

# Strategic Plan 2013-2020



ADOLESCENT HEALTH

*Partnership*

Promoting and Improving  
the  
**Health**  
of **Ohio Adolescents**



The OAHP began as an internal Adolescent Health Advisory Council (Council) to the Ohio Department of Health's (ODH) Maternal and Child Health (MCH) Program. Originally it was comprised of primarily physicians throughout Ohio identified with adolescent health expertise. In this role, the Council provided guidance to the MCH program on adolescent health related programs.

In 2009, the ODH MCH Program participated in a project with the Association of Maternal and Child Health Programs (AMCHP) to focus on pre-conception health in Ohio. As part of that project, the MCH program launched a Stakeholders Survey to assess critical adolescent health issues in Ohio. As a result of that project and the survey, it became clear that there was a need for a broader expert body to help prioritize critical adolescent health issues based on the needs of Ohio's adolescents as well as the services, systems, and providers that interact with them. In November 2010, the MCH Program's Adolescent Health Advisory Council was re-launched to include local and state stakeholder agencies and organizations, as well as individuals with expertise in adolescent health. The advisory council was later renamed the Ohio Adolescent Health Partnership to reflect its expanded purpose of providing statewide leadership in addressing adolescent health issues beyond the advisory role to the MCH program.

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# Executive Summary

The **Ohio Adolescent Health Partnership (OAHP)** is a diverse group of agencies, organizations, and individuals with expertise in adolescent health and wellness, and with the common goal of supporting optimal health and development for all adolescents. By encouraging cooperation, communication, and collaboration among the programs, institutions, communities, and individuals dedicated to adolescent well-being, the OAHP will be uniquely positioned to provide leadership for local and statewide efforts to make progress in priority areas of adolescent health.

This strategic plan is intended to provide a framework for broadly addressing adolescent health and raising awareness about the health status of youth and the systems that support their health in Ohio. Critical adolescent health issues presented in this plan were prioritized based on the health status of adolescents in Ohio using assessments conducted by the Ohio Department of Health's (ODH) Maternal and Child Health (MCH) Program, as well as Ohio and national data available as of 2012 (see Appendix for Methodology). The content of this plan is based on both existing data and expert guidance.

While this **strategic** plan, and the overarching mission of the OAHP, is intended to be an active and ongoing process that adapts and responds to the changing needs of adolescents in Ohio, the goals and objectives articulated here are those identified as critical to improving adolescent health Ohio by 2020. This plan presents five key adolescent health issue areas along with the goals and

The vision of the OAHP is that all Ohio adolescents are empowered and able to live safe, healthy and productive lives as they transition into and reach adulthood.

The mission of the OAHP is to advance and promote the safety, health and wellness of Ohio's adolescents.

objectives for improving adolescent health outcomes in those specific areas. Also presented here are Guiding Principles and an overarching framework that are important for influencing positive, long-term, and sustainable improvement in the health status of all Ohio adolescents.

A separate **operational** plan will be developed to guide OAHP specific activities aimed at achieving these goals and objectives with our statewide partners. The OAHP will monitor the health status of adolescents in Ohio while tracking and evaluating the progress towards implementing this plan. As adolescent health program and policy environments change, so will the OAHP operational plan adapt and change in response to current needs, resources, and opportunities. The OAHP hopes that all stakeholders interested in improving the

health status of adolescents in Ohio will use this plan as a **guidance document** – paving the way for substantial collective impact on adolescent health and well-being in our state.

The goals and objectives outlined in this strategic plan require the collaboration and engagement of the many layers of systems, services, and individuals. Through this plan, the OAHP intends to engage individuals, organizations, institutions, and the community at-large to address the issues faced by adolescents. The efforts will address the impact of these issues on adolescents' ability to live healthy, safe, and productive lives. Emphasis will be on efforts at a state and community level to create a supportive environment in which adolescents can achieve their full potential.



# A Framework for Adolescent Health:

## **Rationale**

### ***Why Focus on Adolescence?***

Adolescence is a unique developmental time in the lifespan of every individual. It is a time characterized by distinct and dramatic developmental, physical, social, emotional and intellectual changes.<sup>1-4</sup> The physical and emotional changes that take place in adolescence are second only to the extensive changes that take place in infancy.<sup>2,5,6,7</sup> Many lifestyle behaviors that contribute to or reduce risk for chronic disease and disability in adulthood are developed in adolescence.<sup>8</sup> Adolescence is a critical transition point on the continuum of an individual's lifespan. Childhood experiences impact adolescent experiences which in turn become the foundation for the experiences of adulthood. The cumulative effect can have long term implications into adulthood.<sup>9-11</sup> Although adolescent health issues are often framed in terms of deficits or negative outcomes, adolescence is typically a time of good health for most individuals in comparison to other periods in the lifespan.<sup>2,8</sup>

The many physical, social, emotional, and cognitive changes in adolescence encompass three phases: early adolescence; middle adolescence; and late adolescence (transitioning to young adulthood). Within each phase, adolescents are faced with various developmental tasks in response to changes related not only to puberty, but also changes in self-identify; social roles and expectations; and relationships with peers and family which all occur while transitioning from concrete to abstract thought and reasoning.<sup>2,13</sup> Most adolescent health and medicine professionals, researchers, and systems define these three phases of adolescence somewhere between the ages of 10 and 21.<sup>3,8</sup> Research over the last



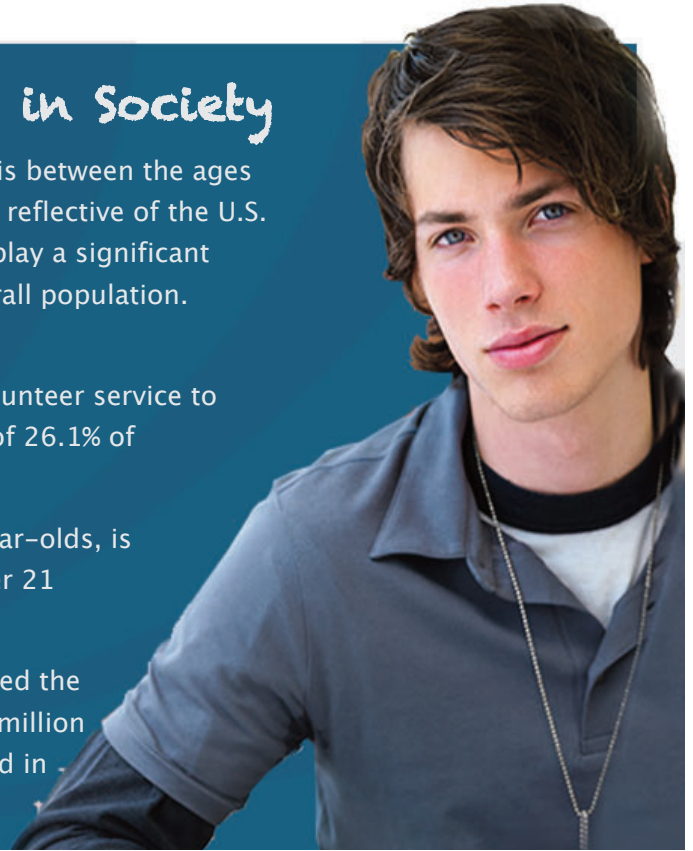
Many lifestyle behaviors that contribute to or reduce risk for chronic disease and disability in adulthood are developed in adolescence.<sup>8</sup>

## Adolescents & Young Adults in Society

In Ohio (as nationally), approximately, 20% of the population is between the ages of 10 and 24.<sup>34</sup> This percentage has declined in recent years, reflective of the U.S. population as a whole getting older. However, young people play a significant role in society at large, despite their modest share of the overall population.

For example:

- In 2010, 4.4 million teenagers gave 377 million hours of volunteer service to communities across the country—this effort was comprised of 26.1% of youth age 16–19.<sup>48</sup>
- The youth labor force nationally, composed of 16- to 24-year-olds, is expected to decline from the 2008 level, but will remain over 21 million in 2018.<sup>49</sup>
- In the 2012 presidential election, 18–29 year olds represented the largest potential voting bloc in the country. About 22 to 23 million people under 30 — or at least 49% of this age group — voted in the election representing 19% of total voter turnout.<sup>50</sup>



decade is also building a strong case for the ages of 18-24 being the last stage of adolescence – a period of time in which the developmental tasks of adolescence are still in process and youth are transitioning out of child-focused and into adult-focused systems.<sup>3,15</sup> Recent brain development research also indicates that significant brain development continues up to age 25.<sup>2</sup> As such, the OAHPP intends to focus its efforts on those youth and young adults between the ages of 10 and 24.

The physical, social and emotional development that occurs during adolescence and young adulthood can vary greatly for every individual and is much more complex than just chronological age.<sup>2,16</sup> There is a wide normal range for the appearance of the first physical signs of puberty. Recent studies in both boys and girls from the Pediatric Research in Office Settings network of the American Academy of Pediatrics (PROS) have demonstrated that the age when these first physical signs can first appear, for both genders, is lower than previously held norms (e.g. lower than age 8 for girls and age 9 for boys).<sup>17,18</sup> Further, many subgroups of adolescents experience the developmental tasks of adolescence in very different ways. For example, adolescents with special health care needs, including chronic physical or mental health conditions or disabilities, experience the transition to independence and adult-focused systems differently than adolescents

without special health care needs.<sup>2,8,19</sup> Adverse childhood and adolescent experiences may also delay emotional and intellectual maturity.<sup>10</sup> Certain subgroups of adolescents are also more vulnerable to risk factors and poor health outcomes such as: youth living in vulnerable situations (poverty, foster care, and juvenile justice systems); homeless youth; youth experiencing stigma resulting from their identification with specific racial or ethnic minority groups; and youth identifying with lesbian, gay, bisexual or transgender communities. Similarly, young people transitioning out of child-focused systems at age 18 or 21 (such as health, education, and public benefits) have unique challenges as they transition to (or fall through the cracks) of adult focused systems.<sup>8</sup> Finally, societal influences at-large can also change what “adolescence” looks like, delaying (or inspiring) an individual’s launch into young adulthood based on factors such as educational and workforce opportunities.<sup>15,20</sup> For all of these reasons, age alone should not define adolescence.

In summary, ensuring that all adolescents reach optimal health and wellness requires not only recognition that adolescence looks different for each individual, but also an understanding of the variety of developmental tasks of adolescence and critical transition points that are crucial for the successful progression between adolescence and adulthood.



## Building Resiliency in Adolescents

Being healthy should mean that all adolescents have the opportunity to reach their *optimal health*. Optimal health is not just the absence of disease. It is the ability of each individual to successfully participate in the developmental tasks of adolescence; accomplish those tasks to the best of their ability; and to be resilient in the face of stressors and challenges.<sup>21,22</sup> Any definition of optimal health should also recognize that all adolescents need caring, supportive relationships and opportunities to connect with and contribute to their communities in positive ways.<sup>23</sup> Investing time, attention, and resources in the health and wellness of adolescents is essential to helping them maintain optimal health and lay a foundation for a healthy and successful adulthood.<sup>14</sup> Investing in the health and wellness of adolescents is essentially an investment in the future of Ohio communities. Healthy adolescents engage more in their communities; do better in school; and go on to see better health status, higher educational achievement, and more success in their lives as adults.<sup>24,25</sup>

Although specific priority issues are identified in this strategic plan, an underlying premise is that adolescents are influenced at many different levels by family and peers, as well as other community and societal factors. An adolescent's ability to positively engage and interact with these influences will shape their health and their lives as successful adults. Prevention and intervention science have shown that there are characteristics of individuals, their families, and their environment (i.e. community neighborhood, school) that affect the likelihood of negative outcomes. Other characteristics serve to protect individuals or create resiliency against the influence of negative characteristics. Together, these characteristics are known as **risk factors and protective factors**. Risk factors do not necessarily cause negative or unhealthy behaviors. Prevention research helps us to understand which risk factors can, and should, be reduced to prevent disease, injury, academic failure, and other health and social ills. It also helps to explain which protective factors can help ameliorate the risk factors.<sup>26-28</sup>

## Disparities & Inequities

Health disparities are preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations. Many types of disparities and inequities exist including poverty, race, ethnicity, gender, education, income, disability, geographic location and sexual orientation.<sup>8,30</sup> Frequently, adolescent health status and outcome data does not reflect the significant disparities that some specific racial and ethnic groups of adolescents experience related to high rates of disease, health conditions, or risky behaviors.<sup>8</sup> It is well documented that people of color, especially with the lowest incomes, have the worst health outcomes of anyone in our society.<sup>31</sup> For example, the Centers for Disease Control and Prevention's Racial and Ethnic Approaches to Community Health (REACH) initiative cites that:<sup>32</sup>

Hispanic youth have highest prevalence of asthma (18.4%) followed by Black, non-Hispanic (14.6 %) compared to non-Hispanic whites (8.2%).

Non-Hispanic blacks have the highest rates of obesity (44.1%) followed by Mexican Americans (39.3%).

Compared to non-Hispanic whites, the risk of being diagnosed with diabetes is 18% higher among Asian Americans, 66% higher among Hispanics/Latinos, and 77% higher among non-Hispanic blacks.

Health outcomes among adolescents reflect the disparities in the larger population. Compared to their white peers, adolescents and young adults who are African American, American Indian, or Hispanic, especially those who are living in poverty, experience worse outcomes in a variety of areas including obesity, teen pregnancy, dental decay and educational achievement.<sup>33</sup> Health disparities among racial and ethnic populations result directly and indirectly from factors such as poverty, inadequate access to health care, and educational inequalities, but also from the historical and current unequal distribution of social, political, economic, and environmental resources among some minority groups.<sup>30</sup> These complicated factors, some deeply rooted in historical context, dramatically increase the odds against some racial and ethnic groups.

All efforts to improve the health status of adolescents must include race and ethnicity as a central consideration. While some areas of the country, including Ohio, have not yet experienced the dramatic shift in demographics to a “majority minority” population, that shift in demographics is coming. More than half of the growth in the total population of the United States between 2000 and 2010 was due to the 43% increase in the Hispanic population.<sup>34</sup> Similarly, the racial and ethnic makeup of adolescents in the United States is becoming more diverse.<sup>8</sup>

Recognizing that race and ethnicity are central factors in health status, adolescent health programs and services should strive to reduce health disparities and attain equitable distribution of resources to serve the needs of all adolescents. Equity includes the availability and accessibility of services to all individuals based on their unique needs and circumstances. Research can be utilized to evaluate the effectiveness of specific strategies and interventions in improving the health status for a particular population.<sup>35</sup>

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## Key Spheres of Influence

Adolescent health outcomes are grounded in their social environments, and because they are in developmental transition, adolescents and young adults are particularly sensitive to contextual or surrounding **spheres of influence**.<sup>12,33</sup> Reducing risk factors, increasing protective factors, and being ever vigilant as to the complex balance that these factors play in the lives of adolescents requires an understanding that the behaviors of young people are influenced at the individual, peer, family, school, community, and societal levels.<sup>2,33,36</sup>

### Individual

There are many individual characteristics that influence how a young person grows and develops. Some factors are biologically determined while others are social in nature including a young person’s self-esteem; their attitudes and beliefs; and their ability to interact with others. The development of assets and competencies in youth, which is the focus of the growing field of **positive youth development**, is the best means for fostering health and well-being and for avoiding negative choices and outcomes.<sup>3</sup> Interventions should include giving youth a voice and providing them with skill



building opportunities - thereby allowing them to develop the self-identity and sense of competence necessary to successfully achieve the developmental tasks of adolescence and transition successfully to adulthood.<sup>23</sup>

**Relationships with Others:  
Family, Peers and Social Networks**

Having a caring, supportive family or caregiver is a key asset for healthy adolescent development.<sup>14,37</sup> The influence of peers and social networks is also important and can be direct (attitudes and behaviors of peers) or indirect (a young person’s perception of their peer group’s attitudes and behaviors).<sup>38</sup> Young people who lack caring adults and positive social connections in their lives are more likely to engage in problem behaviors and experience a variety of poor health and social outcomes. Giving families and communities a voice in identifying their specific challenges and what works best for their youth is essential to creating effective programs and policies that address the unique and changing needs of adolescents.

**Communities and Neighborhoods**

The characteristics of neighborhoods where adolescents spend their time significantly impact their health status and health decisions.<sup>39</sup> Residents of low-income neighborhoods are disproportionately affected by negative environmental factors such as poor air quality, poorly maintained homes, and lack of healthy food choices.<sup>27,40,41</sup> Built environments also contribute to how an adolescent interacts with their community. The availability of safe spaces for youth to convene, the existence of sidewalks, and the availability of public transportation all present unique challenges or opportunities for youth to connect with community services and institutions as well as build positive connections with their community.<sup>41-43</sup> Ultimately, healthy places equal healthy adolescents.

Feeling connected to schools and communities is also a key asset for healthy adolescent development. Teachers, faith-based professionals, coaches, youth service workers, health care providers, and other caring professionals in community-based organizations and social settings can have a powerful influence on the health and well-being

of adolescents.<sup>44</sup> Young people who feel connected to caring adults are less likely to be involved in problem behaviors and are more likely to feel engaged, valued, and safe in their neighborhoods and schools.<sup>27,37</sup> A basic tenet of “positive youth development” is the importance of providing opportunities for youth to engage and connect in positive and meaningful ways to their community.

Understanding the relationship between how population groups, such as adolescents, experience “place” and the impact of “place” on health is a fundamental principle of the social determinants of health which includes both social and physical aspects. These determinants help us to understand disparities and inequities in how adolescents can and do access services and resources in their communities.<sup>44</sup> All decision makers guiding programs and policies should be mindful of the importance of ensuring community-based professionals have adequate education, training, and resources to help meet the needs of adolescents.



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## Society

Societal institutions are a major influence on the health behaviors of adolescents. For example, schools; churches and other religious organizations; media, health care services; and other institutions govern and guide the behavior of individuals within their structures – setting the context for education, opportunities, social norms, and skill building.<sup>14,46</sup> Communities at-large, including informal and formal groups that individuals relate to based on identity or culture, have a role to play in supporting the healthy development of adolescents. Examples include: faith-based communities, ethnic and cultural populations, immigrant communities, and LGBT communities. Even individuals who are not formally a member of a group organized around these issues or identities may look to the informal leaders of those communities for guidance and expertise. Other societal conditions influencing adolescent health behaviors are a complex intersection of many factors such as social and cultural norms, economic conditions, job market, and even policies and laws intended to enforce or regulate health-related behaviors.

### **Building Youth Resiliency Across All Spheres of Influence**

The risk and protective factors that influence adolescents within each of the spheres of influence will shape their health and well-being by affecting their capacity to withstand life stressors as well as their ability to transition in developmentally appropriate ways and make decisions about health behaviors. It is not simply the absence of risk factors and presence of protective factors that determines the health and well-being of a young person, but the complex balance and interplay between them that affects health.<sup>21,22,47</sup>

Among maternal and child health professionals, the Socio-Ecological model is embodied in a “Life-Course” approach which addresses social determinants specific to developmental periods — early childhood, childhood, adolescence, and adulthood — all of which have a cumulative affect during a person’s life span.<sup>9</sup> Addressing adolescent health issues from a socio-ecological framework reminds us that different influences throughout the life span of an individual can change the trajectory of their life choices. It is a reminder of the importance of positive influences and opportunities for adolescents throughout their life in order to achieve their optimal health and wellness.

Through this strategic plan, the OAH Partnership intends to engage adolescents and their parents, organizations, institutions as well as the community at-large regarding the issues that adolescents face; how these issues impact adolescents’ ability to live healthy, safe and productive lives; and what can be done at the state and community level to create a supportive environment in which adolescents thrive and meet their full potential.

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## Overarching Goal

# Ohio Adolescents are Healthy, Safe and Successful

### Cross-Cutting Objectives

1. Increase adolescent assets and resiliency skills to reduce the impact of negative external factors.
2. Incorporate best available research evidence into the design of all adolescent health interventions, programs and policies.

### **A Framework for Adolescent Health: Design of the Strategic Plan**

OAHP's **Strategic Plan** is designed to provide guidance for state and local agencies and organizations, schools, policy leaders, medical and behavioral health entities, and communities when planning and implementing programs and interventions aimed at improving adolescent health outcomes. OAHP recognizes the unique developmental and social contexts of adolescence and strives to support programs and opportunities to meet those needs.

The plan identifies five key priority areas that will most significantly impact adolescent health outcomes. In order to address these five areas, OAHP identified an overarching goal with cross-cutting objectives that support the plan as a whole. The five key areas each have their own specific goals and objectives needing immediate action in order to improve the health status of

adolescents in Ohio through 2020. The goals and objectives were developed based upon existing data, current research, identified gaps, and by integrating initiatives supported by collaborating partners. Due to the complexity and uniqueness of each issue, there are varying numbers of goals and objectives per priority area. Strategies for achieving the goals and objectives will be developed in the **Operational Plan**.

Underlying all of the goals presented in this plan are **Guiding Principles** that capture the values and priorities of the OAHP and represent *shared issues of importance* to support optimal health and development for all adolescents within the five priority areas. During the development of this strategic plan, these Principles provided a shared set of standards for the creation of the goals and objectives. These Principles will also help ensure that strategies developed within the future operational plan remain consistent with research and best practice to address the unique health needs of adolescents.



## ***A Framework for Adolescent Health: Guiding Principles***

**1. Adolescents are valuable assets** to society with unique developmental needs. They are resources to be nurtured rather than problems to be fixed.

**2. Access** to holistic, affordable, and developmentally and culturally appropriate services, including preventive services, is essential to effectively meet the unique health needs of adolescents.

**3. Coordination and collaboration** among state and local adolescent health systems, services and initiatives is essential to effectively deliver holistic, quality care.

**4. Education** is key to ensuring adolescents develop critical thinking skills to access appropriate services and make positive behavioral choices.

**5. Disparities and inequities** must be addressed within all adolescent health policies, programs and systems.

**6. Evidence based research** should be used when selecting interventions and strategies and when evaluating adolescent health programs.

**7. Positive Youth Development and resiliency principles** should be incorporated into all adolescent health interventions in order to empower adolescents to achieve optimal health and be active participants in their own care.

**8. Programs, policies and systems** should be coordinated in order to create the infrastructure necessary to build sustainable change that will improve adolescent health outcomes.

**9. Youth/family voice** that engages adolescents and their caregivers in meaningful discussions related to adolescent health policies, programs and services is a critical component in providing services that are responsive to the needs of adolescents.

**10. Community support** is a crucial factor providing families and communities the needed resources and tools to help adolescents thrive.

## ***A Framework for Adolescent Health: Overarching Goals and Cross-Cutting Objectives***

The **overarching goal** of this strategic plan is that  
**Ohio Adolescents are Healthy, Safe and Successful.**

As the five key issue areas are successfully addressed, it is the expectation of the OAH Partnership that progress will be made in achieving this overarching goal. There are two cross-cutting objectives that support the overarching goal and are critical to realizing the five key issue areas.

### **Cross-Cutting Objectives:**

#### **1. Increase adolescent assets and resiliency skills to reduce the impact of negative external factors.**

This cross-cutting objective recognizes that all strategies proposed in this plan must inherently seek to increase social connectedness among Ohio’s teens, their families, and communities. Feeling connected to schools, communities, and caring adults is a key asset for healthy adolescent development. Fostering school climate as well as social and emotional learning are key protective factors to improve or sustain positive academic performance. The goals and objectives stated in this plan strive to increase protective factors for all Ohio adolescents within the family, their school, and their community.

Research states that youth strongly connected to schools, families and adults have increased resiliency skills.

#### **2. Incorporate best available research into the design of all adolescent health interventions, programs and policies.**

All strategies must be rooted in best available evidence to improve adolescent health and address inequities and disparities.

In order to understand and successfully address the many factors that influence adolescent health and quality of life outcomes, it is critical to have evidence of efficacy in all programs and policies. Applying evidence-based research and program evaluation is not only important for determining the overall impact of a program or policy, but is also crucial in understanding the potential differential impact of disparities and inequities. Decision makers should look to the best available research evidence from national and state experts to determine what will work for Ohio adolescents. This process can also ensure equitable distribution of resources based on the unique health and developmental needs of adolescents in general and take into account health disparities.

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# OHIO ADOLESCENT HEALTH Strategic Plan



## 5 Key Adolescent Health Issue Areas and Goals

1

### **Behavioral Health (Mental Health & Substance Abuse)**

**Goal 1:** Rates of substance use and abuse will decrease among adolescents

**Goal 2:** Behavioral and physical health services for adolescents will be more fully integrated to improve access and quality of care

2

### **Injury, Violence & Safety**

**Goal 3:** Adolescents will engage in healthy relationships

**Goal 4:** Injuries and deaths in adolescents associated with motor vehicles will decline

**Goal 5:** Decrease the incidence and consequences of Traumatic Brain Injury (TBI) in adolescents

3

### **Reproductive Health**

**Goal 6:** Adolescents and their families will be able to make informed decisions about their reproductive health

**Goal 7:** Reduce the rates of sexually transmitted infections in adolescents

**Goal 8:** Promote the continued downward trend in pregnancy and birth rates among adolescents

4

### **Nutrition & Physical Activity**

**Goal 9:** Adolescents will engage in healthy eating behaviors

**Goal 10:** Adolescents will engage in recommended physical activity

**Goal 11:** Adolescents will have a healthy body mass index (BMI)

5

### **Sleep**

**Goal 12:** Adolescents will obtain a minimum of 8.5-9.5 hours of sleep per night



## OAHP Key Adolescent Health Issue



# Behavioral Health (Mental Health & Substance Abuse)



### **Introduction**

In Ohio, the promotion of positive mental health and the prevention of substance abuse and mental illness are crucial components in advancing and promoting the safety, health and wellness of Ohio's adolescents. This key adolescent health issue area combines the subjects of mental health and substance abuse under the umbrella of behavioral health due to their interconnectivity. An adolescent's ability to cope with stressors, be resilient, and practice sound judgment is imperative to supporting good mental health. The development of these skills and attributes can be affected by brain development as well as pre-existing mental health problems and substance abuse disorders.

Most behavioral health disorders begin during childhood and adolescence. The science in this area continues to grow and was compiled and released in the 2009 Institute of Medicine (IOM) report, *Prevention Mental, Emotional, and Behavior disorders Among Young People*. According to the 2009 IOM report, among adults reporting a behavioral health disorder during their lifetime, more than half report the onset as occurring in childhood or adolescence. Mental, emotional, and behavioral (MEB) issues among young people include both diagnosable disorders and other problem behaviors such as early drug or alcohol use; antisocial or aggressive behavior; and

An adolescent's ability to cope with stressors, be resilient, and practice sound judgment is imperative to supporting good mental health.

violence. The percentage of young people with MEB is estimated to be between 14 and 20 percent.<sup>1</sup>

Adolescents with substance abuse disorders are more likely to have a co-occurring psychiatric disorder resulting in poorer treatment outcomes, both physical and psychological, if both the substance abuse and psychiatric components are not addressed.<sup>2</sup> Youth in the juvenile justice system have among the highest rates of mental health and substance abuse problems, with approximately two-thirds being diagnosed with a psychiatric or substance use disorder when conduct disorder is excluded.<sup>3</sup>

Adolescence is a critical time in cognitive and psychosocial development and the shift in social influences heavily impacts adolescent behaviors particularly heightening the risk for substance abuse. Research on adolescent brain development indicates that exposure to alcohol and drugs may interrupt the natural course and process of development creating cognitive deficits.<sup>4</sup> Most recently, abuse of prescription drugs has become a particular concern. The 2012 Partnership Attitude Tracking Study confirmed that one in four teens has misused or abused a prescription (Rx) drug at least once in their lifetime – a dramatic 33 percent increase over the previous five years.<sup>6</sup> Contributing to prescription drug abuse is the belief by adolescents that their parents don't care as much if they use prescription drugs without a doctor's prescription (23%) versus being caught using illegal drugs. Further, 27% believe misusing or abusing prescription drugs is safer than illegal drugs.<sup>6</sup>

MEB's in young people have enormous personal, family, and societal costs – interfering with their ability to accomplish normal developmental tasks such as establishing healthy interpersonal relationships, succeeding in school, and transitioning to the workforce. The National Alliance on Mental Illness reports that approximately 50% of students, age 14 and older, who are living with a mental illness drop out of high school. This is the highest dropout rate of any disability group.<sup>7</sup> Early and effective mental health treatment can significantly improve the lives of many of the children and adolescents with MEB and reduce the economic burden on society.

Prevention, treatment, and recovery support services are critical parts of health service systems and community wide strategies that work to improve health status. Even though the prevalence of adolescents with mental health disorders is high, less than 21% of children and adolescents receive the mental health care that they need.<sup>8</sup> Some of the reasons negatively impacting treatment include: stigma; shortages and inaccessibility of specialists; lack of adequate insurance coverage; and lack of transportation.<sup>9</sup> Low income and minority adolescents are disproportionately affected by these issues.<sup>9</sup> In addition to a having widely available support services, it is equally important that the services provided are of high quality and evidence-based.<sup>10</sup> Integration of trauma-informed care approaches throughout all health services are an important element of quality services.<sup>11</sup> Trauma-informed care is rooted in a basic understanding about that impact of trauma on the individual. Health care providers must be aware of the vulnerabilities created by trauma in order to tailor interventions and avoid re-traumatization.

Because of the high prevalence and treatment challenges associated with co-occurring psychiatric and substance abuse disorders, the OAHPP also recognizes the need for increasing awareness of and treatment options for these youth. This is particularly important since they are at a higher risk for experiencing difficulties within their families, social networks, school, the workforce, and the community.<sup>2</sup> An underlying challenge in treating adolescents with co-occurring disorders is the different philosophies between mental health and substance abuse professionals which are rooted in differing funding streams, mandates, and treatment protocols.<sup>12, 13</sup>

Preventive interventions can modify risk and promote protective factors that are linked to important determinants of mental, emotional, and behavioral health, especially in such areas as family functioning, early childhood experiences, and social skills.<sup>14</sup> Interventions are available to reduce the incidence of common disorders and problem behaviors such as depression, substance use, and conduct disorder with some interventions reducing multiple disorders and problem behaviors. National recommendations include mental health screening of young children and

adolescents with emphasis on starting in the younger years; improving and/or expanding of school mental health programs; screening for co-occurring disorders with linkage to integrated treatment strategies; and screening for mental health disorders in primary health care to facilitate the connection to treatment and support options.<sup>15</sup> In 2011, the American Academy of Pediatrics published a policy statement outlining specific recommendations for pediatricians for screening, brief intervention, and referral for adolescents with potential substance abuse problems.<sup>16</sup>

Schools can provide a venue to increase access to the diagnosis of and treatment of MEB disorders. Both

schools and adolescents jointly benefit when Supportive Learning Environments (SLE) are created that incorporate systems of prevention, early intervention, and care. According to Adelman and Taylor, the leading experts on SLE, districts can realize an improvement in academic performance, decreased discipline reports, and increase in graduation rates.<sup>17</sup> School-based health clinics (SBHC) have demonstrated that they are an excellent way to incorporate MEB services into the school setting and increase access to care. The National School Based Health Care Alliance reports that students are 10-20 times more likely to come to SBHC for mental health services than a community health center, which in turn significantly decreases rates of tardiness and absences.<sup>18</sup>

***The following examples highlight some of the state and local level efforts addressing Behavioral Health issues for adolescents and young adults:***

The **Ohio Chapter of the American Academy of Pediatrics** has created the Building Mental Wellness Learning Collaborative to assist primary care practices in: developing a culture that supports the delivery of family centered mental health services; developing skills to support the promotion, early identification, and management of mental health concerns; and implementing integrated models of family centered mental health care. The program includes a focus on screening, office-based interventions, linkages to community resources, and using evidence-based practices for prescribing psychotropic medications.

The **Ohio Youth Led Prevention Network**, supported by the Ohio Department of Mental Health and Addiction Services, focuses on peer prevention, positive youth development and community service.

**Drug Free Action Alliance** conducts campaigns aimed at decreasing underage access to alcohol and increasing awareness of and compliance with Ohio's underage drinking laws.

The **Interagency Task Force on Mental Health and Juvenile Justice** is a joint initiative between OMHAS and the Ohio Department of Youth Services to improve, enhance, and expand the local systems' options for providing services to juvenile offenders with serious behavioral healthcare needs.

The **ENGAGE** process (Engaging the New Generation to Achieve their Goals through Empowerment) is a collaboration of Ohio agencies utilizing the Systems of Care framework and philosophy to focus on meeting the needs of youth and young adults, ages 14-21, with mental health conditions, co-occurring disorders, and multi-system needs as they transition into adulthood.

**Ohio Medicaid** teamed up with the **Ohio Department of Mental Health & Addiction Services** to focus on creating health homes for individuals on Medicaid who have serious and persistent mental illness (SPMI). Health homes aim to integrate physical and behavioral health care by offering and facilitating access to medical, behavioral and social services that are timely, of high quality and coordinated by an individualized care team.

The **Pediatric Psychiatry Network**, a clinical decision support service for Ohio physicians, is a technologically supported system of consultation, communication, quality improvement, and direct services designed to both increase access to child psychiatry consultation and triage for patient-centered medical homes, primary care, and community mental health provider organizations; and to break down barriers to integrated care through system-linking technology used by a coordinated and competent decision support network.

# Ohio SNAPSHOT

- From 2009 to 2010, 10% of adolescent ages 12-17 years old and 20% of young adults ages 18-25 reported illicit drug use in the past month.<sup>19</sup>
- In 2011, 23.6% of 9<sup>th</sup>-12<sup>th</sup> graders reported using marijuana one or more times during the past 30 days.<sup>20</sup>
- In 2011, over 18% of 9<sup>th</sup>-12<sup>th</sup> graders drank alcohol for the first time before the age of 13.<sup>20</sup>
- From 2009 to 2010, 8% of adolescents ages 12-17 years old and 44% of young adults ages 18-25 reported binge drinking during the past month.<sup>19</sup>
- In 2011, 21.3% of 9<sup>th</sup>-12<sup>th</sup> graders have used prescription pain relievers/painkillers without a doctor's prescription in their lifetime.<sup>20</sup>
- From 2009 to 2010, 8% of adolescents ages 12 to 17 years old experienced a major depressive episode and 30% of young adults ages 18 to 25 years old experienced mental illness.<sup>19</sup>

## Goals and Objectives

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### Goal 1: Rates of substance use and abuse will decrease among adolescents.

**Objective 1.1:** Adolescents will delay the onset of first use of alcohol.

**Objective 1.2:** Increase the number of educational activities and media campaigns directed towards adolescents, their families, and support networks addressing the signs of substance abuse and mental health disorders.

**Objective 1.3:** Decrease the number of adolescents who misuse and abuse prescription and over-the-counter medications.

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### Goal 2: Behavioral and physical health services for adolescents will be more fully integrated to improve access and quality of care.

**Objective 2.1:** Increase behavioral health prevention services, screening, and treatment referral options.

**Objective 2.2:** Increase the number of adolescents who have health care through their Patient Centered Medical Home.

**Objective 2.3:** Increase parity in insurance coverage and reimbursement for behavioral health and supportive services for adolescents.

**Objective 2.4:** Increase the utilization of evidence based trauma-informed care for adolescents.



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## OAHP Key Adolescent Health Issue



# Injury, Violence & Safety



### *Introduction*

Adolescence is a time when young people are developing their identity. It is an exciting time of exploration and growth coupled with impulsivity and uncertainty as the adolescent learns new roles and skills. During this time, teens may encounter situations at home, at school and in the community where they are exposed to violence, encounter threats to their safety, and sustain injury. Key injury, violence, and safety issues for Ohio adolescents include: intimate partner violence; bullying and cyber bullying; suicide; homicide and assault (including gun and gang violence); motor vehicle injuries; and traumatic brain injuries. Each of these issues presents a complicated array of factors that can put adolescents at risk or build resiliency against experiencing injury and violence. Since these issues seldom occur in a vacuum, effectively addressing injury, violence, and safety for adolescents requires a comprehensive approach that includes policies, programs, and partnerships.

Engaging in healthy relationships can influence safe and good decision making throughout a lifetime and promote positive outcomes. Providing adolescents with the knowledge and skills to engage in healthy relationships and foster connectedness to schools and communities decreases the risk for injury and violence and increases protective factors and resilience. The Center for Disease Control and Prevention provides research for fostering youth and school connectedness including strategies that reduce school violence, increase school attendance, and improve graduation rates.<sup>1</sup>

During this time, teens may encounter situations at home, at school and in the community where they are exposed to violence, encounter threats to their safety, and sustain injury.

The three leading causes of injury death for 15-24 year olds in Ohio are motor vehicle crashes, suicide, and homicide. In Ohio, motor vehicle crashes kill more adolescents than any other cause of death.<sup>2</sup> Speed, alcohol use, driving at night, and distractions, including cell phones/texting and multiple passengers, are all risk factors contributing to motor vehicle crashes among teens. Graduated driver's license (GDL) laws have proven to be an effective way to reduce death and injury among teen drivers.<sup>3</sup> The Ohio Teen Safe Driving Coalition, along with the Ohio Injury Prevention Partnership - Child Injury Action Group, have identified teen safe driving as a priority.

Suicide is a growing health concern and the second leading cause of injury death. According to the 2011 Ohio Youth Risk Behavior Survey, 1 in 7 Ohio high school students have reported that they have seriously considered suicide in the past twelve months.<sup>4</sup> Mental illness, depression, and substance abuse are the leading risk factors compounded by external circumstances that hinder at-risk adolescent's ability to cope with stressors.<sup>5</sup> Examples of stressors may include disciplinary problems, interpersonal losses, family violence, sexual orientation confusion, physical and sexual abuse, and being the victim of bullying.<sup>5</sup> The Ohio Suicide Prevention Foundation notes the need for Ohio to create a comprehensive public health approach to prevent suicide that involves surveillance, epidemiology, prevention research, communication, education programs, policies and systems change.<sup>6</sup>

Homicides are the third leading cause of injury death for youth and young adults aged 10 – 24.<sup>2</sup> For a period spanning from 2000-2010, firearms were a leading cause of death by intent for this age group. The risk of homicide increases with age, from the fourth leading cause for ages 10-14 to the leading cause of injury death for ages 20-24. There are significant racial disparities in firearm injury deaths. From 2008-2010, for the 15-19 year age group, black males were killed by firearms at a substantially higher rate than white males (48.4 versus 2.1 per 100,000 respectively). For the 20-24 age range, the rates are even more disparate being 29 times higher for blacks than for whites.<sup>2</sup> Presently in Ohio, there is no funding or coordinating body for state-level primary youth gang and gun violence prevention efforts.

Other significant causes of injury and violence are sexual and intimate partner violence victimization; gender-based violence (GBV); and sports related traumatic brain injuries. There is limited Ohio data, in the adolescent age group, related to sexual and intimate partner violence victimization including bullying, sexual harassment, or gender based violence. However, in the 2011 Ohio YRBS, 9% of high school students reported ever having been physically forced to have unwanted sexual intercourse, a 1% increase from 2003.<sup>4</sup> Based on national prevalence data, it is estimated that one in three adolescents in the U.S. is a victim of physical, sexual, emotional or verbal abuse from a dating partner. This figure far exceeds rates of other types of youth violence.<sup>7</sup> Further, two out of three teens are verbally or physically harassed every year.<sup>7</sup> Gender-based violence results in physical, sexual and psychological harm to both men and women and includes any form of violence or abuse that targets individuals on the basis of their sex, although women and girls are usually the primary victims.<sup>8</sup> Sexual violence against males and females also occurs when gender identity conflicts with gender norms. Marginalized groups, including persons with disabilities and the LGBT community, are often targets of increased harassment and GBV due their perceived differences.<sup>9</sup>

Sports-related traumatic brain injuries (TBIs) alone were associated with both the greatest number and largest increase (110%) in annual emergency room visits in Ohio from 2002-2010.<sup>10</sup> A concussion is a TBI caused by a blow, bump, or jolt to the head or by any fall or hit that "jars" the brain. Returning to play too early and experiencing repeated TBI may cause Second Impact Syndrome or Post-Concussion Syndrome which could result in severe consequences such as brain damage, paralysis, and even death. Educating parents, coaches and players about the signs and symptoms of concussion/TBI and the dangers of returning to play too quickly or without appropriate medical evaluation are key.<sup>11</sup> As of April 2013, the Ohio Return to Play Law went into effect. This law requires education for coaches and referees about the signs and symptoms of concussions and head injuries and specifies that athletes with the signs and symptoms must be removed from the game and the not be allowed to return to play until they have been assessed and receive written clearance by a physician or other approved licensed health care provider. The Ohio Department of Health has created a required information sheet for parents, guardians and athletes regarding this law.<sup>12</sup>

***The following examples highlight some of the state and local level efforts addressing Injury, Violence & Safety issues for adolescents and young adults:***

The **Ohio Sexual and Intimate Partner Violence Consortium** is working on decreasing the incidence of teen relationship violence in Ohio through partnership with funded local programs and a wide range of local service providers including rape crisis centers and domestic violence prevention programs. The **Ohio Alliance to End Sexual Violence** and the **Ohio Domestic Violence Network** are key partners in the effort to prevent and intervene in teen dating violence.

The **Ohio Anti-Harassment, Intimidation and Bullying Initiative (HIB)**, formed by the **Ohio Department of Education** and several state agencies, sponsor professional development about Ohio's Anti HIB Model policy and best practices for creating a safe and supportive learning environment.

The **Ohio Suicide Prevention Foundation** provides technical assistance, training, and support through local suicide prevention coalitions and other organizations that address and work to prevent suicide.

The **Ohio Teen Safe Driving Coalition** along with the **Ohio Child Injury Action Group of the Ohio Injury Prevention Partnership** are working toward strengthening Ohio GDL by improving the delivery of driver education and raising awareness and understanding about the GDL law among teens and parents of teen drivers.

## Ohio SNAPSHOT

- In 2011, 22.7% of 9<sup>th</sup> – 12<sup>th</sup> graders reported that they were bullied on school property; 14.3% were bullied away from school property; and 14.7% were bullied electronically.<sup>4</sup>
- In 2011, 14.3% of 9<sup>th</sup> - 12<sup>th</sup> graders seriously considered attempting suicide in the previous 12 months; 14.5% had made a plan to attempt suicide; and 9% actually attempted suicide.<sup>4</sup>
- Assaults have led to 2,209 inpatient hospitalizations from 2000 – 2010 for ages 15 – 24 and are the third leading cause of hospitalizations for ages 15 – 19 and 20 – 24 (behind self-harm and motor vehicle traffic). In 2010, 145 deaths, 705 inpatient hospitalizations, and 17,169 emergency department visits resulted from assaults for ages 15 – 24.<sup>10</sup>
- Motor vehicle crashes are the leading cause of death among adolescents. In 2011, 124 youth occupants aged 16 – 20 were killed and 14,817 were injured in crashes representing 13.5% and 14.3% of the total motor vehicle-related deaths and injuries, respectively, among Ohioans of all ages.<sup>13</sup>
- In 2011, 16.7% of 9<sup>th</sup> – 12<sup>th</sup> graders reported that they never or rarely wore a seat belt when riding in a car driven by someone else; 21.0% reported riding in a car or other vehicle driven by someone who had been drinking alcohol at least once during previous 30 days.<sup>4</sup>
- On average more than 4,000 Ohio youth are treated in emergency departments (ED) annually for sports/recreation related traumatic brain injuries (TBIs). Between 2002 and 2010 there was a dramatic rise of 110% in ED visits for sports related TBIs.<sup>10</sup>

## Goals and Objectives

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### Goal 3: Adolescents will engage in healthy relationships.

**Objective 3.1:** Decrease the incidence of teen relationship violence and sexual assault.

**Objective 3.2:** Decrease the rate of adolescents who engage in or are subjected to bullying, cyber-bullying, sexual harassment, and violence including gender based violence.

**Objective 3.3:** Decrease the number of completed and attempted suicides.

**Objective 3.4:** Decrease the incidences of assault-related hospitalizations and homicide-related deaths.

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### Goal 4: Injuries and deaths in adolescents associated with motor vehicles will decline.

**Objective 4.1:** Increase programs and policies to educate teen drivers, their parents and decision makers on the importance of safe teen driving behaviors.

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### Goal 5: Decrease the incidence and consequences of Traumatic Brain Injury (TBI) in adolescents.

**Objective 5.1:** Increase the percentage of adolescents using protective equipment when participating in sports and recreational activities.

**Objective 5.2:** Increase the percentage of coaches utilizing safe practices in contact sports.

**Objective 5.3:** Increase education for health care providers, coaches, sporting officials, parents, and adolescents about identification, and treatment of TBI.

**Objective 5.4:** Increase the number of adolescents with suspected TBI who are evaluated and treated by appropriately trained professionals.



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## OAHP Key Adolescent Health Issue

# Area 3 Reproductive Health

### *Introduction*

Adolescence marks the period between childhood and adulthood when youth experience a wide range of physical and psychosocial changes. The physical changes of puberty result in maturation of the reproductive system, while the cognitive and psychosocial developmental processes allow for abstract reasoning and problem solving. These changes can be overwhelming and confusing and as adolescents strive to define who they are, participation in risky behaviors is frequently part of the normal developmental process. Because adolescents do not always anticipate the consequences of their behavior, particularly as they relate to their reproductive health, there can be adverse outcomes such as unplanned pregnancies, sexually transmitted infections (STIs), Human Immunodeficiency Virus (HIV) and other related long term health sequelae. Communication is critical during this transitional period. Sustained and ongoing communication between families and their teen can provide the reassurance and support needed to impact an adolescent's behaviors and guide youth to make healthy and informed choices. Providing resources to support this role is important in helping to strengthen these relationships. This section of the strategic plan aims to address key reproductive health issues in an effort to facilitate a healthy and successful transition into adulthood for all adolescents.

For a variety of psychosocial and biologic reasons, compared to other age groups, teens who are sexually active, have among the highest rates of STIs. Many cases of AIDS in adults are related to HIV infection first acquired during adolescence. Primary prevention of STI and HIV infections, as well as early identification and treatment, are critical for preventing the complications and long term sequelae of these infections including: pelvic inflammatory disease, tubo-ovarian abscess, infertility, chronic pelvic pain, ectopic pregnancy, and cervical cancer.<sup>1</sup> To provide for a measurable improvement, health care providers should routinely ask about sexual behaviors; universally screen for



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asymptomatic infections among sexually active teens; and provide developmentally appropriate nonjudgmental risk prevention counseling. Although recommendations for confidential STI and HIV screening and preventive counseling in adolescents have been published by national organizations, barriers such as explanation of benefits statements from health insurers and bills for laboratory services create obstacles to ensuring confidential services for many teens.<sup>1</sup> The OAHP's strategic plan aims at improving the implementation of recommended preventive STI/ HIV counseling and screening in adolescents by increasing partnerships to address these services in this age group.

The most common STI in the United States is the Human Papilloma Virus (HPV). Though HPV can be prevented via vaccination, the national and state rates of HPV vaccination and completion still remain low. In Ohio, in 2011, only approximately one-third of female adolescents age 13 through 17 completed the three dose series.<sup>2</sup> Although an analysis of national data showed that the prevalence of vaccine related HPV types among adolescent females declined 56%, when comparing the pre-vaccine time frame (2003-2006) to post-vaccine time frame (2007-2010),<sup>3</sup> the most recent national data shows that immunization rates are leveling off rather than increasing suggesting missed opportunities.<sup>4</sup> Due to the low rates of vaccination initiation and completion in Ohio and the potential to prevent significant HPV related disease, the OAHP has made the initiation and completion of HPV vaccination series in both males and females a priority. We hope that through education of health care providers and families as well as improving reminder systems both at the level of the clinician and statewide, we can increase the number of adolescents protected from this virus.

Another unfortunate consequence of sexual activity is teenage pregnancy and birth at a time when youth are not prepared to parent. The good news is that the rate of teenage pregnancy and birth rates have been steadily decreasing both nationally and in Ohio since 2008.<sup>5,6</sup> According to the Centers for Disease Control and Prevention, teen pregnancy reduction is a "winnable battle."<sup>7</sup> Nationally, the decrease in pregnancy rates is attributed both to decisions by youth to delay sexual activity as well as the use of more effective contraception by those who choose to be sexually active. Many counties throughout Ohio have adopted an abstinence education message as one strategy designed to protect youth from the physical, psychological and economic

consequences associated with teenage sexual activity and non-marital childbearing. In addition to encouraging teens to delay the initiation of sexual activity, CDC recommends a comprehensive evidence-based approach which includes increasing the use of effective contraception with an emphasis on long acting reversible methods, including the (Intrauterine Device) IUD and implantable rod, as well as providing education on the prevention of STIs and HIV infection.<sup>7</sup> The approach by the OAHP aligns with that of the CDC with the goal of continuing the decreasing trend in pregnancy and birth rates in adolescents by providing continuing education and training of health care providers, adolescents, and families about abstinence and contraception with an emphasis on Long Acting Reversible Contraceptives (LARC). As STIs and pregnancy can occur concurrently, we also plan to promote the use of dual contraceptive methods to protect against both from occurring simultaneously.

Ohio data from a survey of parents and adolescents in the Title V Ohio Abstinence program in 2007 was consistent with numerous national samples demonstrating that the majority of both parents and adolescents prefer that reproductive health education occur primarily in the home with additional education provided in the schools.<sup>8</sup> Parent-adolescent communication about these topics are important but can be challenging. The 2007 Ohio survey also showed that approximately two-thirds of parents and adolescents would have been interested in attending courses designed to improve their communication on these topics, if they had been available. Further, as an adolescent progressed from 6<sup>th</sup> to 12<sup>th</sup> grade, both parents and adolescents endorsed that more comprehensive messages about pregnancy and STI/ HIV prevention should be taught in schools in addition to abstinence. Despite these findings, as of 2012, less than one-fifth of schools in Ohio schools reported that their lead health education teachers, for grades 6-12, were getting continuing education on pregnancy, STIs, or HIV prevention.<sup>9</sup> Health education standards are necessary to assist health teachers in addressing the skills and competencies that youth will need to make informed and healthy decisions. As of the summer of 2013, Ohio has no health education standards to help guide School Districts and/or their health teachers. A 2012 survey of parents in Ohio indicated that they overwhelmingly (89.2%) favored statewide health education standards.<sup>10</sup> Such standards would provide a framework for local districts to choose the curriculum used in the classroom.



***The following examples highlight some of the state and local level efforts addressing Reproductive Health issues for adolescents and young adults:***

The **Reproductive Health and Wellness Program (RHWP)** is administered by ODH and provides funds to 50 counties through local health departments, community action groups, and nonprofit agencies for reproductive health care for men and women. Included services address contraception, STIs, and health education including teen pregnancy prevention and prevention of sexual coercion/ relationship violence. In 2012, approximately one quarter of those served were adolescents.

The **Ohio Department of Health STD Prevention Program** is focused on the prevention and control of STIs with efforts that complement activities conducted by local public health departments, Infertility Prevention Project (IPP) sites, and other healthcare providers. In addition to providing access to STI and HIV testing, the STD Prevention Program also regularly provides educational materials, statistical summaries, program resources and treatment guidelines, and other requested technical assistance.

The **Ohio Department of Health Immunization Program** seeks to reduce and eliminate vaccine-preventable diseases among Ohio's children and adolescents through the federally-funded Vaccines for Children (VFC) program which supplies vaccine at no cost to public and private health care providers who enroll and agree to immunize eligible children and teens in their medical practice or clinic.

The **Ohio Chapter of the American Academy of Pediatrics** conducted an Adolescent Immunization Expert Round Table in the Spring of 2013 which included a review of the vaccines in the current vaccination platform; resources for immunization of adolescents; and focus groups to identify issues relevant for initiation and completion of these vaccinations. Next steps are to develop and implement a quality improvement program to address adolescent vaccination among clinicians in Ohio.

The Ohio **Abstinence Education Program** has the goal of increasing the number of youth who abstain from sexual activity and other related risky behaviors to reduce out-of-wedlock births and STIs. The inclusion of an abstinence education message is a critical component of Ohio's comprehensive prevention efforts that is respectful and responsive to the diverse populations, regions, and values across the state. Ohio's program is primarily school based and focuses on prevention education for youth 11-18 years to promote good decision making and positive healthy behaviors. This program builds upon the strategy of local control, community collaboration and evidence supported program design within the guidelines established by the Title V Abstinence Education Grant Program.

The **Personal Responsibility Education Program (PREP)**, designed by ODH, is a collaborative effort with the Ohio Department of Job and Family Services and the Ohio Department of Youth Services and focuses on prevention education for youth in foster care and the juvenile justice systems who are the most vulnerable youth at risk for unplanned pregnancy, STIs and HIV. PREP provides education, outside of the school day, for youth age 14-19, by training staff in those systems to deliver evidence-based pregnancy prevention programming on both abstinence and contraception for the prevention of pregnancy, STIs, and HIV/AIDS as well as three adulthood preparation subjects to assist youth as they transition out of placement into independent living.

- In 2011, 41.8% had been sexually active within the past three months; 17.5% (15.8% females, 19.0% males) had sexual intercourse with four or more persons during their lifetime; 6.1% of had their first sexual encounter before the age of 13 (4.3% females, 8.0% males).<sup>11</sup>
- In 2011, 43.5% of 9<sup>th</sup>-12<sup>th</sup> graders who had sexual intercourse during the past three months reported using a condom during their last sexual encounter.<sup>11</sup>
- In 2011, less than 10% of 9<sup>th</sup>-12<sup>th</sup> graders reported using a form of Long Acting Reversible Contraceptives (LARC).<sup>11</sup>
- According to the 2011 YRBS, when compared to students across the country, those in Ohio were: significantly more likely to be sexually active (41.8 vs. 33.7)<sup>11</sup> and more likely to report not using hormonal contraceptives to prevent pregnancy before their last sexual intercourse (68.2 vs. 76.7).<sup>11, 12</sup>
- In 2012, 40,222 cases of Chlamydia were reported in the 10-24 year old group representing 75% of all reported cases for that year. Of these, 35% (18,664 cases) were reported in 15-19 year olds and 39% (20,804 cases) were reported among 20-24 year olds.<sup>13</sup>
- In 2012, 10,460 cases of gonorrhea were reported in the 10-24 year old group representing 63% of all reported cases for that year. Of these, 27% (4,482 cases) were reported in 15-19 year olds and 35% (5,815 cases) were reported among 20-24 year olds.<sup>13</sup>
- In 2012, 279 cases of HIV were reported in the 15-24 year old group representing 25% of all reported cases for that year. Of these, 5% (59 cases) were reported in 15-19 year olds and 20% (220 cases) were reported among 20-24 year olds.<sup>14</sup>
- The adolescent birth rates have consistently fallen among 15-19 year olds in Ohio from 41.0 in 2008 to a historic low 33.5 per 1000 females in 2010; the rate among 20-24 year olds have also fallen and from 104.8 in 2008 to 93.8 per 1,000 in 2010.<sup>6</sup>
- According to the *Pregnancy Risk Assessment Monitoring System, Ohio Department of Health*, between 2006-2010, 82.5% of teen births were reported as unintended and 44.8% of those not intending to become pregnant were not using contraceptives at the time of conception.<sup>15</sup>
- According to the 2008 Title V Parent and Child Communication report, both parents and youth agreed that the majority of sexual education should be provided by family and supplemented by the school (83.5% parents, 68.7% youth).<sup>8</sup>
- In Ohio in 2011, 45.5% of female adolescents 13 through 17 received at least one dose of HPV and 34.8% received at least 3 doses. For those starting the series, 77.0% completed it within 24 weeks.<sup>2</sup>

## **Goals and Objectives**

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### **Goal 6: Adolescents and their families will be able to make informed decisions about their reproductive health.**

**Objective 6.1:** Delay the onset of sexual activity.

**Objective 6.2:** Increase the number of schools with quality health education including evidence-based reproductive health.

**Objective 6.3:** Increase the communication between parent/guardian and teens about reproductive health.

**Objective 6.4:** Increase access and provision of reproductive health services to adolescents through medical homes and family planning clinics.

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### **Goal 7: Reduce the rates of sexually transmitted infections in adolescents.**

**Objective 7.1:** Increase screening rates for sexually transmitted infections, including Chlamydia, syphilis, gonorrhea, and Human Immunodeficiency Virus (HIV).

**Objective 7.2:** Increase Human Papillomavirus (HPV) vaccination initiation and completion in males and females.

**Objective 7.3:** Increase the use of dual contraceptive methods to reduce exposure to sexually transmitted infections and HIV in addition to pregnancy prevention.

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### **Goal 8: Promote the continued downward trend in pregnancy and birth rates among adolescents.**

**Objective 8.1:** Increase use of effective and appropriate contraception among adolescents including abstinence.

**Objective 8.2:** Increase the number of clinicians recommending the use of Long Acting Reversible Contraception (LARC) in adolescents.

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## OAHP Key Adolescent Health Issue



# Nutrition & Physical Activity

### *Introduction*

Healthy eating and daily physical activity are essential to healthy adolescent development. Habits formed during adolescence are often carried into adulthood and set the stage for positive and negative health outcomes throughout an adolescent's lifetime. Healthy eating and physical activity are linked to a wide range of health, social and educational outcomes, with adolescent obesity being a significant negative consequence of poor nutrition and lack of physical activity.

Obesity has risen to epidemic proportions in the United States in recent years, and Ohio is no exception. Based upon the 2011 Youth Risk and Behavioral Survey (YRBS), 15.2 % of the nation's adolescents are overweight and 13% are obese.<sup>1</sup> For Ohioans, those numbers are even higher with 15.3% of adolescents being overweight and 14.7% being obese<sup>1</sup>. Though pediatric obesity cuts across all racial, ethnic, economic and social lines, two groups stand out at the highest risk - African-American females and Hispanic males.<sup>2,3</sup> By definition, overweight is having a body mass index (BMI) in the 85-94<sup>th</sup> percentile for age and sex, and obese is a BMI at or above the 95<sup>th</sup> percentile.<sup>4</sup> Though BMI is not a perfect marker for health, it is a significant predictor of health problems for adolescents both now and in the future. Unhealthy food and beverage choices along with inadequate physical activity puts everyone, including adolescents, at risk for developing a host of health issues such as type 2 diabetes, high cholesterol, high blood pressure, liver disease, joint disease, and depression.<sup>5,6,7</sup> These health issues can have a significant impact on a teen's self-esteem, academic achievement, and overall quality of life.



Habits formed during adolescence are often carried into adulthood and set the stage for positive and negative health outcomes throughout an adolescent's lifetime.

The rise in pediatric and adolescent obesity stems from a combination of factors including the availability of inexpensive, low nutrient and high calorie foods coupled with a decrease in physical activity and an increase in sedentary activities including screen-time (i.e. computer, video games). These trends are intensified during adolescence when sedentary rates dramatically increase and physical activity rates decrease even further.<sup>8</sup> Increasing the levels of physical activity becomes even more complex when considering the combined impact of changes in the community and organizational structures over the past few decades (i.e. lack of sidewalks, increased use of cars) along with concerns for neighborhood safety.

Both public health and health care experts have found that strong and connected families, together with other

social supports, play a critical role in helping adolescents develop healthy lifestyles. The most effective approach is one focused on improving individual knowledge about healthy foods and eating habits while increasing opportunities to be active throughout the day and ensuring that all adolescents have access to healthy, affordable foods and beverages at all times. This multi-factorial approach requires sustainable environmental changes to reverse the trends in overweight and obesity and make a long-lasting impact.

Creating these sustainable environments requires coordination and collaboration among many stakeholders including medical providers, public health, government, schools, recreation systems, not-for-profit agencies, workplaces, and parents.

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***The following examples highlight some of the state and local level efforts addressing Nutrition & Physical Activity issues for adolescents and young adults:***

The **Ohio chapter of the American Academy of Pediatrics (AAP)** is promoting healthy eating habits to all families as well as the screening and treatment of childhood obesity in primary care offices in part through both their “Ounce of Prevention” and their “Pound of Cure” initiatives.

The **Alliance for a Healthier Generation Healthy Schools Program** works in thousands of schools across the nation and within Ohio helping teachers, school staff, parents, and community members bring about the specific, comprehensive changes their schools need to become healthier within seven content areas: Policy/Systems, School Meals, Foods and Beverages, Health Education, Physical Education, Employee Wellness and Student Wellness.

**Action for Healthy Kids** provides school leaders and volunteers with the resources they need to learn, act and transform their schools. They provide schools both in Ohio and across the country with evidence-based programs, services, funding and resources so schools can implement wellness practices.

**Let’s Move!** is a national initiative, launched by the First Lady, that combines comprehensive strategies with common sense, providing healthier foods in our schools and helping youth become more physically active. **Let’s Move! Active Schools** in Ohio participate in a comprehensive program that empowers school champions – P.E. teachers, classroom teachers, principals, administrators, and parents – to create active environments that enable all students to get physically active and to meet their nutrition standards goals. The champions are guided through a process that helps them build a team, take an inventory (powered and managed by the Alliance for a Healthier Generation), make a plan, and access free resources and tools to help them meet their goals.

Many communities, including those in urban, suburban, rural and Appalachian areas, are collaborating with public health and community leaders to increase access to healthy foods through farmers markets; improve the amount of fruits and vegetables in school lunches; and support the development of bike trails and other recreational structures that encourage physical activity.

# Ohio SNAPSHOT

- 15.3% of adolescents are overweight and 14.7% are obese – almost 2% higher than the national average.<sup>1</sup>
- 25.2% of youth drank at least one soda per day.<sup>1</sup>
- Only 17.3% of high school students ate 5 or more servings of fruits and vegetables per day as recommended.<sup>1</sup>
- Only 25.4% of adolescents get the recommended 60 minutes of physical activity per day.<sup>1</sup>
- 30.9% of adolescents watch greater than 3 hours of TV each day.<sup>1</sup>
- In 2007, only 29.5% of students reported eating breakfast every day.<sup>9</sup>

## **Goals and Objectives**

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### **Goal 9: Adolescents will engage in healthy eating behaviors.**

**Objective 9.1:** Increase the percentage of adolescents eating breakfast every morning.

**Objective 9.2:** Decrease the intake of sugar sweetened beverage by adolescents.

**Objective 9.3:** Increase the percent of adolescents getting 5 or more servings of fruits and vegetables a day.

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### **Goal 10: Adolescents will engage in recommended physical activity.**

**Objective 10.1:** Increase the percent of adolescents who are physically active at least 60 minutes a day.

**Objective 10.2:** Increase the percent of adolescents who spend less than 2 hours a day on recreational or optional screen time.

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### **Goal 11: Adolescents will have a healthy body mass index (BMI).**

**Objective 11.1** Increase the percent of adolescents having an annual BMI screening.

**Objective 11.2** Increase the percent of overweight or obese adolescents who are being screened for obesity-related co-morbidities.

**Objective 11.3** Increase the percent of overweight or obese adolescents who are receiving medical counseling and/or treatment.

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## OAHP Key Adolescent Health Issue

# Area 5 Sleep

### **Introduction**

Sleep is a vital component of health, no matter what a person's age. During sleep, our brain processes, organizes, and solidifies the learning and emotional experiences we encountered the previous day, making it possible for us to learn and retain information both in the short and long term.<sup>1</sup> Some studies have found that a sleep deficit as small as an hour a day can compromise that function causing decreased concentration and diminished performance.<sup>2</sup> Interestingly, the physiological and pubertal changes that occur during adolescence cause a temporary shift in circadian rhythms triggering a change in sleeping patterns just at the time when an adolescent's environment is putting extra demands on his or her time and energy. These competing forces during adolescence can create a cycle of sleep deprivation; decreased concentration; difficulties in academic performance; longer hours needed to complete tasks; and thus more sleep deprivation and an increased risk of disordered sleep.<sup>3</sup> With chronic sleep deprivation becoming the norm in adolescence, there has been a surge of research that has found both associations and direct correlations with sleep deprivation and a variety of medical and cognitive issues including poor attention and difficulties with problem solving; behavioral issues, increased symptoms of depression, anxiety and irritability; an increase in sports injuries; motor vehicle accidents; rates of obesity; insulin resistance; and risk-taking behaviors.<sup>2-13</sup> The US Department of Health and Human Services has emphasized this critical need for healthy sleep by developing specific goals in the Healthy People 2020 plan targeting improvements in sleep quality; the proportion of high school students that get sufficient sleep; and decreased drowsy driving by teens.<sup>14</sup>



Competing forces during adolescence can create a cycle of sleep deprivation; decreased concentration; difficulties in academic performance; longer hours needed to complete tasks; and thus more sleep deprivation and an increased risk of disordered sleep.<sup>3</sup>

During puberty, adolescents experience two important physiological changes that contribute to the change in their sleep cycle. First, as measured by peak melatonin levels, they undergo a shift in their sleep-wake cycle “phase delay” causing them to have later sleep onset as well as later wake times of up to two hours compared to middle childhood.<sup>15</sup> In addition, their “sleep drive” mechanism slows compared to middle childhood making them better able to stay awake even when fatigue develops.<sup>16</sup> However, despite these shifts in their sleep cycle, the total hours of sleep needed does not change compared to early childhood – with most adolescents and young adults requiring 8.5 to 9.5 hours per night for optimal functioning.<sup>17,18</sup> Nationally, teens average 6.75 hours of sleep on school nights.<sup>18,19</sup>

In practice, achieving the recommended number of hours of sleep corresponds to a developmentally-appropriate bedtime of 11 pm and a wake time of approximately 8 am. In contrast, a great number of middle and high schools in Ohio start in the 7 o’clock hour with first bus pick-ups in the 6 o’clock hour. In addition, although there is no state data collection at this time monitoring average school start times, schools also frequently offer ‘zero period’ courses or hold extracurricular practices before the official school day. It is therefore not uncommon for Ohio adolescents to rise in the 5 o’clock hour to prepare for their school day. Given these statistics, we have created a scenario in Ohio, and across our nation, that is counter to the physiological requirements and developmental needs of adolescents — putting a strain both on our students and our schools to reach their full academic potential. In states where later school start times have been implemented such as Minnesota, Rhode Island and Kentucky, numerous benefits have been seen including increased sleep at night by adolescents; improved school attendance; decreased tardiness; improved behavior in school; decreased sleeping in class; improved grades and test performance; and a decrease in teen auto accidents.<sup>7,18,19</sup> In addition, the later high school start time did not appear to affect enrollment in after-school sports and activities or increase transportation costs.<sup>18</sup> In fact, coaches and teachers reported students were more mentally alert at the end of the day.<sup>18</sup>

Changes in middle and high school start times, though a key modifiable factor in improving adolescent sleep needs, should be coupled with improvements in “sleep hygiene” as well – that is the practices and pre-sleep

environment people engage in to maximize sleep quality. Important components of good sleep hygiene include having a consistent sleep schedule throughout the week; limiting or eliminating “screen time” prior to sleep; avoiding stimulants such as caffeine close to bedtime; avoiding daytime naps; engaging in relaxing activities prior to bed such as reading or meditation; and integrating exercise into one’s daily routine early in the day.<sup>20</sup> By promoting and helping adolescents practice good sleep hygiene, we maximize the chances that the sleep that they do engage in is as efficient and restorative as possible.

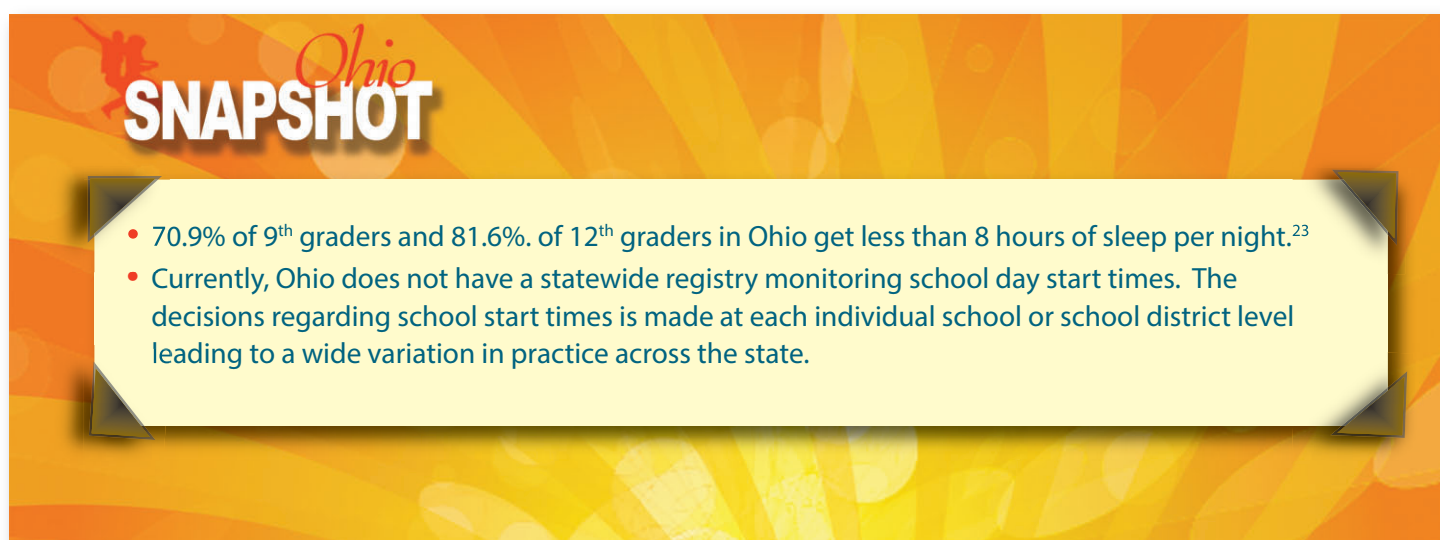
When sleep deprivation and sleep disorders do arise, it is important that health care providers have the knowledge, skills, time, and resources available to diagnose and treat those conditions. In particular, adolescents can be at risk for a number of sleep disorders including Delayed Sleep Phase Syndrome (DSPS), Restless Leg Syndrome (RLS), Obstructive Sleep Apnea (OSA), narcolepsy, and inadequate sleep hygiene – all of which can compound the issue of chronic sleep deprivation in adolescence.<sup>21</sup> It is estimated that up to 40% of adolescents have some degree of sleep difficulty, as measured both in primary research studies and parent-based surveys.<sup>22</sup> Though Ohio-specific data is not known, the prevalence of pediatric insomnia is estimated at about 1 – 6 percent among general pediatric populations with a much higher prevalence in children with neurodevelopmental, chronic medical, and psychiatric conditions.<sup>22</sup> Though time can be limited in the primary care setting, screening for and addressing disordered sleep can be an important step in understanding the underlying cause of many chronic medical issues and in the management of those conditions.

In summary, sleep is one of the more easily influenced and influential variables in health and well-being. There is strong and persistent evidence across the field supporting the association of appropriate sleep amounts with improvements in medical, behavioral, mental health, injury and academic outcomes. By recognizing the unique developmental shifts in the sleep cycles that occur during adolescence and the need for approximately 9 hours of sleep per night for optimal functioning, we have the opportunity to create home, school and medical environments throughout the state of Ohio that supports both the academic success and the health of our teens and young adults.

**The following examples highlight some of the state and local level efforts addressing Sleep issues for adolescents and young adults:**

The **Ohio chapter of the Start School Later coalition** — as a collection of parents, adolescents, medical professionals, school officials and concerned citizens — has already begun work at a grass roots and regional level to bring awareness and a voice to the need for later middle and high school day start times to meet the sleep and health needs of adolescents.

**Schools in Dublin, Hudson, Kenston, Perrysburg, Parma and Westlake** have already taken the initiative to shift their school day start times and have begun to monitor for the outcomes. These schools are positioned to help guide other Ohio school districts as to how to successfully make a transition to a later school day start time.



**Ohio SNAPSHOT**

- 70.9% of 9<sup>th</sup> graders and 81.6% of 12<sup>th</sup> graders in Ohio get less than 8 hours of sleep per night.<sup>23</sup>
- Currently, Ohio does not have a statewide registry monitoring school day start times. The decisions regarding school start times is made at each individual school or school district level leading to a wide variation in practice across the state.

**Goals and Objectives**

**Goal 12: Adolescents will obtain a minimum of 8.5-9.5 hours of sleep per night.**

**Objective 12.1:** Increase the percentage of adolescents who engage in good sleep hygiene habits.

**Objective 12.2:** Increase the percentage of health care providers who are screening, diagnosing and providing interventions for adolescents with insufficient and disordered sleep.

**Objective 12.3:** Increase the percentage of middle and high schools participating in later school day start times.



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# Future Actions: Moving This Plan Forward



In order to move forward with implementing this strategic plan and ultimately improving the health status of adolescents in Ohio, the OAHP will engage in four main action areas: *Strengthening the Structure of the OAHP*; *Creating Action Plans*; *Communicating the Plan*; and *Monitoring the Progress* towards achieving the goals and objectives.

## ***Strengthening the Structure of the OAHP***

The OAHP was originally convened as a strategy for bringing state and community stakeholders together with a shared interest in improving adolescent health in Ohio. Over the course of the development of this strategic plan, the OAHP has evolved into a structure that has the potential for long-term multi-disciplinary collaboration to address and monitor statewide efforts that contribute to the improvement in adolescent health overall as well as in the specific key issue areas identified in this plan. In order to strengthen and enhance the structure of this collaborative body and establish it as a visible source of expert guidance on adolescent health in the state, members of the OAHP established bylaws to govern the day-to-day operation of their partnership and elected co-chairs to help guide operations and move the implementation of this plan forward. Leadership for each of the key action areas was also identified to provide guidance and facilitate the creation and implementation of strategies that coincide with the specific goals and objectives for each action area.

The OAHP will continue to engage in regular meetings and communications to ensure that it remains a cohesive group that actively addresses the plan and advocates for policies and programs that support optimal health and development for all adolescents in Ohio. The founding members of OAHP envision that the membership will continue to increase and be representative of the diverse agencies serve and impact adolescents as well as adolescents themselves and their parents/guardians. OAHP intends to utilize a positive youth engagement model to involve adolescents in the development of awareness activities, strategies, programs and policies. Partnering with adolescents increases their skills and opportunities as they transition into adulthood. In addition, their participation increases program sustainability, receptivity, and positive social norms; creates skill-building opportunities; and reduces barriers and disparities. Special consideration will be taken to assure OAHP is inclusive of all adolescents regardless of health and socioeconomic status. To increase and expand capacity, the OAHP will seek funding to support the structure and activities of the partnership.

## ***Creating Action Plans***

The goals and objectives presented in each of the five key adolescent health issue areas are a framework for addressing the critical areas identified by existing data and expert guidance. To achieve these goals and objectives, the OAHP's structure includes sub-groups of members focused on each of the five key issue areas. With collaborating organizations, the sub-groups will develop implementation strategies to specifically address the goals and objectives of the plan. The action plans for each issue area may address programs, policies, and/or systems and will include identification of other state and local community activities that can be aligned to maximize resources and encourage a greater collective impact.

## ***Communicating the Plan***

In order to promote the strategic plan, the OAHP will engage in a variety of actions to increase awareness about the importance of adolescent health; build partnerships and collaborations; leverage resources; and facilitate change. Initial communication strategies may include:

- Convening a statewide conference to announce the launch of the plan.
- Developing recruitment materials to engage adolescents, parents, and caregivers in the activities of the OAHP.
- Developing a website for the OAHP to publish the plan, list resources, and activities of the OAHP.
- Hosting regional forums with stakeholders and youth serving organizations around the state to introduce the plan as well as identify opportunities for potential collaboration.
- Developing and distributing a summary of the plan to professional audiences, including legislators.
- Developing a mechanism for regular communication to key stakeholders about the ongoing implementation of the plan, including its successes.

## ***Monitoring the Progress***

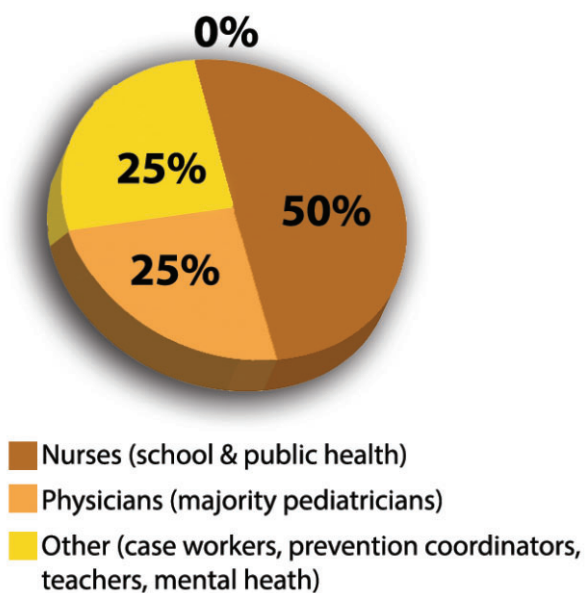
The leadership and members of the OAHP will develop a mechanism to assess and track the implementation of the goals and objectives written within this plan as well as the future strategies that will be developed by the action groups. This evaluation will include monitoring of data, program implementation, and policy changes to determine if progress has been made, as well as identifying whether there is a need to expand the focus to other important issues and re-assess strategies. OAHP will revise the plan in 2020 to address the health and wellness needs of adolescents in the changing environment.

**APPENDIX**

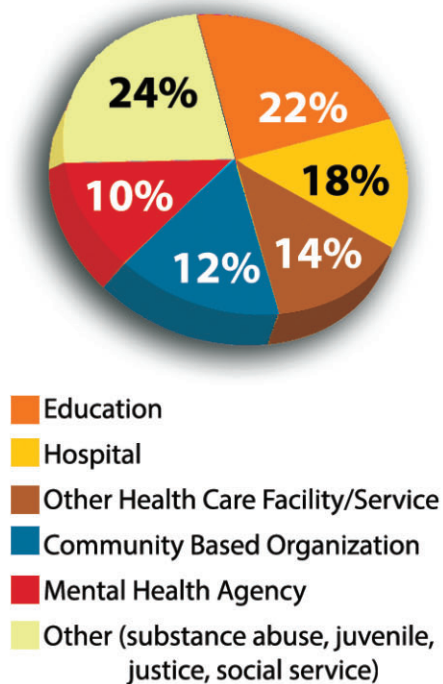
*Methodology for Identification of Critical Health Issues for Ohio Adolescents*

In 2009, the Ohio Department of Health’s (ODH) Maternal and Child Health (MCH) Program participated in a project with the Association of Maternal and Child Health Programs (AMCHP) to focus on pre-conception health in Ohio. As part of that project, the MCH program conducted an Adolescent Health Stakeholders (AHS) Survey to assess critical adolescent health issues in Ohio. The survey was completed by 571 individuals representing various disciplines that work with adolescents.

**AHS Survey Respondents by Profession Type**



**AHS Survey Respondents by Organization/Agency Type**



The survey included 22 questions that assessed recipient perception of adolescent health in Ohio, such as: critical issues they see in their professional setting/service; issues adolescents face in accessing health care; areas of risk for adolescents; challenges faced by providers serving adolescents; and confidence in teaching, treating, diagnosing, and referring adolescents. Survey highlights are summarized below.

In order to identify the critical adolescent health issues in Ohio and develop an action plan, in November 2010, the Ohio Department of Health's Maternal and Child Health Program invited members of the former adolescent health advisory group as well as a broad cross-section of state and local professionals to a meeting. The attendees reviewed the AHS Survey results along with other data summary profiles related to the health status of adolescents in Ohio. The data summaries and profiles included were:

- Ohio PRAMS (Pregnancy Risk Assessment Monitoring System), 2008
- Ohio Vital statistics
- FBI Uniform Crime Report, 2009 (specific to crimes among Ohio adolescents)
- Ohio YRBS data, 2007
- Ohio Emergency Visits by Adolescents, 2008

Based on this review which also included an overview of topic areas which lacked data, the meeting attendees were led through a process to identify and prioritize the most urgent adolescent health issues. The prioritization process, facilitated by the Association of Maternal and Child Health Programs (AMCHP) and the State Adolescent Health Resource Center/Konopka Institute for Best Practices in Adolescent Health, identified contextual information that would set the stage for the key priorities and related objectives and strategies that would be developed into a statewide strategic plan to improve adolescent health, such as:

- *What is the significance of this issue for Ohio adolescents?*
- *Where are we now with this issue?*
- *What needs to happen to improve this critical issue?*
- *What are the consequences if we don't address this now?*



## 2010 Adolescent Health Stakeholders Survey Key Findings

### Respondent Population Served

- Overall, 40% served youth 11-18 years of age
  - The majority of mental health providers served youth ages 11-18.
  - The majority of the physicians served youth 10 and younger.
  - Nurses equally served both age groups.

### Issues Encountered When Working with Adolescents in Order of Importance

1. Family support
2. Adequate insurance to pay for medical services
3. Compliance from adolescents

### Identification of Most Common Risk Factors

- Substance use/abuse (alcohol, tobacco and other drug abuse) was identified as most common risk factor.

Others included:

- Mental health (including intentional self-harm)
- Unprotected sexual behaviors
- Lack of physical activity

### Major Challenges in Working with Adolescents in Order of Importance

1. Resistance from families
2. Resistance from adolescents
3. Lack of referral resources

### Most Common Obstacles Encountered

- Inability of patient/ family to afford co-pays
- Limitations of insurance coverage
- Lack of providers who accept CHIP/Medicaid

### Ability and Confidence to Diagnose, Treat, and Refer

- Respondents across all disciplines felt very confident in their ability to refer to appropriate sources of care for:
  - Pregnancy-related care
  - HIV, STD
  - Depression
  - ADHD
  - Alcohol, drug and tobacco use
  - Chronic disease management
  - Nutritional issues
- Physicians felt least confident about diagnosing and treating mental health conditions and in treating HIV infection.

### Collaboration

- Respondents indicated frequent collaboration within their own disciplines, but there was in general a lack of collaboration across disciplines

### Resources to Increase Job Effectiveness

- Community partnerships
- Educational materials for families
- Longer appointment times in the office setting

