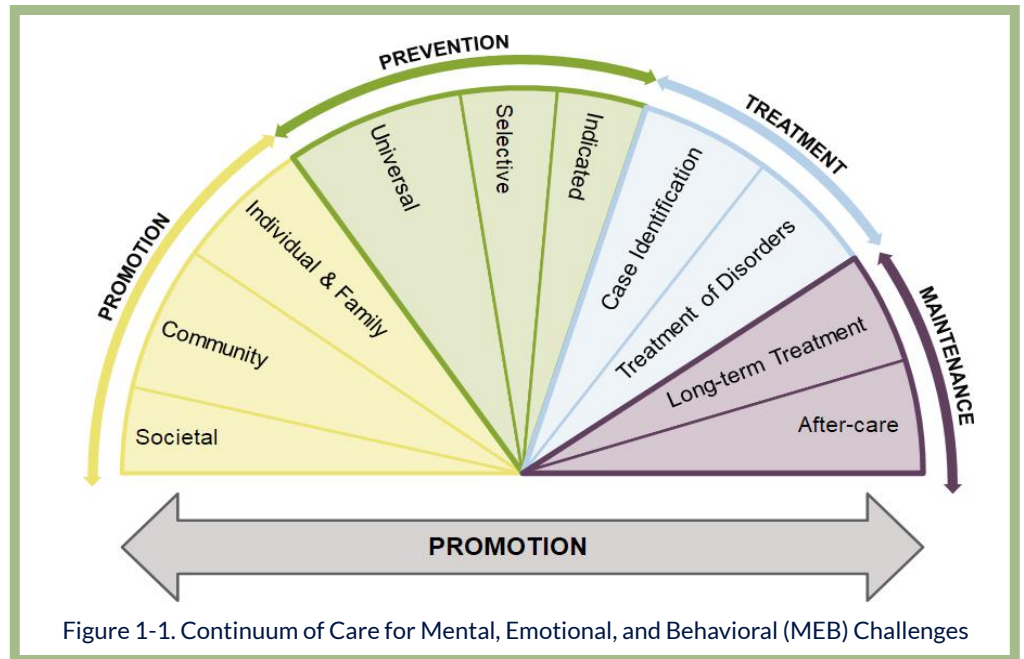


Figure 1-1. Continuum of Care for Mental, Emotional, and Behavioral (MEB) Challenges

PRIMARY PREVENTION - BY THE SLICE

Interventions that occur prior to the onset of a disorder. They are intended to prevent disorders and optimize well-being.

UNIVERSAL

APPROACHES FOR
GENERAL
POPULATION

SELECTIVE

EARLY
INTERVENTIONS FOR
HIGH RISK SUBGROUPS

INDICATED

INTERVENTIONS
AIMED AT THOSE
EXHIBITING ISSUES



EQUIPPING PREVENTION STAKEHOLDERS WITH TOOLS AND RESOURCES FOR EVIDENCE-BASED DECISION-MAKING SUPPORTS SUCCESSFUL IDENTIFICATION, IMPLEMENTATION, EVALUATION, AND SUSTAINABILITY OF PROVEN EFFECTIVE PRIMARY PREVENTION PROGRAMS, PRACTICES, AND POLICIES.

PURPOSE OF THIS REPORT

This report offers information on the underlying risk and protective factors, or predictors, that contribute to costly youth problems. While each youth problem behavior showcased in this report has its own unique set of risk and protective factors, many times the snowballing of risk factors associated with problem behaviors goes unaddressed and this accumulation can lead to multiple unhealthy outcomes that consequently increase service costs across health and social service systems. This complex interplay highlights the importance of systems working together to meet the needs of youth and families.

Report Highlights

- In-depth data profiles for six problem behaviors reported by Pennsylvania students
- Evidence-informed expanded statewide risk and protective factor assessment
- Recommendations for preventing behaviors **BEFORE** they occur

The statewide risk assessment described in this report is indeed the first of its kind within the Commonwealth of Pennsylvania. The effort includes a broad review of the risk and protective factors that can impede or promote healthy development among Pennsylvania's youth.

This report is unique in that its focus progresses beyond the usual contexts to include other contextual determinants that also play critical roles in healthy youth development. While this comprehensive, cross-systems approach can seem daunting, these factors do not operate within a vacuum.

Risk and protective factors can influence youth health risk behaviors across multiple contexts, including :

- social settings;
- health and social service sectors; and
- policy and health systems.

Promoting protection and reducing risks across systems and contexts ensures that coordinated and aligned public health efforts are more sustainable and better designed to optimally support youth's healthy development.



PREVENTION SCIENCE FRAMEWORK FOR HEALTHY YOUTH DEVELOPMENT



One example of a prevention-focused research study is the **Abecedarian Project**. This early childhood preventive intervention trial began in the 1970s. It is a hallmark study, demonstrating the **long-term, sustained effects of early prevention**; the program targeted family and caregiving risk and protective factors in order to foster conditions to **promote child well-being BEFORE problems arose**. Parents were recruited when their child was an infant and then randomly assigned to the intervention or waitlisted-control group (8, 9).

In a science-based approach to prevention, empirical data about risk and protective factors guide strategic planning and prioritization of prevention efforts. Those implementing prevention strategies also gather data throughout the process to examine strategies' success rates and modify them as needed. **Monitoring risk and protection, and behavioral and adjustment outcomes over time informs future decision-making and helps to demonstrate the reach and broad-scale impact of sustained prevention efforts (5).**

Risk factors are associated with a greater likelihood of negative health outcomes. Risk factors can arise from psychological, biological, family, community, social, or cultural conditions. Protective factors support positive and healthy adjustment by mitigating the impact of pre-existing risk factor exposure and equipping individuals with knowledge and skills that support healthy behaviors and adjustment. The impact of risk and protective factors varies across individuals and over time. For instance, the same risk factor will affect infants and toddlers differently than older children or teens.

Risk factors, such as poor parenting, poor communication, and favorable attitudes towards drugs, can be malleable, meaning they are modifiable. These are often targeted through intervention activities focused on improving knowledge, skills, and attitudes. Other risk factors, such as temperament, community poverty, and age, are less malleable or non-malleable. Evidence from prevention sciences shows that these risk factors are not viable candidates for intervention targets. In such instances, targeting protective factors and utilizing strengths-based and resiliency approaches can help buffer or mitigate the effects of less malleable risk factors. **Prevention programs, at their core, simultaneously aim to reduce risk and increase protective factors for youth, families, schools, and communities (4-6).**

STUDY HIGHLIGHTS

- A revolutionary study spanning decades
- Manualized care from pediatricians
 - daily, individualized care and support
 - high-quality child-care setting
 - parent attended for 5 years
- Follow-up assessments at ages 12, 15, 21, 25, and 30
- Sustained effects:
 - lower substance misuse at age 21
 - better educational outcomes at age 30



THE SCIENCE BEHIND RISK AND PROTECTION

The risk model for preventing youth problem behaviors focuses on understanding the underlying conditions and factors that drive development and functioning. Risk and protective factors are situated within the contexts and systems that cause the development of behavior and adjustment problems. Prevention Science, among other fields, shows that risk and protective factors are additive and cumulative (2, 10). Earlier research identifies the importance of the exponential impact of cumulative risk buildup on unhealthy behaviors (10). Cumulative risk refers to the idea that different risk factors often co-occur and can “add up” to a higher overall risk level for any given outcome.

For example, as seen in Figure 2-2, an individual could have several different risk factors for dropping out of school, like poor neighborhood support, a deviant peer group, conflict in the family, and poverty. While any of those risk factors on their own could lead to an increased likelihood of dropping out of school, the interaction of all of these factors adds up to even higher risk. Many risk factors can cluster together (8). For instance, poverty can cause family conflict, and poor neighborhood support can lead to a more deviant peer group. Understanding this is vital when implementing a prevention strategy.

It is also important to consider that most health outcomes are not determined by just one specific risk factor (see Figure 2-3; 10, 11). Instead, multiple risk factors can be associated with one health risk behavior outcome - equifinality (11). Similarly, a single risk factor can be associated with several health risk behavior outcomes - multifinality (11).



Figure 2-2. Cumulative Risk Model Displaying the Risk Threshold of Four or More Risk Factors

Both of these concepts are illustrated in Figure 2-3, where poverty is a risk factor for bullying but also for teen pregnancy, depression, involvement in the juvenile justice system, substance use, and dropping out of school. Other issues such as antisocial and delinquent peer groups, and even rebelliousness, can lead to experiences of bullying and violence exposure as well.

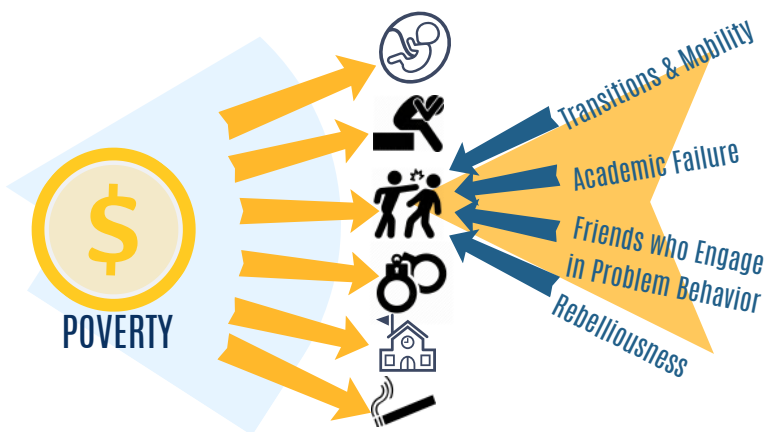


Figure 2-3. Equifinality and Multifinality in Developmental Pathways

An important reason the cross-systems approach was adopted by CSPW and is so important and valuable to Pennsylvania!

Because a single factor does not necessarily cause negative outcomes, this often means that there are diverse options for prevention. This prevention is an interdisciplinary field encompassing psychology, social work, criminology, epidemiology, education, public health, and other areas.

ATTENDING TO DIFFERENT LEVELS OF INFLUENCE: THE SOCIOECOLOGICAL MODEL

The socioecological model describes how individuals are embedded within larger interactive systems. In this report, systems refer to the ecological contexts that make up youth's lived environments (12). Levels of influence exist across personal, social, and environmental contexts, and, importantly, shape youth's knowledge, attitudes, beliefs, and behaviors. Risk and protective factors can arise at different developmental and contextual levels, influencing development through direct and indirect paths (12, 13).

Young people can be influenced by internal factors such as their temperament, IQ, and genetics; by immediate factors such as their family relationships and home life; and by more distant influences such as the surrounding community, culture, and larger political and economic forces. In the socioecological model shown in Figure 2-4, levels of influence are reflected by six concentric circles representing how contexts are embedded within larger contexts (14).

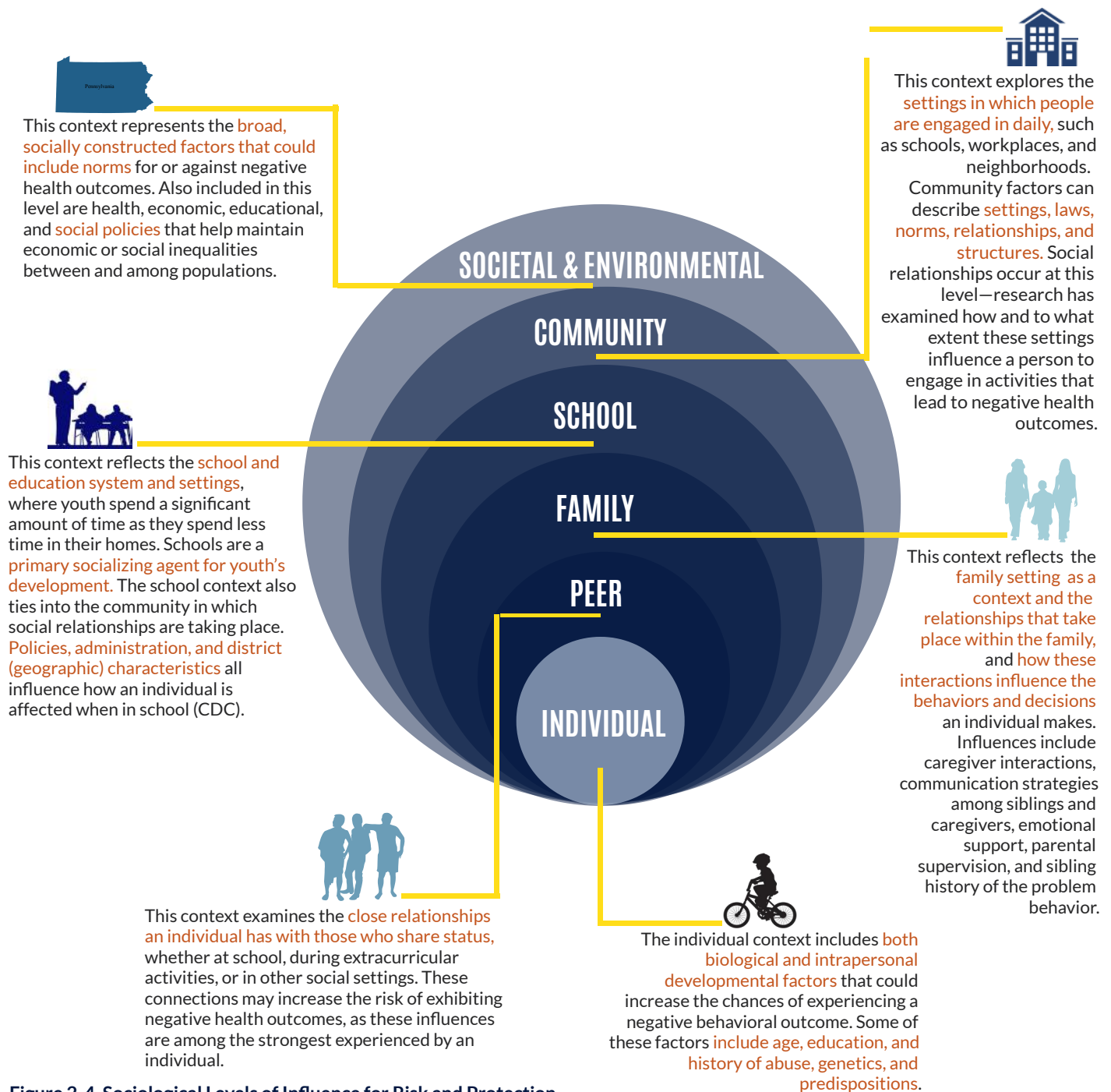


Figure 2-4. Sociological Levels of Influence for Risk and Protection

ATTENTION TO HEALTH DETERMINANTS, DISPARITIES, AND INEQUITIES

Social Determinants of Health

Social Determinants of Health (SDOH) are largely responsible for the social and environmental conditions that impact communities and regions across the state (15). The main and most influential mechanisms affecting health deal with the social, economic, and environmental circumstances that shape how individuals live, work, play, and learn (Figure 2-5).



Figure 2-5. Social Determinants of Health Across Systems and Settings, and Socioecological Contexts

SDOH highlight how public policies and social conditions can disproportionately impact communities (e.g., available resources) as well as how subgroups of individuals within communities (e.g., access to supports and services). Currently, prevention and public health researchers and practitioners are developing methods to quantify SDOH factors to aid in identifying a concise, practical list to guide prevention efforts (6, 16).

One example is the Robert Wood Johnson Foundation's County Health Rankings (17). This dataset is one of a very few national-level datasets that provide state-level data that can be reduced to county-level rankings that reflect a myriad of health determinants and related health outcomes.

Although social determinants are usually factors less malleable to primary prevention approaches, they are highlighted here and within the risk assessment for four reasons. These are described in the adjacent column (15, 16).

1

Social determinants differentially impact systems (education, juvenile justice, human and social services) and settings (schools, parks, community centers) that have a more direct influence on youth and are more malleable. Observing these indicators may help to qualify why certain conditions are occurring within a particular area in a community.

2

SDOHs can also **highlight systemic and public policy issues that further exacerbate risk exposure** for certain individuals. In such cases, observing these factors may highlight inequities or disparities that exist across subpopulations or regions and help inform strategic planning decisions.

3

Social determinants **can influence the reach, uptake, and effectiveness of prevention strategies and policies**, and barriers to sustainability and scale-up, and may need to be considered when adapting interventions for specific contexts.

4

SDOHs **call attention to the importance of systems alignment**. Youth and their families often come in contact with multiple systems (Figure 2-6). Aligning different systems, including social services, health care providers, schools, and even public health, will lead to the best possible outcomes for youth health promotion. This alignment is vital for addressing inequities in health, particularly for marginalized populations.

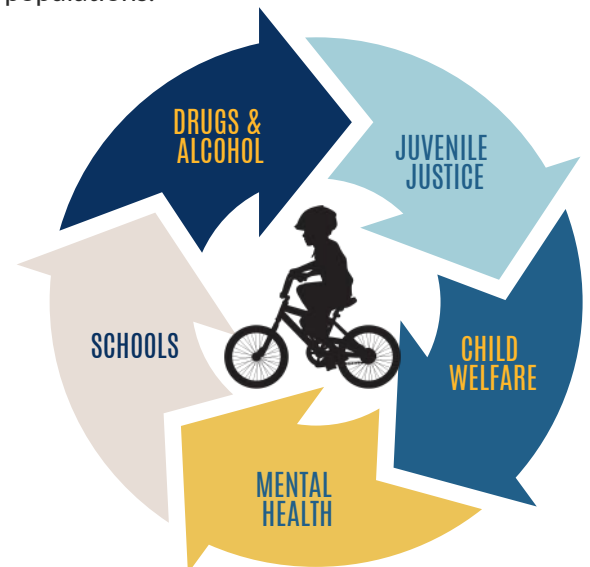


Figure 2-6. Systems that Serve Youth and Families

Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) include a number of factors related to neglectful and traumatic events that happen to children between birth and age 17 (18). Examples include:

- Child abuse - emotional, physical, sexual
- Child neglect - emotional, physical
- Parent, caregiver, or household mental illness, substance misuse, alcoholism
- Witnessing domestic violence
- Having a parent or family member incarcerated
- Death of a parent or sibling

Exposure to ACEs in childhood greatly increases the risk of experiencing problems later in life. ACEs exposure is associated with the increased experience of one or more of six health risk behaviors as well as the risk and protective factors that influence them (18). Studies show ACEs are related to:

- Substance misuse
- Chronic health problems
- Mental health challenges
- Interpersonal relationships
- Degree of success at school and work

Additionally, **the cumulative buildup of ACEs exposure and their impact on health and adjustment are further exacerbated by social determinants.** As exposure to ACEs increases, so too do the prevalence of and risk for negative health behaviors and disease (18). As with Social Determinants of Health, ACEs disproportionately affect vulnerable populations.

Marginalized and disenfranchised populations have in 2019, the PA Office of Health Equity reported that **parental incarceration is of special concern to Pennsylvania as it affects “poorer households and racial minorities” at a much higher rate than other groups (3).** In fact, cost-benefit estimates show that \$7 to \$31 are saved for every dollar spent on evidence-based therapy for trauma-exposed adolescents (19, 20).



Marginalized Populations

Pennsylvania is a diverse state. Across its six regions, youth are living and growing up in rural and urban areas, ranging from impoverished to affluent communities, with thriving businesses and abandoned industries. Residents reflect racial and ethnic, religious, historical, and political diversity.

The variation in the environmental and demographic make-up of Pennsylvania's communities is often correlated with community differences in the social determinants of health as well as overall youth, family, and community health and well-being. For example, many studies find that marginalized populations experience ACEs at a much higher rate than their counterparts (21).

Attending to how systems and settings can differentially impact different subgroups of youth can inform key decisions regarding primary prevention strategies and approaches designed with cultural and contextual competence and proficiency. When working with diverse communities whose residents have shared and unique cultural histories, it will be important to consider additional factors such as social determinants, ACEs, experiences of marginalization, etc.

Attention to health determinants, disparities, and inequities leverages prevention efforts to effectively address:

- Elevated risk conditions for certain populations
- How providers and funders ensure prevention efforts are equitable and inclusive
- Systems change strategies to inform policy-making



BETWEEN \$7 AND \$31 ARE SAVED BY PA TAXPAYERS FOR EVERY \$1 SPENT ON EVIDENCE-BASED STRATEGIES FOR TRAUMA-EXPOSED YOUTH



ADOPTING THE SCIENCE-BASED APPROACH TO HEALTH PROMOTION AND PROBLEM REDUCTION

Prevention researchers have been studying the effects of primary prevention for decades and have found many components that are crucial to healthy youth outcomes. This section outlines the basic tenets of prevention science application in both community-based and programmatic settings that should be used as a basic guide when considering adopting an evidence-based or informed prevention strategy or practice.

Community-based Strategic Prevention Planning

A science-based approach to community prevention is easily illustrated through the Social Development Research Group's Communities That Care (CTC) model (22). In 1988, the University of Washington began to apply prevention science research to risk and protective factors as these influence the development and implementation of community-based prevention services.

The CTC strategy was ultimately updated and field-tested in 36 sites in Oregon (23). **Results showed that this type of approach could not only be implemented but was effective in reducing youth health risk behaviors and could be maintained over a longer time period** (24). The model has since been implemented in multiple counties across the U.S. and in other countries and shown to be effective across multiple community contexts (25).

An effective strategic prevention planning model is grounded in several key foundations that support the success of primary prevention efforts. These include:

- Building prevention capacity by convening a community board or coalition comprised of individuals across systems and sectors
- Having a dedicated coordinator or mobilizer to guide the coalition throughout the process
- Ensuring that the process is supported with manuals, tools, training, and technical assistance

Community prevention system models are structured to:

- Align systems
- Bring all stakeholders to the table
- Build local prevention capacity
- Empower coalitions to mount and scale-up prevention efforts for the areas they serve

On the next page, the phases through which a community collaborative would move are outlined in five steps, including mobilizing the community, prioritizing risk factors, and selecting and evaluating programming.



The CTC model is a five-phase approach reflecting milestones and benchmarks for coalitions to achieve as they apply the science-based approach to community prevention (22, 25).

1 In the first phase, communities prepare to assess whether readiness and resources needed to begin the process exist, identify community leaders and residents to back the process, locate key stakeholders and encourage their involvement, and identify a small group of catalysts for change.

2 In the second phase, communities either work within an existing group or form a new board to learn about prevention science, develop a mission statement, organize workgroups, and create a timeline for implementation.

3 In the third phase, a community profile is developed that includes an assessment of risk and protective factors, and existing community resources. Data are reviewed along with targeted health and behavior problems in order to prioritize needs and identify any gaps.

4 In the fourth phase, the community board develops an action plan for prevention work in their community. Goals are created, defining measurable outcomes and using valid data assessments. Tested effective prevention approaches are selected for implementation.

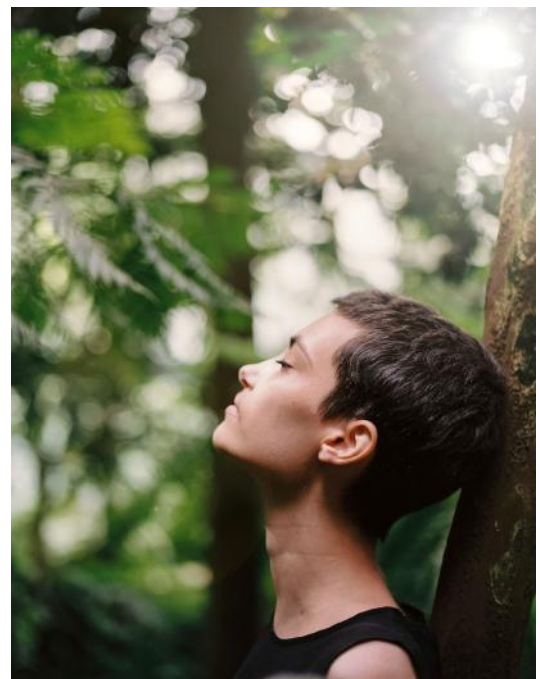
5 In the fifth and final phase, communities implement their selected approaches and strategies. Processes and outcomes are tracked, monitored, and evaluated to inform quality improvement and to communicate successes.

A Focus on Resilience and Strengths

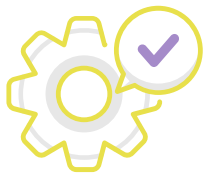
Resilience refers to a positive outcome despite the presence of risks or life challenges. **Resilient individuals, typically those who overcome significant adversity and emerge successful in life,** are often regarded as “superheroes”, possessing magical qualities (26). **However, resilience usually results when common, everyday protective factors, such as supportive adult relationships and educational opportunities, are successfully mobilized to mitigate risks (26).**

By identifying malleable factors related to resilience, we can thus help many youths to become resilient. A strength-based approach is particularly appealing to families and communities, as it avoids the stigma and negativity associated with intervention strategies that focus exclusively on problems or deficits.

Empowering communities to address their priorities through evidence-based prevention approaches enables them to follow a strengths-based focus in their own environment. An emphasis on strengths and examination of risk and protective factors in specific contexts will lead to the strongest prevention strategies and ultimately to a healthier population. Further, it is a vital component of successful strategic planning and program selection.



STATEWIDE ASSESSMENT OF RISK AND PROTECTION



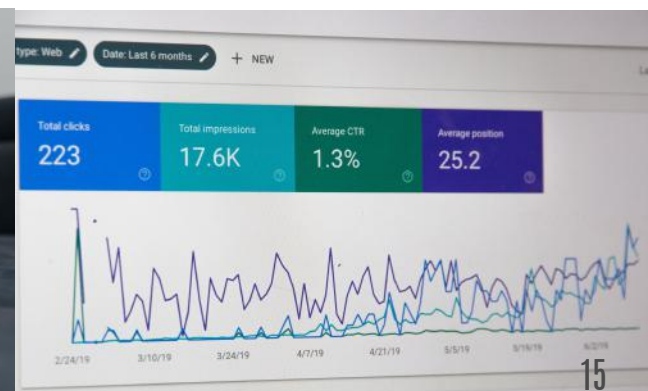
In 2019, the Pennsylvania Youth Survey (PAYS) was administered in 417 school districts, across 64 counties, and to 1,135 schools, resulting in 280,944 valid student responses.

The risk and protective factor data presented in this report have been categorized across six different socioecological levels of influence. The most effective and successful prevention approaches are often targeted across different levels of youth's social ecology. Using data to identify where, and for whom, risk conditions are greatest can inform strategic prevention decision-making. This can include planning, prioritizing, selecting, implementing, and evaluating primary prevention approaches and strategies. For example, a social-emotional learning program designed to improve social skills and reduce conflict among elementary students may focus more on the overall school climate than on the outcomes of any particular student, whereas a one-on-one tutoring program is more focused on individual-level outcomes.

Prevention and implementation science show that risks and protective factors that arise in socioecological contexts are malleable, can be measured and assessed, and can effectively be targeted through prevention strategies (6, 7). The socioecological model, and the Communities that Care framework indicate that intervening across multiple levels simultaneously can increase the reach and sustainability of effective prevention strategies (12, 22).

This chapter includes an assessment of data that encompass:

- risk and protective factors;
- multiple systems;
- settings and contexts;
- youth developmental stages;
- multiple sources of data;
- multiple respondents; and,
- multiple waves of data collection.



SUMMARY OF METHODS

The Cross-Systems Prevention Workgroup applied a science-based approach to assessing risk and protective factors for the six focused youth behavior outcomes: substance misuse, depression & anxiety, violence, school drop-out, delinquency, and teen pregnancy. To do this, a broad literature review and synthesis was conducted, including reviewing several existing risk and protective factor matrices as well as recent empirical studies. Following the literature review and synthesis, a database of matrices was developed, a list of data sources for state and national data was compiled, and an expanded matrix of risk and protective factors across multiple socioecological contexts was created.

Data from the PAYS survey were central to the findings offered in this report; however, we have supplemented these findings with other data sources that provide information on level of influence that are more distal to youth or reflect data for youth age groups not present within PAYS administration. PAYS, however, was the primary data source utilized in the risk and protective factor assessment and in creating the data infographics for the health risk behavior profiles.

In this report, the data tables present individual risk and protective factors and subthemes within each factor. Three data points at the state level were included to identify state trends. Additionally, the most recent state data point is compared to the national data point. Each table has a comparison legend to indicate whether it's lower, higher, or not equal over time for state trends and comparing the most recent state value to the national. A range of data were available, so while averages are usually presented, some available ranges indicate diversity across the state. Definitions in the table identify whether data points reflect percentages, rates, ratios, or other values.

Data Sources

As mentioned before, PAYS was the primary data source for this assessment. Additional data sources were used for risk and protective factors that were not collected via PAYS administration (Table 3-1). Data sources used to complement the PAYS data include cross-systems data dashboards and databases with prevention and public health data. The addition of these data illustrate risk and protective factor information for family, school, community, and societal and environmental levels of influence.

For information on how to best use these data to support youth prevention work, please visit the EPIS website at: EPISCenter.psu.edu.



Sources used for Risk and Protective Factor and Health Risk Behavior Data

Source	Description	Methodology	Sample Description	Years
PAYS	"The Pennsylvania Youth Survey (PAYS) is a biennial survey administered to middle school and high school students to monitor youth knowledge, attitudes, and behaviors regarding substance use and other risk behaviors."	"PAYS is administered in the individual school buildings, using either paper/pencil or online tool at the school's discretion. The survey is voluntary. No individual student-level data can be obtained from the data set, and the results are reported in aggregate at the local, county, and state levels."	In 2019, 417 school districts in 64 counties administered PAYS to students in grades 6, 8, 10, and 12 2015 - 960 schools; 2017 - 1,013 schools; 2019 - 1,135 schools;	2015 2017 2019
https://www.pccd.pa.gov/Juvenile-Justice/Pages/Pennsylvania-Youth-Survey-%28PAYS%29.aspx				
PAYS Web Tool - Bach Harrison	"The purpose of this website is to present data and information provided by the state for the Pennsylvania's Youth Survey (PAYS). Through this website, users can view data that will be useful for planning and evaluating prevention activities."	"Reports (generated at state, county, and school district levels) produced from the survey results will provide information regarding health-related behaviors and associated the factors that place students at risk and those that protect them from high-risk behaviors."	Web tool used for comparisons and crosstabs made between subgroups, variables and years, and across the state	2015 2017 2019
http://www.bach-harrison.com/payswebtool/				
YRBSS	"The Youth Risk Behavior Surveillance System (YRBSS) monitors six categories of health-related behaviors that contribute to the leading causes of death and disability among youth and adults. Also measures the prevalence of obesity and asthma, sexual behaviors, and sexual identity."	"System of surveys: 1) a national school-based survey conducted by CDC and state, territorial, tribal; and 2) local surveys conducted by state, territorial, and local education and health agencies and tribal governments. Schools selected systematically with probability proportional to enrollment using a random start."	Students in grade 9 - 12 2015 - 180 schools sampled, 86% responded; 2017 - 192 schools sampled, 81% responded; 2019 - 181 schools sampled, 80% responded	2015 2017 2019
https://www.cdc.gov/healthyyouth/data/yrbss/overview.htm				
KidsCount	"The Annie E. Casey Foundation's KIDS COUNT Data Book describes how children across the United States were faring via the the Foundation's annual state rankings from data on child well-being across four domains (economic well-being, education, health, and family and community)."	"The 16 indicators of child well-being are derived from federal government statistical agencies and reflect the best available state and national data for tracking yearly changes. The KIDS COUNT Data Book utilizes rates and percentages because that is the best way to compare states and to assess changes over time within a state."	School suspension data come from a sample of public school districts and are based on school enrollment	2011-2014 2012-2015 2013-2016
https://datacenter.kidscount.org/				
NSCH	"National Survey of Children's Health (NSCH) survey provides national- and state-level estimates on key indicators of health and well-being of children, families and communities, as well as information on special health care needs."	"A sample of (100,000+) households are selected from the Census Master Address File and allocated across the 50 states and the District of Columbia. The respondent was a parent or caregiver who knew about the child's health and health care needs."	2016 - 364,150 households; 2017 - 170,726; 2018 - 176,000; 2019 - national sample of 184,000	2016-2017 2017-2018
https://www.childhealthdata.org/				
CDC Profiles	"The School Health Profiles (Profiles) is a system of surveys assessing school health policies and practices in states, large urban school districts, and territories. Profiles surveys are conducted biennially by education and health agencies among middle and high school principals and lead health education teachers."	"Includes a sample of secondary schools in, large urban school districts, or territories. Data are self-reports from principals and lead health education teachers at each school. Profiles employs random, systematic, equal-probability sampling strategies to produce representative samples of students in grades 6-12 in each jurisdiction."	2014 - 48 states, 19 large urban districts, and two territories; 2016 - 48 states, 21 large urban districts, and four territories; 2018 - 43 states, 21 large urban districts, and two territories	2014 2016 2018
https://www.cdc.gov/healthyyouth/data/profiles/index.htm				
Children's Bureau	"Annual Child Maltreatment reports, which include data provided by the states to the National Child Abuse and Neglect Data Systems (NCANDS). The Children's Bureau strives to ensure the safety, permanency, and well-being of all children by working with state, tribal, and local agencies to develop programs to prevent child abuse and neglect."	"Data are collected and analyzed through the NCANDS, an initiative of the Children's Bureau. Annual data reports present national data about child abuse and neglect known to child protective services agencies in the United States during each federal fiscal year. Data represent the universe of known child maltreatment cases for each fiscal year."	2015 - there were a nationally reported 683,000 (rounded) victims of child abuse and neglect.; 2017 - there were a nationally estimated 674,000 victims; 2019 - there were nationally 656,000 (rounded) victims	2015 2017 2019
https://www.acf.hhs.gov/cb/data-research/child-maltreatment				
RWJF-CHR	"The County Health Rankings (CHR) provide a snapshot of a community's health and a starting point for investigating and discussing ways to improve health. The Rankings are based on a model of population health that rank-orders the health of nearly every county in the nation."	"The Rankings are compiled using county-level measures from a variety of national and state data sources. These measures are standardized and combined using scientifically-informed weights. Counties in each of the 50 states are ranked according to summaries of a variety of health measures."	Pennsylvania aggregate county- and state-level data	2018 2019 2020
https://www.countyhealthrankings.org/				

Table 3-1. Data sources used in the current report: For risk and protective factor assessment and the health risk behavior profiles.



ASSESSMENT OF INDIVIDUAL-LEVEL RISK AND PROTECTIVE FACTORS

Individual risk and protective factors are linked to each youth's own attitudes, thoughts, behaviors, and experiences, exerting a profound influence on health risk behaviors.

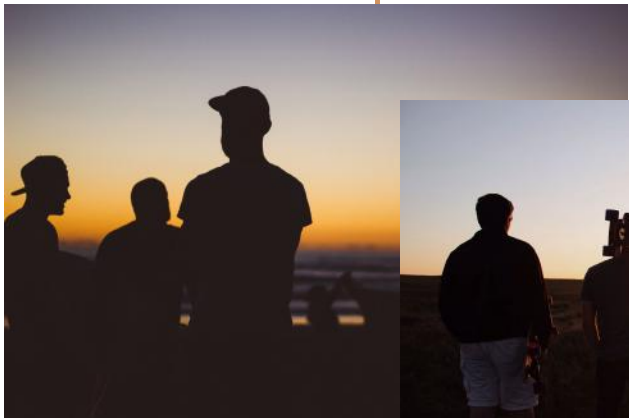
While most factors have a direct effect, some protective factors are likely to have an indirect effect as well by changing the norms for acceptable behavior. These factors vary across individuals, but it is important to note that some risk factors are more common among marginalized and other historically disadvantaged youths (21).

Being involved in delinquent behaviors, including substance misuse, drinking and driving, carrying a weapon, or fighting, leads to a higher risk of negative health outcomes.

Often, the individuals who participate in these activities also have a higher level of hostility and poor conflict management skills. This combination can heighten youth's risk for delinquency and violence, as well as for substance use problems and school drop-out.

Individuals also interact with systems, like school, the healthcare system, mental health services, juvenile justice, child welfare, and other social services. Culture and lived experiences affect how individuals interact with these systems and with their larger world.

Interpersonal relationships, or how the individual relates to others in their own life, can also impact how youth behavior and adjustment. All of these factors interact with each other.



MATRIX OF INDIVIDUAL-LEVEL RISK FACTORS

Risk Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
Early Manifestation/Onset of Mental Health, Substance Misuse, and Conduct Problems	✓	✓	✓	✓	✓	✓
Early Initiation into Substance Use	⊗	⊗	⊗	⊗	⊗	⊗
Early Onset of Conduct and Oppositional Behavior Problems	⊗	⊗	⊗	⊗	⊗	⊗
Early Onset of Psychological/Mental Health Problems	⊗	⊗	⊗	⊗	⊗	⊗
Impulsivity, Risk-Seeking, & Low Self-Control	✓	✓	✓	✓	✓	✓
Risk- & Sensation-Seeking	⊗	⊗	⊗	⊗	⊗	⊗
Impulsivity & Low Self-Control	⊗	⊗	⊗	⊗	⊗	⊗
Favorable Attitudes & Beliefs Toward Problem Behavior	✓	✓	✓	✓	✓	✓
Favorable Attitudes Towards Engaging in Problems	⊗	⊗	⊗	⊗	⊗	⊗
Low Perceived Risk of Problem & Risky Behavior	⊗	⊗	⊗	⊗	⊗	⊗
Willingness to Engage in Problem & Risky Behavior	⊗	⊗	⊗	⊗	⊗	⊗
Exposure to Adverse Childhood Experiences	✓	✓	✓	✓	✓	✓
Experiencing Violence, Abuse, or Neglect	⊗	⊗	⊗	⊗	⊗	⊗
Witnessing Violence in the Home	⊗	⊗	⊗	⊗	⊗	⊗
Household Family Member Death	⊗	⊗	⊗	⊗	⊗	⊗
Family Member Substance Misuse or Mental Health Problems	⊗	⊗	⊗	⊗	⊗	⊗
Parental Separation or Incarceration	⊗	⊗	⊗	⊗	⊗	⊗
Loneliness, Boredom, & Disengagement	✓	✓	✓	✓	✓	✓
Apathy	⊗	⊗	⊗	⊗	⊗	⊗
Boredom	⊗	⊗	⊗	⊗	⊗	⊗
Loneliness	⊗	⊗	⊗	⊗	⊗	⊗
Low Commitment to School	⊗	⊗	⊗	⊗	⊗	⊗
Maturation, Developmental Delays, & Learning Disorders	✓	✓	✓	✓	✓	✓
Pubertal Timing	⊗	⊗	⊗	⊗	⊗	⊗
Language or Learning Disability/Disorder	⊗	⊗	⊗	⊗	⊗	⊗
History of Sleeping Problems or Disorder	⊗	⊗	⊗	⊗	⊗	⊗
History of Eating Problems or Disorder	⊗	⊗	⊗	⊗	⊗	⊗
Attention Deficit or Attention Deficit Hyperactivity Disorder	⊗	⊗	⊗	⊗	⊗	⊗
Oppositional & Conduct Problems & Disorders	✓	✓	✓	✓	✓	✓
Opposition Defiant & Conduct Disorder	⊗	⊗	⊗	⊗	⊗	⊗
Rebelliousness	⊗	⊗	⊗	⊗	⊗	⊗
Greater Involvement in Delinquent/Problem Behaviors	⊗	⊗	⊗	⊗	⊗	⊗
Physical Fighting	⊗	⊗	⊗	⊗	⊗	⊗
Carrying Weapons	⊗	⊗	⊗	⊗	⊗	⊗
Truancy	⊗	⊗	⊗	⊗	⊗	⊗

Table 3-2. Individual-level risk factors and their association to youth health risk behaviors

MATRIX OF INDIVIDUAL-LEVEL PROTECTIVE FACTORS

Protective Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
Social & Emotional Competence	✓	✓	✓	✓	✓	✓
Healthy Cognitive Development	✓	✓	✓	✓	✓	✓
Emotional Competence	✓	✓	✓	✓	✓	✓
Problem-Solving Skills	✓	✓	✓	✓	✓	✓
Social Competence	✓	✓	✓	✓	✓	✓
Self Regulation	✓	✓	✓	✓	✓	✓
Self-Esteem, Identity, & Self-Concept	✓	✓	✓	✓	✓	✓
Self-Esteem & Positive Self-Image	✓	✓	✓	✓	✓	✓
Self-Efficacy	✓	✓	✓	✓	✓	✓
Autonomy	✓	✓	✓	✓	✓	✓
Cultural & Ethnic Identity	✓	✓	✓	✓	✓	✓
Future Orientation & Educational Aspirations	✓	✓	✓	✓	✓	✓
Academic Achievement	✓	✓	✓	✓	✓	✓
Educational Aspirations	✓	✓	✓	✓	✓	✓
Future Orientation	✓	✓	✓	✓	✓	✓
School Engagement & Involvement	✓	✓	✓	✓	✓	✓
School Engagement	✓	✓	✓	✓	✓	✓
Extracurricular Involvement	✓	✓	✓	✓	✓	✓
Civic Engagement, Volunteerism & Prosocial Involvement	✓	✓	✓	✓	✓	✓
Positive Attitudes & Prosocial Norms	✓	✓	✓	✓	✓	✓
Prosocial Norms	✓	✓	✓	✓	✓	✓
Positive Attitudes Towards Life	✓	✓	✓	✓	✓	✓
Unfavorable Attitudes Towards Substance Use & Delinquency	✓	✓	✓	✓	✓	✓
Moral & Values Development	✓	✓	✓	✓	✓	✓
Religiosity/Spirituality	✓	✓	✓	✓	✓	✓
Belief in Moral Order	✓	✓	✓	✓	✓	✓
Engaging in Healthy Practices	✓	✓	✓	✓	✓	✓
Physical Activity	✓	✓	✓	✓	✓	✓
Healthy Diet & Nutrition	✓	✓	✓	✓	✓	✓
Healthy Sleep Patterns	✓	✓	✓	✓	✓	✓

Table 3-3 Individual-level protective factors and their association to youth health risk behaviors

INDIVIDUAL-LEVEL RISK FACTORS: EARLY ONSET OF PROBLEMS

The early manifestation of problem behaviors and mental health challenges can have lasting effects on youth's healthy development.

Evidence shows that youth who exhibit more severe mental and behavioral health challenges that persist into adulthood begin exhibiting problems in earlier stages of development (27-28).

The data below show:

- Early initiation of substance use increased for "ever used" but decreased for past 30-day use
- Co-occurring substance misuse and risky driving have slightly decreased

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Early Initiation into Substance Use						
% of 6th-grade students indicating early initiation and higher prevalence of alcohol, past 30 days (PAYS)**	3.3 2015	3.3 2017	3.2 2019		ND	NA
% of 6th-grade students indicating early initiation and higher prevalence of marijuana, past 30 days (PAYS)**	0.6 2015	0.5 2017	0.5 2019		ND	NA
% of 6th-grade students indicating early initiation and higher prevalence of inhalants, past 30 days (PAYS)**	1.7 2015	1.6 2017	2.0 2019		ND	NA
% of 6th-grade students indicating early initiation and higher prevalence of alcohol, lifetime (PAYS)**	15.8 2015	16.8 2017	16.7 2019		ND	NA
% of 6th-grade students indicating early initiation and higher prevalence of marijuana, lifetime (PAYS)**	1.2 2015	0.9 2017	1.3 2019		ND	NA
% of 6th-grade students indicating early initiation and higher prevalence of inhalants, lifetime (PAYS)**	3.27 2015	3.6 2017	4.4 2019		ND	NA
% of 6th-grade students indicating being drunk at school (PAYS)**	0.5 2015	0.6 2017	0.8 2019		ND	NA
Greater Involvement in Delinquent or Problem Behaviors						
% of students in grades 6, 8, 10, & 12 indicating binge drinking (PAYS)**	7.8 2015	7.5 2017	7.4 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating driving after using alcohol (PAYS)**	2.4 2015	2.2 2017	1.5 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating driving after using marijuana (PAYS)**	3.5 2015	3.5 2017	3.0 2019		ND	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	Increasing Trend			Desired Direction Across Three Waves		
	Decreasing Trend			Undesired Direction Across Three Waves		
	No Increase/decrease			Inconsistent Direction Across Three Waves		
State vs. National	> State value greater		< National value greater		- No difference	
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						
**Indicates risk factor measure is also an indicator for a health risk behavior and/or co-occurs with other health risk behaviors.						

Table 3-4. Individual-level risk factor data table for measures of early onset of substance misuse and involvement in delinquency

INDIVIDUAL-LEVEL RISK FACTORS: EARLY ONSET OF PROBLEMS

The early manifestation of problem behaviors measured here focuses on youth who reported ever doing or experiencing the behavior prior to the transition to adolescence.

In the PAYS data, early initiation was identified for youth who were in 6th grade (11 to 13 years of age) indicating "yes".

The data below show:

- Early experiences of depressive symptoms and mood increased, but past-year depression is decreasing
- Early manifestation of conduct problems mostly decreased
- The early manifestation of self-harm behaviors is

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Early Onset of Psychological/Mental Health Problems						
% of 6th-grade students indicating self-harm (PAYS)	10.4 2015	9.7 2017	12.7 2019	↗	ND	NA
% of 6th-grade students indicating past year depression (PAYS)**	33.9 2015	32.3 2017	32.8 2019	↘	ND	NA
% of 6th-grade students indicating being depressed about life (PAYS)**	18.07 2015	17.9 2017	19.8 2019	↗	ND	NA
% of 6th-grade students indicating being depressed about self (PAYS)**	29.5 2015	27.8 2017	30.6 2019	↗	ND	NA
% of 6th-grade students indicating thoughts of self failure (PAYS)	15.6 2015	14.2 2017	18.1 2019	↗	ND	NA
Early Onset of Conduct and Oppositional Behavior Problems						
% of 6th-grade students indicating they attacked someone with intention to harm (PAYS)**	5.0 2015	5.4 2017	4.6 2019	↘	ND	NA
% of 6th-grade students indicating they sold drugs (PAYS)	0.3 2015	0.3 2017	0.2 2019	↘	ND	NA
% of 6th-grade students indicating they have been arrested (PAYS)**	0.8 2015	1.0 2017	0.5 2019	↘	ND	NA
% of 6th-grade students indicating they have been suspended from school (PAYS)	6.6 2015	6.5 2017	6.7 2019	↗	ND	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	↗ Increasing Trend			Desired Direction Across Three Waves		
	↘ Decreasing Trend			Undesired Direction Across Three Waves		
⇒ No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	
Notes. ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description. **Indicates risk factor measure is also an indicator for a health risk behavior and/or co-occurs with other health risk behaviors.						

Table 3-5. Individual-level risk factor data table for measures of early onset of mental health and conduct problems

INDIVIDUAL-LEVEL RISK FACTORS: ATTITUDES AND PERCEPTIONS

Impulsive behaviors and poor emotion regulation challenges put youth at risk. Youth health risk behaviors include school dropout, depression, and substance misuse.

When youth hold favorable attitudes toward risky behaviors, they are more likely to begin those problems early, and with greater frequency and severity.

The data below show:

- An increasing trend in prevalence of multiple favorable attitudes toward antisocial and substance use behaviors
- Rates are higher for PA students vs. the national average

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Favorable Attitudes Towards Engaging in Problems						
% of students in grades 6, 8, 10, & 12 indicating attitudes favorable towards drug use (PAYS)	37.4 2015	38.7 2017	38.7 2019		35.7 2019	>
% of students in grades 6, 8, 10, & 12 indicating attitudes favorable to antisocial behavior (PAYS)	34.0 2015	35.6 2017	38.1 2019		34.2 2019	>
Willingness to Engage in Problem & Risky Behavior						
% of students in grades 6, 8, 10, & 12 indicating they were willing to try alcohol (PAYS)	27.3 2015	26.5 2017	24.5 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating they were willing to try marijuana (PAYS)	14.8 2015	16.0 2017	15.8 2019		ND	NA
Low Perceived Risk of Problem & Risky Behavior						
% of students in grades 6, 8, 10, & 12 indicating perceived risk of drug use (PAYS)	45.6 2015	49.1 2017	49.2 2019		51.4 2019	<
Risk- & Sensation-Seeking						
% of students in grades 6, 8, 10, & 12 indicating sensation-seeking (PAYS)	34.5 2015	32.9 2017	33.2 2019		34.4 2019	<
Rebelliousness						
% of students in grades 6, 8, 10, & 12 indicating rebelliousness (PAYS)**	26.1 2015	25.3 2017	23.7 2019		30.1 2019	<
Legend						
State Trends	Arrow Direction			Arrow Color		
	Increasing Trend			Desired Direction Across Three Waves		
	Decreasing Trend			Undesired Direction Across Three Waves		
No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	
Notes. ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description. **Indicates risk factor measure is also an indicator for a health risk behavior and/or co-occurs with other health risk behaviors.						

Table 3-6. Individual-level risk factor data table for measures of youth attitudes and perceptions toward problem behaviors

INDIVIDUAL-LEVEL RISK FACTORS: ADVERSE AND TRAUMA EXPOSURE

Adverse childhood trauma and neglect include traumatic events that happen between birth and age 17. Examples include witnessing violence in the home or community, having a family member attempt or die by suicide, and experiencing abuse, violence, or neglect (18).

Growing up in a household with a family member with substance use problems, mental health issues, or instability due to parental separation or incarceration of a household member is also considered an ACE (20).

The data below show:

- The most common form of ACEs that children experience in PA is maltreatment by caregivers
- The number of youth reporting sexual dating violence declined
- Statewide trends are unknown due to lack of statewide data assessment

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Child Maltreatment						
Medical neglect rate for children 18 and under, per 1,000 children in the population (Children's Bureau) [^]	3.3 2015	5.5 2017	4.5 2019	↗	2.3 2019	>
Neglect rate for children 18 and under, per 1,000 children in the population (Children's Bureau) [^]	3.6 2015	8.0 2017	9.9 2019	↗	74.9 2019	<
Physical abuse rate for children 18 and under, per 1,000 children in the population (Children's Bureau) [^]	38.5 2015	42.4 2017	44.6 2019	↗	17.5 2019	>
Psychological maltreatment rate for children 18 and under, per 1,000 children (Children's Bureau) [^]	1.3 2017	1.2 2017	1.2 2019	↘	6.1 2019	<
Dating Violence						
% of students in grades 9-12 indicating they experienced physical dating violence (YRBSS)	7.2 2015	7.1 2017	7.6 2019	↗	8.2 2019	<
% of students in grades 9-12 indicating they experienced sexual dating violence (YRBSS)	9.3 2015	5.6 2017	6.1 2019	↘	8.2 2019	<
Sexual Abuse & Violence						
% of students in grades 9-12 indicating they experienced sexual violence by anyone (YRBSS) [^]	ND	10.1 2017	10.3 2019	NA	10.8 2019	<
Sexual abuse rate for children 18 and under, per 1,000 children in the population (Children's Bureau) [^]	50.4 2015	45.8 2017	43.6 2019	↘	9.3 2019	>
Legend						
State Trends	Arrow Direction			Arrow Color		
	↗ Increasing Trend			Desired Direction Across Three Waves		
	↘ Decreasing Trend			Undesired Direction Across Three Waves		
⇒ No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	
Notes: ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description. ^Indicates risk factor measure is also an adverse childhood experience.						

Table 3-7. Individual-level risk factor data table for measures of youth adverse childhood experiences and dating violence

INDIVIDUAL-LEVEL RISK FACTORS: DEVELOPMENTAL/LEARNING PROBLEMS

Developmental delays and timing of biological maturation can impact youth's behavior and adjustment outcomes.

For example, developmental delays influence school achievement as well as self-esteem and other mental health outcomes (30). Pubertal timing can influence some youth risk behavior choices and actions (31).

The data below show:

- According to NSCH, parents reporting their child has ADD or ADHD is increasing
- According to NSCH, about a 1/5 of parents report their child having one or more mental, behavioral, or emotional disorders

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Witnessing Violence						
% of parents indicating children ages 0-17 have witnessed domestic violence (NSCH) [^]	5.1 2016-2017	3.5 2017-2018	5.5 2018-2019		5.6 2018-2019	<
Death of a Loved One						
% of students in grades 6, 8, 10, & 12 indicating the death of a friend or family (PAYS) [^]	40.3 2015	40.7 2017	39.1 2019		ND	NA
Opposition Defiant & Conduct Disorder						
% of parents indicating children ages 3-17 have a mental, emotional, developmental, or behavioral problem (NSCH)	ND	23.1 2017-2018	22.3 2018-2019	NA	22.1 2018-2019	>
Language or Learning Disability/Disorder						
% of parents indicating children ages 3-17 have a developmental delay (NSCH)	6.9 2016-2017	8.1 2017-2018	5.8 2018-2019		5.3 2018-2019	>
% of parents indicating children ages 3-17 have a speech or other language disorder (NSCH)	6.9 2016-2017	7.6 2017-2018	7.6 2018-2019		5.7 2018-2019	>
% of parents indicating children ages 3-17 have a learning disability (NSCH)	7.0 2016-2017	7.1 2017-2018	6.9 2018-2019		6.7 2018-2019	>
History of Attention Deficit Disorder (ADD) or Attention Deficit/Hyperactivity Disorder (ADHD)						
% of parents indicating children ages 3-17 currently have ADD or ADHD (NSCH)	8.1 2016-2017	8.5 2017-2018	7.9 2018-2019		8.7 2018-2019	<
% of parents indicating children ages 3-17 previously had ADD or ADHD (NSCH)	0.3 2016-2017	1.3 2017-2018	1.5 2017-2018		0.8 2017-2018	>
Legend						
State Trends	Arrow Direction			Arrow Color		
	Increasing Trend			Desired Direction Across Three Waves		
	Decreasing Trend			Undesired Direction Across Three Waves		
No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
^Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						
^Indicates risk factor measure is also an adverse childhood experience.						

Table 3-8. Individual-level risk factor data table for measures of youth adverse childhood experiences and developmental challenges

INDIVIDUAL-LEVEL RISK FACTORS: VIOLENCE AND DELINQUENCY

Pennsylvania is one of the leading states in juvenile justice reform and its approach to addressing delinquency and conduct problems.

Over the past several years Pennsylvania has seen a decline in youth conduct problems and juvenile delinquency.

The data below show:

- About 1/5 of students reporting in the YRBSS indicate they are getting into physical fights
- There is a decline in the number of school-aged youth reporting carrying a weapon












Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Physical Fighting						
% of students in grades 9-12 indicating they were in a physical fight (YRBSS)**	21.7 2015	22.8 2017	21.5 2019		21.9 2019	<
% of students in grades 9-12 indicating they were in a physical fight on school property (YRBSS)**	6.8 2015	7.4 2017	7.3 2019		19.5 2019	<
Carrying Weapons						
% of students in grades 9-12 indicating they carried a weapon (YRBSS)**	17.4 2015	17.4 2017	12.6 2019		13.2 2019	<
% of students in grades 6, 8, 10, & 12 indicating they brought weapon to school (PAYS)**	1.6 2015	1.2 2017	0.9 2019		ND	NA
% of students in grades 9-12 indicating carrying weapons on school property (YRBSS)**	2.0 2015	2.2 2017	1.3 2019		2.8 2019	<
Low Commitment to School						
% of students in grades 6, 8, 10, & 12 indicating low commitment toward school (PAYS)	41.5 2015	44.7 2017	50.6 2019		50.3 2019	>
Truancy & Days Missing School						
% of parents indicating children ages 6-17 missed 1-6 school days due to illness or injury (NSCH)	62.9 2016-2017	60.7 2017-2018	59.5 2018-2019		58.8 2018-2019	>
% of parents indicating children ages 6-17 missed 7+ school days due to illness or injury (NSCH)	10.0 2016-2017	12.4 2017-2018	15.3 2018-2019		10.9 2018-2019	>
Legend						
State Trends	Arrow Direction			Arrow Color		
	 Increasing Trend			Desired Direction Across Three Waves		
	 Decreasing Trend			Undesired Direction Across Three Waves		
 No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						
**Indicates risk factor measure is also an indicator for a health risk behavior and/or co-occurs with other health risk behaviors.						

Table 3-9. Individual-level risk factor data table for measures of youth violent and delinquent behaviors

INDIVIDUAL-LEVEL PROTECTIVE FACTORS: COMPETENCE AND DISSAPPROVAL

Social and emotional competence is a key protective factor for healthy youth development. Kids with higher social and emotional competence get better grades in school, have more positive friendships, are connected to supportive adult role models, and are well-adjusted in adulthood (32).

Studies show that the earlier youth learn and develop social and emotional competencies the better their behavior and adjustment (33).

The data below show:

- More than 80% of students disapprove of peers who smoke cigarettes and peers who use prescription drugs
- About 80% of young people report no difficulty keeping or maintaining friends
- About 60% of students report involvement in school activities

Protective Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Unfavorable Attitudes Towards Substance Use & Delinquency						
% of students in grades 6, 8, 10, & 12 indicating disapproval of peers who drink daily (PAYS)	72.2 2015	72.4 2017	74.9 2019	↗	ND	NA
% of students in grades 6, 8, 10, & 12 indicating disapproval of peers who smoke a pack of cigarettes a day (PAYS)	87.4 2015	88.3 2017	88.9 2019	↗	ND	NA
% of students in grades 6, 8, 10, & 12 indicating disapproval of peers who use marijuana (PAYS)	69.6 2015	67.2 2017	67.2 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating disapproval of peers who use prescription drugs (PAYS)	85.5 2015	86.6 2017	87.3 2019	↗	ND	NA
Social Competence						
% of parents indicating children ages 6-17 experiencing no difficulty making or keeping friends compared to children of same age (NSCH)	80.6 2016-2017	79.2 2017-2018	80.7 2018-2019	↗	77.6 2018-2019	>
% of parents indicating children ages 6-17 experiencing a little difficulty making or keeping friends compared to children of same age (NSCH)	14.3 2016-2017	15.3 2017-2018	15.3 2018-2019	↗	17.7 2018-2019	<
% of parents indicating children ages 6-17 experiencing a lot of difficulty making or keeping friends compared to children of same age (NSCH)	5.0 2016-2017	5.5 2017-2018	4.1 2018-2019	↘	4.6 2018-2019	<
Self-Regulation						
% of parents indicating children ages 6-17 stay calm and in control when faced with challenge (NSCH)	93.0 2016-2017	ND	97.6 2018-2019	NA	98.1 2018-2019	<
Legend						
State Trends	Arrow Direction			Arrow Color		
	↗ Increasing Trend			Desired Direction Across Three Waves		
	↘ Decreasing Trend			Undesired Direction Across Three Waves		
⇒ No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	
Notes: ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. †Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						

Table 3-10. Individual-level protective factor data table for measures of youth disapproval of drug use and socio-emotional competence

INDIVIDUAL-LEVEL PROTECTIVE FACTORS: SCHOOL ENGAGEMENT & MORALS

There is extant evidence showing that higher levels of religious, spiritual, and/or moral beliefs among youth are associated with greater health behaviors and positive adjustment, including better self-control and mental health. For example, some evidence shows that religion plays an important role in decision-making for some youth, and contributes to deterrence from substance misuse and delinquency (34). These findings are not consistent across all populations of youth.

Indexing moral and value development among youth can be an important factor to focus on for improving youth outcomes for some community contexts.

The data below show:

- Only about 1/3 of students say that schoolwork is meaningful and important, a decrease from previous years
- Students reporting enjoying school and finding school important is declining
- About 58% of students indicate a belief in a moral order

Protective Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
School Engagement						
% of students in grades 6, 8, 10, & 12 indicating they feel schoolwork is meaningful and important (PAYS)	43.9 2015	40.4 2017	35.9 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they enjoyed being in school during past year (PAYS)	43.4 2015	41.3 2017	38.6 2019	↘	ND	NA
Educational Aspirations						
% of students in grades 6, 8, 10, & 12 indicating they feel school will be important later in life (PAYS)	61.7 2015	57.5 2017	50.0 2019	↘	ND	NA
Religiosity/Spirituality						
% of students in grades 6, 8, 10, & 12 indicating religiosity (PAYS)	42.2 2015	40.1 2017	37.0 2019	↘	42.1 2019	<
Belief in a Moral Order						
% of students in grades 6, 8, 10, & 12 indicating belief in a moral order (PAYS)	59.8 2015	58.3 2017	58.2 2019	↘	57.9 2019	>
Table Legend						
State Trends	Arrow Direction			Arrow Color		
	↗ Increasing Trend			Desired Direction Across Three Waves		
	↘ Decreasing Trend			Undesired Direction Across Three Waves		
⇒ No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	
<small>Notes. ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.</small>						

Table 3-11. Individual-level protective factor data table for measures of youth educational engagement and belief in a moral order

INDIVIDUAL-LEVEL PROTECTIVE FACTORS: ACTIVITY INVOLVEMENT

Youth's extracurricular involvement is associated with school commitment and behavioral and mental health adjustment.

When students participate in skill-building, structured activities with adult supervision they are more likely to be engaged in school and be more disciplined (35). Participation in prosocial activities also helps to bolster youth's self-concept and positive attitude toward oneself (36).

The data below show:

- Less than a 1/3 report prosocial involvement in activities outside of school
- Overall students reported a decline in multiple types of extracurricular activities
- Both parents (NSCH) and students report decreases in youth involvement in school sponsored activities













Protective Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Leadership, Civic Involvement, & Other Prosocial Activities						
% of students in grades 6, 8, 10, & 12 participating in organized community events (PAYS)	24.6 2015	23.7 2017	21.6 2019		ND	NA
% of students in grades 6, 8, 10, & 12 participating in family-supported activities or hobbies (PAYS)	44.9 2015	44.6 2017	44.0 2019		ND	NA
% of students in grades 6, 8, 10, & 12 participating in faith-based activities (PAYS)	26.2 2015	24.8 2017	22.1 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating prosocial involvement- job/employment (PAYS)	21.7 2015	23.6 2017	22.3 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating prosocial involvement- volunteering (PAYS)	28.4 2015	28.2 2017	26.4 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating prosocial involvement- other activities (PAYS)	32.5 2015	29.9 2017	29.5 2019		ND	NA
Extracurricular Involvement						
% of students in grades 6, 8, 10, & 12 indicating involvement in school-sponsored activities (PAYS)	62.4 2015	61.5 2017	59.8 2019		ND 2019	NA
% of parents indicating that children ages 6-17 participate in sports team or take sports lessons after school or on weekends (NSCH)	60.7 2016-2017	55.2 2017-2018	56.9 2018-2019		56.1 2018-2019	>
% of parents indicating that children ages 6-17 participate in 1 or more extracurricular activities (NSCH)	79.0 2016-2017	79.6 2017-2018	82.4 2018-2019		79.8 2018-2019	>
Legend						
State Trends	Arrow Direction			Arrow Color		
	 Increasing Trend			Desired Direction Across Three Waves		
	 Decreasing Trend			Undesired Direction Across Three Waves		
	 No Increase/decrease			Inconsistent Direction Across Three Waves		
State vs. National	> State value greater		< National value greater		- No difference	
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						

Table 3-12. Individual-level protective factor data table for measures of youth prosocial and extracurricular activity involvement

INDIVIDUAL-LEVEL PROTECTIVE FACTORS: HEALTHY PRACTICES

When youth are encouraged and supported to develop healthy habits and attitudes about food, nutrition, and physical activity, they are better prepared to continue those practices and live healthy lifestyles in adulthood.

Establishing healthy practices during childhood and adolescence can be more easily formed compared to trying to change well-established unhealthy behaviors during adulthood (37-38).

The data below show:

- About 2/3 of youth report feeling tired during the school day
- Only 40% of kids are receiving the minimum recommended amount of exercise
- Students reporting being worried about food or skipping a meal decreased slightly

Protective Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Physical Activity						
% of parents indicating children ages 6-17 exercised, played a sport, or participated in 60 minutes of physical activity for 1-3 days/wk (NSCH)	38.6 2016-2017	40.3 2017-2018	41.7 2018-2019		40.5 2018-2019	>
% of parents indicating children ages 6-17 exercised, played a sport, or participated in 60 minutes of physical activity for 4-6 days/wk (NSCH)	27.9 2016-2017	26.6 2017-2018	25.9 2018-2019		27.6 2018-2019	<
% of parents indicating children ages 6-17 exercised, played a sport, or participated in 60 minutes of physical activity 7 days/wk (NSCH)	24.5 2016-2017	24.9 2017-2018	24.9 2018-2019		22.3 2018-2019	>
Healthy Diet & Nutrition						
% of students in grades 6, 8, 10, & 12 indicating they worried about food (PAYS)	13.8 2015	13.4 2017	11.7 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating they skipped a meal (PAYS)	6.6 2015	6.8 2017	6.2 2019		ND	NA
Healthy Sleep Patterns						
% of students in grades 6, 8, 10, & 12 indicating they sleep less than 7 hours on average during school nights (PAYS)	ND	ND	37.9 2019	NA	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they feel tired or sleepy during the day, "everyday" or "several times" in the past 2 weeks (PAYS)	ND	ND	64.7 2019	NA	ND	NA
% of students in grades 9-12 indicating they sleep 8 or more hours on an average school night (YRBSS)	25.6 2015	21.3 2017	19.6 2019		22.1 2019	<
Legend						
State Trends	Arrow Direction			Arrow Color		
	Increasing Trend			Desired Direction Across Three Waves		
	Decreasing Trend			Undesired Direction Across Three Waves		
	No Increase/decrease			Inconsistent Direction Across Three Waves		
State vs. National	> State value greater		< National value greater		- No difference	
<p>Notes. ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.</p>						

Table 3-13. Individual-level protective factor data table for measures of youth healthy eating, sleeping, and physical activity



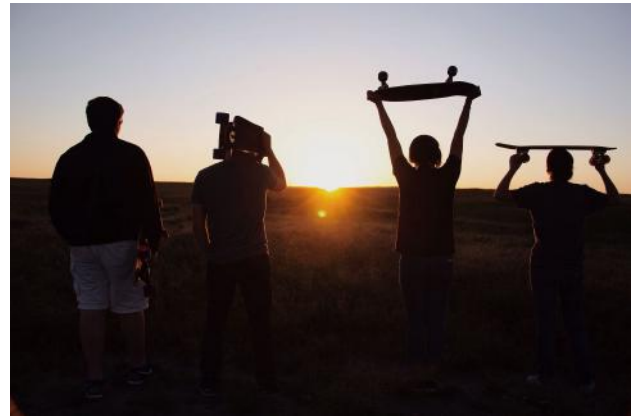
ASSESSMENT OF PEER-LEVEL RISK AND PROTECTIVE FACTORS

Throughout adolescence, youth generally spend less time with their parents and families as compared with their peers and likely have a strong desire to be accepted by their peers. Social acceptance can heavily influence the decisions youth make and the behaviors in which they choose to engage (34). Peer groups who engage in and encourage risky behaviors create a normative culture in which youth are more likely to engage in the same risky behaviors. On the other hand, connecting to prosocial peers can encourage healthy behaviors among youth. Resistance to negative peer pressure and influence is a skill that helps foster healthy behavior and adjustment.



The peer context involves risk and protective factors that describe the behaviors and traits of friends and generally same-aged peers with whom youth interact, as well as the quality of those relationships. These risk and protective factors substantially influence youth's behavioral health outcomes, since peers form arguably the most vital part of a youth's social network.

Evidence from earlier prevention studies pointed to the importance of peers when multiple delinquent peers were grouped together (39-40). Early preventive behavioral interventions have shown that when several delinquent peers were grouped together, the program produced undesirable effects and even created environments that reinforced, or rewarded, negative behaviors (41-42).



Clearly then, the peer context can be effective in targeting youth's health risk behaviors. After all, peer groups are founded in large part on social acceptance, which can heavily influence youth's decision-making and the behaviors they manifest as they mature. Primary prevention strategies that target the peer context focus on improving skills and promoting healthy peer relationships.

MATRIX OF PEER-LEVEL RISK FACTORS

Risk Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
Involvement in Substance Misuse & Antisocial Behaviors	✓	✓	✓	✓	✓	✓
Friends Who Engage in Problem Behavior	✓		✓	✓	✓	✓
Peer Substance Misuse	✓		✓	✓	✓	✓
Peer Delinquency & Antisocial Behavior	✓	✓	✓	✓		✓
Peer Violence & Aggression	✓	✓	✓			✓
Involvement with Delinquent & Antisocial Peers	✓		✓		✓	✓
Rejection & Alienation	✓	✓	✓	✓		
Peer Rejection	✓	✓	✓	✓		
Alienation from Peers	✓	✓	✓	✓		
Social Isolation/Lack of Support		✓	✓	✓		
Norms & Attitudes Favorable Towards Risky & Problem Behaviors	✓	✓	✓	✓	✓	✓
Favorable Attitudes Towards Substance & Other Problem Behaviors	✓		✓	✓	✓	✓
Rewards for Antisocial and Substance Misuse Behaviors	✓		✓	✓	✓	✓
Older Sexual Partner	✓	✓		✓	✓	✓

Table 3-14. Peer-level risk factors and their association to youth health risk behaviors

MATRIX OF PEER-LEVEL PROTECTIVE FACTORS

Protective Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
Positive & Prosocial Peers	✓	✓	✓	✓	✓	✓
Peer Disapproval of Substance Use	✓	✓	✓	✓	✓	✓
Positive Peer Role Models	✓	✓	✓	✓	✓	✓
Friends with Students with Good Grades				✓	✓	✓
Intimacy & Support in Friendships	✓	✓		✓	✓	
Intimacy & Support in Friendships	✓	✓		✓	✓	
Peer Ties & Social Network	✓		✓			✓
Popular with Peers		✓	✓	✓		✓
Religious Peers	✓					✓

Table 3-15. Peer-level protective factors and their association to youth health risk behaviors

PEER-LEVEL RISK FACTORS: PROBLEM BEHAVIOR INVOLVEMENT

Peer behaviors tend to “rub off” on other youth in the peer group (38). In practice, this means that youth who exhibit problematic behaviors are likely to influence others in their peer group to act the same way.

Additionally, negative peer traits tend to reward antisocial behavior. These risks are higher in contexts and conditions with higher environmental-level rates of community and youth crime (42). These areas are also more likely to have higher mobility levels and lower incomes among community residents.

The data below show:

- Youth reports of antisocial peer engagement is declining
- About 40% of youth report that their friends have favorable attitudes toward drugs

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Peer Rewards for Participating in Problem Behaviors						
% of students in grades 6, 8, 10, & 12 indicating rewards for antisocial behavior (PAYS)	31.4 2015	32.3 2017	30.7 2019	↘	38.2 2019	<
Substance Misuse						
% of students in grades 6, 8, 10, & 12 indicating friends' use of drugs (PAYS)	26.1 2015	27.0 2017	24.7 2019	↘	31.7 2019	<
Involvement with Delinquent & Antisocial Peers						
% of students in grades 6, 8, 10, & 12 indicating gang involvement (PAYS)	12.0 2015	12.1 2017	11.6 2019	↘	6.6 2019	>
% of students in grades 6, 8, 10, & 12 indicating interaction with antisocial peers (PAYS)	25.0 2015	25.9 2017	24.8 2019	↘	36.0 2019	<
Favorable Attitudes Towards Substance Misuse						
% of students in grades 6, 8, 10, & 12 indicating attitudes favorable towards drugs (PAYS)	37.4 2015	38.7 2017	38.7 2019	↗	35.7 2019	>
Legend						
State Trends	Arrow Direction			Arrow Color		
	↗ Increasing Trend			Desired Direction Across Three Waves		
	↘ Decreasing Trend			Undesired Direction Across Three Waves		
⇒ No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						

Table 3-16. Peer-level risk factor data table for measures of attitudes, rewards, and involvement in problem behaviors

PEER-LEVEL PROTECTIVE FACTORS: DISSAPPROVAL OF SUBSTANCE MISUSE

Perceptions of peer approval and/or disapproval can influence youth's decisions to participate and engage in healthy or unhealthy behavior.

Many youth-focused programs for substance misuse may target building peer resistance skills. Helping youth to be empowered to resist negative peer pressure has been an effective strategy for delaying the onset of substance misuse and delinquent behavior

The data below show:

- Students perceptions of peer disapproval of alcohol, cigarettes and prescription drugs increased
- However, peer disapproval of marijuana decreased

Protective Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Peer Disapproval of Substance Use						
% of students in grades 6, 8, 10, & 12 indicating perceived peer disapproval of alcohol use (PAYS)	72.7 2015	72.6 2017	74.6 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating perceived peer disapproval of cigarette use (PAYS)	78.4 2015	79.0 2017	80.0 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating perceived peer disapproval of marijuana use (PAYS)	70.4 2015	78.2 2017	68.4 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating perceived peer disapproval of prescription drug use (PAYS)	86.1 2015	86.7 2017	87.0 2019		ND	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	Increasing Trend			Desired Direction Across Three Waves		
	Decreasing Trend			Undesired Direction Across Three Waves		
	No Increase/decrease			Inconsistent Direction Across Three Waves		
State vs. National	> State value greater		< National value greater		- No difference	
Notes. ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						

Table 3-17. Peer-level protective factor data table for measures of peer disapproval of substance misuse



ASSESSMENT OF FAMILY-LEVEL RISK AND PROTECTIVE FACTORS



The family context covers those risk and protective factors related to family dynamics, parenting, and parent-child relationships. Because the family has a particularly important early influence on children and youth, the factors in this area can have long-lasting, overarching effects on youth's overall health and development. It is not surprising that family risk and protective factors are interrelated with other socioecological contexts. Disruptive and poor child management practices within the family are often the strongest and most consistent predictors of risky youth behaviors and problems (45-46).

In contrast, protective factors within the family can strongly influence youth's positive health decisions; these effects carry well into adulthood even when young adults are no longer in the home. These effects can be both direct, where the behavior of one family member immediately impacts that of another, or indirect, where the influence is mediated by a third factor. Research has shown that many family risk factors are more common in lower-socioeconomic status (SES) families, likely due to the large numbers of external stressors on the family (46-47). Alignment of systems throughout society will lower this stress, lessening family risk and increasing protection.

Primary prevention efforts that focus primarily on family and parenting dynamics can effectively reduce the conditions that lead to both low attachment and poor relationships and poor parenting practices. It is important to note that one of the strongest protective factors, the amount of time spent together as a family, could be targeted both directly through intervention with parents and indirectly by reducing other areas of stress experienced by all families (48-49). This may be particularly important for youth in disadvantaged groups who are experiencing multiple risks across other socioecological contexts.

It is probably not surprising that many of the promising and effective prevention approaches for youth target risk and protective factors within the family context in order to achieve desired outcomes like reducing or delaying the onset of youth violence, delinquency, and substance use.



MATRIX OF FAMILY-LEVEL RISK FACTORS

Risk Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
Family History of Mental Health Problems, Substance Misuse, or Criminality	✓	✓	✓	✓	✓	✓
Parental Substance Use Dependency, Addiction, or Disorder	✓	✓	✓	✓	✓	✓
History of Maternal Depression	✓	✓	✓	✓	✓	✓
History of Parental Criminal Activity or Conviction	✓	✓	✓	✓	✓	✓
History of Parental Smoking or Cigarette Use	✓	✓	✓	✓	✓	✓
History of Parental Violent & Antisocial Behavior	✓	✓	✓	✓	✓	✓
Child Management Practices	✓	✓	✓	✓	✓	✓
Family Dysfunction & Child Management Problems	✓	✓	✓	✓	✓	✓
Low Parental Engagement with Child's School	✓	✓	✓	✓	✓	✓
Low Parental Aspirations for Child	✓	✓	✓	✓	✓	✓
Favorable Attitudes Towards Youth Problem Behaviors	✓	✓	✓	✓	✓	✓
Ease of Access & Availability of Substances in the Home	✓	✓	✓	✓	✓	✓
Problematic Family Relationships	✓	✓	✓	✓	✓	✓
Avoidant/Disorganized Parent-Child Attachment	✓	✓	✓	✓	✓	✓
Low Affect in Parent-Child Relationship	✓	✓	✓	✓	✓	✓
Parent-Child Conflict	✓	✓	✓	✓	✓	✓
Neglectful, Harsh, & Controlling Parenting Practices	✓	✓	✓	✓	✓	✓
Parental Hostility Toward Child	✓	✓	✓	✓	✓	✓
Parental Overcontrol & Intrusiveness	✓	✓	✓	✓	✓	✓
Harsh Discipline	✓	✓	✓	✓	✓	✓
Inconsistent Discipline	✓	✓	✓	✓	✓	✓
Permissive & Neglectful Parenting Practices	✓	✓	✓	✓	✓	✓
Parental Avoidant Behaviors	✓	✓	✓	✓	✓	✓
Family Stressors & Adverse Life Events	✓	✓	✓	✓	✓	✓
Family & Inter-parental/Caregiver Conflict	✓	✓	✓	✓	✓	✓
Family Stressors	✓	✓	✓	✓	✓	✓
Family Disruptions	✓	✓	✓	✓	✓	✓

Table 3-18. Family-level risk factors and their association to youth health risk behaviors

MATRIX OF FAMILY-LEVEL PROTECTIVE FACTORS

Protective Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
Clear Rules & Expectations for Behavior	✓	✓	✓	✓	✓	✓
Family Recognition/Rewards for Prosocial Involvement	✓	✓	✓	✓	✓	✓
Family Opportunities for Prosocial Involvement	✓	✓	✓	✓	✓	✓
Clear Expectations for Behavior/Values	✓	✓	✓	✓	✓	✓
Higher Parental Expectations About School	✓	✓	✓	✓	✓	✓
Family Connectedness & Bonding	✓	✓	✓	✓	✓	✓
Family Attachment/Parental Bonding	✓	✓	✓	✓	✓	✓
Positive Parent-Child Relationship Quality	✓	✓	✓	✓	✓	✓
Shared Family Activities & Time	✓	✓	✓	✓	✓	✓
Parenting & Child Management Practices	✓	✓	✓	✓	✓	✓
Effective Discipline Practices	✓	✓	✓	✓	✓	✓
Parental Monitoring	✓	✓	✓	✓	✓	✓
Parent-Child Communication	✓	✓	✓	✓	✓	✓
Warm, Responsive, & Supportive Parenting	✓	✓	✓	✓	✓	✓
Family Resilience	✓	✓	✓	✓	✓	✓
Opportunities to Resolve Conflict	✓	✓	✓	✓	✓	✓
Family Coping Strategies	✓	✓	✓	✓	✓	✓
Family Shared Decision-Making & Problem-Solving	✓	✓	✓	✓	✓	✓

Table 3-19. Family-level protective factors and their association to youth health risk behaviors

FAMILY-LEVEL RISK FACTORS: PARENTAL HISTORY OF PROBLEMS

Family stressors and adverse life events can lead to poor attachments, substance misuse, poor mental health, school drop-out, delinquency, and teen pregnancy.

Rates of family stressors are often disproportionate for disadvantaged populations (50-51). Attending to disparities and their varying effects across youth populations within the community can inform primary prevention planning that is contextually and culturally relevant to the community.

The data below show:

- About 30% of students report living in a family with a history of antisocial behavior
- The percentage of youth reporting poor mental health in fathers has increased

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Parental Mental Health						
% of parents indicating children ages 0-17 have lived with anyone who was mentally ill, suicidal, or severely depressed (NSCH) [^]	7.7 2016-2017	5.2 2017-2018	8.3 2018-2019	↗	8.1 2018-2019	>
% of parents indicating children ages 0-17 whose mother's mental and emotional health is fair or poor (NSCH) [^]	5.0 2016-2017	4.4 2017-2018	6.4 2018-2019	↗	5.3 2018-2019	>
% of parents indicating children ages 0-17 whose father's mental and emotional health is fair or poor (NSCH) [^]	2.9 2016-2017	3.4 2017-2018	4.0 2018-2019	↗	3.4 2018-2019	>
Parental Criminal Activity						
% of parents indicating children ages 0-17 have lived with a parent or guardian who served time in jail or prison (NSCH) [^]	8.2 2016-2017	7.9 2017-2018	8.1 2018-2019	↘	7.5 2018-2019	>
% of parents indicating children ages 12-17 have lived with a parent or guardian who served time in jail or prison (NSCH) [^]	11.5 2016-2017	12.4 2017-2018	12.1 2018-2019	↗	9.8 2018-2019	>
% of parents indicating children ages 6-11 have lived with a parent or guardian who served time in jail or prison (NSCH) [^]	10.4 2016-2017	9.2 2017-2018	6.5 2018-2019	↘	8.5 2018-2019	<
Family History of Antisocial Behavior						
% of students in grades 6, 8, 10, & 12 indicating family history of antisocial behavior (PAYS)	32.9 2015	32.8 2017	30.9 2019	↘	39.9 2019	<
Legend						
State Trends	Arrow Direction			Arrow Color		
	↗ Increasing Trend			Desired Direction Across Three Waves		
	↘ Decreasing Trend			Undesired Direction Across Three Waves		
⇒ No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						
[^] Indicates risk factor measure is also an adverse childhood experience.						

Table 3-20. Family-level risk factor data table for measures of parental mental health and antisocial behavior problems

FAMILY-LEVEL RISK FACTORS: FAVOURABLE ATTITUDES

A wealth of literature on family composition changes illustrates the importance of family structure to health-related outcomes among youth.

Poor child and family management is linked to lack of knowledge or understanding of child development, poor monitoring and supervision, difficulties with managing emotions, and ineffective discipline strategies.

The data below show:

- More than 50% of youth report having parents who get drunk or high
- About 33% of youth report poor family management
- Approximately 50% of students report having parents with favorable attitudes towards antisocial behaviors












Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Parent Tobacco Smoker						
% of parents indicating children ages 0-17 living in a household where someone smokes (NSCH) [^]	19.2 2016-2017	18.9 2017-2018	15.8 2018-2019		14.4 2018-2019	>
% of parents indicating children ages 0-17 living in a household where someone smokes inside (NSCH) [^]	2.4 2016-2017	2.7 2017-2018	2.5 2018-2019		1.9 2018-2019	>
Family Management Problems						
% of students in grades 6, 8, 10, & 12 indicating poor family management (PAYS)	37.3 2015	36.0 2017	35.4 2019		40.2 2019	<
Favorable Parental Attitudes Toward and Involvement in Problem Behaviors						
% of students in grades 6, 8, 10, & 12 indicating parental attitudes favorable toward antisocial behavior (PAYS)	45.7 2015	46.2 2017	48.2 2019		33.3 2019	>
% of students in grades 6, 8, 10, & 12 indicating parental attitudes favorable toward drug use (PAYS)	31.6 2015	32.8 2017	32.8 2019		28.0 2019	>
% of students in grades 6, 8, 10, & 12 indicating they have known adults who have gotten high or drunk (PAYS)	59.0 2015	57.9 2017	54.1 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating they have known adults who have used marijuana, crack, cocaine, other drugs (PAYS)	27.0 2015	27.2 2017	25.7 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating they have known adults who have done other things that could get them in trouble with police (PAYS)	16.3 2015	14.9 2017	13.1 2019		ND	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	 Increasing Trend			Desired Direction Across Three Waves		
	 Decreasing Trend			Undesired Direction Across Three Waves		
 No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						
^Indicates risk factor measure is also an adverse childhood experience.						

Table 3-21. Family-level risk factor data table for measures of parental smoking and favorable attitudes toward problem behavior

FAMILY-LEVEL RISK FACTORS: FAMILY FUNCTIONING & HOME SETTING

Family functioning and relationship dynamics play a significant role in modeling healthy behaviors and social adjustment for youth.

Prevention efforts targeting these endeavors have been successful when focusing on programming related to improving family relationships and communication, conflict resolution, and

The data below show:

- About 33% of students report family conflict
- About 18% of youth report coming from families where parents are separated or divorced

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Ease of Access & Availability of Substances in the Home						
% of students in grades 6, 8, 10, & 12 who took prescription drugs from a family member at home (PAYS)	41.0 2015	39.1 2017	41.4 2019		ND	NA
% of students in grades 6, 8, 10, & 12 who took prescription drugs from a family member not at home (PAYS)	12.9 2015	10.0 2017	11.1 2019		ND	NA
Family Conflict						
% of students in grades 6, 8, 10, & 12 indicating family conflict (PAYS)	35.3 2015	34.8 2017	34.0 2019		36.1 2019	<
Family Disruption						
% of parents indicating children ages 0-17 whose parent or guardian died (NSCH)	4.0 2016-2017	5.1 2017-2018	4.4 2018-2019		3.1 2018-2019	>
Marital Conflict, Divorce, Poor Marital Adjustments						
% of parents indicating children ages 0-17 whose parent or guardian divorced or separated (NSCH) [^]	21.3 2016-2017	17.8 2017-2018	21.1 2018-2019		23.4 2018-2019	<
Legend						
State Trends	Arrow Direction			Arrow Color		
	Increasing Trend			Desired Direction Across Three Waves		
	Decreasing Trend			Undesired Direction Across Three Waves		
No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National		> State value greater		< National value greater		- No difference
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						
[^] Indicates risk factor measure is also an adverse childhood experience.						

Table 3-22. Family-level risk factor data table for measures of family functioning and characteristics of the home setting

FAMILY-LEVEL PROTECTIVE FACTORS: RULES AND EXPECTATIONS

Clear parental rules and expectations for behavior, discipline and monitoring can prevent many negative health outcomes for youth.

Another positive step is for families to spend time together at mealtime—when these occasions occur at least once a day, they also appear to positively influence youth behavior and adjustment.

The data below show:

- Most students report their parents disapprove of substance use
- More than 90% of students report their parent knows where they are and who they are with
- The majority of students report clear family rules
- 66% of youth report family rewards for prosocial













Protective Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Family Recognition/Rewards for Prosocial Involvement						
% of students in grades 6, 8, 10, & 12 indicating family recognition/rewards for prosocial involvement (PAYS)	61.9 2015	61.5 2017	60.3 2019		58.9 2019	>
Family Opportunities for Prosocial Involvement						
% of students in grades 6, 8, 10, & 12 indicating family opportunities for prosocial involvement (PAYS)	61.9 2015	61.9 2017	61.9 2019		60.7 2019	>
Parental Monitoring						
% of students in grades 6, 8, 10, & 12 indicating parents know where they are and who they are with (PAYS)	91.8 2015	91.9 2017	92.5 2019		ND	NA
Clear Expectations for Behavior/Values						
% of students in grades 6, 8, 10, & 12 indicating clear family rules about alcohol and drug use (PAYS)	86.1 2015	86.9 2017	86.9 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating family rules are clear (PAYS)	87.1 2015	87.4 2017	87.1 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating parental disapproval of cigarette use (PAYS)	93.1 2015	93.6 2017	94.0 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating parental disapproval of marijuana use (PAYS)	90.9 2015	89.6 2017	89.1 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating parental disapproval of alcohol use (PAYS)	89.2 2015	89.4 2017	89.0 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating parental disapproval of prescription drug use (PAYS)	93.2 2015	93.6 2017	94.0 2019		ND	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	 Increasing Trend			Desired Direction Across Three Waves		
	 Decreasing Trend			Undesired Direction Across Three Waves		
 No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National		> State value greater		< National value greater		- No difference
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						

Table 3-23. Family-level protective factor data table for measures of parental monitoring, rules, expectations, and recognition

FAMILY-LEVEL PROTECTIVE FACTORS: CONNECTEDNESS AND RESILIENCE

Taking actions that foster connections and bonding are important to nurturing strong, resilient youth.

Family shared activities likely lead to strong family bonds and model for youth how to make positive decisions and deal with conflict, among other things.

Families who exhibit strong, positive relationships share ideas, encourage children to talk with their parents, and reflect an overall secure attachment.

The data below show:

- More than 90% of students report their parent know where they are and who they are with
- About 2/3 of students indicate positive family attachments
- Almost half of households in PA report eating a meal together every day












Protective Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Family Relationships and Bonding						
% of students in grades 6, 8, 10, & 12 indicating family attachment (PAYS)	63.2 2015	62.9 2017	62.3 2019		60.7 2019	>
% of parents indicating that the family shares ideas very well (NSCH)	69.2 2016-2017	65.9 2017-2018	66.0 2018-2019		65.3 2018-2019	>
Shared Family Activities						
% of households that eat a meal together every day (NSCH)	44.4 2016-2017	46.5 2017-2018	42.8 2018-2019		43.7 2018-2019	<
Indicators of Family Resilience						
% of parents indicating family resilience (NSCH)	82.3 2016-2017	81.9 2017-2018	81.6 2018-2019		82.3 2018-2019	<
% of parents indicating family talks together about what to do all or most of the time when faced with problems (NSCH)	88.1 2016-2017	88.8 2017-2018	89.5 2018-2019		87.5 2018-2019	>
% of parents indicating family works together to solve problems all or most of the time (NSCH)	89.2 2016-2017	90.0 2017-2018	89.7 2018-2019		89.7 2018-2019	-
% of parents indicating family knows strengths to draw on all or most of the time when faced with problems (NSCH)	89.4 2016-2017	90.0 2017-2018	91.0 2018-2019		90.3 2018-2019	>
% of parents indicating family stays hopeful all or most of the time even in difficult times (NSCH)	93.9 2016-2017	94.4 2017-2018	94.6 2018-2019		93.9 2018-2019	>
Legend						
State Trends	Arrow Direction			Arrow Color		
	 Increasing Trend			Desired Direction Across Three Waves		
	 Decreasing Trend			Undesired Direction Across Three Waves		
	 No Increase/decrease			Inconsistent Direction Across Three Waves		
State vs. National	> State value greater		< National value greater		- No difference	
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						

Table 3-24. Family-level protective factor data table for measures of family bonding, shared time, and resilience



ASSESSMENT OF SCHOOL-LEVEL RISK AND PROTECTIVE FACTORS

While schools offer many positive opportunities for youth, no one can deny the presence of some types of risk in schools. The school community has invested significant time and effort in identifying and implementing ways to protect children from school-based risk. After all, the primary objectives of schools are to see that youth are educated, gain skills through instruction, and ultimately become successful and contributing members of society.

School systems are nested within community and social-environmental contexts. School risk and protective factors are influenced by the policies and practices of the school system, school climate, bonding and relationships among youth and others (teachers, school staff, families, and peers), and youth's academic engagement and performance (52-53).

As youth transition from childhood to adolescence, schools become increasingly important contexts and integral settings for the development of youth friendships and peer groups. Schools should provide healthy and supportive environments in which youth can learn skills needed to transcend into adulthood and develop trusting and healthy relationships.

Health inequities also are related to youth's educational attainment and success in school (54); in some instances, health inequities are directly tied to school resources and location (55). It is generally understood that an individual's education level will directly impact their health and success over the course of their lifetime. Primary prevention efforts focused within school contexts can successfully reduce the risk factors and challenging conditions that lead to academic failure among youth (56-58); schools also can support strengthening positive relationships among students and their teachers and school staff (7, 57).



MATRIX OF SCHOOL-LEVEL RISK FACTORS

Risk Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
Low Academic Performance & Achievement	✓	✓	✓	✓	✓	✓
Academic Failure	✓	✓	✓	✓	✓	✓
Lack of Control/Mastery	✓	✓	✓	✓	✓	✓
Low School Readiness	✓	✓	✓	✓	✓	✓
Low Commitment to School	✓	✓	✓	✓	✓	✓
Students' Engagement & Commitment to School	✓	✓	✓	✓	✓	✓
Permissive/Tolerant Norms Toward Drugs & Violence	✓	✓	✓	✓	✓	✓
Parent-teacher Relationship Communication & Conflict	✓	✓	✓	✓	✓	✓
School Violence & Bullying	✓	✓	✓	✓	✓	✓
Violence & Drugs on School Property	✓	✓	✓	✓	✓	✓
Social Trauma	✓	✓	✓	✓	✓	✓
Bullying	✓	✓	✓	✓	✓	✓
School-level Stressful or Traumatic Events	✓	✓	✓	✓	✓	✓

Table 3-25. School-level risk factors and their association to youth health risk behaviors

MATRIX OF SCHOOL-LEVEL PROTECTIVE FACTORS

Protective Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
School Bonding & Positive Relationships	✓	✓	✓	✓	✓	✓
Bonding to Prosocial Others	✓	✓	✓	✓	✓	✓
Quality Parent-Teacher Relationship	✓	✓	✓	✓	✓	✓
Positive Partnering with Parents	✓	✓	✓	✓	✓	✓
School Connectedness	✓	✓	✓	✓	✓	✓
Positive School Climates	✓	✓	✓	✓	✓	✓
School Practices & Policies of Safety & Acceptance	✓	✓	✓	✓	✓	✓
School Recognition & Opportunities for Prosocial Involvement	✓	✓	✓	✓	✓	✓
School Policies to Reduce Bullying	✓	✓	✓	✓	✓	✓
Regulatory Systems Supporting Care	✓	✓	✓	✓	✓	✓
Physical and Psychological Safety	✓	✓	✓	✓	✓	✓
School-wide Skills Building Prevention Programs	✓	✓	✓	✓	✓	✓
Classroom Management & Standards for Supportive Learning	✓	✓	✓	✓	✓	✓
High Academic Standards	✓	✓	✓	✓	✓	✓
Clear Expectations for Behavior	✓	✓	✓	✓	✓	✓
Effective Classroom Management	✓	✓	✓	✓	✓	✓
Access to Supplemental Services & Student Support	✓	✓	✓	✓	✓	✓
Support for Early Learning	✓	✓	✓	✓	✓	✓
Positive Norms	✓	✓	✓	✓	✓	✓

Table 3-26. School-level protective factors and their association to youth health risk behaviors

SCHOOL-LEVEL RISK FACTORS: ACADEMICS & VIOLENCE

Academic performance primarily relates to how well youth do in school and whether they fail their courses. While there is a clear connection to school drop-out, there are also links to many other youth antisocial behaviors.

Low commitment to school means that some students are under-invested in their school. These feelings can be linked to school drop-out, delinquency, substance misuse, and mental health issues.

The data below show:

- More than 33% of students indicate they are failing academically
- YRBSS data indicate students report being offered or sold drugs at school at a slightly increased rate
- The percent of students reporting being assaulted or harassed at school has slightly decreased

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Academic Failure						
% of students in grades 6, 8, 10, & 12 indicating academic failure (PAYS)	33.8 2015	35.3 2017	37.0 2019	↗	33.5 2019	>
Violence and Drugs on School Property						
% of students in grades 6, 8, 10, & 12 indicating they were threatened at school (PAYS)	20.3 2015	20.5 2017	18.9 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they were attacked at school (PAYS)	8.4 2015	8.3 2017	7.6 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they were threatened with weapon at school (PAYS)	3.9 2015	3.8 2017	3.9 2019	⇒	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they were attacked with weapon at school (PAYS)	1.6 2015	1.2 2017	1.1 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they brought a weapon to school (PAYS)	1.6 2015	1.2 2017	0.9 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they were offered drugs at school (PAYS)	8.8 2015	8.2 2017	8.5 2019	↘	ND	NA
% of students in grade 9-12 indicating they were offered, sold, or given an illegal drug on school property (YRBSS)	19.4 2015	17.9 2017	20.3 2019	↗	21.8 2019	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	↗ Increasing Trend			Desired Direction Across Three Waves		
	↘ Decreasing Trend			Undesired Direction Across Three Waves		
⇒ No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	
Notes. ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						

Table 3-27. School-level risk factor data table for measures of academic failure and violence and drugs on school property

SCHOOL-LEVEL RISK FACTORS: BULLYING

Acts of school violence and bullying can include threatening and attacking behaviors as well as bringing drugs onto school property or being offered drugs while on school grounds. Bullying can be physical and/or emotional or involve social control. Both may increase the risk of negative health outcomes.

Several resources are available through the Institute for Educational Sciences and the What Works Clearinghouse (59). The Clearinghouse offers information on effective school-level approaches to reducing school violence and bullying.

The data below show:

- Student reports of other students controlling them decreased slightly
- About 25% of students report having been bullied at school in the past year
- More than 60% of students report being insulted or called names while at school in the past year

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Bullying						
% of students in grades 6, 8, 10, & 12 indicating some bullying in the past 12 months (PAYS)	16.9 2015	28.2 2017	25.1 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating physical injury by another person in the past 12 months (PAYS)	24.0 2015	23.1 2017	23.5 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating threats by another person in the past 12 months (PAYS)	26.7 2015	25.0 2017	21.2 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating emotional abuse, insults, name-calling by another person in the past 12 months (PAYS)	60.3 2015	62.0 2017	61.4 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating isolation from friends and family by another person in the past 12 months (PAYS)	12.0 2015	11.7 2017	12.9 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating another person controlled what student wore in the past 12 months (PAYS)	8.8 2015	7.9 2017	7.4 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating another person controlled who student socialized with in the past 12 months (PAYS)	12.4 2015	11.4 2017	11.7 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating other injury or abuse by another person in the past 12 months (PAYS)	12.7 2015	10.9 2017	12.6 2019		ND	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	Increasing Trend			Desired Direction Across Three Waves		
	Decreasing Trend			Undesired Direction Across Three Waves		
			No Increase/decrease			Inconsistent Direction Across Three Waves
State vs. National		State value greater		National value greater		No difference
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						

Table 3-28. School-level risk factor data table for measures of bullying or being bullied on school property

SCHOOL-LEVEL RISK FACTORS: SUSPENSION AND EXPULSION

Pennsylvania's school climate initiative, and other strategies currently being rolled out in the Commonwealth, collect longitudinal data and information on how school districts are addressing school climate and the effectiveness of those practices being implemented (60).

In most cases, school climate data are owned by the local education agency. This highlights the necessity and importance of partnering with school districts and education systems when seeking to improve school climate.

The data below show that according to Kids Count data:

- The rate student suspensions is relatively stable
- The rate of expulsions has decreased by almost 50% since the 2011-2012 school year







Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
School Suspensions & Expulsions						
% of children who have been suspended, in-school (Kids Count)	5.0 2011-2012	4.0 2013-2014	4.0 2015-2016		5.0 2015-2016	<
% of children who have been suspended, out-of-school (Kids Count)	6.0 2011-2012	6.0 2013-2014	6.0 2015-2016		5.0 2015-2016	>
Rate of children who have been expelled from school , per 10,000 children (Kids Count)	24.0 2011-2012	11.0 2013-2014	13.0 2015-2016		20.0 2015-2016	<
Legend						
State Trends	Arrow Direction			Arrow Color		
	 Increasing Trend			Desired Direction Across Three Waves		
	 Decreasing Trend			Undesired Direction Across Three Waves		
 No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National		> State value greater		< National value greater		- No difference
Notes. ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						

Table 3-29. School-level risk factor data table for measures of school suspensions and expulsions

SCHOOL-LEVEL PROTECTIVE FACTORS: SCHOOL CLIMATE AND SAFETY

Schools can provide a healthy and safe learning environment by fostering positive school climate, implementing policies that protect students' safety and wellness, and providing opportunities for prosocial involvement.

The data below show that:

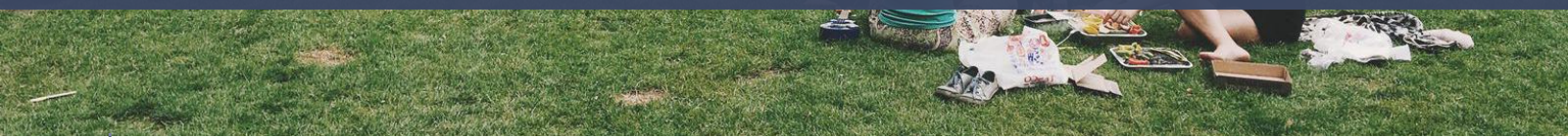
- More than 70% of students report their schools provide opportunities for one-on-one interactions with teachers
- However, student reports of these opportunities has declined
- Schools prohibiting harassment based on sexual orientation is steadily increasing

Protective Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Exposure to Positive School Climates						
% of students in grades 6, 8, 10, & 12 indicating opportunities for students to engage one on one with teacher (PAYS)	78.5 2015	77.2 2017	76.2 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating opportunities to be part of class discussions or activities (PAYS)	86.6 2015	86.7 2017	85.6 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating teachers praise them when they work hard in school (PAYS)	53.7 2015	52.7 2017	49.6 2019		ND	NA
School Recognition and Opportunities for Prosocial Involvement						
% of students in grades 6, 8, 10, & 12 indicating opportunities for prosocial involvement (PAYS)	51.4 2015	49.9 2017	45.7 2019		53.6 2019	<
% of students in grades 6, 8, 10, & 12 indicating rewards for prosocial involvement (PAYS)	53.9 2015	51.9 2017	48.1 2019		50.2 2019	<
School Policies to Reduce Bullying						
% of students in grades 6, 8, 10, & 12 indicating adults respond to bullying at school (PAYS)	65.1 2015	62.9 2017	54.8 2019		ND	NA
% Middle Schools and High Schools that prohibit harassment based on student's sexual orientation or gender identity (CDC Profiles)#	92.8 2014	94.1 2016	96.6 2018		96.1 2018	>
Physical and Psychological Safety						
% of students in grades 6, 8, 10, & 12 indicating they feel safe at school (PAYS)	84.1 2015	83.4 2017	80.0 2019		ND	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	Increasing Trend			Desired Direction Across Three Waves		
	Decreasing Trend			Undesired Direction Across Three Waves		
	No Increase/decrease			Inconsistent Direction Across Three Waves		
State vs. National	> State value greater		< National value greater		- No difference	
<p>Notes. ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description. #Indicates protective factor measure is also a social determinant of health.</p>						

Table 3-30. School-level risk factor data table for measures of school suspensions and expulsions



ASSESSMENT OF COMMUNITY-LEVEL RISK AND PROTECTIVE FACTORS



Community risk and protective factors reflect the human, social, and cultural resources and relationships that are available to youth in the spaces in which they live, learn, and grow. In addition, relational aspects of the community, such as community attachment, bonding, and cultural norms, can help researchers examine whether youth experience socially healthy communities outside of their homes and schools.

Community risk and protective factors influence youth behavior outcomes consistently within other community-based contexts such as neighborhood attachment, community disorganization, and laws and norms favorable to drug use and violence. Through collective efforts and collaborative planning, community members, agencies, and organizations can more readily address systemic disparities and the larger community-wide conditions present that prevent youth and families from accessing basic resources and supports needed to achieve well-being. The positive relationships and social support networks youth and families form through extended community systems can also help protect against exposure to risks associated with poorly resourced environments (5, 61).

There is growing evidence that community organizations, agencies, and services influence youth health outcomes directly and indirectly, in ways that have lasting effects on healthy youth development. Some of these approaches are being studied in greater detail and others are currently being replicated and implemented in states and counties across the nation.

Primary prevention efforts that consider specific community needs and strengths can have a more significant impact than those that solely target individual youth behaviors without considering community contexts. Community-based approaches that focus on expanding resources and access, building community capacity, and strengthening positive social relationships provide optimal opportunities for youth to live healthy, thriving, and resilient lives (5-6, 62-63).



A resilience-focused prevention approach re-frames youth from being considered “at-risk” to “at-promise” by focusing on improving the environments in which youth live so they can thrive (62-63). This approach values the experiential knowledge and expertise caregivers, parents, and community members possess and includes their input when advancing prevention efforts.

MATRIX OF COMMUNITY-LEVEL RISK FACTORS

Risk Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
Economic Depression & Hardship	✓	✓	✓	✓	✓	✓
Diminished Economic Opportunity	✓	✓	✓	✓	✓	✓
Economic Instability		✓		✓	✓	
Population Density/Urbanicity		✓			✓	✓
Poor Quality Housing	✓	✓	✓	✓	✓	✓
Availability of Substances & Firearms	✓		✓		✓	
Availability of Drugs	✓		✓		✓	
Availability of Alcohol	✓		✓		✓	
Availability of Firearms			✓		✓	
Community Laws & Norms Favorable Towards Substance Use & Violence	✓	✓	✓	✓	✓	
Community Laws & Norms Favorable Toward Crime	✓		✓	✓	✓	
High Alcohol Outlet Density	✓		✓		✓	
Media Violence & Portrayals	✓	✓	✓		✓	
Transitions & Mobility	✓	✓	✓	✓	✓	✓
Residential Mobility	✓	✓	✓	✓	✓	✓
Housing Instability and Homelessness	✓	✓	✓	✓	✓	✓
Job Transitions		✓	✓	✓	✓	✓
Community Disorganization & Violence	✓	✓	✓	✓	✓	✓
Connectedness & Cohesion	✓	✓	✓		✓	✓
Safety		✓	✓		✓	
Social Support		✓	✓	✓	✓	
Violence & Crime	✓	✓	✓	✓	✓	✓

Table 3-31. Community-level risk factors and their association to youth health risk behaviors

MATRIX OF COMMUNITY-LEVEL PROTECTIVE FACTORS

Protective Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
Community Cohesion & Support	✓	✓	✓	✓	✓	✓
Community Support/Connectedness	✓	✓	✓	✓	✓	✓
Bonding to Prosocial Others in Community	✓	✓	✓	✓	✓	✓
Presence of Mentors		✓	✓		✓	
Connection to a Caring Adult			✓			
Community Opportunities & Rewards for Prosocial Involvement	✓	✓	✓	✓	✓	✓
Community Recognition & Opportunities for Prosocial Involvement	✓	✓	✓	✓	✓	✓
Programs/Policies/Practices to Promote Healthy Youth Behavior	✓	✓	✓	✓	✓	✓

Table 3-32. Community-level protective factors and their association to youth health risk behaviors

COMMUNITY-LEVEL RISK FACTORS: ECONOMIC STABILITY AND DRUGS

A community's lack of economic opportunities and the presence of economic deprivation can contribute to youth's and their families' inability to find stable employment options and attain financial security.

These factors can provide additional insight into issues that exist at the macro-social and environmental levels. Addressing them may require environmental strategies.

The data below show:

- The proportion of children with unemployed parents declined
- Students indicated that getting prescription drugs from the home or elsewhere is widely possible
- About 40% of youth report getting prescription drugs from the home














Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Economic Opportunity and Stability						
% of population, 16 and older, unemployed but seeking work (RWJF-CHR)#	5.4 2018	4.9 2019	4.3 2020		3.9 2020	>
Unemployment rate of parents (Kids Count)#	4.0 2017	4.0 2018	3.0 2019		3.0 2019	—
% of families with children under 18 with parents lacking secure employment (Kids Count)#	26.0 2017	26.0 2018	26.0 2019		26.0 2019	—
% of children, under 18, living in families with at least 1 unemployed parent (Kids Count)#	6.0 2017	6.0 2018	4.0 2019		4.0 2019	—
% of children, under 18, in families who receive public assistance (Kids Count)	26.0 2017	27.0 2018	26.0 2019		23.0 2019	>
Availability of Drugs						
% of students in grades 6, 8, 10, & 12 indicating perceived availability of drugs (PAYS)	30.8 2015	29.4 2017	27.6 2019		34.4 2019	<
% of students in grades 6, 8, 10, & 12 who took prescription drugs from an unrelated person (PAYS)	14.1 2015	10.6 2017	13.7 2019		ND	NA
% of students in grades 6, 8, 10, & 12 who obtained prescription drugs from a friend/family member (PAYS)	41.8 2015	40.6 2017	38.7 2019		ND	NA
% of students in grades 6, 8, 10, & 12 who bought prescription drugs (PAYS)	26.9 2015	27.3 2017	22.7 2019		ND	NA
% of students in grades 6, 8, 10, & 12 who ordered prescription drugs (PAYS)	8.3 2015	8.4 2017	8.3 2019		ND	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	 Increasing Trend			Desired Direction Across Three Waves		
	 Decreasing Trend			Undesired Direction Across Three Waves		
 No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		— No difference	
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						
#Indicates risk factor measure is also a social determinant of health.						

Table 3-33. Community-level risk factor data table for measures of economic instability and availability of drugs

COMMUNITY-LEVEL RISK FACTORS: AVAILABILITY OF FIREARMS AND ALCOHOL

Easy access to drugs, alcohol, and firearms increases the likelihood that each of these will be used by youth in the community.

Similar to issues relating to availability, community laws and norms favorable to substance misuse and firearms may increase their presence in a given community.

The data below show:

- Less than 5% of youth indicate buying alcohol
- About 25% of students say guns are available in their community
- About 25% of students say their parents gave them alcohol









Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Availability of Firearms						
% of students in grades 6, 8, 10, & 12 indicating perceived availability of handguns (PAYS)	28.6 2015	27.8 2017	24.9 2019		35.6 2019	<
Availability of Alcohol						
% of students in grades 6, 8, 10, & 12 who bought alcohol in store (PAYS)	4.9 2015	4.7 2017	4.3 2019		ND	NA
% of students in grades 6, 8, 10, & 12 who bought alcohol in restaurant (PAYS)	3.8 2015	3.1 2017	2.7 2019		ND	NA
% of students in grades 6, 8, 10, & 12 who bought alcohol at public event (PAYS)	3.5 2015	3.4 2017	3.1 2019		ND	NA
% of students in grades 6, 8, 10, & 12 who gave someone money for alcohol (PAYS)	23.1 2015	29.6 2017	26.7 2019		ND	NA
% of students in grades 6, 8, 10, & 12 whose parents provided alcohol (PAYS)	ND	23.1 2017	25.7 2019	NA	ND	NA
% of students in grades 6, 8, 10, & 12 whose friends' parents provided alcohol (PAYS)	ND	18.2 2017	17.9 2019	NA	ND	NA
% of students in grades 6, 8, 10, & 12 whose friend/sibling, age 21 and over, provided alcohol (PAYS)	ND	25.4 2017	23.8 2019	NA	ND	NA
% of students in grades 6, 8, 10, & 12 whose friend/sibling, under age 21, provided alcohol (PAYS)	ND	17.6 2017	15.9 2019	NA	ND	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	 Increasing Trend			Desired Direction Across Three Waves		
	 Decreasing Trend			Undesired Direction Across Three Waves		
	 No Increase/decrease			Inconsistent Direction Across Three Waves		
State vs. National	> State value greater		< National value greater		- No difference	
<p>Notes. ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.</p>						

Table 3-34. Community-level risk factor data table for measures of availability of firearms and alcohol

COMMUNITY-LEVEL RISK FACTORS: MOBILITY AND HOUSING TRANSITIONS

Transitions and mobility are related to an unstable home environment for youth (64). Transitions refer to moving frequently in the last year or last few years. Frequency can point to family instability, and cause youth to seek alternative housing with friends and other family members.

Frequent transitions and mobility increase the risk of school drop-out (particularly if switching schools is involved), delinquency and violence, and substance misuse (65-66). It's important to note that moving can be linked to local availability of more or fewer economic opportunities.

The data below show:

- About 20% of students say they have moved once or twice in the last three years
- About 33% of students report taking alcohol without permission

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Availability of Alcohol (continued)						
% of students in grades 6, 8, 10, & 12 whose relatives provided alcohol (PAYS)	13.2 2015	14.1 2017	14.2 2019	↗	ND	NA
% of students in grades 6, 8, 10, & 12 indicating other sources provided alcohol (PAYS)	18.3 2015	24.6 2017	23.6 2019	↗	ND	NA
% of students in grades 6, 8, 10, & 12 who took alcohol without permission (PAYS)	24.4 2015	33.3 2017	34.3 2019	↗	ND	NA
Transitions and Mobility						
% of students in grades 6, 8, 10, & 12 indicating they changed homes once or twice in last year (PAYS)#	13.4 2015	13.0 2017	12.1 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they changed homes 3 or more times in last year (PAYS)#	2.6 2015	2.2 2017	2.3 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they changed homes once or twice in last 3 years (PAYS)#	20.3 2015	20.8 2017	21.3 2019	↗	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they changed homes 3 or more times in last 3 years (PAYS)#	5.4 2015	5.3 2017	5.0 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they lived away from home because they were kicked out, ran away, or were abandoned (PAYS)#	6.3 2015	6.1 2017	5.0 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating they lived in a shelter/motel/care due to loss of housing/lack of money (PAYS)#	3.9 2015	4.0 2017	3.9 2019	⇒	ND	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	↗ Increasing Trend			Desired Direction Across Three Waves		
	↘ Decreasing Trend			Undesired Direction Across Three Waves		
⇒ No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	➤ State value greater		➤ National value greater		- No difference	
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						
#Indicates risk factor measure is also a social determinant of health.						

Table 3-35. Community-level protective risk data table for measures of alcohol availability and transition and mobility

COMMUNITY-LEVEL RISK FACTORS: INVOLVEMENT AND SAFETY

Frequently changing homes can lead youth to feel “separate” from the neighborhoods in which they live, making them less likely to become involved in their community and even less attached because they are not as invested.

Low attachment to the neighborhood, along with community disorganization, leads to higher levels of violence within the community as well (67).

The data below show:

- About 40% of students say it is easy for them to get alcohol
- About 66% of students DO NOT believe they would be caught by police for drinking
- About 40% of students indicate low neighborhood attachment

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Low Neighborhood Attachment						
% of students in grades 6, 8, 10, & 12 with low levels of neighborhood attachment (PAYS)	41.7 2015	42.5 2017	43.5 2019	↗	42.5 2019	>
Low Community Participation						
% of parents indicating children ages 6-17 who do not participate in community or volunteer work (NSCH)	58.6 2016-2017	60.1 2017-2018	60.8 2018-2019	↗	56.1 2018	>
Witnessing Community Violence						
% of parents indicating children ages 6-17 who were victims of or witnesses to community violence (NSCH)	4.5 2016-2017	4.6 2017-2018	5.6 2018-2019	↗	4.1 2018-2019	>
Community Laws and Norms Favorable Toward Crime						
% of students in grades 6, 8, 10, & 12 indicating laws & norms favorable toward drug use (PAYS)	37.2 2015	38.1 2017	38.8 2019	↗	40.6 2019	<
% of students in grades 6, 8, 10, & 12 indicating they would not be caught by police for drinking (PAYS)	59.7 2015	63.3 2017	63.6 2019	↗	ND	NA
% of students in grades 6, 8, 10, & 12 indicating adults would think it was wrong to drink alcohol (PAYS)	19.6 2015	19.2 2017	19.1 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating adults would think it was wrong to use marijuana (PAYS)	14.3 2015	14.6 2017	14.5 2019	↗	ND	NA
% of students in grades 6, 8, 10, & 12 indicating it would be easy to get alcohol (PAYS)	44.6 2015	43.2 2017	40.7 2019	↘	ND	NA
% of students in grades 6, 8, 10, & 12 indicating it would be easy to get handgun (PAYS)	15.2 2015	14.6 2017	12.8 2019	↘	ND	NA
Legend						
State Trends	Arrow Direction			Arrow Color		
	↗ Increasing Trend			Desired Direction Across Three Waves		
	↘ Decreasing Trend			Undesired Direction Across Three Waves		
⇒ No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National	> State value greater		< National value greater		- No difference	

Notes.
 ND= No Data; NA= Not Available.
 *Refer to the data source table (Table 3-1) for sample sizes across years.
 +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.

Table 3-36. Community-level risk factor data table for measures of community bonding, safety, and laws and norms

COMMUNITY-LEVEL PROTECTIVE FACTORS: BONDING AND SOCIAL SUPPORTS

Youth who are connected to their community feel supported and cared for. Part of this connectedness often involves youth developing relationships with prosocial adults in the community.

Research has shown that having a positive relationship with just one adult mentor increases the likelihood that youth will have positive physical, mental, and emotional health outcomes (68-69).

Encouraging involvement in opportunities for community engagement and in rewarding involvement is also a significant protective factor.

The data below show:

- Over 90% of kids report that there is a trusted adult in school or the community
- The number of students reporting opportunities or rewards for prosocial involvement in the community is declining








Protective Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Community Support/ Connectedness						
% of parents indicating children ages 6-17 who live in a supportive neighborhood (NSCH)#	58.9 2016-2017	59.0 2017-2018	58.8 2018-2019		55.0 2018-2019	>
Presence of Mentors						
% of parents indicating children ages 6-17 with at least 1 adult mentor in school, neighborhood, or community (NSCH)#	91.4 2016	96.9 2017	92.5 2018		88.8 2018	>
Community Recognition and Opportunities for Prosocial Involvement						
% of students in grades 6, 8, 10, & 12 indicating community rewards for prosocial involvement (PAYS)	46.4 2015	42.9 2017	40.3 2019		41.3 2019	<
Greater Youth Participation in Stable Community						
% of parents indicating children ages 0-17 who participated in community service or volunteer work in past 12 months (NSCH)	41.4 2016-2017	39.9 2017-2018	39.2 2018-2019		43.9 2018-2019	<
Legend						
State Trends	Arrow Direction			Arrow Color		
	 Increasing Trend			Desired Direction Across Three Waves		
	 Decreasing Trend			Undesired Direction Across Three Waves		
 No Increase/decrease			Inconsistent Direction Across Three Waves			
State vs. National		> State value greater		< National value greater		- No difference
Notes. ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description. #Indicates protective factor measure is also a social determinant of health.						

Table 3-37. Community-level protective factor data table for measures of community bonding, supportive adults, and opportunities



ASSESSMENT OF SOCIETAL- AND ENVIRONMENTAL-LEVEL RISK AND PROTECTIVE FACTORS

Societal and environmental risk and protection includes characteristics of the physical and built environments where children and youth reside. These can include regional-level policies, laws, and sociocultural norms (70).

Environmental factors include neighborhood structural characteristics, land-use patterns, transportation systems, and urban planning and design features (70-71). Societal factors include norms, policies, and laws that govern systems and set appropriate norms across schools, families, and communities (72-73).

Even though societal and environmental risk and protective factors are less immediate in youth's lives, they can have a substantial influence on health outcomes both directly and indirectly by impacting other ecological levels, such as the family, school, or community. Overall, societal and environmental conditions affect large groups of people who share common living or working spaces.

Population-level and sub-group-level trends in health risk behaviors often vary in profiles depending on differences in environmental conditions. For example, environmental factors affecting youth transportation to and from school may look quite different for urban high-density areas compared to rural Appalachian regions.

The Social Determinants of Health illuminate how access to health care and poor neighborhood conditions differentially impact health risk and disease outcomes, both within and across communities. Existing disparities across subgroups (race, ethnicity, gender, rurality, and/or socioeconomic status) are evident for a variety of health and well-being outcomes (15-16).

Contributions from prevention and public health highlight a need to incorporate health equity and systems coordination to effectively address societal and environmental risk and protective factors (73-74).



MATRIX OF INDIVIDUAL-LEVEL RISK FACTORS

Risk Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
Economic Deprivation & Hardship	✓	✓	✓	✓	✓	✓
Poverty	✓	✓	✓	✓	✓	✓
Food Insecurity & Hunger	✓	✓	✓	✓	✓	✓
Housing & Neighborhood Quality	✓	✓	✓	✓	✓	✓
Cultural & Sociopolitical Norms	✓	✓	✓	✓	✓	✓
Socio-cultural Norms Favorable Towards Antisocial Behavior	✓	✓	✓		✓	✓
Socio-cultural Norms Favorable Towards Substance Misuse	✓	✓	✓		✓	✓
Inadequate Policies and Laws Regarding Social Welfare and Health	✓	✓	✓	✓	✓	✓
Lack of Available, Accessible, & Affordable Healthcare	✓	✓	✓		✓	✓
Healthcare Access	✓	✓	✓		✓	✓
Healthcare Availability	✓	✓	✓		✓	✓

Table 3-38. Societal- and environmental-level risk factors and their association to youth health risk behaviors

MATRIX OF INDIVIDUAL-LEVEL RISK FACTORS

Protective Factors	Youth Health Risk Behaviors					
	Substance Misuse	Depression & Anxiety	Violence	School Dropout	Delinquency	Teen Pregnancy
Opportunities for Economic Growth	✓	✓	✓	✓	✓	✓
Policies Supporting Employment Opportunities	✓	✓	✓	✓	✓	✓
Health Literacy	✓	✓	✓	✓	✓	✓
Access to Quality & Culturally Responsive Healthcare	✓	✓	✓	✓	✓	✓
Quality Health Care	✓	✓	✓	✓	✓	✓
Health Insurance Coverage	✓	✓	✓	✓	✓	✓
Food Justice		✓		✓	✓	
Access to Healthy, Nutritious, and Culturally Appropriate Food		✓		✓	✓	
Food Sovereignty		✓		✓	✓	

Table 3-39. Societal- and environmental-level protective factors and their association to youth health risk behaviors

SOCIETAL/ENVIRONMENTAL-LEVEL RISK FACTORS: NEIGHBORHOOD QUALITY

Economic risk factors within societal and environmental contexts are increasingly being addressed through community prevention systems targeting environmental, policy, and systems-level changes.

Often these can include policies and infrastructures that relate to population-level targets, including laws and norms, environmental strategies, and public campaigning.

Studies of the social determinants of health and health inequities highlight the need for a greater understanding of how to incorporate environmental strategies into primary prevention planning efforts (16).

The data below show:

- According to the Robert Wood Johnson Foundation's CountyHealth Rankings, 17% of youth are living in poverty
- Less than 20% of households report substandard housing or dilapidated neighborhoods
- According to KidsCount data, about 60% of households report housing cost burden

Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Poverty						
% of children under 18, living in poverty (RWJF-CHR)#	18.0 2018	17.0 2019	17.0 2020		18.0 2020	<
% of children under 18, living in families with incomes at 100% of the federal poverty level (Kids Count)#	17.0 2017	17.0 2018	17.0 2019		17.0 2019	–
% of children under 18, living in families with incomes less than 50% of the federal poverty level (Kids Count)#	8.0 2017	8.0 2018	8.0 2019		7.0 2019	>
Housing & Neighborhood Quality						
% of households indicating severe housing problems (RWJF-CHR)#	15.0 2018	15.0 2019	15.0 2020		18.0 2020	<
% of children in low-income households with high housing cost burden (Kids Count)#	61.0 2016	60.0 2017	59.0 2018		61.0 2018	<
% of children in households with high housing cost burden (Kids Count)#	29.0 2016	27.0 2017	27.0 2018		31.0 2018	<
% of households with children ages 0-17 indicating their neighborhood has poorly kept or dilapidated housing (NSCH)#	11.7 2016-2017	12.2 2017-2018	13.9 2018-2019		13.3 2018-2019	>
% of households with children ages 0-17 indicating their neighborhood has litter/garbage on sidewalks (NSCH)#	17.0 2016-2017	17.0 2017-2018	21.2 2018-2019		21.0 2018-2019	>
% of households with children ages 0-17 indicating their neighborhood has broken windows/graffiti (NSCH)#	5.8 2016-2017	6.1 2017-2018	8.8 2018-2019		7.7 2018-2019	>
Legend						
State Trends	Arrow Direction			Arrow Color		
	Increasing Trend			Desired Direction Across Three Waves		
	Decreasing Trend			Undesired Direction Across Three Waves		
	No Increase/decrease			Inconsistent Direction Across Three Waves		
State vs. National	> State value greater		< National value greater		– No difference	
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						
#Indicates risk factor measure is also a social determinant of health.						

Table 3-40. Societal- and environmental-level risk factor data table for measures of poverty, housing, and neighborhood quality

SOCIETAL/ENVIRONMENTAL-LEVEL RISK FACTORS: FOOD SECURITY AND INSURANCE

There is increasing evidence of the need to consider the effects of food insecurity and hunger on youth behavioral and mental health (75-76).

This may be particularly important in community contexts where access to healthy affordable food is a challenge, and communities with populations of runaway youth, or youth experiencing a multitude of Adverse Childhood Experiences.

The data below show:

- According to KidsCount data, about 16% of youth live in families that are food insecure
- According to KidsCount, about 5% of children lack health insurance








Risk Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Food Insecurity and Hunger						
% of students in grades 6, 8, 10, & 12 indicating they worry about food (PAYS)#	13.8 2015	13.4 2017	11.7 2019		ND	NA
% of students in grades 6, 8, 10, & 12 indicating they skipped a meal (PAYS)#	6.6 2015	6.8 2017	6.2 2019		ND	NA
% of children under 18, living in households with food insecurity in the past year (Kids Count)#	17.0 2014-2016	17.0 2015-2017	16.0 2016-2018		17.0 2016-2018	<
Children without Health Insurance						
% of children under 18, without health insurance (Kids Count)#	4.0 2017	4.0 2018	5.0 2019		6.0 2019	<
Health Care Access & Availability						
% of children under 18, who have received preventative dental care (Kids Count)#	ND	81.0 2016-2017	82.0 2017-2018	NA	80.0 2017-2018	>
% of parents indicating children ages 3-17 had difficulties obtaining mental health care (NSCH)#	48.6 2016-2017	ND	36.1 2018-2019	NA	41.5 2018-2019	<
% of parents indicating children ages 3-17 had difficulties obtaining specialist care (NSCH)#	25.9 2016-2017	ND	21.8 2018-2019	NA	21.7 2018-2019	>
Legend						
State Trends	Arrow Direction			Arrow Color		
	 Increasing Trend			Desired Direction Across Three Waves		
	 Decreasing Trend			Undesired Direction Across Three Waves		
 No Increase/Decrease			Inconsistent Direction Across Three Waves			
State vs. National		> State value greater		< National value greater		- No difference
Notes.						
ND= No Data; NA= Not Available.						
*Refer to the data source table (Table 3-1) for sample sizes across years.						
+Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						
#Indicates risk factor measure is also a social determinant of health.						

Table 3-41. Societal- and environmental-level risk factor data table for measures of food insecurity and health insurance coverage

SOCIETAL/ENVIRONMENTAL-LEVEL PROTECTIVE FACTORS: QUALITY HEALTH CARE

Families and youth who have access to quality health care receive care that is patient-centered, culturally and linguistically sensitive to clientele, and affordable are more likely to have better health outcomes compared to those who do not (77-78). Care is provided according to evidence-informed guidelines and practices.

Policy approaches and strategies like Families First Acts and medication-assisted treatment are just two examples that highlight how coordination across prevention and health care systems can be beneficial to both systems and the families and youth they serve.

The data below show:

- According to the National Survey of Children's Health, for those who have health insurance:
 - More than 66% of parents report their health insurance always covers their needs
 - More than 66% of parents report their child's mental and behavioral health needs are adequately covered by insurance

Protective Factors and Measures	Pennsylvania*			State Trend	National+	State Compared to National
	Value Year	Value Year	Value Year		Value Year	
Health Insurance Coverage						
% of parents indicating children ages 0-17 whose health insurance always/usually covers their needs adequately (NSCH)	77.9 2016-2017	76.3 2017-2018	77.7 2018-2019		73.1 2018-2019	>
% of parents indicating children ages 3-17 whose health insurance always/usually covers mental and behavioral health needs adequately (NSCH)	82.8 2016-2017	77.4 2017-2018	76.0 2018-2019		70.3 2018-2019	>
Access to Healthy Food Options						
Food Environment Index, scaled 0-10, 0 being worst and 10 being best (RWJF-CHR)	8.2 2018	8.2 2019	8.2 2020		7.6 2020	>
Legend						
State Trends	Arrow Direction			Arrow Color		
	Increasing Trend			Desired Direction Across Three Waves		
	Decreasing Trend			Undesired Direction Across Three Waves		
			No Increase/decrease			Inconsistent Direction Across Three Waves
State vs. National		> State value greater		< National value greater		- No difference
Notes. ND= No Data; NA= Not Available. *Refer to the data source table (Table 3-1) for sample sizes across years. +Different data sources used different sample comparisons. Refer to the data source table (Table 3-1) for national comparison sample description.						

Table 3-42. Societal- and environmental-level protective factor data table for measures of health care coverage and access to healthy foods

UNOBSERVED RISK AND PROTECTIVE FACTORS

Some of the risk and protective factors observed in the literature lacked data that would permit further examination in the Commonwealth context. However, given the extent of data being collected at this point in time, we decided to include these risk and protective factors here for stakeholders to consider. If these data are being collected locally or regionally, they can help to illuminate conditions and/or problems that are present in one's community. State-level decision-makers may consider how to incorporate the collection of this information into existing measurement and assessment systems.

Risk Factors

SOCIETAL & ENVIRONMENTAL

- CULTURAL NORMS SUPPORTIVE OF AGGRESSION
- HARMFUL NORMS SURROUNDING MASCULINITY/FEMININITY
- INADEQUATE POLICIES & LAWS REGARDING SOCIAL WELFARE & HEALTH
- CONTAMINATED WATER

COMMUNITY

- POPULATION DENSITY & URBANICITY
- HIGH ALCOHOL OUTLET DENSITY
- MEDIA VIOLENCE & PORTRAYALS
- POOR NEIGHBORHOOD SUPPORT

SCHOOL

- LACK OF CONTROL/MASTERY OF EXPERIENCES
- LOW SCHOOL READINESS
- SCHOOL-LEVEL PERMISSIVE NORMATIVE CLIMATE
- CONFLICT BETWEEN HOME AND SCHOOL CULTURE
- SOCIAL TRAUMA
- SCHOOL-LEVEL STRESSFUL OR TRAUMATIC EVENTS

FAMILY

- PARENTS WITH ANXIETY
- INADEQUATE SUPERVISION & MONITORING
- LOW PARENTAL ASPIRATIONS FOR THE CHILD
- POOR ATTACHMENT TO PARENTS
- POOR PARENT-CHILD RELATIONSHIPS
- PARENT-CHILD CONFLICT
- PARENTAL HOSTILITY
- PARENTAL OVERCONTROL & INTRUSIVENESS
- HARSH & INCONSISTENT DISCIPLINE
- INEFFECTIVE PARENTING SKILLS
- PERMISSIVE PARENTING
- COLD/UNRESPONSIVE MOTHER BEHAVIOR
- FAMILY STRESS

PEER

- PEER DELINQUENCY & ANTISOCIAL BEHAVIOR
- PEER VIOLENCE
- PEER REJECTION
- ALIENATION FROM PEERS
- SOCIAL ISOLATION/LACK OF SOCIAL SUPPORT
- OLDER SEXUAL PARTNER

INDIVIDUAL

- APATHY
- BOREDOM
- LONELINESS
- PUBERTAL TIMING

Protective Factors

SOCIETAL & ENVIRONMENTAL

- POLICIES SUPPORTING EMPLOYMENT OPPORTUNITIES
- HEALTH LITERACY
- QUALITY HEALTH CARE

COMMUNITY

- BONDING TO PROSOCIAL OTHERS IN THE COMMUNITY
- PROGRAMS/POLICIES/PRACTICES TO PROMOTE HEALTHY YOUTH BEHAVIOR

SCHOOL

- BONDING TO PROSOCIAL OTHERS
- SECURE ATTACHMENT TO TEACHERS
- POSITIVE PARTNERING WITH PARENTS
- CONNECTION TO SCHOOL
- REGULATORY SYSTEMS SUPPORTING CARE
- PREVENTION & INTERVENTION PROGRAMS
- HIGH ACADEMIC STANDARDS
- CLEAR EXPECTATIONS FOR BEHAVIOR
- EFFECTIVE CLASSROOM MANAGEMENT
- ACCESS TO SUPPLEMENTAL SERVICES & STUDENT SUPPORT
- SUPPORT FOR EARLY LEARNING
- POSITIVE NORMS

FAMILY

- HIGHER PARENTAL EXPECTATIONS ABOUT SCHOOL
- CONSISTENT DISCIPLINE
- RESPONSIVE & SUPPORTIVE PARENTING

PEER

- POSITIVE PEER ROLE MODELS
- FRIENDS WITH STUDENTS WITH GOOD GRADES
- INTIMACY & SUPPORT IN FRIENDSHIPS
- POPULAR WITH PEERS
- RELIGIOUS PEERS

INDIVIDUAL

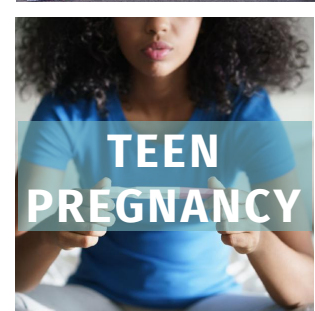
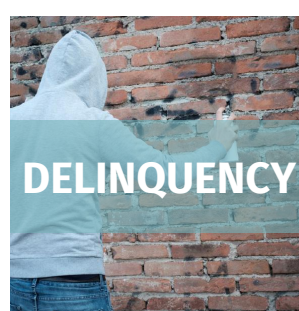
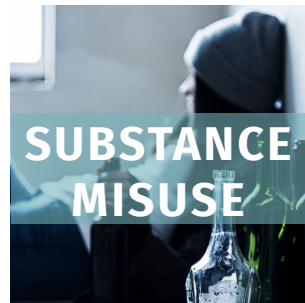
- HEALTHY COGNITIVE DEVELOPMENT
- EMOTIONAL COMPETENCE
- PROBLEM-SOLVING SKILLS
- SELF-ESTEEM & POSITIVE SELF-IMAGE
- SELF-EFFICACY
- AUTONOMY
- CULTURAL & ETHNIC IDENTITY
- ACADEMIC ACHIEVEMENT
- FUTURE ORIENTATION
- POSITIVE ATTITUDES TOWARD LIFE

Table 3-43. Risk & protective factors with no data available at the time of assessment

PROFILES OF HEALTH RISK BEHAVIORS FOR PENNSYLVANIA'S YOUTH

This section offers a review of Pennsylvania data on the six health risk behavior outcomes for youth that are the focus of this report. This data assessment should be used in tandem with the previous section that offers the risk and protective factor data for these costly youth health risk behaviors. Each behavioral health profile includes the following:

- **Description of the health risk behavior**
- **Costs associated with addressing problems AFTER they have occurred**
- **Measurements of the risk behavior**
- **Consequences of the risk behavior**
- **Data Profiles: includes data on prevalence, indicators, consequences, and disparities**
- **Risk and protective factor matrix for the risk behavior**



Unless otherwise noted, all data reported in the data profiles come from the PAYS administration from the last three cycles: 2015, 2017, and 2019. In data graphics involving other sources (e.g., Youth Risk Behavior Surveillance System data or Juvenile Justice disposition data), these sources are referred to within the data graphic. Data sources used for the health risk behavior profiles are also listed in the data sources table in chapter 3 (Table 3-1).

SUBSTANCE MISUSE

In 2019,
19%

of adolescents
reported drinking
alcohol in the last
ten days (PAYS).

Substance misuse refers to youth use of alcohol, tobacco, vaping products, marijuana, and illicit substances such as heroin or cocaine (29). It also refers to the misuse of prescription medications (taking medicines not prescribed for them or taking an incorrect dosage), as well as misuse of household chemicals (e.g., aerosols used in huffing).

Substance misuse harms the health and well-being of individuals and communities and requires a comprehensive approach to addressing the issue. There is a large body of research that shows substance misuse is driven by psychological, biological, and social connections which make it a complex issue to address.



Substance misuse is estimated to cost society \$442 billion each year in health care costs, lost productivity, and criminal justice costs*

Measurement and Assessment

Substance misuse among youth is often a covert behavior not easily observed by others (29). Therefore, youth self-report is the best indicator of this construct. Substance misuse is often comorbid with other health risk behaviors, and in some cases may be an indication of other mental health and behavioral challenges (31).

The data in this report are drawn primarily from the PAYS, which assesses self-reported substance use behaviors, attitudes, beliefs, and peer, family, and community influences.

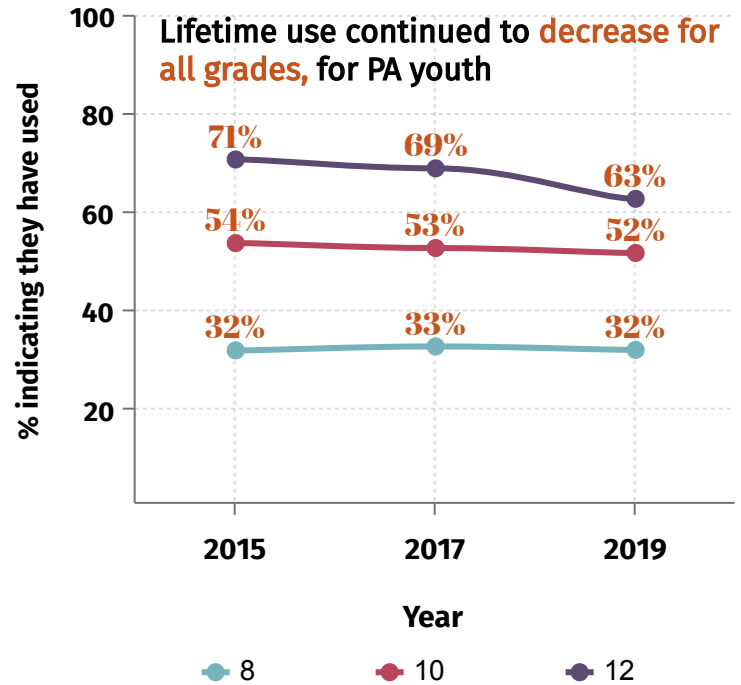
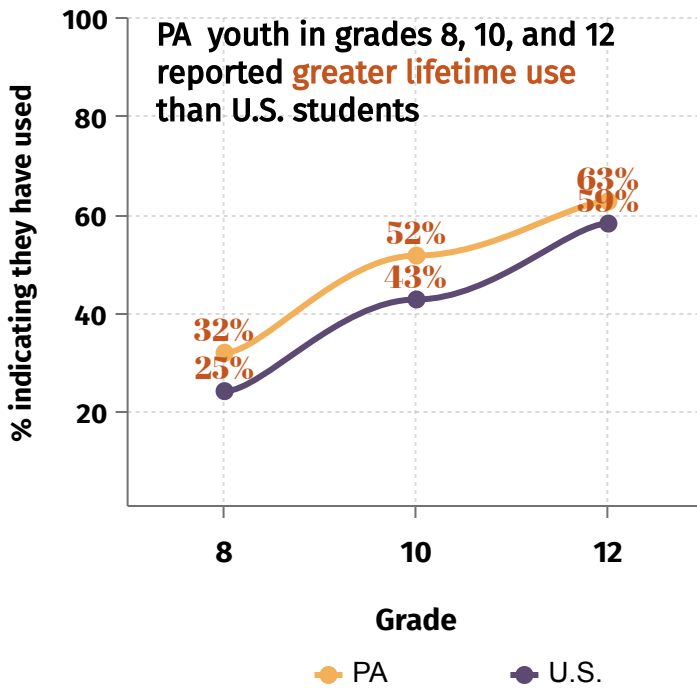
Consequences

The consequences of substance use for youth are different than for adults, given that substance use can interfere with critical aspects of brain development in adolescence and can prevent youth from reaching critical developmental milestones that “set the stage” for their entire future.

Substance misuse in adolescence is related to poor school performance and school drop-out, delinquent behavior, risky sexual behavior, lower levels of vocational attainment in adulthood, and low-quality relationships.

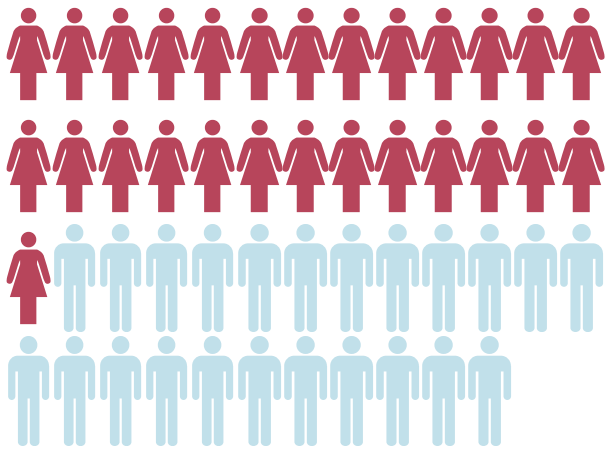
*** To learn more about the high costs and other issues surrounding substance misuse, please visit:
<https://addiction.surgeongeneral.gov/vision-future/time-for-a-change#1>**

ALCOHOL USE AND RELATED BEHAVIORS (PAYS)



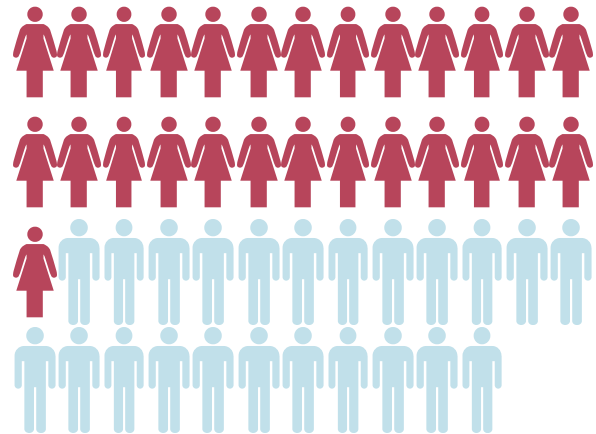
In 2019, girls in 10th grade reported **greater lifetime use** than boys

54.5%



In 2019, girls in 12th grade reported **greater lifetime use** than boys

65.8%



76.5%

of 10th graders **believed they would be caught** by the police for underage drinking

25.7%

of students who reported past year alcohol use **received it from their parents**

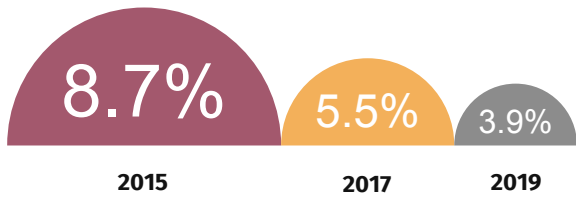
38.1%

of 12th graders reported that their primary source of alcohol was **someone older to whom they gave money to purchase it**

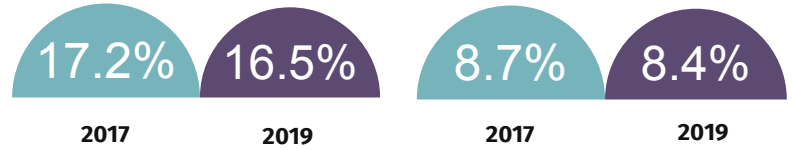
~ 40%

of 8th (40.4) and 10th (41.1) graders got alcohol by **taking it without permission**. This is a dramatic increase since 2015 (24.4% for 8th & 31% for 10th grade)

DRINKING AND DRIVING BEHAVIORS (PAYS)

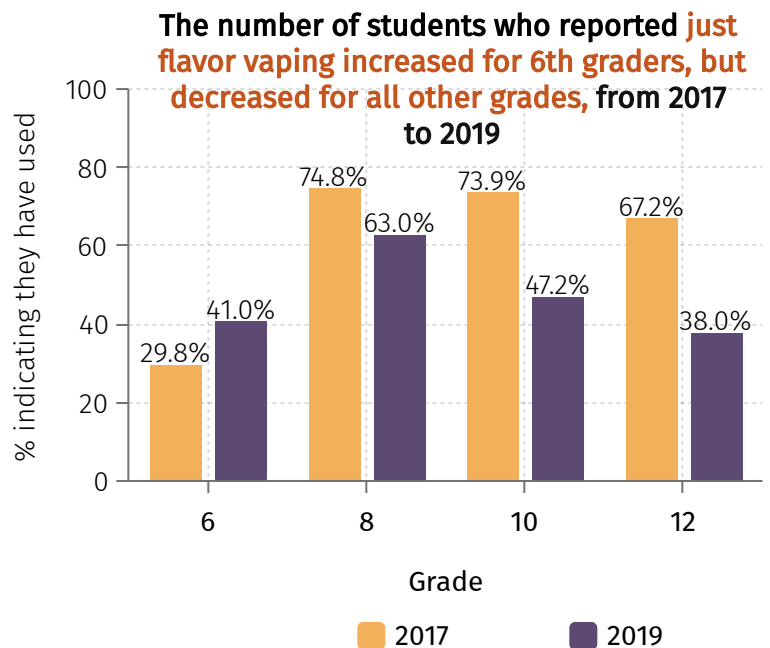
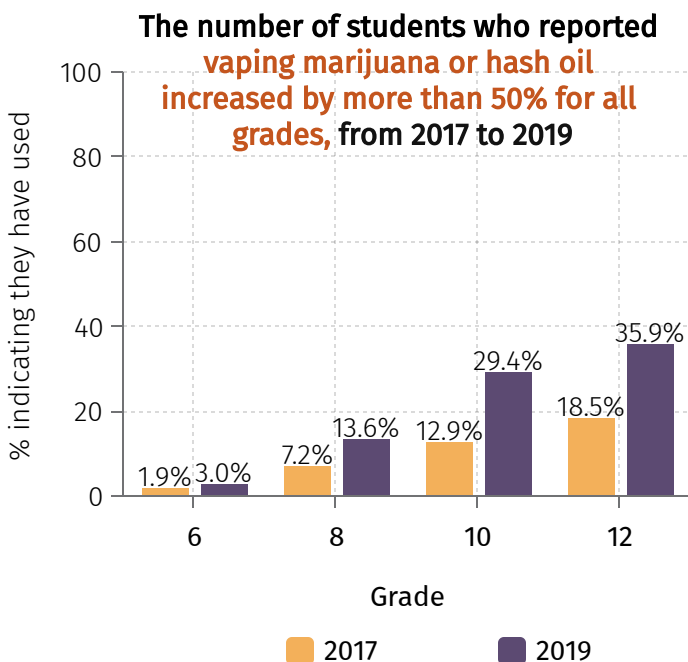
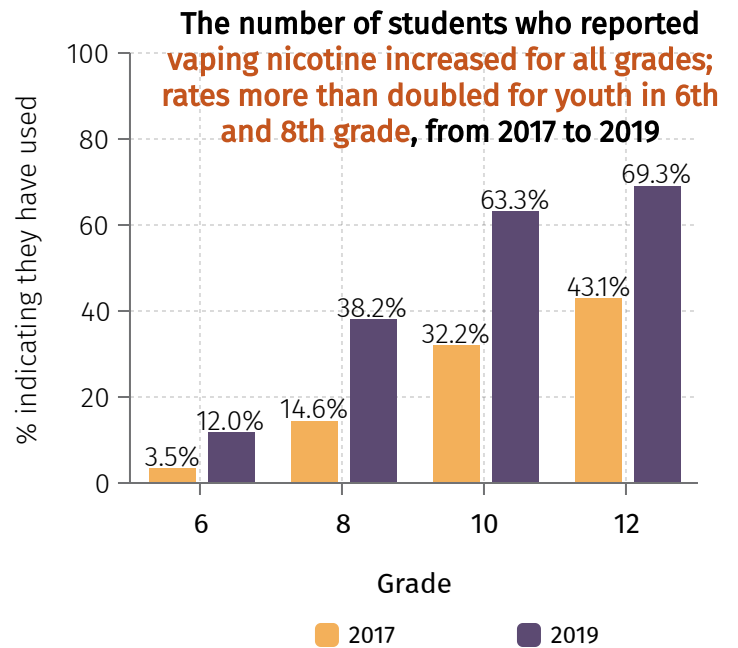
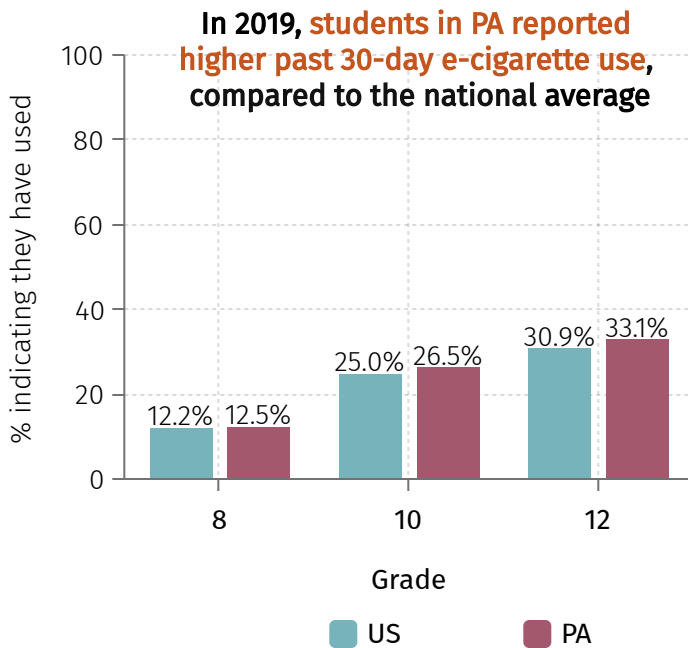


12th graders who reported driving a vehicle while drinking alcohol during the past year continued to decline.

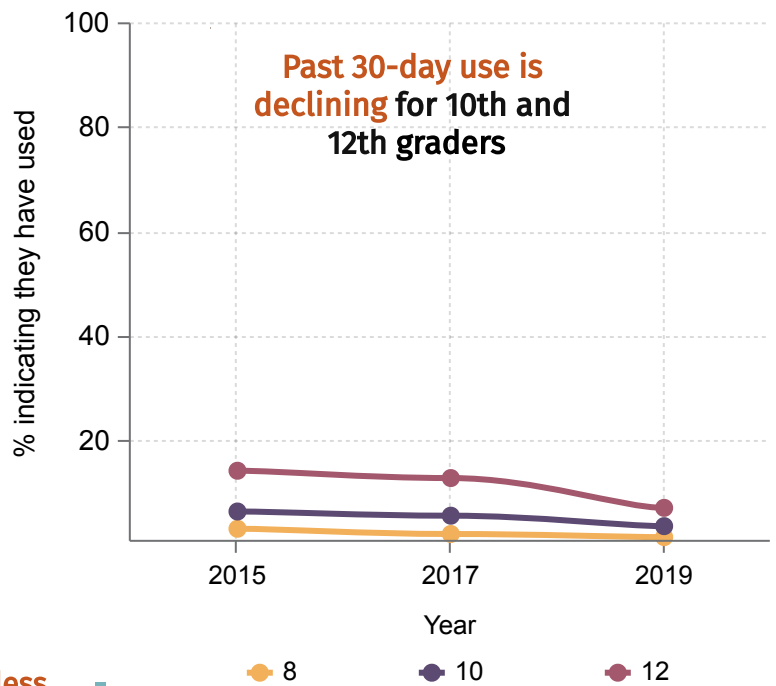
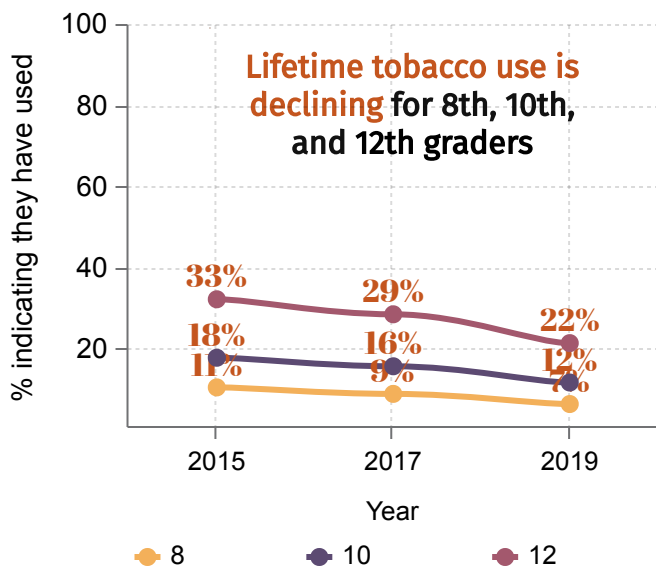


12th graders who reported driving a vehicle after drinking alcohol during the past year continues to decline.

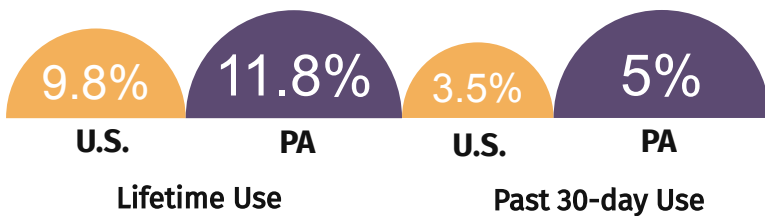
VAPING AND E-CIGARETTE USE (PAYS)



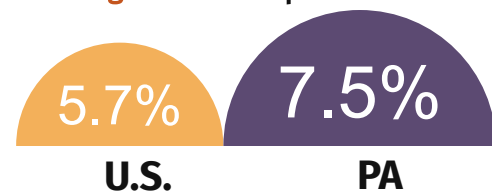
TOBACCO USE (PAYS)



In 2019, 12th graders in PA reported using smokeless tobacco at greater rates than U.S. students

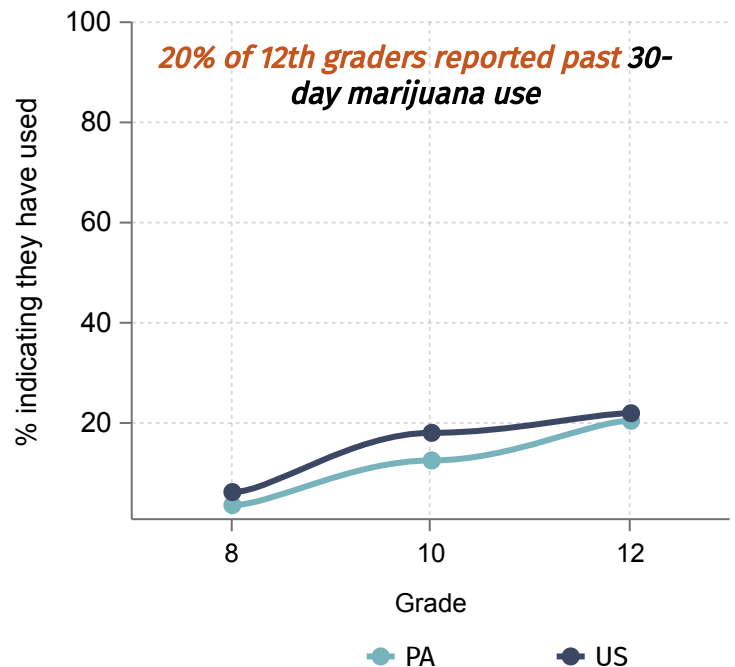
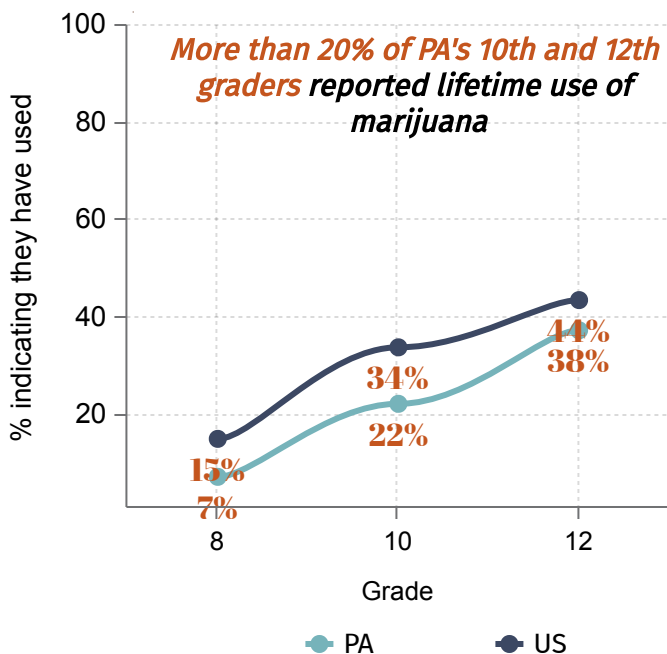


In 2019, 12th graders in PA reported higher 30-day use of cigarettes compared to U.S. students



PA students in grades 10 and 12 reported using more marijuana than tobacco for both lifetime use and 30-day use.

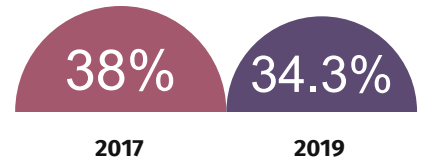
MARIJUANA USE (PAYS)



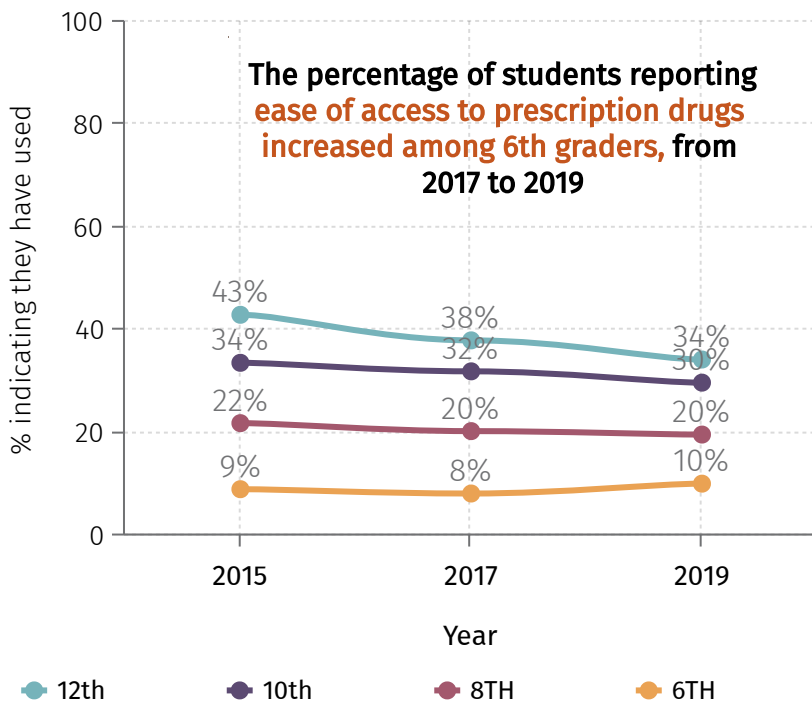
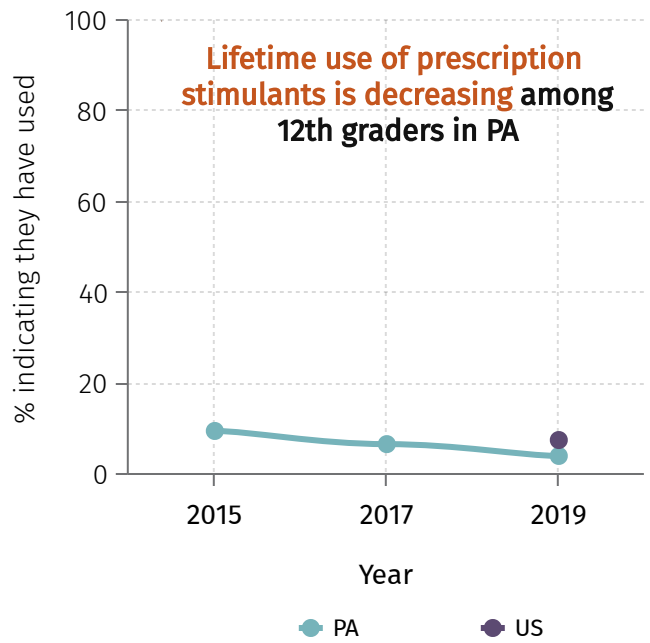
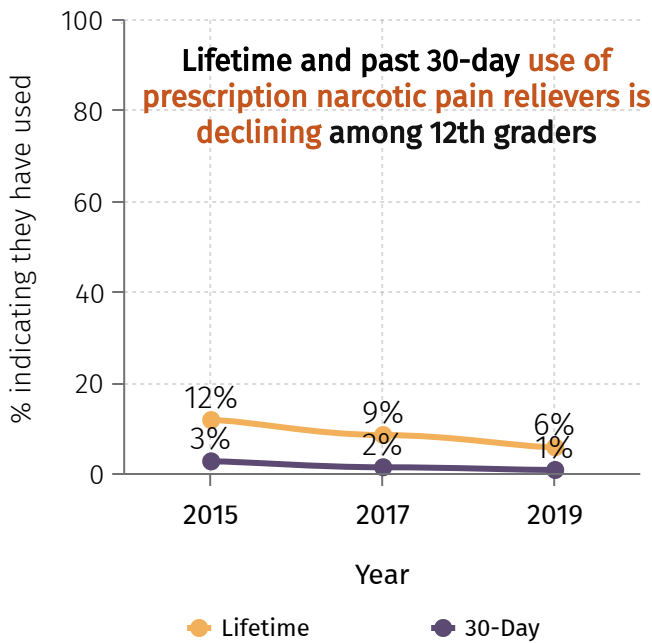
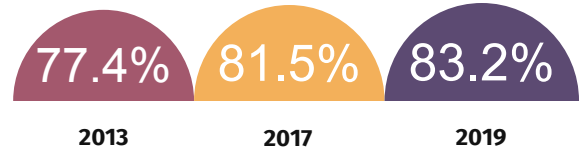
PRESCRIPTION DRUG MISUSE (PAYS)

The most frequently misused prescription drugs are pain relievers or opioids, compared to depressants and stimulants

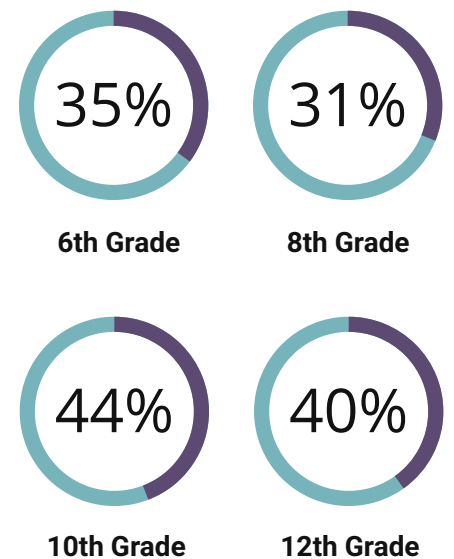
The sharpest decrease in overall prescription drug misuse was among 12th graders from 2017 to 2019



12th graders increasingly reported that their friends would think it was wrong or very wrong to use prescription drugs without a doctor's script



In 2019, of those using prescription drugs in the past 12 months, more than 30% said a friend or family member gave them the drugs



The matrix shown below describes the risk and protective factors found to contribute to reductions or increases in substance misuse. Please refer back to the data tables in chapter 3 to identify the rates for these risk and protective factors at the state and national levels.

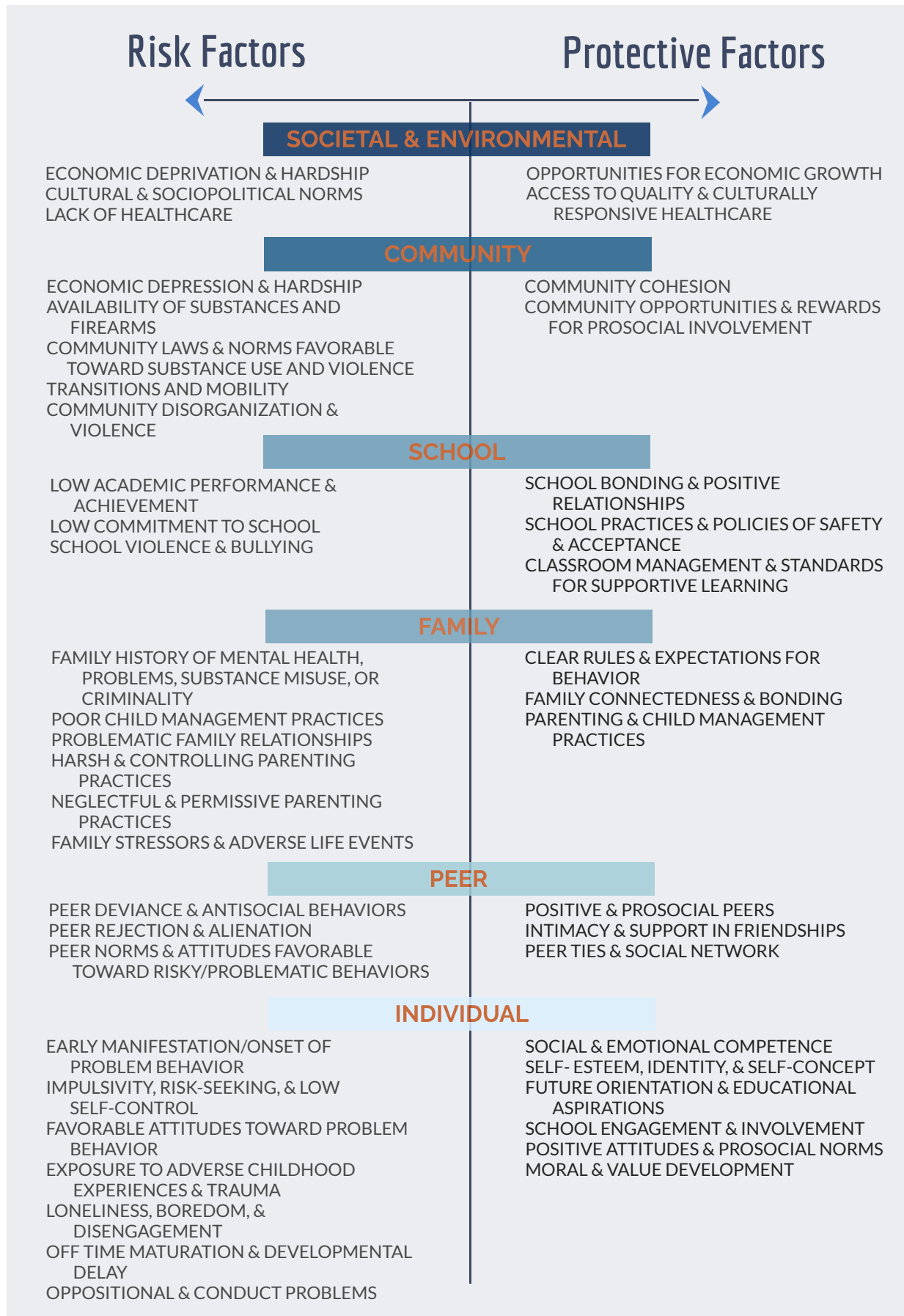


Table 4-1. Substance misuse risk & protective factors



DEPRESSION & ANXIETY

In 2019,

62.1%

of school aged youth in PA, reported moderate depressive symptoms and 7.1% reported high symptomatology (PAYS).

Anxious and depressive symptoms are some of the most common mental health challenges youth are facing today.

Symptoms of anxiety include feelings of worry or nervousness that are outside of the level expected for the situation, concentration problems, trouble sleeping and eating, and physical symptoms like headaches, stomach aches, or shallow breathing; thoughts and feelings are often psychosomatic (79-80). Depressive symptomatology can include a depressed mood, but also irritability or a lack of interest in formerly engaging activities, trouble sleeping or sleeping too much, feelings of hopelessness, trouble eating or eating too much, low energy, and, in some cases, suicidality. **These can and do occur simultaneously within many youth experiencing psychological trauma (81-82).** Clinical levels of depression can cause feelings of sadness and/or a loss of interest in activities once enjoyed. It can lead to a variety of emotional and physical problems and can decrease youth's ability to function at school, in sports, at home, and in interpersonal relationships.



In 2017, the overall annual cost of incarcerating people with serious mental illness in state prisons in Pennsylvania exceeded \$140 million (83).

Measurement and Assessment

PAYS is a valid and reliable data source for assessing population-level symptoms stemming from anxiety and depression. According to the 2019 PAYS, in which 239,340 students from 419 Pennsylvania school districts participated, 38% of all students felt depressed or sad most days in the past 12 months.

For an individual to be diagnosed with a mental illness, they must meet a threshold for the number of symptoms required. It is important to note, however, that even subthreshold symptoms can be problematic for those experiencing them.

There is a high comorbidity rate, meaning that depression and anxiety co-occur, with each other and with other mental health conditions (81-82).

Consequences

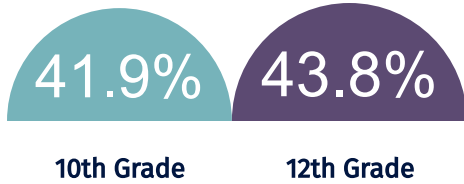
Depression and anxiety are associated with risky behaviors, including criminal activity and substance use, and with suicide risk. Rural areas are more likely than urban areas to report higher rates of anxiety and depression. Those reporting poor mental health are 2.3% more likely to have a low income. Rural individuals also have less access to mental health resources (84).

Depression, in particular, is associated with the risk of suicide, with some reports indicating that 90% of people who have died by suicide had an underlying mental illness (85). Anxiety and depression can begin during childhood, though the first episodes of depression, in particular, usually take place during the transition to adolescence and young adulthood. If untreated, issues can continue into adulthood.

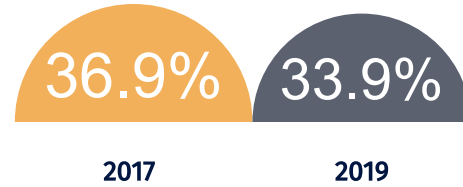
MENTAL HEALTH AND RELATED BEHAVIORS (PAYS)

38% of all students reported feeling sad or depressed most days

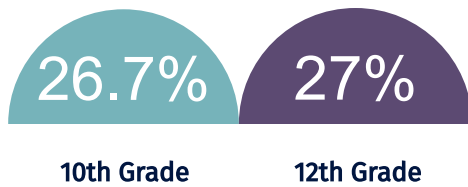
For 10th- and 12th-grade students this value was higher



For 8th-grade students, this value declined from 2017 to 2019

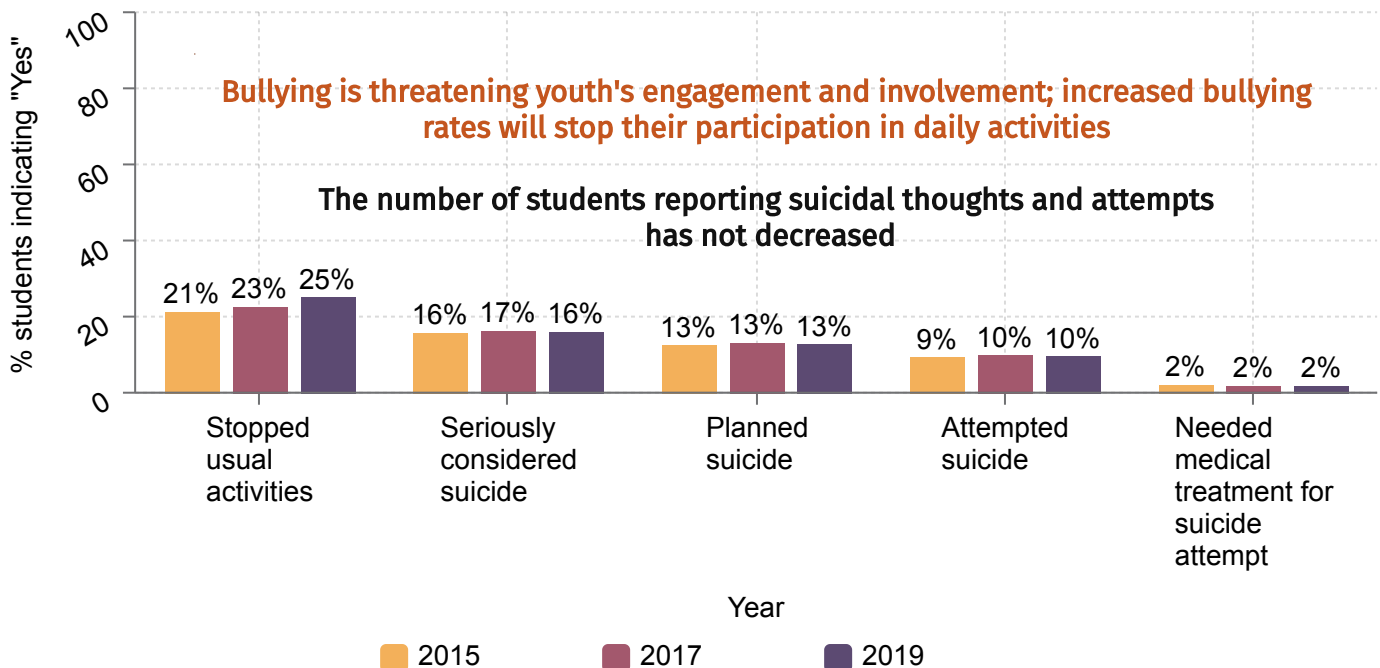
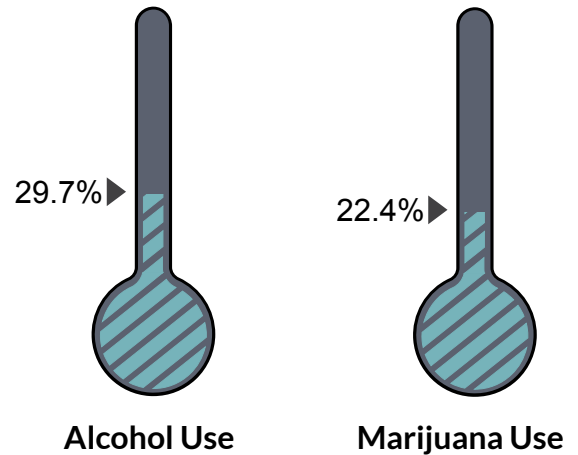
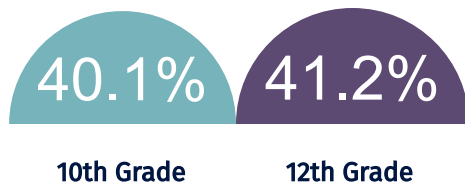


Almost 30% of students also reported feeling inclined to think that they are a failure



Only 7.1% of youth experience high depressive symptoms, but about 25% of those who are depressed are also misusing substances in the past 30 days

About 40% of students in 10th and 12th grade reported that "at times I think I am no good at all"

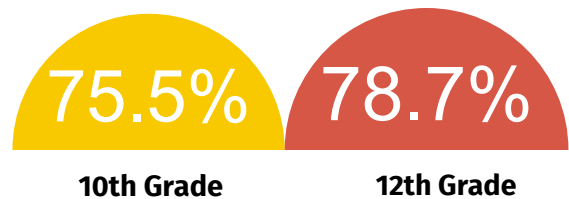
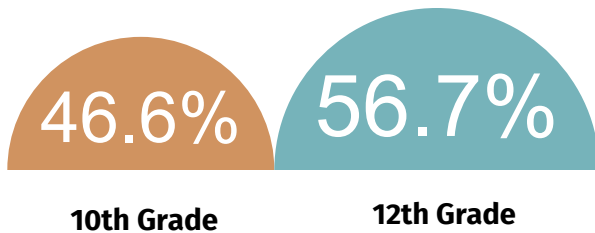


SLEEP HEALTH AND WORRYING ABOUT FOOD (PAYS)

11.5% of students worried that food would run out before their family could buy more.

37.9% of all students reported sleeping fewer than 7 hours/night on school nights; the percentage is higher for 10th- and 12th-grade students

About 64.7% of students reported feeling tired or sleepy during the day every day, or several times during the past two weeks. This was more than 10% higher for 10th- and 12th-grade students.

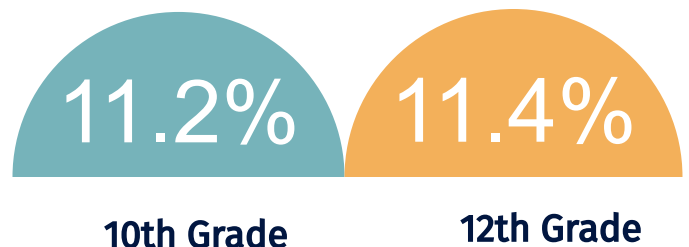
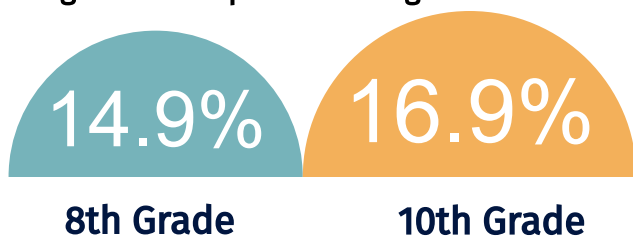


SUICIDAL AND OTHER SELF-HARM BEHAVIORS (PAYS)

30.6% of 12th graders and 29.4% of 10th graders reported being so sad they ceased doing their usual activities

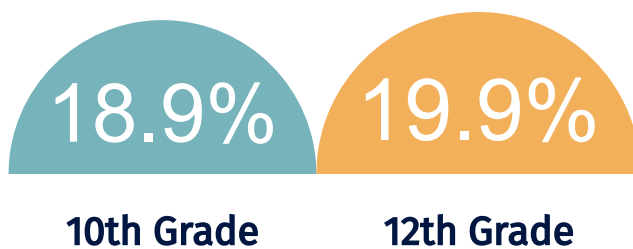
Overall, 14.4% of students reported self-harm (such as cutting) behaviors. But the rates were higher for 10th graders compared to 8th graders

10th- and 12th-grade students reported similar rates for "attempting suicide" in the past year



Almost 20% of 10th- and 12th-grade students reported "considering suicide" in the past year

39.5% of students who reported being bullied through texting/social media seriously considered suicide in the past year

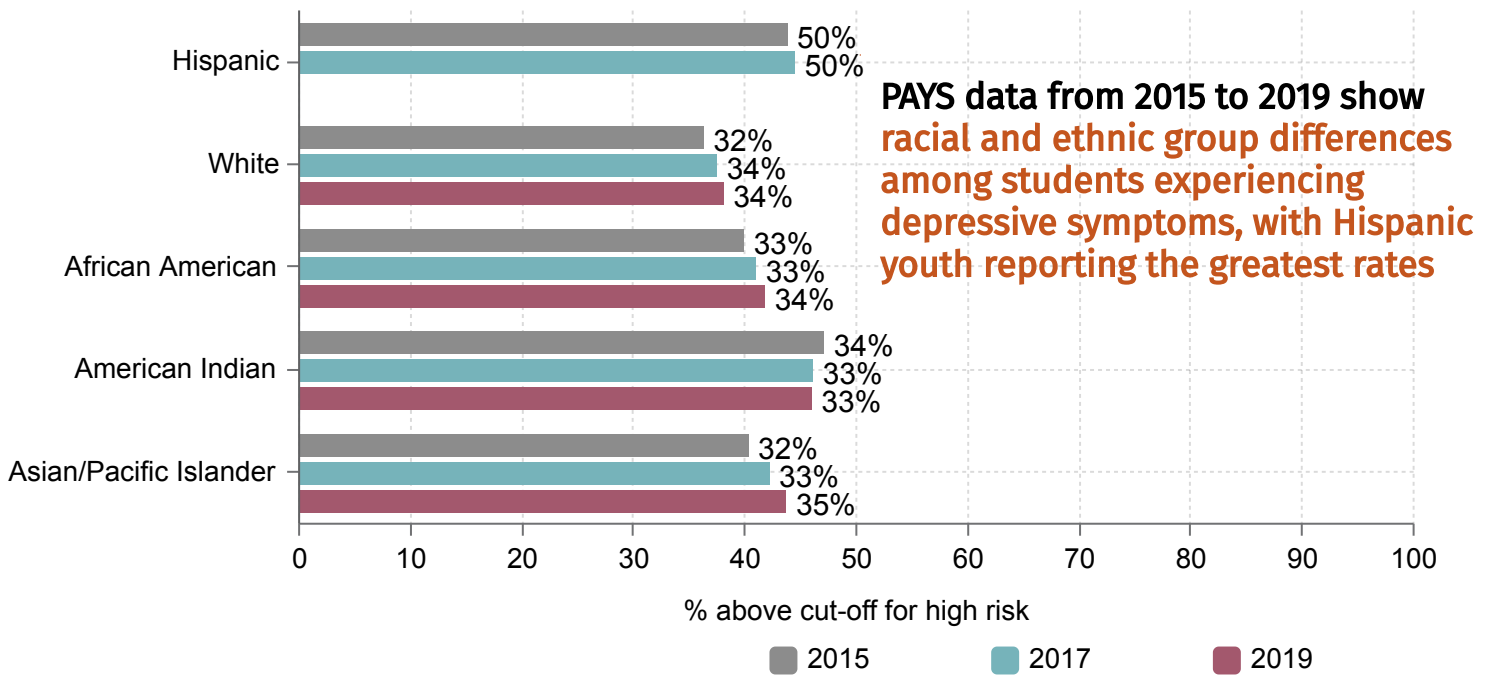


DISPARITIES IN MENTAL HEALTH BEHAVIORS

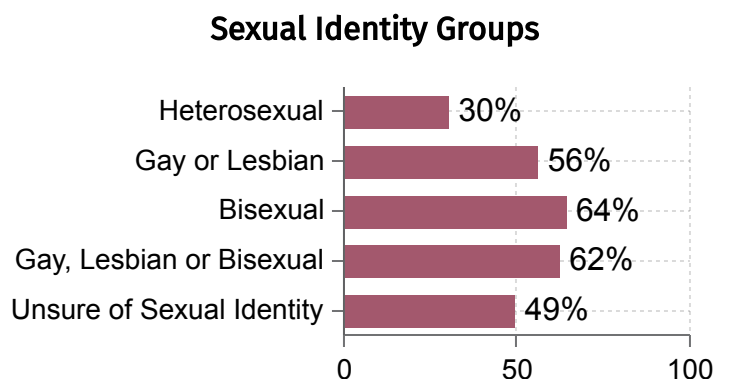
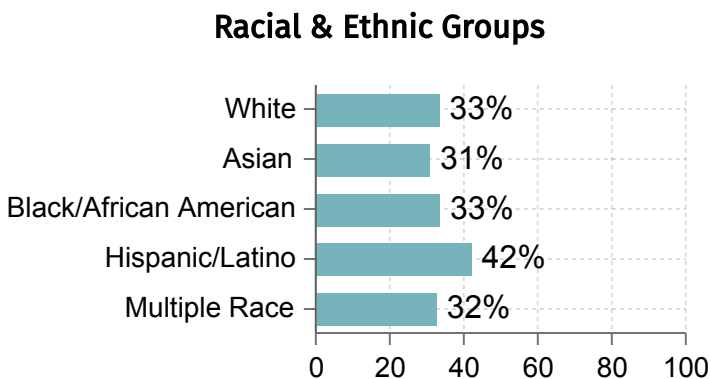
Girls reported greater depressive symptoms than boys, at a rate of 1.5 to 1

In 2019, PAYS data show 48.8% of girls experienced symptoms above the cut-off point for high risk, compared to only 27.9% of boys

Rates of depressive symptoms for girls have increased since 2015, but remained relatively stable for boys



In 2019, YRBSS data show disparities in student reported feelings of daily sadness and hopelessness for 2 consecutive weeks in the past year, with Hispanic/Latino youth showing the highest percentage



The matrix shown below describes the risk and protective factors found to contribute to reductions or increases in depression and anxiety. Please refer back to the data tables in chapter 3 to identify the rates for these risk and protective factors at the state and national levels.

Risk Factors	Protective Factors
SOCIETAL & ENVIRONMENTAL	
ECONOMIC DEPRIVATION & HARDSHIP CULTURAL & SOCIOPOLITICAL NORMS LACK OF HEALTHCARE	OPPORTUNITIES FOR ECONOMIC GROWTH ACCESS TO QUALITY & CULTURALLY RESPONSIVE HEALTHCARE
COMMUNITY	
ECONOMIC DEPRESSION & HARDSHIP TRANSITIONS AND MOBILITY COMMUNITY DISORGANIZATION & VIOLENCE	COMMUNITY COHESION COMMUNITY OPPORTUNITIES & REWARDS FOR PROSOCIAL INVOLVEMENT
SCHOOL	
LOW ACADEMIC PERFORMANCE & ACHIEVEMENT LOW COMMITMENT TO SCHOOL SCHOOL VIOLENCE & BULLYING	SCHOOL BONDING & POSITIVE RELATIONSHIPS SCHOOL PRACTICES & POLICIES OF SAFETY & ACCEPTANCE CLASSROOM MANAGEMENT & STANDARDS FOR SUPPORTIVE LEARNING
FAMILY	
FAMILY HISTORY OF MENTAL HEALTH PROBLEMS, SUBSTANCE MISUSE, & CRIMINALITY POOR CHILD MANAGEMENT PRACTICES PROBLEMATIC FAMILY RELATIONSHIPS HARSH & CONTROLLING PARENTING PRACTICES NEGLECTFUL & PERMISSIVE PARENTING PRACTICES FAMILY STRESSORS & ADVERSE LIFE EVENTS	CLEAR RULES & EXPECTATIONS FOR BEHAVIOR FAMILY CONNECTEDNESS & BONDING PARENTING & CHILD MANAGEMENT PRACTICES
PEER	
PEER DEVIANCE & ANTISOCIAL BEHAVIORS PEER REJECTION & ALIENATION	POSITIVE & PROSOCIAL PEERS INTIMACY & SUPPORT IN FRIENDSHIPS
INDIVIDUAL	
EARLY MANIFESTATION/ONSET OF PROBLEM BEHAVIOR IMPULSIVITY, RISK-SEEKING, & LOW SELF-CONTROL EXPOSURE TO ADVERSE CHILDHOOD EXPERIENCES & TRAUMA LONELINESS, BOREDOM, & DISENGAGEMENT OFF TIME MATURATION & DEVELOPMENTAL DELAY	SOCIAL & EMOTIONAL COMPETENCE SELF-ESTEEM, IDENTITY, & SELF-CONCEPT FUTURE ORIENTATION & EDUCATIONAL ASPIRATIONS SCHOOL ENGAGEMENT & INVOLVEMENT POSITIVE ATTITUDES & PROSOCIAL NORMS MORAL & VALUE DEVELOPMENT ENGAGING IN HEALTHY PRACTICES

Table 4-2. Depression & anxiety risk & protective factors

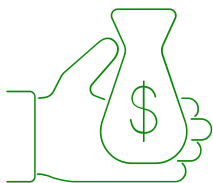


VIOLENCE

IN 2019,
18.3%
of students in PA
reported being
threatened at least
once in the past year
(PAYS).

Violence refers to the intentional use of physical force or power, threatened or actual, against another person, or against a group or community. This activity has a high likelihood of resulting in injury, death, psychological harm, maldevelopment, or deprivation. Youth violence is the intentional use by those ages 10-24 of physical force or power to threaten or harm others. This can include fighting, bullying, threats with weapons, and gang-related violence.

When youth's violent and antisocial behavior is ignored, serious consequences can result. In the past 20 years, there has been increasing media attention to school shootings and bullying and their impact on youth and communities. **Homicide is the third leading cause of death for youth ages 10-24 in the United States (86).**



Youth homicides and nonfatal physical assault-related injuries result in more than \$20 billion annually in combined medical and lost productivity costs alone (86).

Measurement and Assessment

Youth's violent and antisocial behaviors include threatening or attacking with weapons, bullying, and other antisocial behaviors. Bullying occurs both at school and through social media platforms. In other words, youth can be exposed to bullying behaviors in a number of environments.

It is also important to note that youth can be exposed to other types of violence where a young person is not the perpetrator; these experiences of abuse and trauma are not included here under youth violence but they are captured in other sections of this report (i.e., in the risk and protective factor assessment, [ACEs section](#)).

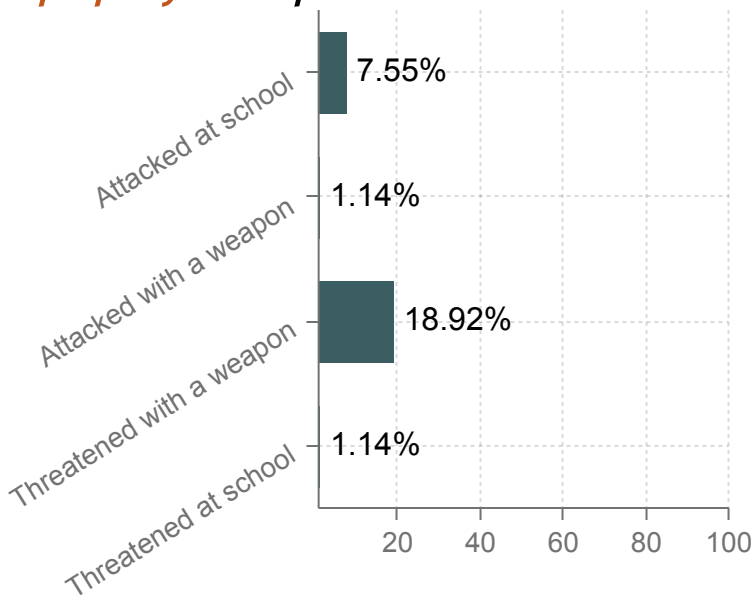
Consequences

Youth violence has long-lasting effects on the physical, mental, and social health of young people and those who are victimized. It increases the risk of future violence perpetration and victimization, substance misuse, school drop-out, risky sexual behavior, depression, academic issues, and suicide.

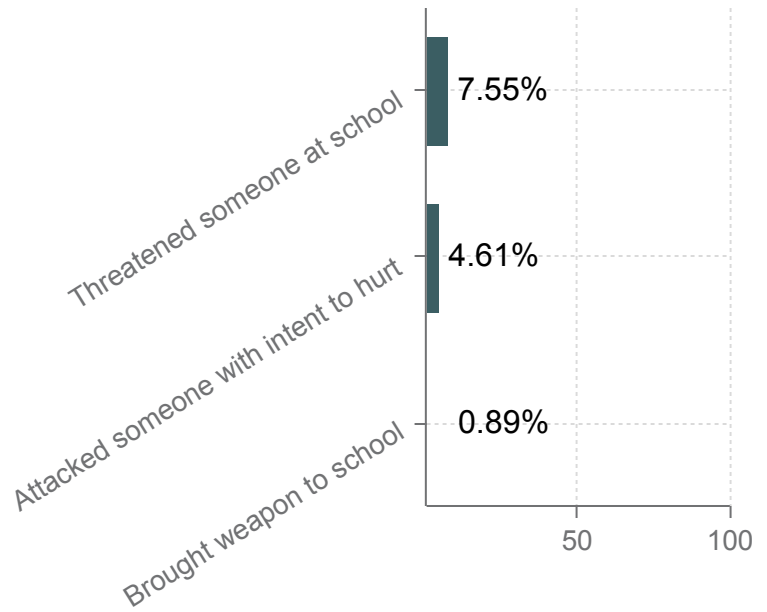
For the community, violence increases health care costs, decreases property values, and lowers neighborhood cohesion. It also disrupts social services and makes communities less safe, both in perception and in reality. Addressing youth violence is important in communities, but school and community budgets may be under-resourced for handling the programs and activities needed to address this issue, in addition to other priorities.

ANTISOCIAL BEHAVIORS AND VICTIMIZATION EXPERIENCES (PAYS)

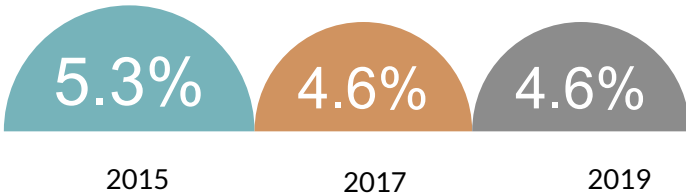
Student reported incidents of victimization and violence on school property in the past 12 months



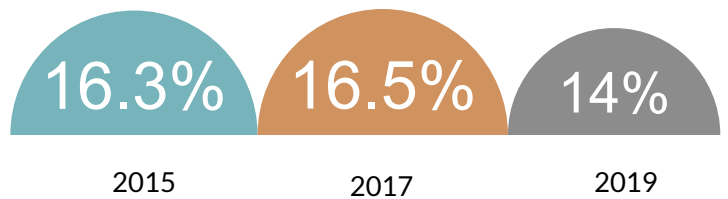
Student reported antisocial behaviors on school property in the past 12 months



Percentage of students reporting being bullied at school, and staying home from school to avoid getting bullied is declining



Percentage of students reporting being bullied through texting and social media is declining

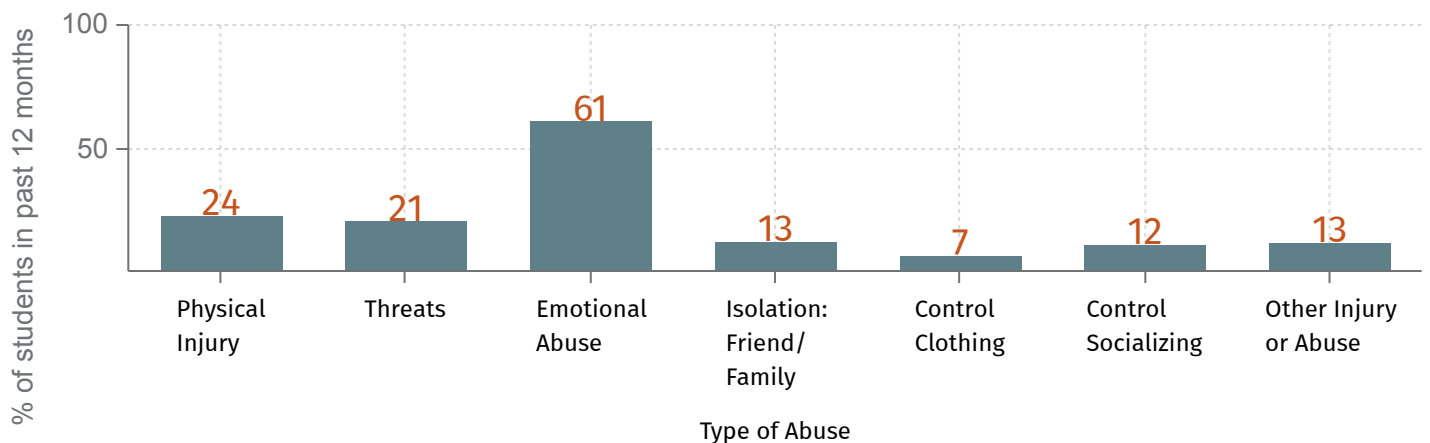


In 2019, 31.3% of students reported being hurt or abused by another person in the past 12 months

Of those youth who reported "yes", the type of abuse varied

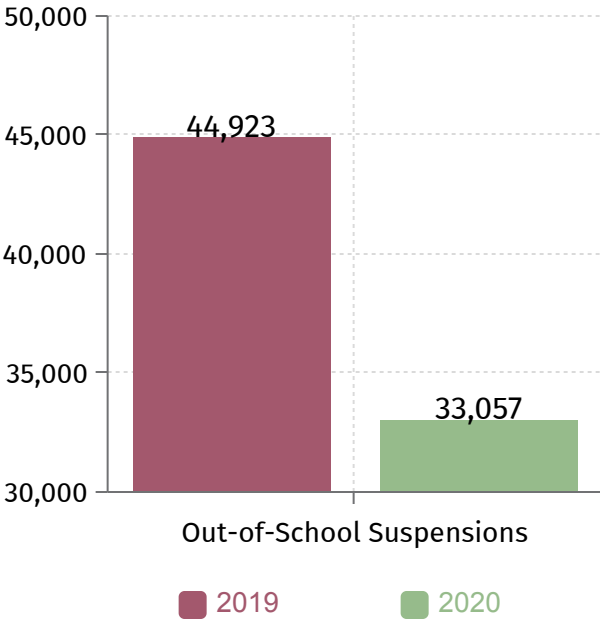
Emotional abuse was the most frequently reported type of abuse

Students Reporting Being Hurt or Abused in the Past 12 Months

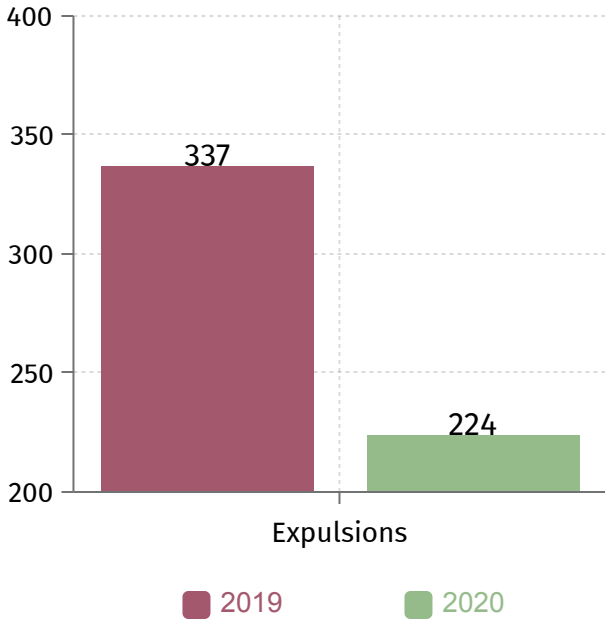


STUDENT VIOLENT INCIDENTS ON SCHOOL PROPERTY (PA SAFE SCHOOLS REPORT)

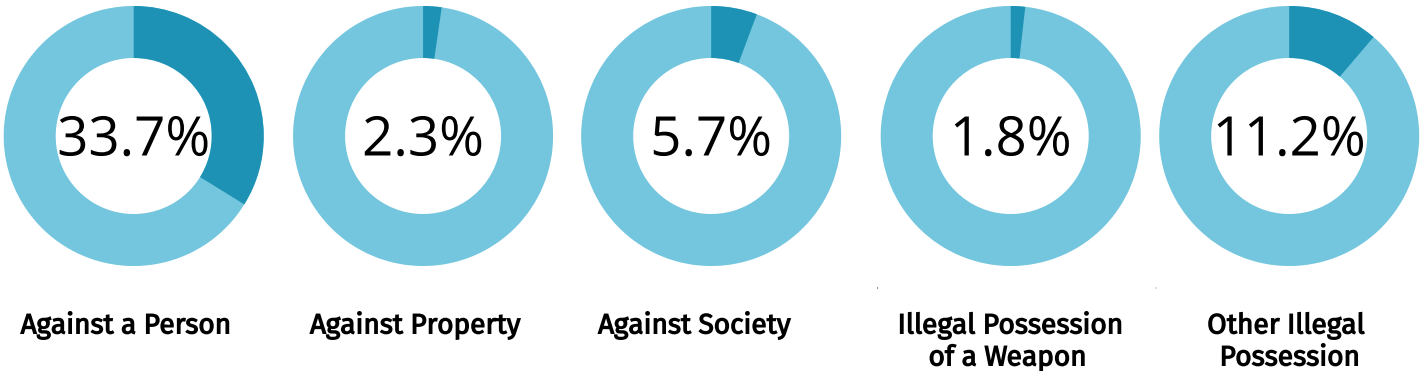
School reported *out-of-school suspensions* resulting from school violence incidents



School reported *expulsions* resulting from school violence incidents



2019-2020 School reported student *violent incidents on school property*, by offense status type



The matrix shown below describes the risk and protective factors found to contribute to reductions or increases in violence. Please refer back to the data tables in chapter 3 to identify the rates for these risk and protective factors at the state and national levels.

Risk Factors	Protective Factors
SOCIETAL & ENVIRONMENTAL	
ECONOMIC DEPRIVATION & HARDSHIP CULTURAL & SOCIOPOLITICAL NORMS LACK OF HEALTHCARE	OPPORTUNITIES FOR ECONOMIC GROWTH ACCESS TO QUALITY & CULTURALLY RESPONSIVE HEALTHCARE
COMMUNITY	
ECONOMIC DEPRESSION & HARDSHIP AVAILABILITY OF SUBSTANCES & FIREARMS COMMUNITY LAWS & NORMS FAVORABLE TOWARD SUBSTANCE USE & VIOLENCE TRANSITIONS & MOBILITY COMMUNITY DISORGANIZATION & VIOLENCE	COMMUNITY COHESION COMMUNITY OPPORTUNITIES & REWARDS FOR PROSOCIAL INVOLVEMENT
SCHOOL	
LOW ACADEMIC PERFORMANCE & ACHIEVEMENT LOW COMMITMENT TO SCHOOL SCHOOL VIOLENCE & BULLYING	SCHOOL BONDING & POSITIVE RELATIONSHIPS SCHOOL PRACTICES & POLICIES OF SAFETY & ACCEPTANCE CLASSROOM MANAGEMENT & STANDARDS FOR SUPPORTIVE LEARNING
FAMILY	
FAMILY HISTORY OF MENTAL HEALTH PROBLEMS, SUBSTANCE USE, OR CRIMINALITY POOR CHILD MANAGEMENT PRACTICES HARSH & CONTROLLING PARENTING PRACTICES FAMILY STRESSORS & ADVERSE LIFE EVENTS	CLEAR RULES & EXPECTATIONS FOR BEHAVIOR FAMILY CONNECTEDNESS & BONDING PARENTING & CHILD MANAGEMENT PRACTICES
PEER	
PEER DEVIANCE & ANTISOCIAL BEHAVIOR PEER NORMS & ATTITUDES FAVORABLE TOWARD RISKY/PROBLEMATIC BEHAVIORS	POSITIVE & PROSOCIAL PEERS PEER TIES & SOCIAL NETWORK
INDIVIDUAL	
EARLY MANIFESTATION/ONSET OF PROBLEM BEHAVIOR IMPULSIVITY, RISK-SEEKING, & LOW SELF-CONTROL FAVORABLE ATTITUDES TOWARD PROBLEM BEHAVIOR EXPOSURE TO ADVERSE CHILDHOOD EXPERIENCES & TRAUMA LONELINESS, BOREDOM, & DISENGAGEMENT PUBERTAL TIMING & DEVELOPMENTAL DELAY OPPOSITIONAL & CONDUCT PROBLEMS	SOCIAL & EMOTIONAL COMPETENCE SELF-ESTEEM, IDENTITY, & SELF-CONCEPT FUTURE ORIENTATION & EDUCATIONAL ASPIRATIONS SCHOOL ENGAGEMENT & INVOLVEMENT POSITIVE ATTITUDES & PROSOCIAL NORMS MORAL & VALUE DEVELOPMENT

Table 4-3. Violence risk & protective factors

SCHOOL DROP-OUT

IN 2018,
5.4%

was the drop-out rate among youth aged 16-24 (NCES).

Youth described as school drop-outs have not completed high school. The status drop-out rate refers to the percentage of 16- to 24-year-olds who are not enrolled in school and have not earned either a diploma or its equivalent. According to the American Community Survey, in 2018 there were 2.1 million status drop-outs in the U.S., which translates to a 5.3% drop-out rate (87).

Similarly, in 2018, Pennsylvania had a 5.4% drop-out rate among individuals in the 16–24 age range. **This has declined since 2016 when the rate was 6.1% (87).** Across the United States, the drop-out rate has been decreasing overall in recent years. For example, from 2011 to 2012 the graduation rate increased by 2.8% (88). **Cost analyses show that lowering the high school drop-out rate results in financial gains; according to some estimates, these gains may translate into \$940 million in lifetime earnings and \$3.2 million in annual local and state tax revenues due to high school graduates' increased earnings (88).**



High school drop-outs will have an annual income that's \$10,000 lower than the average high school graduate and \$36,324 less than a college graduate (88).

Measurement and Assessment

The U.S. Department of Education's National Center for Education Statistics (NCES) collects, analyzes, and reports measures for assessing high school drop-outs, completers, and graduates. These include attrition rate, cohort drop-out rate, averaged freshman graduation rate, adjusted cohort graduation rate, event drop-out rate, status drop-out rate, and status completion rate.

According to the NCES, a drop-out is a student who, for any reason other than death, leaves school before graduation before transferring to another school/institution, while the drop-out rate is defined as an annual or event rate that measures the proportion of students who drop-out during a single school.

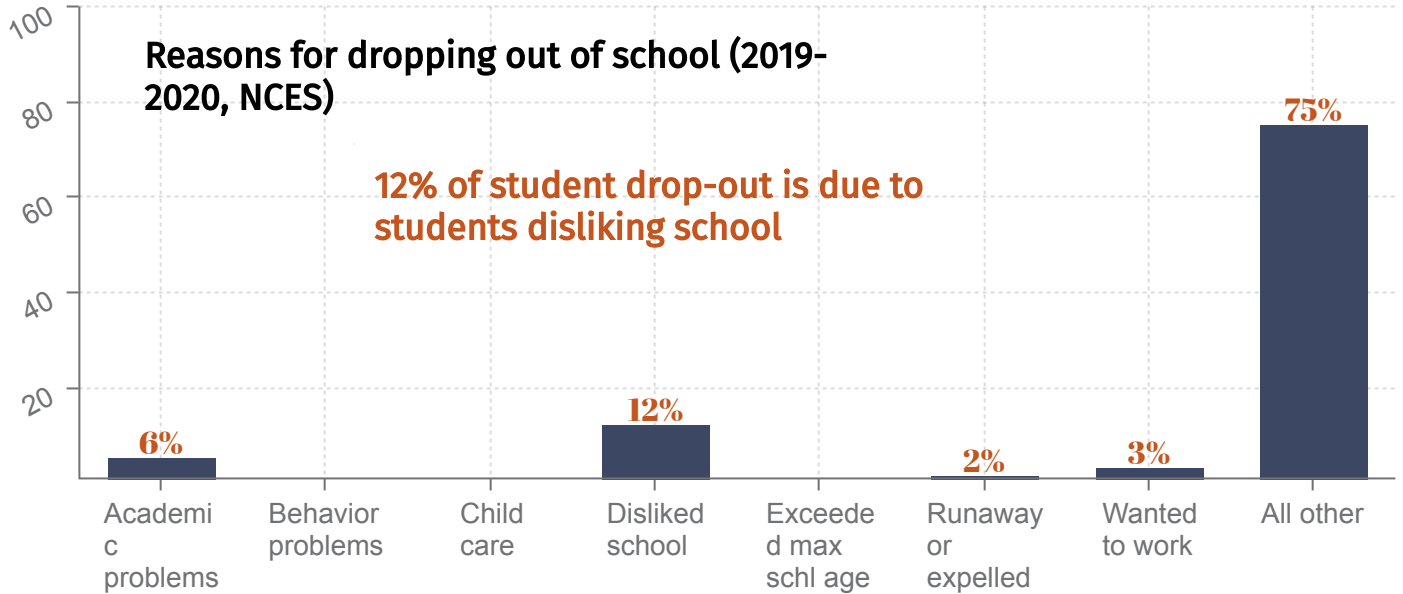
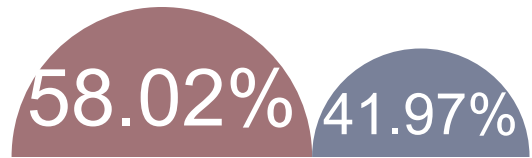
Consequences

School drop-outs are more likely to experience long-term unemployment, poverty, health issues, single parenthood (for females), and juvenile crime. The average drop-out will have an annual income that's approximately \$10,000 lower than that of the typical high school graduate and \$36,324 less than someone who has a bachelor's degree (88).

Drop-outs are more than twice as likely to ultimately live in poverty (87). Drop-outs are also more likely to be incarcerated at some time in their lives, and perhaps multiple times. Incarceration rates for drop-outs aged 16-24 are higher than for those in other age groups.

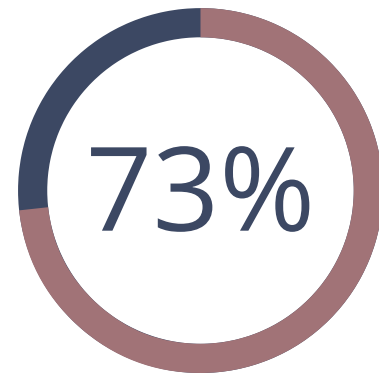
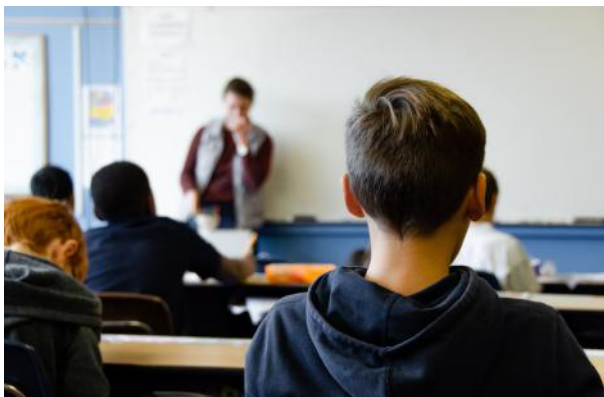
HIGH SCHOOL DROP-OUT RATES AND ASSOCIATED REASONS

For the 2018-2019 school year, **NCES data show boys continue to have greater rates of high school drop-out compared to girls**



Pennsylvania is aiming to have its secondary schools reach graduation rates of at least 92.4% by 2030

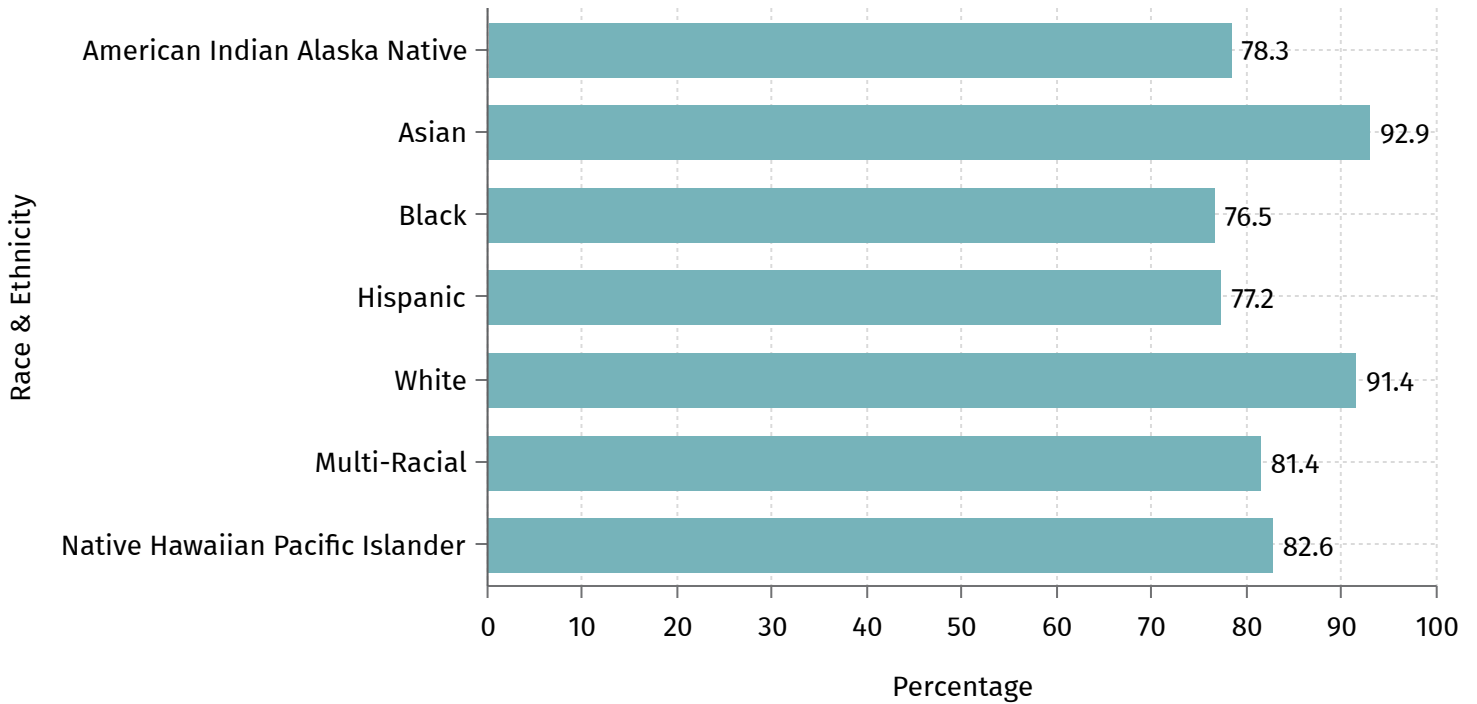
Data from the Future PA Ready Index in 2018 show that **nearly 66% of PA high schools are falling short** of meeting this goal



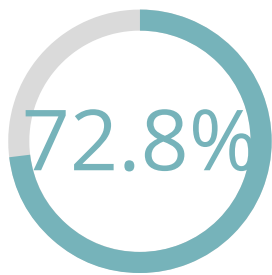
% of schools not meeting PA's goal for reducing high school drop-out

DISPARITIES IN RATES OF DROP-OUT AND GRADUATION (PIMS)

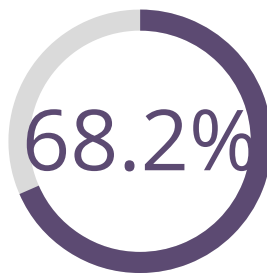
In 2019-2020, high-school graduation rates were lowest among Black and Hispanic students



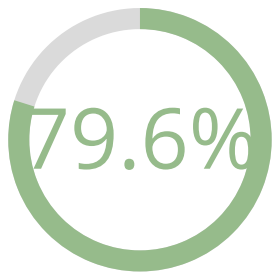
In 2019-2020, graduation rates migrant and English Language learning students was below 70%



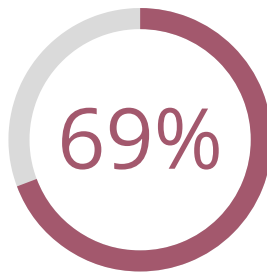
Special Education



Migrant

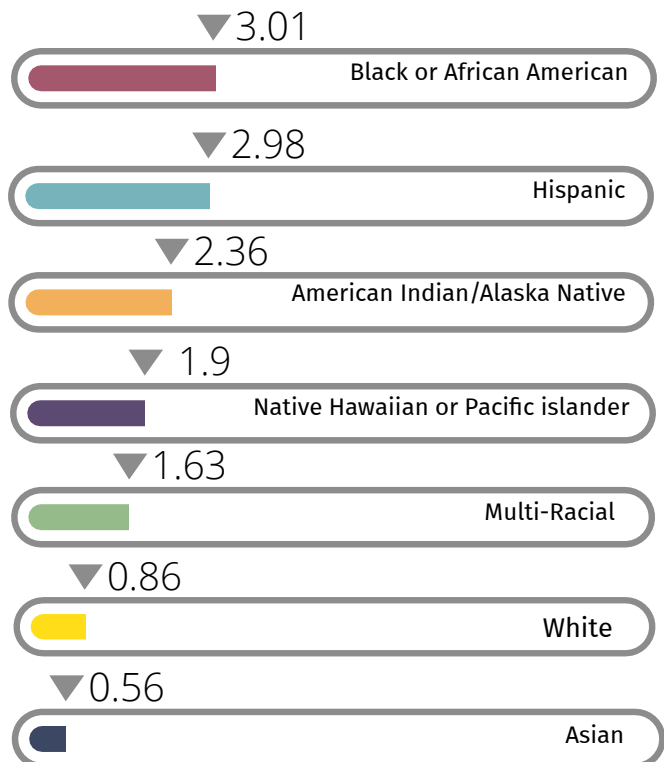


Economically Disadvantaged



English Language Learners

In 2019-2020, Black students showed the highest dropout rate, followed by Hispanic and American Indian/Alaskan Native students



The matrix shown below describes the risk and protective factors found to contribute to reductions or increases in school drop-out. Please refer back to the data tables in chapter 3 to identify the rates for these risk and protective factors at the state and national levels.

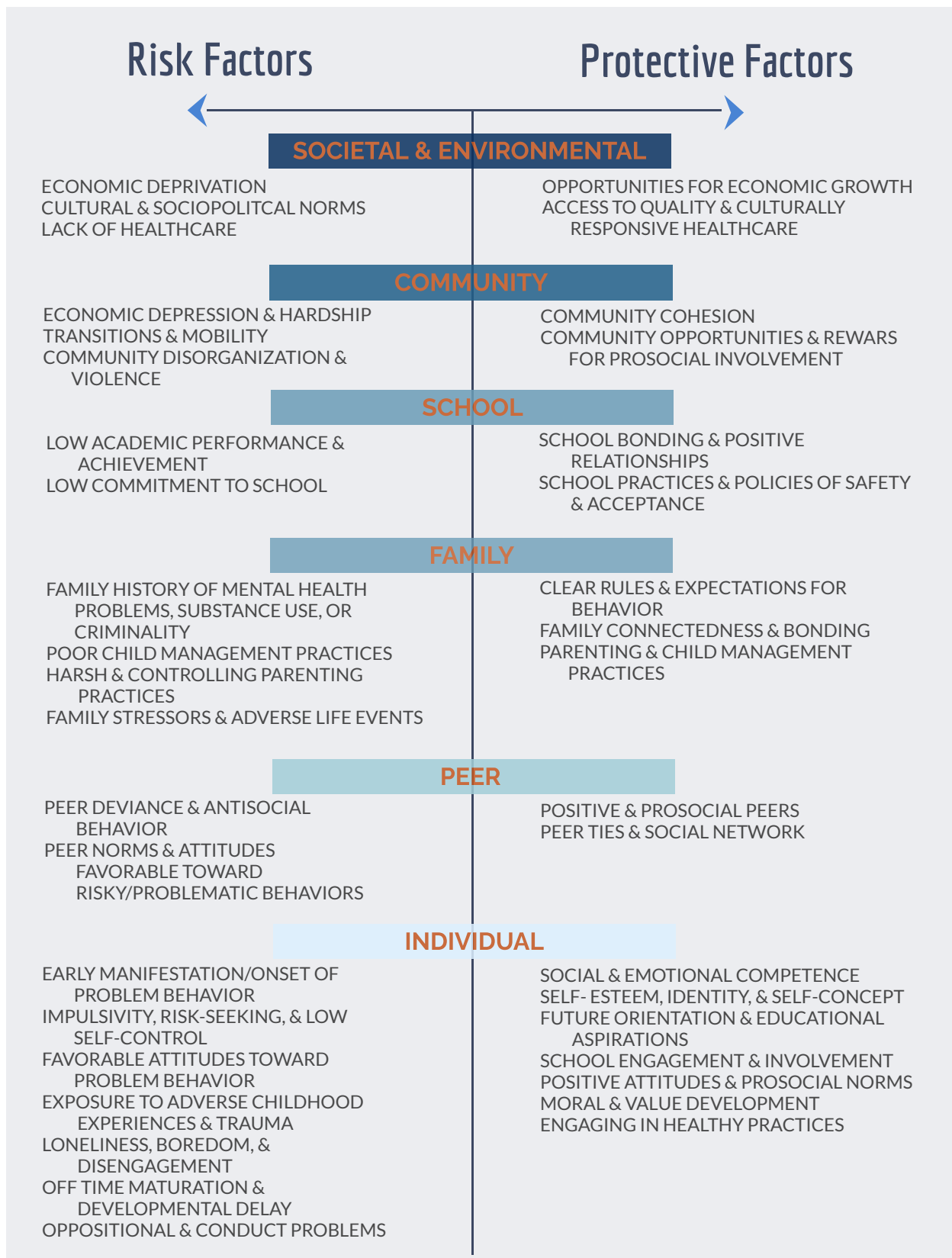


Table 4-4. School drop-out risk and protective factors



DELINQUENCY

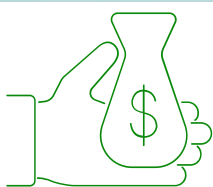
In 2017, Black youth made up

35%

of delinquency cases but over 50% of youth transferred to adult court (JJC).

Juvenile delinquency includes behaviors that violate norms for youth behavior, some of which are illegal and others that are socially undesirable. Some examples of delinquent behaviors include liquor law violations, larceny-theft, using fake IDs, and petty drug offenses. In Pennsylvania, a juvenile delinquent is a child ten years of age or older whom the court has found to have committed a delinquent act that is a misdemeanor or a felony and therefore has been found to be in need of treatment, supervision, or rehabilitation (90).

A noteworthy example of Pennsylvania’s success in collaborative efforts is the Juvenile Justice System Enhancement Strategy (JJSES). Through the JJSES, PA’s juvenile justice system is successfully improving balanced and restorative justice outcomes and youth- and systems-level outcomes through innovation and collaborative planning efforts at state and local levels. To achieve its target impact, PA’s JJSES is dedicated to using the best research evidence available and identifying a set of common standards for implementing research evidence into practice (91). PA’s JJSES is a nationally recognized model for juvenile best practices in justice reform (92).



From 2007-2016, PA saw a \$111,195,429 reduction in delinquency expenditures, and 10,694 fewer secure detention admissions (93).

Measurement and Assessment

Common measures of delinquency include allegations of delinquent behaviors such as assault, aggravated assault, property damage, robbery and theft, disorderly conduct, and possession of drugs. Delinquent acts can be normative or more severe. In rare and extreme cases delinquent behaviors can also be signs of a more serious underlying condition.

PAYS collects information on a number of indicators of youth delinquency (so does the YRBSS). For adjudicated delinquents, the Youth Level of Service (YLS) incorporates more detailed information on behaviors and contextual risk factors. A crosswalk between the YLS and PAYS can be found on the EPIS website (www.episcenter.psu.edu)

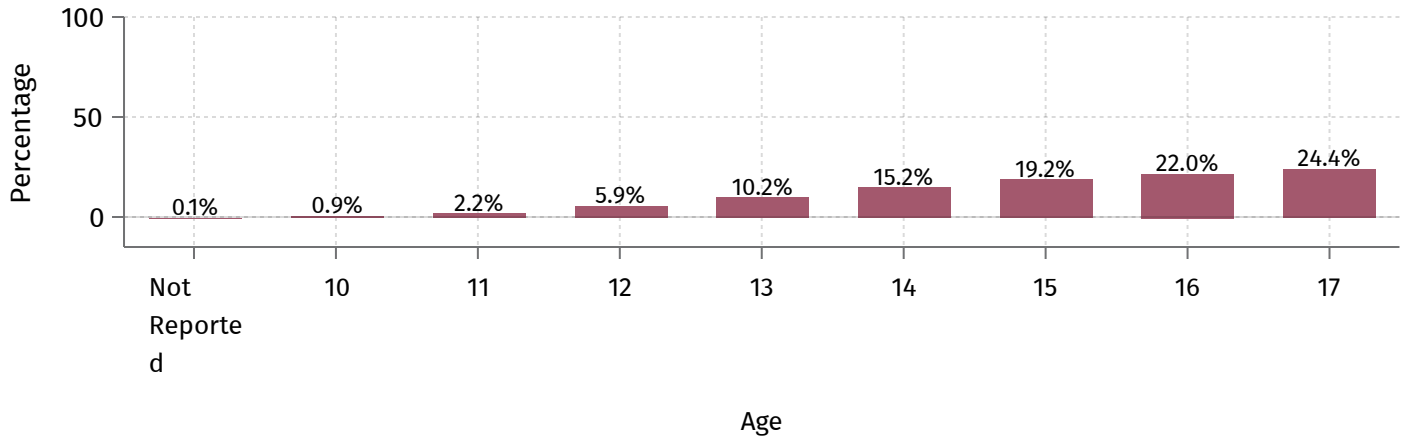
Consequences

JJSES's report showed that from 2007 to 2016, there was a 44.9% decrease in juvenile arrests, while 80% of youth had lower risk scores at case closing compared to their initial assessment, Black and American Indian youth are overrepresented in juvenile facilities.

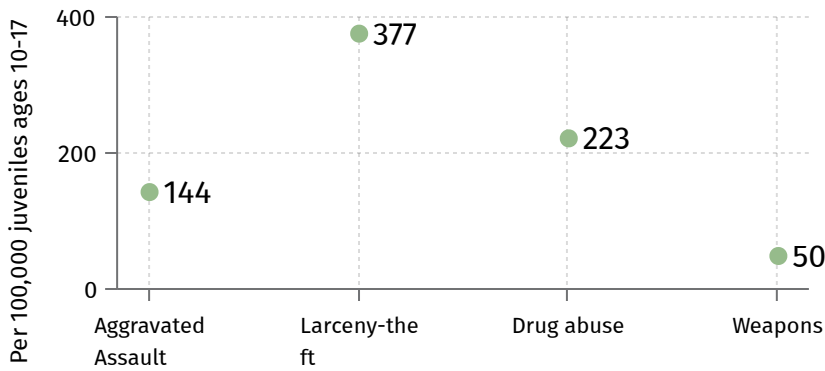
Disparities exist in delinquency rates. Specifically, in Pennsylvania, statistics show that Black and Latino adolescents are twice as likely to be disposed or convicted compared to their White counterparts (94). Additionally, many incarcerated youth suffer from ADHD (95) and other mental health issues, including conduct disorders.

DELINQUENCY ARRESTS, OFFENSE TYPES & ALLEGATIONS (JCJC)

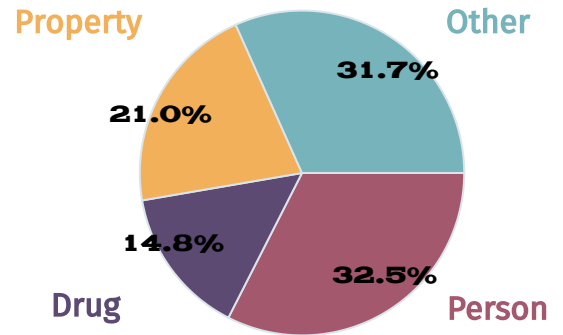
In 2019, delinquency allegations most frequent for youth ages 15 to 17



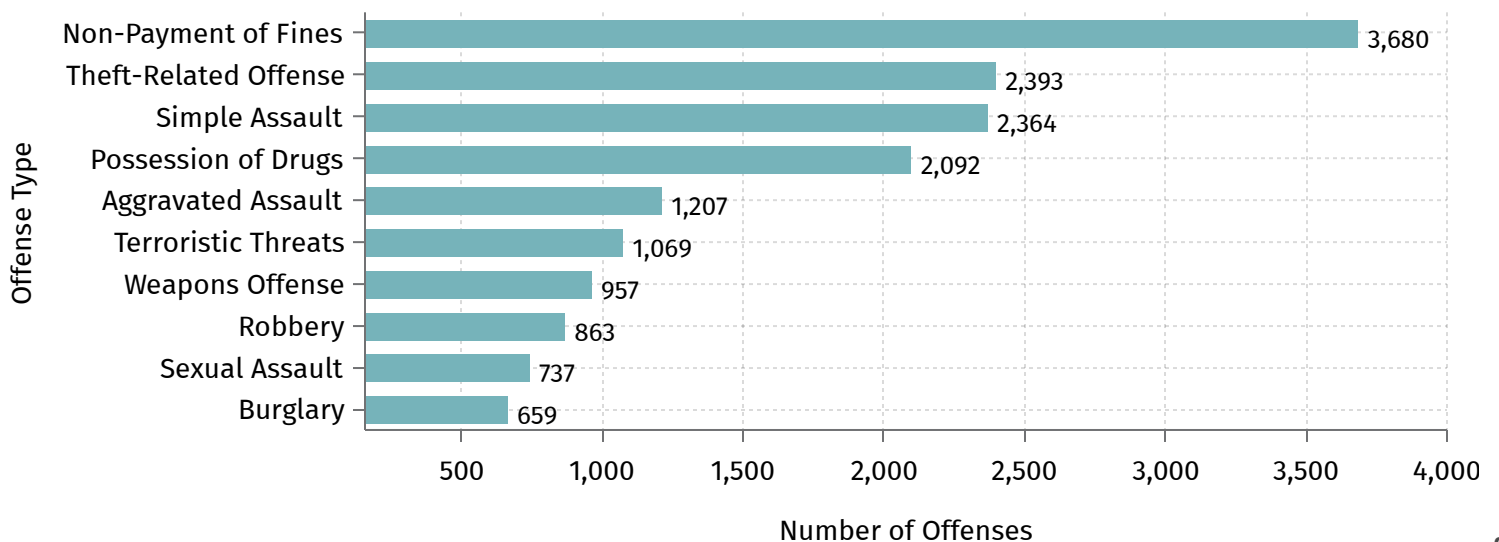
In 2019, Larceny-theft was the most frequent reported arrests for youth aged 10-17 year (OJJDP)



In 2019, offenses against "a person" and "other" were the most frequent reported offense type delinquency allegations

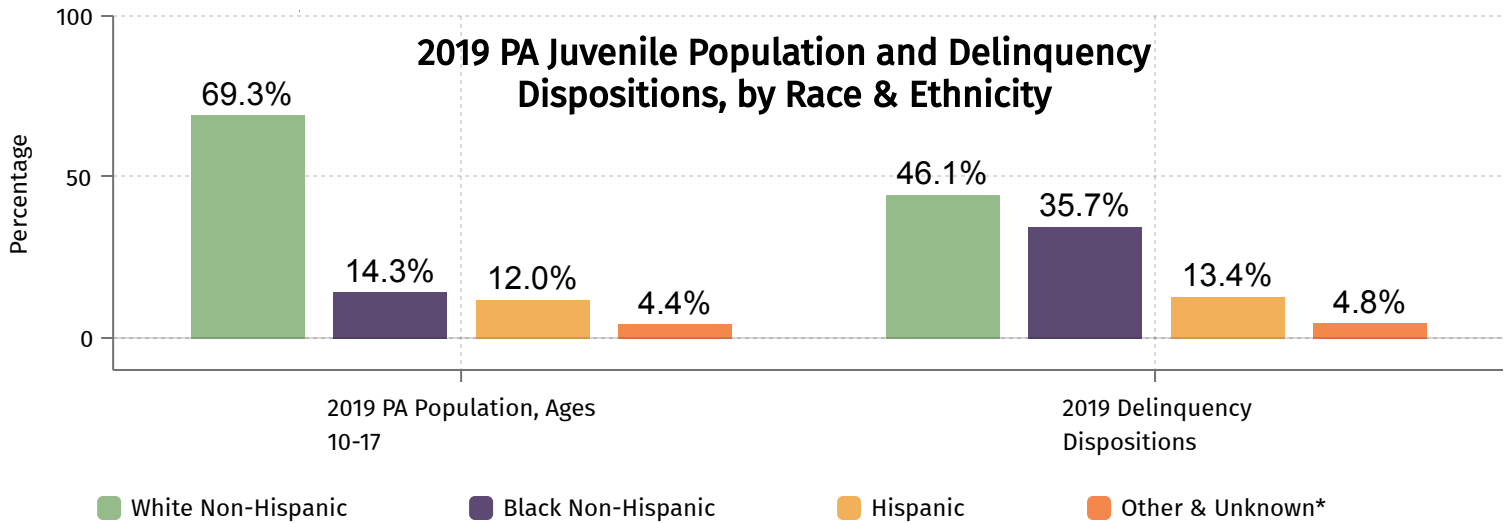
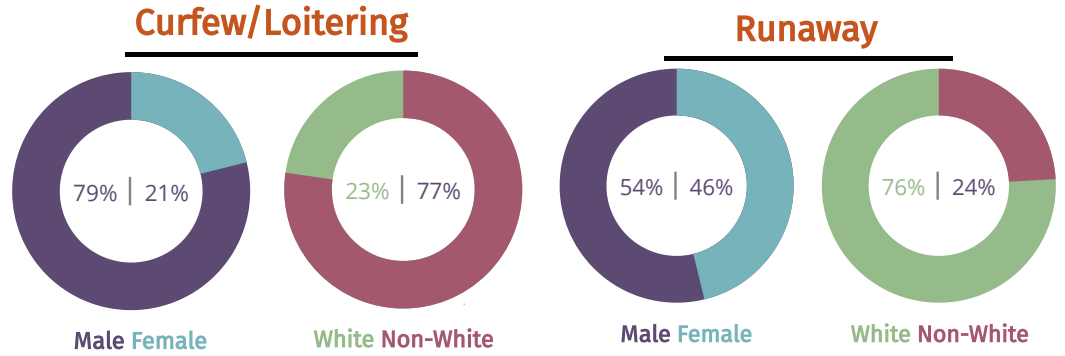


2019 Reported Delinquency Allegations By Alleged Offense Categories

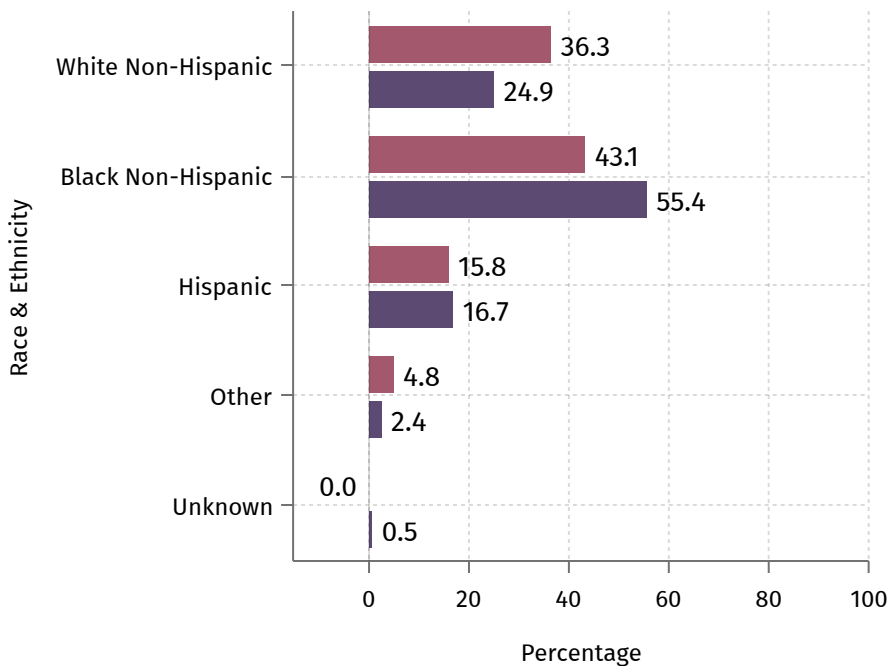


DISPARITIES IN DISPOSITIONS, PLACEMENTS, & OFFENSES (JCJC)

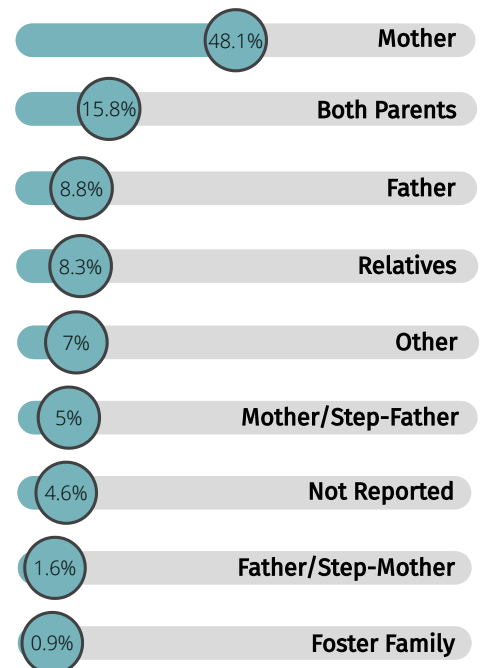
Juvenile Status Offenses by Gender & Race & Ethnicity (2018, PA UCR Report)



2019 Out-Of-Home Placement & Secure Placement, by Race & Ethnicity



2019 Delinquency Dispositions, by Youth Living Arrangement



The matrix shown below describes the risk and protective factors found to contribute to reductions or increases in delinquency. Please refer back to the data tables in chapter 3 to identify the rates for these risk and protective factors at the state and national levels.

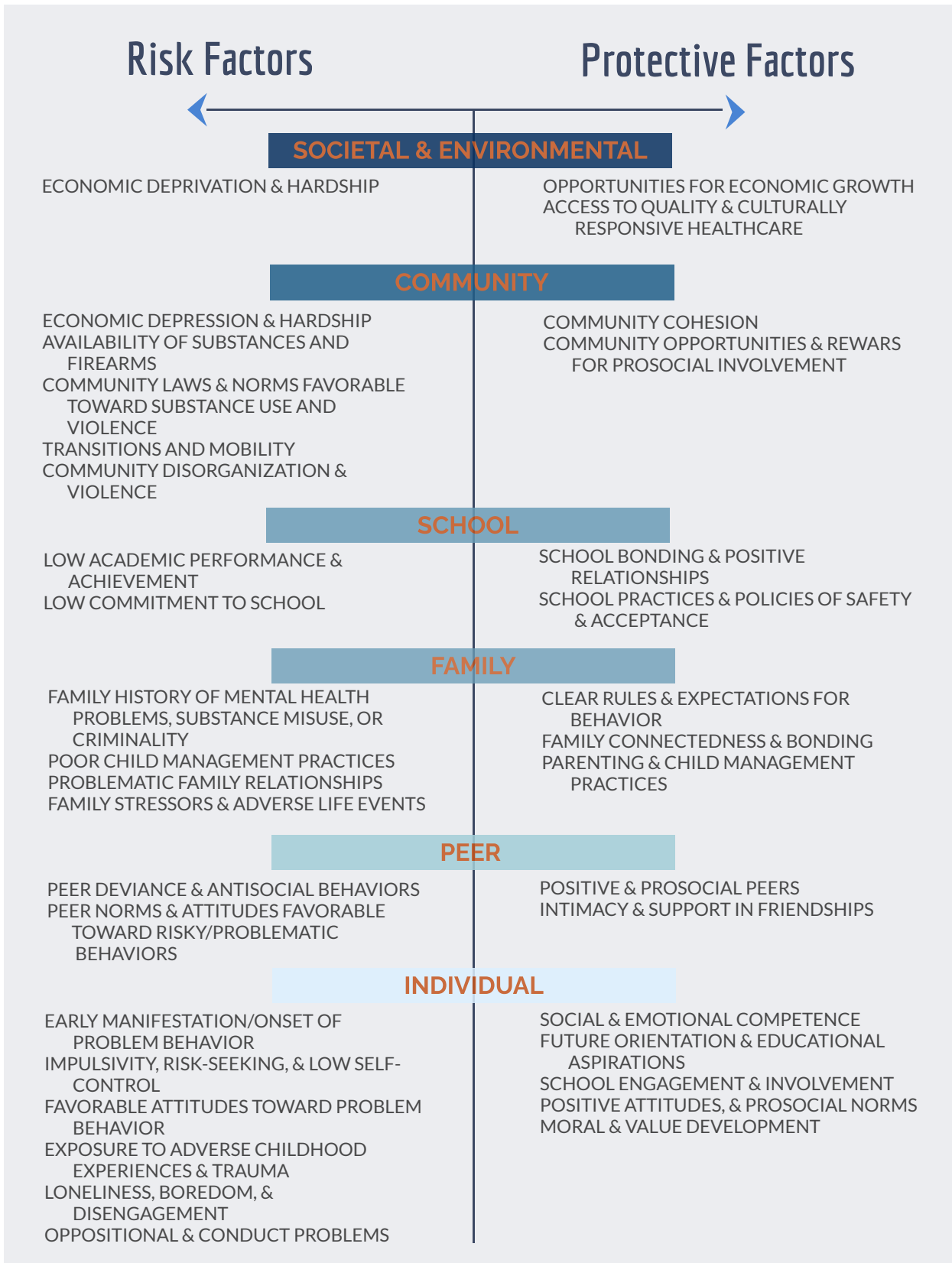


Table 4-5. Delinquency risk & protective factors



TEEN PREGNANCY

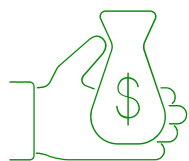
In 2019, The Centers For Disease Control Reported A

13.3%

teen pregnancy rate for Pennsylvania (CDC).

Unintended pregnancy and abortion rates are higher in the United States than in most other developed countries. Teen pregnancy typically refers to pregnancies among female youth aged 13 to 19. While it is true that some pregnancies in this age group are planned, the vast majority are unplanned and these can cause significant disruptions in youth's relationships, income, schooling, and more.

In 2017, the Centers for Disease Control and Prevention (CDC) reported a birth rate of 18.8 per 1,000 women aged 15–19, a drop of 7% from the previous year (96). This reduction is likely due to higher rates of teen abstinence and a greater rate of birth control use among sexually active teens (97). Even considering this reduction, the teen pregnancy rate in the United States is one of the highest among industrialized nations. It should be noted that racial/ethnic and geographic disparities in teen birth rates persist (96, 98-99). According to the CDC, the teen birth rate in Pennsylvania was 14.1 per 1,000 in 2017 (96).



In 2015, the average cost to provide medical and economic support during pregnancy and the first year of infancy is \$19,000 per teen birth in Pennsylvania.*

Measurement and Assessment

Measures of teen pregnancy ultimately point to the number of adolescent mothers who give birth. Yet additional measures may be essential to consider. When describing teen pregnancy, it can be important to identify which measure(s) is most relevant. Once the specific measures of interest are chosen, a wealth of data on rates are available at local, county, and state levels.

It is important to think about assessments of teen pregnancy across public and social service systems. A recent evaluation showed teens in child welfare systems to be at higher risk of teen pregnancy and birth than other groups (98). For example, young women living in foster care are more than twice as likely to become pregnant.

*** To learn more about the cost of Teen Pregnancy, please visit: PowerToDecide.org/savings**

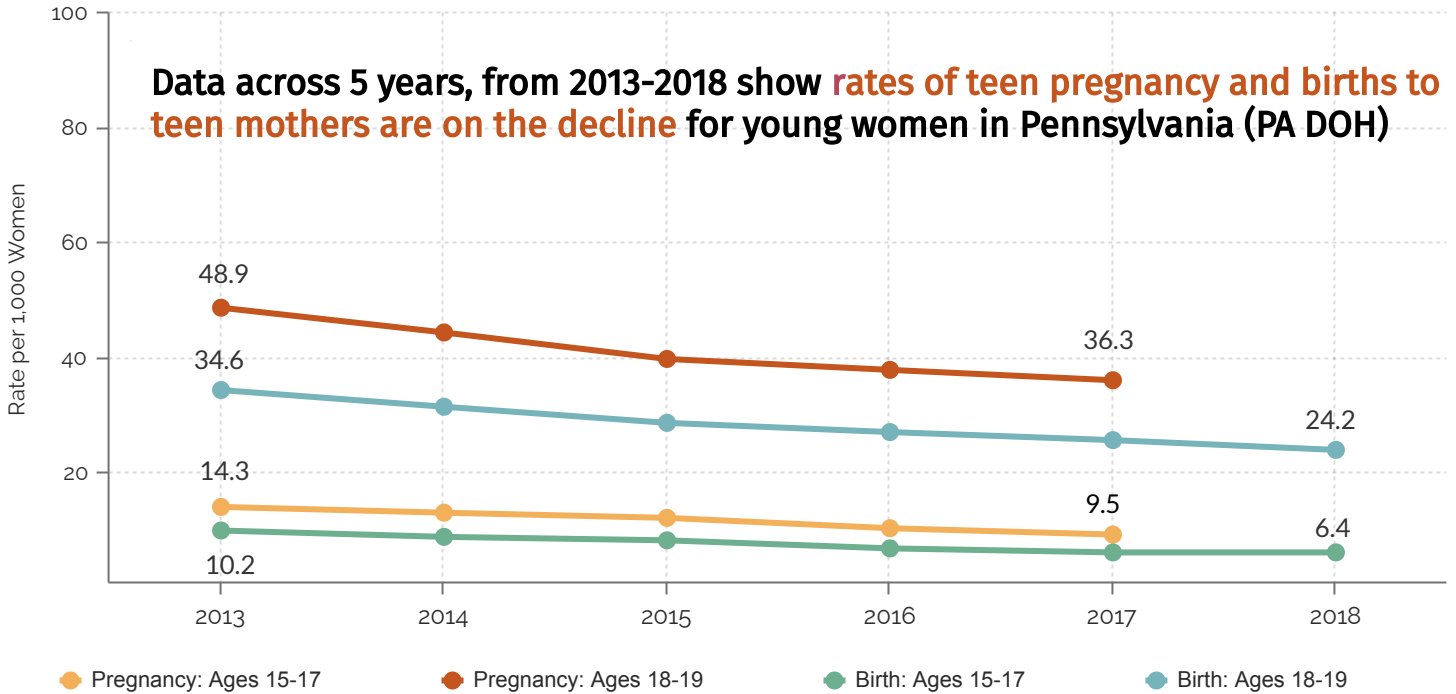
Consequences

Extensive evidence links births resulting from unintended or closely spaced pregnancies to adverse maternal and child health outcomes, and social and economic challenges. These challenges are experienced by the mother and the child.

Pregnancy and birth are significant contributors to high school drop-out rates among girls. Only about 50% of teen mothers receive a high school diploma by 22 years of age, whereas approximately 90% of women who do not give birth during adolescence graduate from high school (99). Children born to teenage mothers are more likely to have lower school achievement, drop out of high school, have more health problems, be incarcerated at some time during adolescence, give birth as a teenager, and face unemployment as a young adult (100-101).

TEEN PREGNANCY RATES

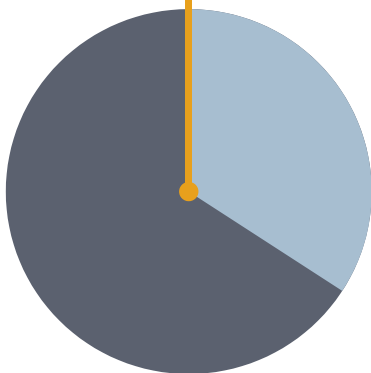
In 2019, the PA teen birth rate was 13.3 per 1000 women; for youth aged 15-17 the rate was 6.0 and for youth 18-19 the rate was 23.1 (CDC NVSR)



According to the Healthy Statistics data report, Pennsylvania ranked 34th out of the 50 states for teen birth rates among females ages 15-19

There are 33 states performing better than PA with regard to teen pregnancy and birth rates and consequences

34



Healthy Statistics Data Report for 2020

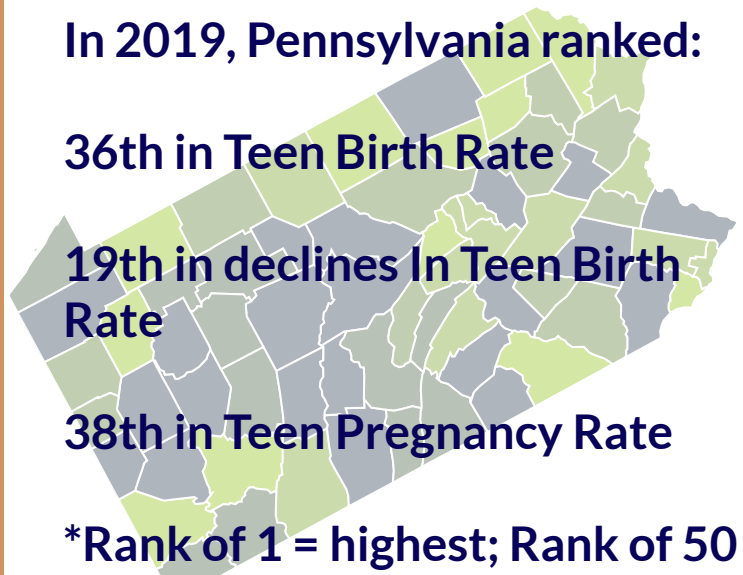
In 2019, Pennsylvania ranked:

36th in Teen Birth Rate

19th in declines In Teen Birth Rate

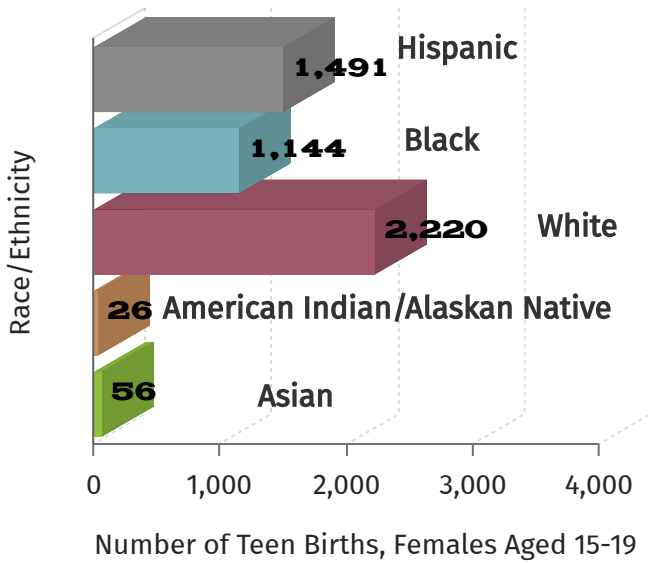
38th in Teen Pregnancy Rate

*Rank of 1 = highest; Rank of 50 = lowest

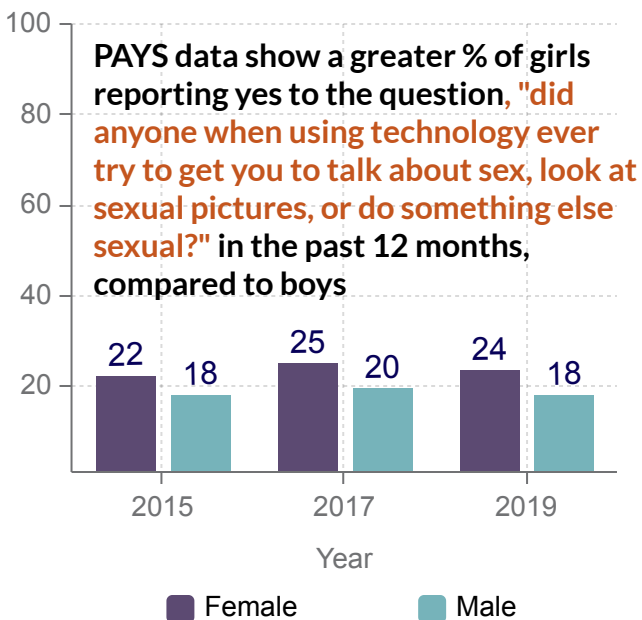
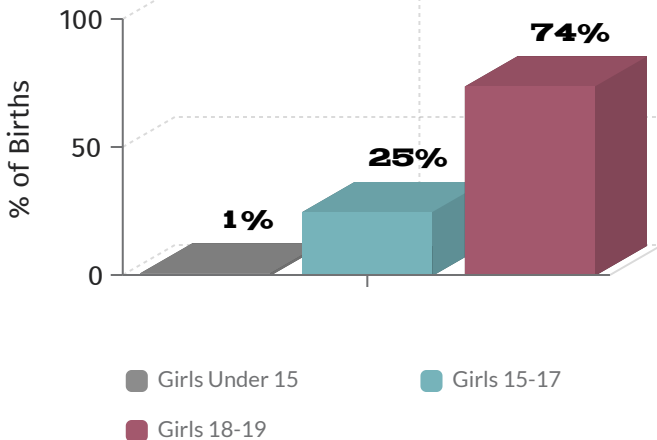


TEEN PREGNANCY DISPARITIES, CONSEQUENCES AND EXPERIENCES

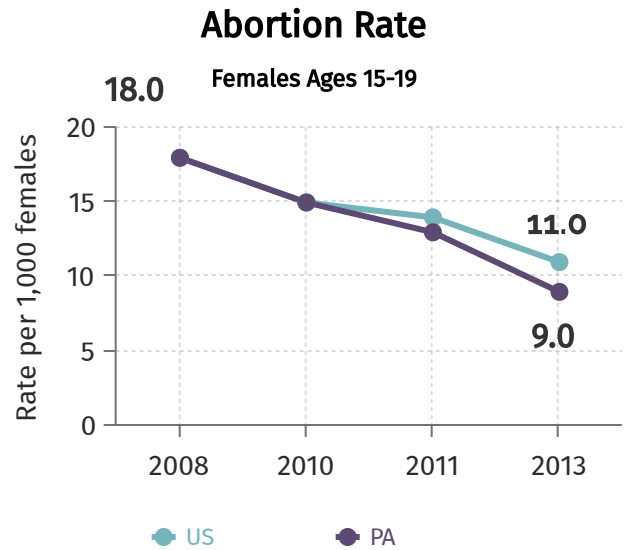
2019 Racial and ethnic differences in number of Teen Births, Females aged 15-19



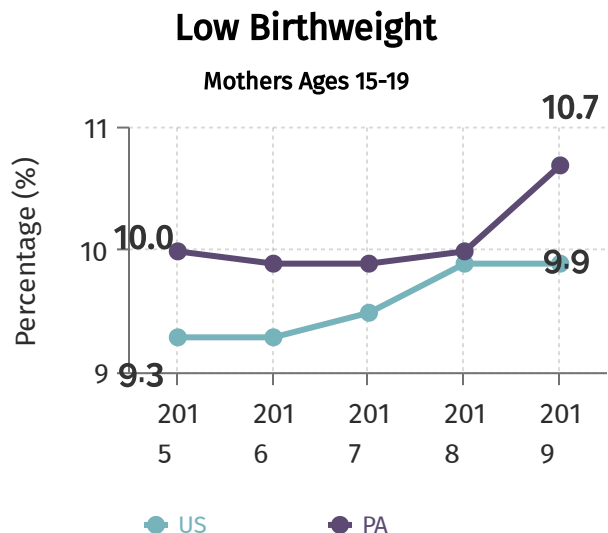
Proportion of Teen Births by Age Group for 2019



ONLY ABOUT 50% OF ALL TEEN MOTHERS POSSESS A HIGH SCHOOL DIPLOMA BY AGE 22 AND ONLY 10% GO ON TO OBTAIN A HIGHER DEGREE



Abortion rate for females aged 15-19 in the U.S. and PA, 2008-2013



Percentage of low birthweight babies to mothers ages 15-19 in the U.S. and PA, 2015- 2019

The matrix shown below describes the risk and protective factors found to contribute to reductions or increases in teen pregnancy. Please refer back to the data tables in chapter 3 to identify the rates for these risk and protective factors at the state and national levels.

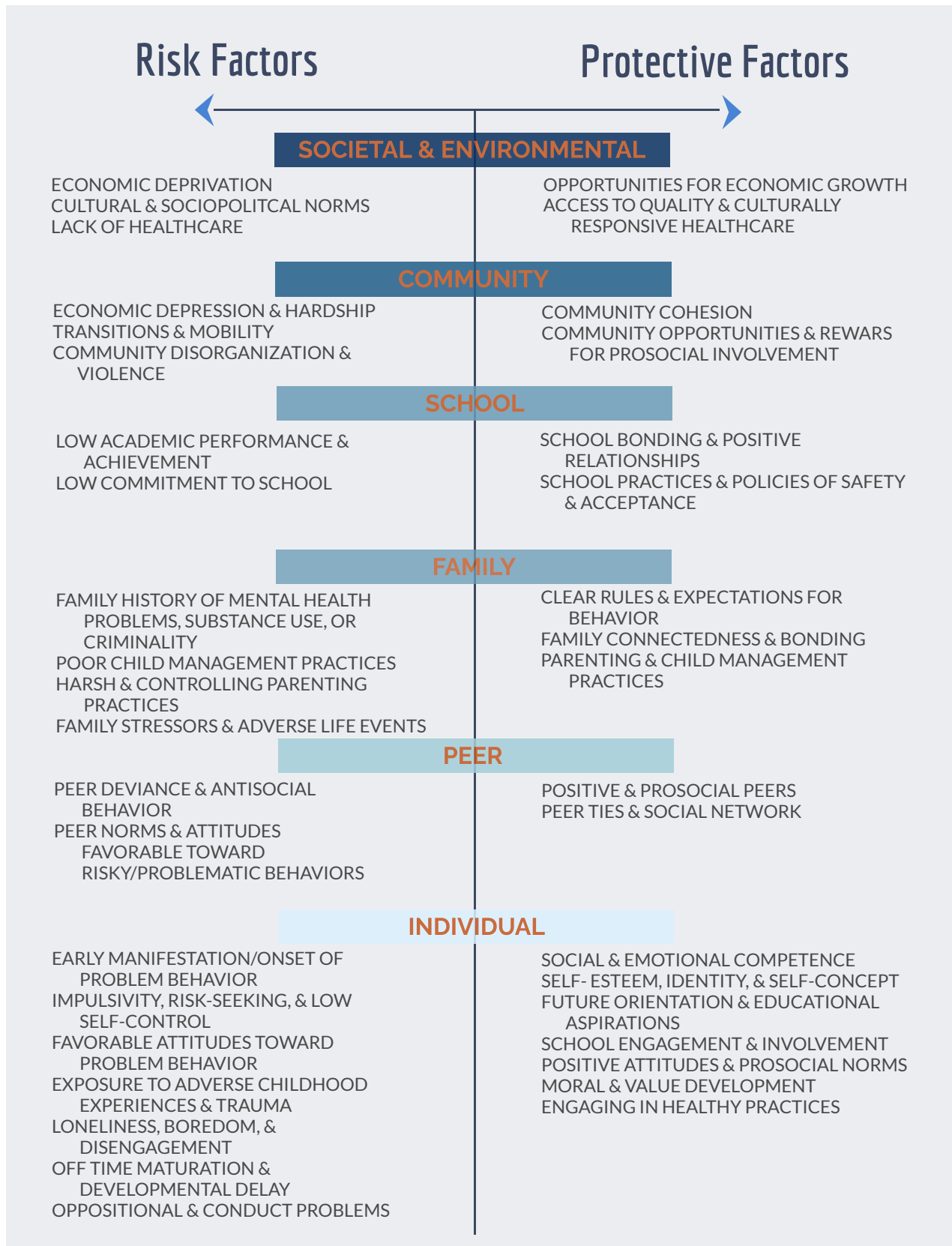


Table 4-6. Teen pregnancy risk and protective factors



CONCLUSION



THROUGH COLLABORATIVE DECISION-MAKING AND STRATEGIC PREVENTION PLANNING COORDINATED ACROSS THE MANY SYSTEMS THAT FAMILIES AND YOUTH ENCOUNTER, EFFECTIVE PREVENTION APPROACHES CAN BE MORE READILY ACCESSIBLE, WIDELY DISSEMINATED, AND SUSTAINABLE.

Through collaborative decision-making and strategic prevention planning coordinated across the many systems that families and youth encounter, effective prevention approaches can be more readily accessible, widely disseminated, and sustainable. Although the results of effective prevention approaches are well established, it still takes more than a decade to disseminate those approaches widely across communities, and even longer to sustain them. This resource is the first of many to be provided by the CSPW to support the translation of research evidence on the benefits of adopting a science-based approach to preventing youth problems and promoting health.

This report highlights the important role of data-informed strategic planning in identifying priorities, tracking success, and sustaining what works to achieve youth and community well-being. And, it provides one example for cross-systems coordination in applying a research-informed strategic planning approach for assessing the prevalence of youth health risk behaviors and associated risk and protective factors.

Limitations of the Current Report

Limitations of the current report include the following :

- Recent and up to date cost data could not be found collected for each health risk behavior that accounted for system avoidance and service costs specific to PA;
- In some instances, data specific to the state of PA was not available, or did not include a representative sample reflecting the diverse constituents of PA;
- Data were not always available for the same time frame across variable; and,
- Some risk and protective data were simply unavailable.

Following are recommendations and suggested actions that can be taken to achieve measurable change for youth and community health.

EFFECTIVE STRATEGIES AND APPROACHES FOR ADDRESSING YOUTH AND COMMUNITY HEALTH

Data from this report illustrate risk and protective factors across multiple contexts and systems that impact youth, family, and community health and well-being.

Importantly, youth learn and grow within these contexts and systems. When youth are not provided the conditions that foster resilience and the skills that promote healthy choices, there is societal impact.

Prevention science shows that using a science-based approach to addressing youth problems is a proven effective way to reducing problems and promoting healthy development.

The Pennsylvania Cross-Systems Prevention Workgroup aims to highlight how, when, and where prevention science can be leveraged to improve youth outcomes and overall community health.

Below are a list of registries that rate and score primary prevention approaches in terms of effectiveness. These registries help in selecting approaches that are proven effective and are available. It is important to consider the entirety of the approach's effectiveness and whether or not it is the best fit for a specific community context or population.

Registries of Effective Evidence-Based Prevention Approaches

- Blueprints for Healthy Youth Development
- What Works for Health
- Promising Practices Network
- CA Evidence-Based Clearinghouse for Child Welfare
- What Works Clearinghouse
- Public Health Law Research — Evidence Briefs
- Office of Juvenile Justice and Delinquency Prevention (OJJDP) Model Programs Guide
- Research-Tested Intervention Programs (RTIPs)
- The Compendium of Proven Community-Based Prevention Programs, 2013 Edition. New York Academy of Medicine and Trust for America's Health
- National Prevention Strategy Implementation Toolkit Association of State and Territorial Health Officials
- Teen Pregnancy Prevention — Evidence-based Programs Database
- Suicide Prevention Resource Center Best Practice Registry
- National Association of County and City Health Officials (NACCHO) Model Practice Database

Examples of Cross-Systems Prevention Efforts in PA

- PA System of Care Partnership
- Juvenile Justice System Enhancement Strategy
- Allegheny County Collaboration
- Tobacco Recovery and Wellness Initiative
- PA Child Welfare Resource Center
- PA Child & Adolescent Service System Program
- Educational Stability for Foster Youth in PA
- PA Head Start State Collaboration Office

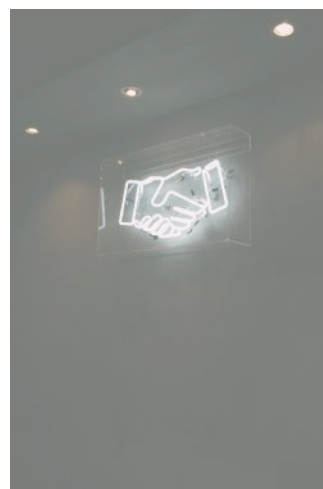
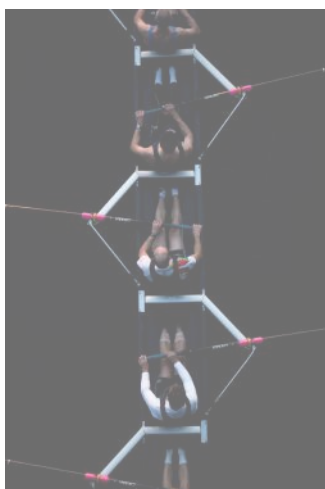
Links to Reviews and Other Primary Prevention Resources

- The Guide to Community Preventive Services (<https://www.thecommunityguide.org/>)
- US Preventive Services Task Force (<https://uspreventiveservicestaskforce.org/uspstf/>)
- National Prevention Science Coalition (<https://www.npscoalition.org/>)
- National Implementation Research Network (<https://nirn.fpg.unc.edu/>)
- Evidence-based Prevention and Intervention Support (<https://www.epis.psu.edu/>)
- The Cochrane Collaboration (<https://www.cochrane.org/>)
- The Campbell Collaboration (<https://www.campbellcollaboration.org/>)
- Health Evidence (<https://www.healthevidence.org/>)
- The Laura and John Arnold Foundation (<https://www.arnoldventures.org/>)

RECOMMENDATIONS

As indicated throughout this report, it is vital to ensure that decision-making and prevention planning are informed by data and existing evidence. Without information-gathering, those trying to intervene may completely miss the community's specific needs, making prevention much less effective, and in some cases causing more harm than good. All stakeholders should examine data for their particular locality or region before making strategic planning or policy decisions for primary prevention approaches.

It also is essential to use data when visualizing and informing the prioritization of needs; selecting and implementing programs, practices, or policies; and measuring success. Data-informed decision-making will likely increase confidence and ensure that providers and decision-makers invest in what works and are moving the needle to prevent youth problems.



DATA-INFORMED DECISION-MAKING

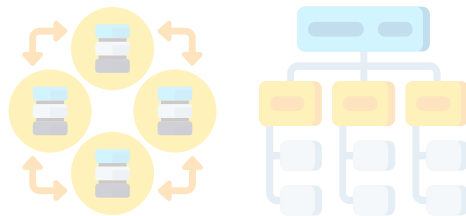
- Use local data to assess community risk and protective factors
- Assess risk and protective factors across multiple contexts and settings
- Use valid data collection methods to assess process and outcomes
- Establish a data management and accountability process to ensure data accuracy
- Increase longitudinal assessments to measure sustained program impact and inform future planning

USE SCIENCE-BASED APPROACHES TO GUIDE STRATEGIC PLANNING

- Utilize Clearinghouses and registries to identify evidence-based approaches
- Assess fit of program with prioritized risk and protective factors
- Be critical when considering the continuum of evidence for prevention strategies
- Review and learn about effective community prevention system models

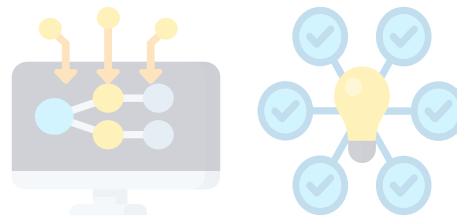
ALIGN EFFORTS ACROSS SYSTEMS AND SECTORS

- Utilize a science-based coalition strategic planning model
- Ensure there is a balanced approach across the Continuum of Care for Mental, Emotional, and Behavioral (MEB) Challenges
- Ensure that a broad approach is taken in strategic planning efforts
- Provide resources and capacity-building for technical assistance, fundmapping, and sector engagement
- Establish shared definitions and meaning across systems and sectors



MONITOR PERFORMANCE, INCREASE LOCAL EVALUATION CAPACITY

- Identify strategies and approaches for evaluating programs among diverse youth populations
- Ensure valid and reliable assessment of implementation and outcomes measures
- Establish feedback systems for continuous quality improvement
- Ensure pre- and post-measurement of outcomes to establish baseline and change after program delivery



PROVIDE EVIDENCE-INFORMED GUIDANCE TO PREVENTION STAKEHOLDERS

- Identify best practices and research-based guidelines for effective systems coordination
- Ensure that the most current science is available and is used to make decisions
- Provide guidance on how to analyze the prevention landscape, layer services, and understand the prevention continuum
- Provide coalition member education about differences between evidence-based and best practice approaches

CONSIDER HEALTH DETERMINANTS, DISPARITIES, AND INEQUITIES IN RISK ASSESSMENT

- Disaggregate data to illuminate risk disparities across diverse populations
- Identify a diverse array of approaches and strategies within the service area
- Ensure that a broad approach is taken when developing programming for diverse youth
- Assess and attend to Adverse Childhood Experiences
- Improve the diversity and representation of the prevention workforce

CONCLUDING REMARKS

Pennsylvania has long been a leader in advancing the field of primary prevention from its early adoption of the public health approach to prevention and focus on positive youth outcomes and strengthening families to its continued support of evidence-based programs and practices. This risk and protective factor assessment thoroughly illustrates the importance of ensuring that an expanded systemic, holistic, and data-informed approach to addressing risky youth behaviors is key to meeting CSPW's vision of supporting healthy youth development.

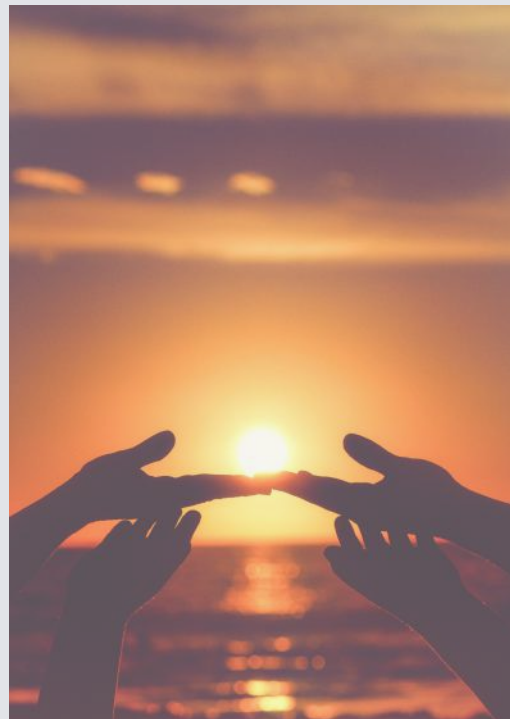
Additionally, this assessment showcases the importance broad dissemination of programs and services that are informed by evidence and are continually checked for the highest performance quality and outcome achievement ensuring the most effective stewardship of taxpayer dollars. Another key conclusion: the need to seek out sustainable prevention funding opportunities that are supported through dynamic cross-system approaches that braid funding streams.

Another key element of this report addresses equity and inclusion which are key topics in today's climate. The data in this report outlines that we must use a diverse lens when strategic planning. Our programming and community coalition efforts should be very mindful and data-driven that maintain elements of equity and inclusion that address the needs of all members of the areas served.

While we seek a balanced approach to supporting all types of early prevention, there must be a strong focus on supporting universal primary prevention across the Commonwealth. Science has shown, universal primary prevention approaches reach larger portions of the population when compared to selected and indicated approaches (3). It is only through broad dissemination and sustaining effective primary prevention approaches that population-level impact can be achieved (102).

In conclusion, in order to effectively address youth problem behaviors, we must strategically partner across all systems and at all levels to ensure that primary prevention is a priority when strategic planning is being conducted and when resource allocations are being determined.

**Follow proven-effective prevention strategies: Reduce youth problem behaviors - Stop them before they start.
Invest in primary prevention today.**



REFERENCES

1. America's Health Rankings analysis of America's Health Rankings composite measure, United Health Foundation, AmericasHealthRankings.org, Accessed 2021.
2. Coie, John D., Shari Miller-Johnson, and Catherine Bagwell. "Prevention science." In *Handbook of developmental psychopathology*, pp. 93-112. Springer, Boston, MA, 2000.
3. Griffin, Kenneth W., Gilbert J. Botvin, Tracy R. Nichols, and Margaret M. Doyle. "Effectiveness of a universal drug abuse prevention approach for youth at high risk for substance use initiation." *Preventive medicine* 36, no. 1 (2003): 1-7.
4. Hawkins, J. David, Jeffrey M. Jenson, Richard Catalano, Mark W. Fraser, Gilbert J. Botvin, Valerie Shapiro, C. Hendricks Brown et al. "Unleashing the power of prevention." *American Journal of Medical Research* 3, no. 1 (2016): 39.
5. Hawkins, J. David, Richard F. Catalano, and Michael W. Arthur. *Promoting science-based prevention in communities*. Routledge, 2017.
6. Arthur, Michael W., and Caryn Blitz. "Bridging the gap between science and practice in drug abuse prevention through needs assessment and strategic community planning." *Journal of Community Psychology* 28, no. 3 (2000): 241-255.
7. Botvin, Gilbert J. "Advancing prevention science and practice: Challenges, critical issues, and future directions." *Prevention science* 5, no. 1 (2004): 69-72.
8. Campbell, Frances A., Craig T. Ramey, Elizabeth Pungello, Joseph Sparling, and Shari Miller-Johnson. "Early childhood education: Young adult outcomes from the Abecedarian Project." *Applied developmental science* 6, no. 1 (2002): 42-57.
9. Campbell, Frances A., Barbara H. Wasik, Elizabeth Pungello, Margaret Burchinal, Oscar Barbarin, Kirsten Kainz, Joseph J. Sparling, and Craig T. Ramey. "Young adult outcomes of the Abecedarian and CARE early childhood educational interventions." *Early Childhood Research Quarterly* 23, no. 4 (2008): 452-466.
10. Evans, Gary W., Dongping Li, and Sara Sepanski Whipple. "Cumulative risk and child development." *Psychological bulletin*, 139, no. 6 (2013): 1342.
11. Cicchetti, Dante, and Fred A. Rogosch. "Equifinality and multifinality in developmental psychopathology." *Development and psychopathology* 8, no. 4 (1996): 597-600.
12. Richard, Lucie, Lise Gauvin, and Kim Raine. "Ecological models revisited: their uses and evolution in health promotion over two decades." *Annual review of public health* 32 (2011): 307-326.
13. Doll, Beth, and Jina Yoon. "The current status of youth prevention science." *Handbook of youth prevention science* (2010): 1-18.
14. Liu, Sabrina R., Maryam Kia-Keating, and Karen Nylund-Gibson. "Patterns of family, school, and community promotive factors and health disparities among youth: Implications for prevention science." *Prevention Science* 20, no. 7 (2019): 1103-1113.
15. Marmot, Michael, and Richard Wilkinson, eds. *Social determinants of health*. Oup Oxford, 2005.
16. Williams, David R., Manuela V. Costa, Adebola O. Odunlami, and Selina A. Mohammed. "Moving upstream: how interventions that address the social determinants of health can improve health and reduce disparities." *Journal of public health management and practice: JPHMP* 14, no. Suppl (2008): S8.
17. Hood, Carlyn M., Keith P. Gennuso, Geoffrey R. Swain, and Bridget B. Catlin. "County health rankings: relationships between determinant factors and health outcomes." *American journal of preventive medicine* 50, no. 2 (2016): 129-135.
18. Dube, Shanta R., Vincent J. Felitti, Maxia Dong, Daniel P. Chapman, Wayne H. Giles, and Robert F. Anda. "Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study." *Pediatrics* 111, no. 3 (2003): 564-572.
19. Piotrowski, Caroline C. "ACEs and trauma-informed care." In *Adverse Childhood Experiences*, pp. 307-328. Academic Press, 2020.
20. Kowalski, Melissa A. "Adverse childhood experiences and justice-involved youth: The effect of trauma and programming on different recidivistic outcomes." *Youth violence and juvenile justice* 17, no. 4 (2019): 354-384.
21. McBride, Dominica, and Yolanda Williams. "Health disparities: creating equity through addressing trauma." *Health disparities: Epidemiological, racial/ethnic, socioeconomic risk factors, and strategies for elimination* (2013): 127-135.
22. Haggerty, Kevin P., and Valerie B. Shapiro. "Science-based prevention through Communities That Care: A model of social work practice for public health." *Social work in public health* 28, no. 3-4 (2013): 349-365.
23. Hawkins, J. David, Eric C. Brown, Sabrina Oesterle, Michael W. Arthur, Robert D. Abbott, and Richard F. Catalano. "Early effects of Communities That Care on targeted risks and initiation of delinquent behavior and substance use." *Journal of Adolescent Health* 43, no. 1 (2008): 15-22.
24. Hawkins, J. David, Sabrina Oesterle, Eric C. Brown, Kathryn C. Monahan, Robert D. Abbott, Michael W. Arthur, and Richard F. Catalano. "Sustained decreases in risk exposure and youth problem behaviors after installation of the Communities That Care prevention system in a randomized trial." *Archives of Pediatrics & Adolescent Medicine* 166, no. 2 (2012): 141-148.
25. Jonkman, Harrie, Kevin Haggerty, Majone Stekete, Abigail Fagan, Koren Hanson, and David Hawkins. "Communities That Care®, Core Elements and Context: Research of Implementation in Two Countries." *Social Development Issues* 30, no. 3 (2008): 42-57.
26. Masten, Ann S. "Ordinary magic: Resilience processes in development." *American psychologist* 56, no. 3 (2001): 227.
27. Capaldi, D. M., and M. Stoolmiller. 1999. "Co-occurrence of conduct problems and depressive symptoms in early adolescent boys: III. Prediction to young-adult adjustment." *Development and Psychopathology* 11 (1): 59-84. <http://www.ncbi.nlm.nih.gov/pubmed/10208356>.
28. Fanti, Kostas A., and Christopher C. Henrich, 2010, "Trajectories of pure and co-occurring internalizing and externalizing problems from age 2 to age 12: Findings from the National Institute of Child Health and Human Development Study of Early Child Care," doi:10.1037/a0020659.
29. Tucker, Joan S., Phyllis L. Ellickson, Maria Orlando, Steven C. Martino, and David J. Klein. 2005. "Substance use trajectories from early adolescence to emerging adulthood: A comparison of smoking, binge drinking, and marijuana use." *Journal of Drug Issues* 35 (2): 307-332. <https://doi.org/10.1177/002204260503500205>. <http://jod.sagepub.com/content/35/2/307.abstract>.
30. Leslie, Laurel K., Jeanne N. Gordon, L. E. E. Meneken, Kamila Premji, Katherine L. Michelmore, and William Ganger. "The physical, developmental, and mental health needs of young children in child welfare by initial placement type." *Journal of developmental and behavioral pediatrics: JDBP* 26, no. 3 (2005): 177.
31. Costello, Elizabeth J., Alaattin Erkanli, Elizabeth Federman, and Adrian Angold. 1999. "Development of psychiatric comorbidity with substance abuse in adolescents: Effects of timing and sex." *Journal of Clinical Child Psychology* 28 (3): 298-311.
32. Jones, Damon E., Mark Greenberg, and Max Crowley. "Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness." *American journal of public health* 105, no. 11 (2015): 2283-2290.
33. Goodman, Miranda. "Development of self, relationships, and socioemotional competence." *Handbook of child development and early education: Research to practice* (2011): 147.
34. Larson, David B., Byron R. Johnson, and J. J. Dilulio. "Religion: The forgotten factor in cutting youth crime and saving at-risk urban youth." *New York: Manhattan Institute for Policy Research, Report* (1998): 98-2.
35. Fletcher, Anne C., Pamela Nickerson, and Kristie L. Wright. "Structured leisure activities in middle childhood: Links to well-being." *Journal of Community Psychology* 31, no. 6 (2003): 641-659.
36. Cauley, Kate, and Bonnie Tyler. "The relationship of self-concept to prosocial behavior in children." *Early Childhood Research Quarterly* 4, no. 1 (1989): 51-60.
37. Baker, Sabine, Alina Morawska, and Amy Mitchell. "Promoting children's healthy habits through self-regulation via parenting." *Clinical child and family psychology review* 22, no. 1 (2019): 52-62.
38. Moore, Kristin Anderson, and Laura H. Lippman, eds. *What do children need to flourish?: Conceptualizing and measuring indicators of positive development*. Vol. 3. Springer Science & Business Media, 2006.
39. Matsueda, Ross L., and Kathleen Anderson. "The dynamics of delinquent peers and delinquent behavior." *Criminology* 36, no. 2 (1998): 269-308.
40. Gottfredson, G.D., 1987. Peer group interventions to reduce the risk of delinquent behavior: A selective review and a new evaluation. *Criminology*, 25(3), pp.671-714.
41. Haynie, Dana L. "Delinquent peers revisited: Does network structure matter?." *American journal of sociology* 106, no. 4 (2001): 1013-1057.
42. Weerman, Frank M. "Delinquent peers in context: A longitudinal network analysis of selection and influence effects." *Criminology* 49, no. 1 (2011): 253-286.
43. Dusenbury, Linda, and Mathea Falco. "Eleven components of effective drug abuse prevention curricula." *Journal of school health* 65, no. 10 (1995): 420-425.
44. Wolfe, David A., Claire V. Crooks, Debbie Chiodo, Raymond Hughes, and Wendy Ellis. "Observations of adolescent peer resistance skills following a classroom-based healthy relationship program: A post-intervention comparison." *Prevention Science* 13, no. 2 (2012): 196-205.
45. Domitrovich, Celene E., and Karen L. Bierman. "Parenting practices and child social adjustment: Multiple pathways of influence." *Merrill-Palmer Quarterly* (1982-) (2001): 235-263.
46. Amato, Paul R., and Frieda Fowler. "Parenting practices, child adjustment, and family diversity." *Journal of marriage and family* 64, no. 3 (2002): 703-716.
47. Masarik, April S., and Rand D. Conger. "Stress and child development: A review of the Family Stress Model." *Current Opinion in Psychology* 13 (2017): 85-90.
48. McCubbin, Hamilton I., and Marilyn A. McCubbin. "Typologies of resilient families: Emerging roles of social class and ethnicity." *Family relations* (1988): 247-254.
49. Cooksey, Elizabeth C., and Michelle M. Fondell. "Spending time with his kids: Effects of family structure on fathers' and children's lives." *Journal of Marriage and the Family* (1996): 693-707.
50. Turner, R. Jay. "Understanding health disparities: The relevance of the stress process model." *Society and Mental Health* 3, no. 3 (2013): 170-186.

REFERENCES

51. Nomaguchi, Kei, and Amanda N. House. "Racial-ethnic disparities in maternal parenting stress: The role of structural disadvantages and parenting values." *Journal of health and social behavior* 54, no. 3 (2013): 386-404.
52. Waters, Stacey, Donna Cross, and Therese Shaw. "Does the nature of schools matter? An exploration of selected school ecology factors on adolescent perceptions of school connectedness." *British Journal of Educational Psychology* 80, no. 3 (2010): 381-402.
53. Sellström, Eva, and Sven Bremberg. "Is there a "school effect" on pupil outcomes? A review of multilevel studies." *Journal of Epidemiology & Community Health* 60, no. 2 (2006): 149-155.
54. Konold, Timothy, Dewey Cornell, Kathan Shukla, and Francis Huang. "Racial/ethnic differences in perceptions of school climate and its association with student engagement and peer aggression." *Journal of youth and adolescence* 46, no. 6 (2017): 1289-1303.
55. Voight, Adam, Thomas Hanson, Megan O'Malley, and Latifah Adekanye. "The racial school climate gap: Within-school disparities in students' experiences of safety, support, and connectedness." *American journal of community psychology* 56, no. 3 (2015): 252-267.
56. Anderman, Eric M. "School effects on psychological outcomes during adolescence." *Journal of educational psychology* 94, no. 4 (2002): 795.
57. Kaftarian, Shakeh, Elizabeth Robertson, Wilson Compton, Beverly Watts Davis, and Nora Volkow. "Blending prevention research and practice in schools: Critical issues and suggestions." *Prevention Science* 5, no. 1 (2004): 1-3.
58. Lich, Kristen Hassmiller, Elizabeth M. Ginexi, Nathaniel D. Osgood, and Patricia L. Mabry. "A call to address complexity in prevention science research." *Prevention science* 14, no. 3 (2013): 279-289.
59. _____. Clearinghouse, What Works. "What works clearinghouse." Internet site: <http://ies.ed.gov/ncee/wwc>
60. _____. "Pennsylvania's School Climate Improvement Process". Internet site: <https://www.education.pa.gov/Schools/safeschools/SchoolClimate/Pages/default.aspx>
61. Hay, Carter, Edward N. Fortson, Dusten R. Hollist, Irshad Altheimer, and Lonnie M. Schaible. 2007. "Compounded risk: The implications for delinquency of coming from a poor family that lives in a poor community." *Journal of Youth and Adolescence* 36 (5): 593-605.
62. Chaskin, Robert J. "Resilience, community, and resilient communities: Conditioning contexts and collective action." *Child care in practice* 14, no. 1 (2008): 65-74.
63. Feinberg, Mark E., Mark T. Greenberg, D. Wayne Osgood, Amy Anderson, and Leslie Babinski. "The effects of training community leaders in prevention science: Communities That Care in Pennsylvania." *Evaluation and Program Planning* 25, no. 3 (2002): 245-259.
64. Fowler, Patrick J., David B. Henry, and Katherine E. Marcal. "Family and housing instability: Longitudinal impact on adolescent emotional and behavioral well-being." *Social science research* 53 (2015): 364-374.
65. DeLuca, Stefanie, and Elizabeth Dayton. "Switching social contexts: The effects of housing mobility and school choice programs on youth outcomes." *Annual Review of Sociology* 35 (2009): 457-491.
66. Fowler, Patrick J., David B. Henry, Michael Schoeny, Jeremy Taylor, and Dina Chavira. "Developmental timing of housing mobility: Longitudinal effects on externalizing behaviors among at-risk youth." *Journal of the American Academy of Child & Adolescent Psychiatry* 53, no. 2 (2014): 199-208.
67. Herrenkohl, Todd I., Jungeun Lee, and J. David Hawkins. "Risk versus direct protective factors and youth violence: Seattle Social Development Project." *American journal of preventive medicine* 43, no. 2 (2012): S41-S56.
68. Atkins, Leslie A., Roy F. Oman, Sara K. Vesely, Cheryl B. Aspy, and Kenneth McLeroy. "Adolescent tobacco use: the protective effects of developmental assets." *American Journal of Health Promotion* 16, no. 4 (2002): 198-205.
69. Hurd, Noelle M., Marc A. Zimmerman, and Yange Xue. "Negative adult influences and the protective effects of role models: A study with urban adolescents." *Journal of youth and adolescence* 38, no. 6 (2009): 777.
70. Dohrenwend, Barbara Snell, and Bruce P. Dohrenwend. "Socioenvironmental factors, stress, and psychopathology." *American Journal of Community Psychology* 9, no. 2 (1981): 123.
71. Alvarez, Hector A. Olvera, Allison A. Appleton, Christina H. Fuller, Annie Belcourt, and Laura D. Kubzansky. "An integrated socio-environmental model of health and well-being: A conceptual framework exploring the joint contribution of environmental and social exposures to health and disease over the life span." *Current environmental health reports* 5, no. 2 (2018): 233-243.
72. Anderson, Kristen G., Danielle E. Ramo, Marya T. Schulte, Kevin Cummins, and Sandra A. Brown. "Substance use treatment outcomes for youth: integrating personal and environmental predictors." *Drug and alcohol dependence* 88, no. 1 (2007): 42-48.
73. DiClemente, Ralph J., John S. Santelli, and Richard A. Crosby, eds. *Adolescent health: Understanding and preventing risk behaviors*. John Wiley & Sons, 2009.
74. Buergelt, Petra T., and Douglas Paton. "An ecological risk management and capacity building model." *Human ecology* 42, no. 4 (2014): 591-603.
75. Baer, Tamara E., Emily A. Scherer, Eric W. Fleegler, and Areej Hassan. "Food insecurity and the burden of health-related social problems in an urban youth population." *Journal of Adolescent Health* 57, no. 6 (2015): 601-607.
76. Gundersen, Craig, and James P. Ziliak. "Food insecurity and health outcomes." *Health affairs* 34, no. 11 (2015): 1830-1839.
77. Hendryx, Michael S., Melissa M. Ahern, Nicholas P. Lovrich, and Arthur H. McCurdy. "Access to health care and community social capital." *Health services research* 37, no. 1 (2002): 85.
78. Hendryx, Michael S., Melissa M. Ahern, Nicholas P. Lovrich, and Arthur H. McCurdy. "Access to health care and community social capital." *Health services research* 37, no. 1 (2002): 85.
79. Cicchetti, Dante, and Sheree L. Toth. 1998. "The development of depression in children and adolescents." *American psychologist* 53 (2): 221.
80. Costello, Elizabeth J., Helen L. Egger, William Copeland, Alaattin Erkanli, and Adrian Angold. 2011. "The developmental epidemiology of anxiety disorders: Phenomenology, prevalence, and comorbidity." *Anxiety disorders in children and adolescents: Research, assessment and intervention*: 56-75.
81. Ghandour, R. M., L. J. Sherman, C. J. Vladutiu, M. M. Ali, S. E. Lynch, R. H. Bitsko, and S. J. Blumberg. 2019. "Prevalence and Treatment of Depression, Anxiety, and Conduct Problems in US Children." *J Pediatr* 206: 256-267 e3.
82. Angold, Adrian, and Elizabeth J. Costello. 1993. "Depressive comorbidity in children and adolescents: empirical, theoretical, and methodological issues." *The American Journal of Psychiatry*.
83. Hanke Heun-Johnson, Michael Menchine, Dana Goldman, Seth Seabury, _____. The cost of mental illness: Pennsylvania facts and figures, February 2017 Leonard D Schafer Center for Health Policy and Economics, Retrieved from <https://healthpolicy.usc.edu/wp-content/uploads/2018/07/PA-Facts-and-Figures.pdf>
84. Centers for Disease, Control, and Prevention. "Providing access to mental health services for children in rural areas." *Rural Health Policy Brief*. (nd) Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/ruralhealth/child-health/policybrief.html>.
85. San Too, Lay, Matthew J. Spittal, Lyndal Bugeja, Lennart Reifels, Peter Butterworth, and Jane Pirkis. "The association between mental disorders and suicide: a systematic review and meta-analysis of record linkage studies." *Journal of affective disorders* 259 (2019): 302-313.
86. Centers For Disease Control and Violence Prevention. *Preventing Youth Violence Fact Sheet*. Retrieved from https://www.cdc.gov/violenceprevention/pdf/yv/YV-factsheet_2020.pdf
87. McFarland, Joel, Jiashan Cui, Amy Rathbun, and Juliet Holmes. "Trends in High School Dropout and Completion Rates in the United States: 2018. Compendium Report. NCES 2019-117." National Center for Education Statistics (2018).
88. McFarland, Joel, Jiashan Cui, and Patrick Stark. "Trends in High School Dropout and Completion Rates in the United States: 2014. NCES 2018-117." National Center for Education Statistics (2018).
89. Tamborini, Christopher R., ChangHwan Kim, and Arthur Sakamoto. 2015. "Education and Lifetime Earnings in the United States." *Demography* 52: 1383-1407.
90. Bender, V., King, M., Torbet, P. (2006). *Advancing Accountability: Moving Toward Victim Restoration*. Pittsburgh, PA: National Center for Juvenile Justice.
91. Shippensburg University of Pennsylvania. "Pennsylvania's Juvenile Justice System Enhancement Strategy." (2012).
92. Vincent, G. M., L. S. Guy, and T. Grisso. "Risk assessment in juvenile justice: A guidebook for implementation. John D. and Catherine T. MacArthur Foundation." *Implementation Science and Practice Advances Research Center Publications*. Retrieved from https://escholarship.umassmed.edu/psych_cmhsr/573 (2012).
93. Blackburn, Susan. "Juvenile Justice in Pennsylvania: Mission-Driven; Performance-Based; Outcome-Focused." *Juvenile and Family Court Journal* 70, no. 1 (2019): 73-87.
94. Bennett, Samantha L. "Restorative Policing: The Effect of Pennsylvania's Juvenile Justice System Enhancement Strategy on Police Dispositions of Youth." PhD diss., Indiana University of Pennsylvania, 2020.
95. Gordon, Jill A., and Page Malmsjo Moore. "ADHD among incarcerated youth: An investigation on the congruency with ADHD prevalence and correlates among the general population." *American Journal of Criminal Justice* 30, no. 1 (2005): 87-97.
96. Hamilton, Brady E., Lauren M. Rossen, and Amy M. Branum. 2016. *Teen birth rates for urban and rural areas in the United States, 2007-2015*. US Department of Health and Human Services, Centers for Disease Control and Violence Prevention.

REFERENCES

97. Sedgh, G., L. B. Finer, A. Bankole, M. A. Eilers, and S. Singh. 2015. "Adolescent pregnancy, birth, and abortion rates across countries: levels and recent trends." *J Adolesc Health* 56 (2): 223-30. <https://doi.org/10.1016/j.jadohealth.2014.09.007>.
98. Charlton, B. M., A. L. Roberts, M. Rosario, S. L. Katz-Wise, J. P. Calzo, D. Spiegelman, and S. B. Austin. 2018a. "Teen Pregnancy Risk Factors Among Young Women of Diverse Sexual Orientations." *Pediatrics* 141 (4). <https://doi.org/10.1542/peds.2017-2278>.
99. Talashek, Marie L., Melinda L. Alba, and Angira Patel. 2006. "Untangling the Health Disparities of Teen Pregnancy." *Journal for Specialists in Pediatric Nursing* 11 (1): 14-27. <https://doi.org/10.1111/j.1744-6155.2006.00040.x>.
100. Klein, J. D., and Adolescence American Academy of Pediatrics Committee on. 2005. "Adolescent pregnancy: current trends and issues." *Pediatrics* 116 (1): 281-6. <https://doi.org/10.1542/peds.2005-0999>.
101. Spicer, Julie, Elizabeth Werner, Yihong Zhao, Chien Wen Choi, Sara Lopez-Pintado, Tianshu Feng, Margaret Altemus, Cynthia Gyamfi, and Catherine Monk. 2013. "Ambulatory assessments of psychological and peripheral stress-markers predict birth outcomes in teen pregnancy." *Journal of Psychosomatic Research* 75 (4): 305-313.
102. Mason, W. Alex, Charles B. Fleming, Ronald W. Thompson, Kevin P. Haggerty, and James J. Snyder. "A framework for testing and promoting expanded dissemination of promising preventive interventions that are being implemented in community settings." *Prevention Science* 15, no. 5 (2014): 674-683.