

CATTARAUGUS COUNTY BOARD OF HEALTH



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Joseph Bohan, MD, President

Giles Hamlin, MD, Vice-President

Zahid Chohan, MD Sondra Fox, RN Richard Haberer Julie Hamacher Theresa Raftis David L. Smith James Suvder

MINUTES

May 4, 2016

The 846th meeting of the Cattaraugus County Board of Health was held at The Point Restaurant, 800 East State Street, Olean, New York on May 4, 2016.

The following members were present:

Dr. Joseph Bohan

Julie Hamacher

Dr. Zahid Chohan

Theresa Raftis

Dr. Giles Hamlin

David Smith

Sondra Fox, RN

James Snyder, County Legislator

Richard Haberer

Also present were:

Kevin D. Watkins, MD, MPH, Public Health Director

Mark Howden, County Attorney

Dr. Paul Schwach, Guest

Kenneth Dahlgreen, Guest Speaker

Richard Helmich Jr., County Legislator

Susan Labuhn, County Legislator

Robert Neal, County Legislator

Donna Vickman, County Legislator

Gilbert Witte, MD, Medical Director

Dave Porter, Hearing Officer

Rick Miller, Olean Times Herald

Susan Andrews, Director of Nursing

Kathy Ellis, Administrative Officer

Raymond Jordan, Sr. Public Health Sanitarian

Debra Lacher, Secretary to Public Health Director

Eric Wohlers, Director of Environmental Health

The meeting was called to order by Dr. Bohan. The roll was called and a quorum declared.

Mr. Haberer made a motion to approve the minutes of the Board of Health (BOH) meeting held on April 6, 2016, it was seconded by Mr. Smith, and unanimously approved.

Dr. Hamlin made a motion to accept the Professional Advisory Minutes for April 20, 2016 this was seconded by Dr. Witte, and unanimously approved.

"Public Health for Healthy Communities"

May 4, 2016

DIRECTORS REPORT: Dr. Watkins reported that Zika virus is related to Dengue, Yellow Fever, Japanese Encephalitis and West Nile Viruses. He went on to say that the virus is spread to people primarily through the bite of an infected Aedes species mosquito. He stated that recent reports indicates that the potential spread of the Zika virus in the United States is much wider than originally reported and recent tests have confirmed that the Aedes albopictus mosquito, which is seen in New York State, has the ability to transmit Zika virus like the Aedes aegypti mosquito seen in South and Central America. He reiterated that an infection with the Zika virus is usually mild and that four out of five people who are infected with Zika virus are asymptomatic. Individuals that are symptomatic usually develops the symptoms between 2-7 days following the bite of an infected mosquito. The most common symptoms are acute onset fever, maculopapular rash, joint pain, and conjunctivitis. Hospitalization is very rare for these individuals, however earlier reports that Zika virus "may lead to" microcephaly in babies of mothers who are infected with the Zika virus while pregnant has now been described as "can cause" microcephaly in babies of mothers who are infected with the Zika virus while pregnant. Dr. Watkins shared an article to those in attendance from The New England Journal of Medicine that explains how researchers have come to the conclusion of the cause and effect relationship of Zika virus exposure and microcephaly, he reiterated that not every pregnant woman with Zika virus will have a child with microcephaly. He added that Zika virus testing is being offered to pregnant women who have traveled to an area with active Zika virus transmission at any point before or during pregnancy. Men and women who become ill with symptoms of Zika virus within (4) weeks of travel to places where Zika virus has been transmitted are also being tested. New York State Department of Health (NYSDOH) has developed a six step action plan to combat potential transmission of the Zika virus in communities across New York State. Key components of the plan include distributing larvacide tablets to residents, providing Zika virus protection kits to pregnant women, and assembling a rapid response team in the event of a confirmed infection by the Aedes mosquito. Local Health Departments are required to investigate any suspect cases of Zika virus and to adopt an action plan. A copy of the department's Zika Action Plan was distributed to everyone in attendance and it outlines how the department will educate, monitor, and control Zika virus in Cattaraugus County. Dr. Watkins, asked Dr. Bohan if he would entertain a motion to adopt the Zika Action Plan prepared by the Health Department to submit to NYSDOH. Dr. Bohan asked if there was any objections, none were noted, Dr. Chohan made a motion to accept the Zika Action Plan as written, seconded by Dr. Hamlin, and unanimously approved.

Mr. Snyder asked on a scale of 1-10 how concerned should a citizen of Cattaraugus County be about the Zika virus. Dr. Watkins responded that the Aedes albopictus mosquitos have not been identified in Cattaraugus County however, travelers who travel to the areas where Zika virus is being transmitted should be very cautious and wear protective clothing and/or use proper insect repellant. He stated that recently travelers from Niagara and Erie counties returned back home from an endemic area and was diagnosed with Zika virus. Our concern is that travelers returning home from a Zika endemic area who have been infected with the virus potentially could be bitten by a mosquito in our area and then that mosquito could transmit the virus to other residents. He reiterated that the type of mosquito that could potentially transmit this virus to others has not been identified in Cattaraugus County.

May 4, 2016

Dr. Watkins remarked that for the past two years the department has been preparing for accreditation, which has been a very challenging task for the department. He went on to say that the final phase of the accreditation process has arrived as the accreditation site review team will visit the department on May 11th-12th. They will speak to several key staff members and will spend an hour with both our community partners and our governing entity. Dr. Bohan, Dr. Hamlin, and Mrs. Fox agreed to represent the BOH. Donna Vickman, and Sue Labuhn will represent the County Legislators, and Jack Searles, County Administrator, will be there as the liaison between the two governing entities.

Dr. Watkins stated that at the last BOH meeting there was an in-depth discussion regarding the county health rankings and the importance of improving the heath outcome, in particular, reducing the years of potential life lost, within our county. He recapitulated that this discussion revolved around the leading causes of death within the community. He informed the board that in an attempt to improve their county health outcome, last week Chautauqua County legislators passed a local law that would prohibit the sale of tobacco products including electronic cigarettes to anyone under the age of 21. He enumerated several reasons why increasing the age to 21 would benefit residents of Cattaraugus County. Looking at the mortality within our community the (5) most common causes of death include heart disease, cancer, chronic lower respiratory disease, diabetes, and unintentional injuries. He stated that the most common causes of heart disease are hypertension, hypercholesterolemia, diabetes, obesity, and tobacco. In Cattaraugus County the most common causes of cancer in males are lung and bronchus followed by colon rectal, and then prostrate. In females the most common causes of cancer would be lung and bronchus, breast, followed by colorectal. He added that attributing factors to lung cancer are smoking, second hand smoke, radon, and environmental factors. Dr. Watkins explained that when looking at the third leading cause of death in our community which is chronic lower respiratory disease, that the term "chronic lower respiratory disease" can include any one of a triad of respiratory illnesses (chronic bronchitis, emphysema, or asthma). He went on to say that smoking is a common cause for this triad of respiratory diseases in addition, other attributing factors includes occupational dust, chemicals, air pollution, and genetic influences. He explained that diabetes (type 1 and type 2), which is the fourth leading cause of mortality in Cattaraugus County is caused by a combination of genetic susceptibility, and environmental factors. He added that the surgeon general released a report that has identified smoking as an attributing factor to other chronic diseases (i.e. diabetes, ectopic pregnancy, and rheumatoid arthritis) and cancers (i.e. liver and colorectal cancers).

Dr. Watkins summarize by explaining that in Cattaraugus County 28% of our adult residents admit to smoking, this is the third highest smoking rate in New York State. He recapitulated why Cattaraugus County should consider raising the smoking age rate from 18 to 21; he stated that Cattaraugus County has four out of five of its leading causes of death associated with smoking. Other reasons include that smokers are most likely to start early in life, nearly 9 out of 10 cigarette smokers first tried smoking by age 18 and 99% first tried smoking by the age of 21. It will deter those who cannot get to the smoke shops to buy tobacco products at a reduced price. Smoking is the single most preventable cause of death and disease in the United States, in New York State, and in Cattaraugus County.

Dr. Bohan introduced Kenneth Dahlgreen, guest speaker, who is employed by Roswell Park. His position at Roswell Park is a community engagement coordinator for a tobacco free Cattaraugus, Allegany and Chautauqua counties. Mr. Dahlgreen is responsible for assistance with tobacco free initiatives in the tri county areas such as tobacco point of sales, regulations, outdoor regulations, and tobacco free housing and he played an intricate part with Chautauqua County passing the local law to raise their smoking age to 21.

Mr. Dahlgreen stated that it is definitely an interesting time in the world of tobacco prevention. In the last year the tobacco 21 movement has gained popularity. Especially in January when the state of Hawaii became the first state to officially make it state law. The idea is not new, municipalities have adopted this plan for the last ten years. The first major community was that of Needham, Massachusetts.

Mr. Dahlgreen handed out two fact sheets. The first was prepared by NYSDOH. The second is a personalized fact sheet specifically for Cattaraugus County. He stated that there is a lot of science behind tobacco 21. The vast majority of lung cancer is directly related to smoking and the link to Diabetes type I has been recently brought to light. Mr. Dahlgreen shared a personal story where he developed Diabetes type I after having been exposed to childhood second hand smoke. He stated that tobacco is the leading cause of preventable death for Cattaraugus County, NYS and our nation. More than 28,000 people succumb to smoking related deaths just in NYS alone. Surveys were completed in the schools of Cattaraugus County where it was determined that the average smoking age begins at 12.3 years old. Most of these students are getting there cigarettes from high school peers. There are a number of 18 and 19 year old students in high school who will purchase cigarettes and pipe line them to the younger students. One of the reasons cited for raising the age to 21 is the fact that very few 21 year olds are hanging around with 15 year olds. Raising the age to 21 would eliminate this social source of tobacco for underage individuals.

He went on to say that another important factor is that the development of the brain continues until the mid 20's and the effects of nicotine on the adolescent brain is almost identical to the effects of heroin and cocaine (creating feelings of pleasure and satisfaction). That leads researchers to believe that young people who develop a tobacco habit at the age of 12 or 13, have major brain (prefrontal cortex) changes occurring. In addition, studies have proven that the younger a person begin smoking the more serious the addiction.

Mr. Dahlgreen stated that current surveys show that 21% of high school seniors are using vaping products. Individuals under the age of 21 are only responsible for 2% of cigarette sales but the amount of nicotine that they are getting is setting them up for an addiction problem for the rest of their life.

He went on to say, if there is a way to stop exposure to nicotine prior to the age of 21, at least to a large degree, this will bring the adolescent smoking rate down, which will in turn, prevent many others from becoming regular smokers and lower the adult smoking rate. In Needham, Massachusetts when the tobacco 21 local law was passed 10 years ago, they were a small isolated community in the midst of many other communities who did not change their smoking age. When the tobacco 21 law went into effect, Needham had a 14% adult smoking rate, four years later the rate had dropped to 7%. Not one retailer in Needham, Massachusetts closed due to the tobacco 21 law.

Chautauqua County became the first county outside of the New York City area to pass the tobacco 21local law. This law makes compliance easier for stores as it is the same age for alcohol purchases. Mr. Dahlgren stated that it has been proven that when the drinking age was changed to 21 it saved lives, and he expects nothing less from the tobacco 21 law. Seventy to seventy five percent of our citizens are in support of this law including 70% of smokers. The tobacco 21 law in Chautauqua County was actually started by their Board of Health, who sent a letter of support to the Legislature. Dr. Witte interjected that it would be very important that e-cigarettes are included in this law if we were to consider a resolution. E-cigarettes are the bridge to regular cigarettes for today's youth. Mr. Neal stated that he has known many young people who started chewing tobacco because they were wrestlers and the coaches would promote chewing in order to enhance the player's performance because nicotine improved certain aspects of physiology and the spitting also helped players to make weight. Passing the tobacco 21 law would help in this regards. Mr. Haberer suggested that in the past the county had a program where young students would go to Little Valley to practice student government and debate issues. He suggested that it might be helpful to have students debate the issue as it will directly affect their age group.

Three points against changing the current law was presented by Mr. Haberer which included 18 year olds are allowed to gamble in legally licensed premises, they are also allowed and encouraged to vote for the President of the United States, and they are also allowed to serve in our military. Mr. Snyder asked if the state law would preempt a county local law.

Mr. Howden answered that currently there is regulation like this in New York City, Suffolk County, and some action potentially in Albany County. What has not been raised in court is if state law could be preempted by county law. The health law which allows smoking at 18 has not yet been challenged in any of these areas.

Mrs. Fox reminded everyone that Cattaraugus County was one of the leaders in the forefront to outlaw smoking in public places and we should continue forward and do everything we can to improve our health outcomes. Dr. Witte asked if a law was passed would the Seneca Nation of Indians be bound by this law. Mr. Howden stated they would not. Mrs. Labuhn stated that she grew up in Salamanca with 7 brothers and sisters and only 2 did not smoke. The 5 siblings that smoked all suffered from the medical conditions described in this handout. As a Board of Health and having a background as a health professional, Mrs. Labuhn stated she feels that it is our obligation to do what we can to reduce the tobacco rate in our county and she would help to support this local law if it was presented to the legislature. Dr. Bohan stated that everyone should think about what was presented today and at the next meeting a motion can be made to consider a resolution to have the county attorney draft a local law to increase the tobacco purchasing age from 18 to 21 and present it to the county legislature for adoption.

NURSING DIVISION REPORT: Mrs. Andrews reported that for communicable disease there were (3) new Hepatitis C cases which were all individuals between 30-70 years of age, (2) unrelated salmonella cases from Randolph that involved chicken exposure, (1) Campylobacter case in Ischua which is under investigation. Last month, there were (23) cases of chlamydia, (6) gonorrhea cases, she added that there has been a total of (22) gonorrhea cases for 2016 which surpasses our calendar count for 2015. No further syphilis cases to report.

Mrs. Andrews went on to say that there were no additional individuals tested for Zika virus this month leaving the total of (4) for the year, all of which were negative. She stated that there was (1) new elevated blood lead level (EBLL) to report, the EBLL was 16ug/dl (normal 0-9ug/dl) which was found in a child in Cattaraugus who will be receiving a home visit today.

Mrs. Andrews stated that the immunization staff did go out to (13) provider offices for national immunization week and provided immunization materials to the providers, with immunization rates and lead testing rates for their practices, in order to provide further education.

Homecare referrals were actually lower this month than last.

She summarized by informing the board that the recently hired nurse practitioner will be starting on May 13th, and will start by working a few part-time Saturdays until she can start full time in the month of June.

Dr. Bohan introduced Dr. Paul Schwach who has generously volunteered to perform physicals at the Health Department clinic. Dr. Schwach stated that he has had some affiliation with Erie County during his residency program where he was a physician at the county jail for two years. He also had affiliation with the Cattaraugus County clinic after he came to the area in 1981. At that time there was an orthopedic clinic that he and another physician took turns in seeing patients for the county however, that service is no longer provided.

ENVIRONMENTAL DIVISION REPORT: Mr. Wohlers informed the board that the department has hired (2) college students who will start later this month, as program aides to assist in the summer mosquito surveillance program. He added that this year the department will set out special traps (biogents sentinel traps) to collect aedes albopictus mosquitos, the traditional light traps, and the gravid traps are not effective in collecting these type of mosquitos.

Mr. Wohlers provided an update on the community development block grant, as the department is in its third year of providing these funds to low income homeowners to have their failed septic systems and water wells repaired/replaced. He stated that within the last two weeks the program completed another four projects in addition, three more projects are out to bid.

Last year the state passed a law that allowed people to bring their companion dogs to outdoor seating areas of restaurants. A companion dog is different from a service (working) dog. People have always been allowed to bring in a "seeing eye" dog to a restaurant if they are required. The restaurant owner must consent to allowing companion dogs in their outdoor seating areas. Official's signs are being prepared and can be displayed upon the owner's consent.

Dr. Bohan asked if the mosquito dunks that Dr. Watkins spoke about last month were available from the state to any residents yet. Mr. Wohlers answered yes they are available to any resident in New York State. **ENFORCEMENT REPORT:** Mr. Porter reported on the following enforcement case from a hearing held on April 5, 2016.

Docket #16-006

Thomas A. Gilray, Sr. 1474 Four Mile Road, Allegany, NY 14706 Violations: 1) 40 CFR Sec.141.90 (f) as part of lead and copper monitoring. The respondent was required to provide Cattaraugus County Health Department (CCHD) with a completed Notification Certification Form and a copy of the consumer notice, that was delivered to the five (5) tenants, within ten (10) days after delivery. The delivery deadline was 2/26/16. A violation notice, dated 3-8-16, was issued to the respondent. A new deadline of 3-18-16 was given to submit the completed Notification Certification Form and the required copy of the consumer notice. As of 3-21-16 the CCHD has not received the information. 1) 10NYCRR Sec 5-1.42 (b) (3) respondent is to collect lead and copper samples from the same sampling sites in each monitoring period. A violation notice dated 3-8-16 was issued to the respondent. A new deadline of 3-18-16 was given to submit the completed Change of Address Forms. As of 3-21-16 this information has not been received.

<u>Public Health Sanitarian:</u> Chris Covert appeared for CCHD and was sworn in. <u>Respondent:</u> Thomas Gilray did not appear but was properly served.

Recommendation:

- (1) That the respondent pay a \$200.00 fine by 5-31-16 for non-compliance of 40CFR Sec. 141.90 (f) and 10NYCRR Sec. 5-1.42 (b) (3).
- (2) The respondent supply the completed Notification Certification Form and the required copy of the consumer notice to CCHD by 5-31-16 re. 40CFR Sec. 141.90 (f).
- (3) The respondent submit the required Change of Address Forms to CCHD by 5-31-16 re: 10 NYCRR Sec. 5.1.42 (b) (3).
- (4) Failure to comply with all recommendations by 5-31-16 will result in a \$10.00 per day per diem to be levied until complete.

A motion was made by Mrs. Fox to accept Mr. Porter's recommendation seconded by Mr. Smith, and unanimously approved.

Dr. Watkins presented an appeal for Docket #15-037, John Tucker who was to pay a \$75.00 fine by April 30, 2016. Mr. Tucker did not confine his dog on his property for 10 days when directed by the Health Department following a biting incident. However, the department has now located the animal and Mr. Tucker has produced records demonstrating that the dog has been vaccinated. The individual that was bitten has refused any post rabies vaccination and the department finds Mr. Tucker to be in compliance. Mr. Tucker has made a request to the Board that his \$10.00 per day per diem be waived if he paid his fine of \$75.00 by Friday May 6th citing undue financial hardship.

A motion was made by Mr. Snyder to accept the \$75.00 fine as payment in full, waiving the per diem, this was seconded by Mr. Smith and unanimously approved.

Mr. Snyder asked if there were any updates to share about the opiate problem here within the county in light of the recent meeting. Dr. Watkins stated that the department continues to learn about the different resources available within the community. There are a number of organizations that are working to assist opiate users and get them the help they need. However, the fragmentation of where to locate these resources have been problematic and a heroin/opiate action plan is being developed. One specific project that is being developed in the action plan is the development of a case manager or a case coordinator who will have a position within the county in order for residents to have a central contact number to assist any resident seeking help. That coordinator would refer the resident to the appropriate resource within the county and follow-up with the resident to see that they received the requested service. He added that in addition, a facility that can house individuals for inpatient rehabilitation services is being considered for this area.

Dr. Watkins asked for approval to change the June Board meeting from June 1st to June 15th in order for him to attend a meeting in Albany with the New York State Association of County Health Officials (NYSACHO). The state commissioner, Dr. Howard Zucker, will be in attendance to talk to the NYSACHO Board and they are asking for 100% participation. He added that the July BOH meeting would be cancelled, which would put us back in rotation for the next meeting to be held on the first Wednesday of August. No objections were raised by the Board, and confirmation was given by Dr. Bohan to change the date.

There being no further business to discuss, a motion to adjourn was made by Ms. Raftis, and seconded by Mr. Haberer and unanimously approved.

Respectfully submitted,

Kevin D. Watkins, M.D., M.P.H. Secretary to the Board of Health



In response to NYSDOH Article 6 - State Aid for General Public Health Work Program Guidance Statement / Zika Action Plan



1. PLANNING REQUIREMENTS FOR ENHANCED HUMAN DISEASE MONITORING AND CONTROL:

Describe how your LHD will perform disease monitoring for human cases.

 This should include a description of case investigation procedures, including the identification of the most likely source of infection. Examples of sources of infection may include travel to an area with active mosquito-borne Zika virus transmission; sexual transmission; blood transfusion; or possible local acquisition of infection due to mosquito exposure, and lack of other risk factors.

Risk

Anyone who lives in or travels to an <u>area where Zika virus is found</u> and has not already been infected with Zika virus can become infected with Zika from mosquito bites. Once a person has been infected, he or she is likely to be protected from future infections.

Exposure

Through mosquito bites

Zika virus is transmitted to people primarily through the bite of an infected *Aedes* species mosquito (*A. aegypti* and *A. albopictus*). These are the same mosquitoes that spread <u>dengue</u> and <u>chikungunya</u> viruses.

- These mosquitoes typically lay eggs in and near standing water in things like buckets, bowls, animal
 dishes, flower pots and vases. They prefer to bite people, and live indoors and outdoors near people.
 - Mosquitoes that spread chikungunya, dengue, and Zika are aggressive daytime biters. They can also bite at night.
- Mosquitoes become infected when they feed on a person already infected with the virus. Infected
 mosquitoes can then spread the virus to other people through bites.
- 2. From mother to child
 - A mother already infected with Zika virus near the time of delivery can pass on the virus to her newborn around the time of birth.
 - A pregnant woman can pass Zika virus to her fetus during pregnancy. Adverse pregnancy and infant outcomes associated with Zika virus infection during pregnancy are currently under study.
 - To date, there are no reports of infants getting Zika virus through breastfeeding. Because of the benefits of breastfeeding, mothers are encouraged to breastfeed even in areas where Zika virus is found.
- 3. Through sexual contact
 - · Zika virus can be spread by a man to his sex partners.
 - In known cases of sexual transmission, the men developed Zika virus symptoms. From these cases, we
 know the virus can be spread when the man has symptoms, before symptoms start and after
 symptoms resolve.
 - In one case, the virus was spread a few days before symptoms developed.
 - · The virus is present in semen longer than in blood.
- 4. Through blood transfusion

In response to NYSDOH Article 6 - State Aid for General Public Health Work Program Guidance Statement / Zika Action Plan

- As of February, 1, 2016, there have not been any confirmed blood transfusion transmission cases in the United States.
- There have been multiple reports of blood transfusion transmission cases in Brazil and during the French Polynesian outbreak, 2.8% of blood donors tested positive for Zika.

Zika Testing

- All pregnant women who had sex (vaginal, anal, oral) with someone who traveled to area with active ZIKA (regardless of whether partner was symptomatic)
- Pregnant person who traveled to ZIKA area while pregnant
- Person of any age or sex with any of the following: fever, rash, joint pain, conjunctivitis during or within
 4 weeks of travel to area with active ZIKA transmission
- Person of any age or sex with Guillain Barre who traveled to area with active ZIKA transmission
- travel and GB

Testing Process

Testing is available at the Wadsworth Center at no cost for people meeting the above criteria.

The provider must contact the local health department (LHD) where the patient resides for preauthorization of Zika virus testing. Contact information and hours of operation for LHDs is available at

https://www.health.ny.gov/contact/contact_information/ Cattaraugus County Health Department may be contacted by calling 701-3415.

Cattaraugus County Health Department Lab is a NYSDOH Zika Virus specimen collection site. Hours of operation are M-F 8am to 4pm. Lab supervisor may be reached at (716)701-3432.

If the patient resides in another state, the healthcare providers/or facility caring for the patient should directly contact the NYSDOH at 1-888-364-4723 between 9AM and 6PM weekdays.

This process applies to all patients except neonates with microcephaly or intracranial calcifications born to women who traveled to an area with active Zika virus transmission while pregnant.

Healthcare providers and facilities caring for these neonates should directly contact the NYSDOH at 1-888-364-4723 between 9AM and 6PM weekdays for consultation and facilitation of testing.

The patient should be available to the provider during this call to the LHD. LHD staff will complete the NYSDOH Zika virus testing authorization questionnaire with the provider and/or patient. The questionnaire is available to LHDs via NYSDOH's Clinical Data Management System (CDMS) http://health.ny.gov/gotoclinic/63

In response to NYSDOH Article 6 - State Aid for General Public Health Work Program Guidance Statement / Zika Action Plan

If the patient provides an email address for use in CDMS, the authorization ticket will be emailed to them. Specimen collection sites will accept a printed ticket or an image of the ticket on a smartphone. If they do not have an email address, the LHD should use their health department email address for retrieval of the authorization ticket and fax the ticket to the patient or directly to the specimen collection site.

If testing is approved by the LHD, the healthcare provider must provide the patient with a written order/prescription for Zika virus testing that specifies serum and urine for polymerase chain reaction (PCR) and serum for serology.

Patients must present for testing with both a written order from a NYS licensed healthcare provider and LHD authorization (described below).

The order/prescription must clearly indicate the name, complete address and date of birth of the patient and the NYS license number of the provider.

Patients who present for testing without a written order from a NYS licensed healthcare provider and LHD authorization will be turned away.

LHDs should immediately notify their regional epidemiologist of the testing request.

Specimen Collection

Serum: Collect at least six milliliters (ml) of blood in a serum tube (red top, serum separator tube, tiger top, speckle top, gold top).

These tubes contain clot activator, so that serum can be readily obtained. Do NOT use blood tubes that contain anti-coagulants such as green top, yellow top or purple top. Centrifuge the blood tube, transfer the serum to a separate labeled tube (at least 3 ml serum required) and discard the clot. Seal the serum tubes with parafilm.

Urine: Collect urine in a sterile cup with a minimum volume of 3 ml and a maximum volume of 20 ml. Close the lid tightly and seal with parafilm. Specimens that leak will not be tested.

Label the specimens: Failure to properly label a specimen will result in rejection and the specimen will not be tested. Specimens must be labeled with:

Patient's First and Last Names

Patient's Date of Birth

Date and Time of Collection

All information on the specimen label must exactly match the information on Wadsworth's Infectious Diseases Requisition (IDR) form (described below), including the spelling of the patient's first and last names. Specimen Handling: Storage and Shipment:

The storage and shipment of specimens may EITHER:

(1) If shipping within 48 hours of specimen collection, refrigerate immediately and ship on cold packs.

In response to NYSDOH Article 6 - State Aid for General Public Health Work Program Guidance Statement / Zika Action Plan

(2) If shipping will be delayed more than 48 hours, refrigerate immediately, freeze within 48 hours of specimen collection at -70 to -80 °C. Ship on dry ice.

Specimens that are not directly centrifuged should be immediately refrigerated and must be centrifuged and the serum frozen within six hours. Specimens must be on cold packs when transported from the refrigerator to the freezer during this 6 hour time period. Both the urine and serum need to be frozen at -70 to -80 degrees Celsius. Freezing preserves the integrity of the RNA in the samples.

Wadsworth's Infectious Diseases Requisition (IDR) form, is available at

http://www.wadsworth.org/sites/default/files/WebDoc/1065760803/infectious_diseases_requisition_DOH_4 463.pdf and must be completed in full and accompany each specimen being submitted on a non-NYC resident.

If present, symptoms should be clearly noted on the IDR.

Follow shipping regulations for UN 3373 Biological Substance, Category B and UN 1875, Class 9 for dry ice. Specimens must be shipped on dry ice to the Wadsworth Center, David Axelrod Institute, 120 New Scotland Avenue, Albany, NY 12208. Label the outside of the package with storage conditions (-70 to -80C).

Results of Zika virus testing will be made available to the ordering provider through the submitting laboratory and/or the LHD where the patient resides. Providers can access public health consultation for assistance with interpretation of results by calling the NYSDOH Zika Information Line at: 1-888-364-4723 between 9AM and 6PM weekdays

Convalescent blood work is needed 3-4 weeks following any reactive tests and for any negative specimen that was collected < 8 days from signs and symptoms or less than 3 weeks from last exposure.

Receipt of Reports

- 1. Reports of Zika virus disease are received by one or more of the following methods:
 - Secure NYSDOH Health Commerce System (HCS) Electronic Clinical Laboratory Reporting System (ECLRS)
 - Telephone, mail or fax from hospitals, private medical providers, laboratories long-term care facilities, schools, daycares, and/or private citizens.
 - Hospitals and providers must report suspected cases of Zika virus to the LHD where the patient resides.
- 2. Mechanisms are in place to receive reports of Zika virus disease 24/7
 - ECLRS is checked at a minimum, once a day, 7 days a week.

In response to NYSDOH Article 6 - State Aid for General Public Health Work Program Guidance Statement / Zika Action Plan

- Main Cattaraugus County Health Department number (716-373-8050) is answered 24/7.
- The New York State Department of Health notifies individuals listed in the ECLRS Alert Staff role of the HCS by phone for reports requiring immediate action.

Routing/Assignment of Investigations

- Zika virus disease reports, received through any mechanism, are forwarded immediately upon receipt to the Communicable Disease SCHN (Supervising Community Health Nurse) or designee in her absence, to be logged, dated and initialed.
- 2. SCHN or designee reviews initial report and initiates prompt investigation

Communicable Disease Staff (CDS) Reviews Updated Zika Information and Patient Education Materials

CDS assigned to case will review Zika specific professional information from authoritative sources, such
as, but not limited to: https://www.cdc.gov/zika/

Notification of Healthcare Provider

- CDS assigned to case will make initial contact to the Primary Care Provider (PCP) listed on the lab report to:
 - Assist with interpretation of lab results \\health-olean2\Misys Homecare\Nursing Manual Clinic Preventive\Communicable Disease\ZIKA
 - · Verify diagnosis
 - · Allow the healthcare provider the opportunity to notify the patient of his/her condition
 - Verify that the case/guardian is aware of the diagnosis.
 - Obtain additional information regarding the patient's demographic information, contact information, and clinical signs and symptoms (S/S).

Case Investigation

- CDS assigned to case will investigate cases using form designated by NYSDOH or appropriate alternative to elicit Zika specific information including, travel, sexual exposure, pregnancy, S/S etc.
- 2. CDS initiates all case investigation in a timely manner. Investigations are primarily conducted via phone but the following circumstances may require a Home Visit:
 - 18 years old or younger
 - Hearing impairment or learning disability
 - Any case, deemed necessary by either the Director of Patient Services or the Public Health Director.

- CDS contacts the patient, explains the purpose of the call, proceeds with the interview to gather the epidemiological data and advises regarding control measures.
- 4. Possible steps may include but are not limited to the following, and may be carried out at any point in the investigation:
 - · Laboratory confirmation of the diagnosis
 - Creation of case definition
 - Implement control measures
 - Notification of appropriate health department staff; may include but are not limited to:
 - Supervisors
 - b. Health Director
 - c. Laboratory Director
 - d. Environmental Health Director
 - e. County Public Information Office
 - f. County Emergency Communication Center
 - g. County Emergency Medical Services
 - h. NYSDOH WRO Epidemiologist
 - i. See CCHD Zika Notification Tree
 - · Development of line listing to track cases
 - Create a questionnaire for suspect cases and/or contacts as needed
 - · Create an information letter for sexual contacts of a Zika case as needed
 - Data entry and analysis
 - Alert appropriate healthcare personnel and/or facilities
 - Update public hotline to include Zika disease specific information
- Details of all investigations are entered into the NYSDOH HCS. Enter supplemental data into Communicable Disease Electronic Surveillance System (CDESS) (within 15 days) When the diagnosis is confirmed and all disease criteria are met make the report a case in CDESS.
- Clusters, outbreaks, or a single case of a high-profile disease may require a wider effort. Notify the NYSDOH immediately for any identified case of Zika virus disease.
- Staff will strictly adhere to HIPPA regulations: disclosures are permitted to local and state health
 departments for public health investigations and surveillance. Patient consent is not required. Health
 care providers may ask for ID or a faxed request from LHD, use DOH-389 as this form.

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Describe how your LHD will perform enhanced disease monitoring and control.

This description must address:

- Case investigation, with an increased emphasis on determining whether local transmission has occurred.
 - Activities must include electronic case reporting (e.g., CDESS, MAVEN).
- Adjusting human disease monitoring if local transmission via A. albopictus is identified in your county, or if pools of A. albopictus are found to be positive for Zika.
- Active disease monitoring and disease control, which may include the following:
 - Outreach to hospitals /healthcare providers related to:
 - Importance of physician reporting;
 - Criteria for reporting, and
 - Instructions for submission

- CDS will conduct case finding activities with an increased emphasis on determining whether local transmission has occurred.
 - o Activities will include electronic case reporting (e.g., CDESS, Electronic Syndromic Surveillance.
 - Interview of cases
 - o Outreach to hospitals /healthcare providers related to:
 - Importance of physician reporting;
 - · Criteria for reporting, and
 - Instructions for submission of appropriate laboratory specimens to Wadsworth Center.
 - Regular calls to hospitals to canvass for suspect cases.
 - Sending out health alerts to providers, requesting inclusion of Zika virus and other mosquito-borne diseases in differential diagnoses.
 - o Reviewing CCHD mosquito surveillance data with CCHD environmental health staff including:
 - Number and locations of A. albopictus traps
 - Findings
- CDS will intensify frequency and scope of above activities if A. albopictus is identified in Cattaraugus County.
- CDS will prepare a registry to collect information on Cattaraugus County residents identified as being
 infected with Zika during pregnancy. This information could be used for future monitoring and follow-up
 of birth outcomes. This will be used to report cases to the National Zika Birth Registry.

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of appropriate laboratory specimens to Wadsworth Center.

- Regular calls to hospitals to canvass for suspect cases.
- Sending out health alerts to providers, requesting inclusion of Zika virus and other mosquito-borne diseases in differential diagnoses.
- Ensuring that providers / laboratories submit specimens to Wadsworth Center for testing if clinical illness is consistent with Zika, even if commercial testing is inconclusive or negative.

2. PLANNING REQUIREMENTS FOR ENHANCED EDUCATION ABOUT ZIKA VIRUS:

Describe how your LHD will educate the public and healthcare providers about Zika virus and the ways to reduce risk of disease exposure.

This description should address educational efforts related to:

 An overview of Zika, including how it is transmitted and diagnosed.

- 1. Provide general overview of Zika virus to the general public including:
 - Information regarding disease basics with emphasis on risk reduction/prevention all information and materials used will be based on current CDC and/or NYSDOH websites such as http://www.cdc.gov/zika/prevention/
 - b. Current status of Zika virus in Cattaraugus County obtained from local data
 - c. Current status of Zika virus in NYS obtained from NYSDOH
 - d. General prevention education includes the use of personal protective measures that reduce the risk of mosquito bites including but not limited to staying indoors within screened, airconditioned rooms, wearing appropriate clothing, and using repellants.

- CDC and other health agency recommendations, including travel restrictions.
- Use of personal protective measures that reduce the risk of mosquito bites when travelling. Examples of such measures include, but are not limited to, staying indoors within screened, airconditioned rooms, wearing appropriate clothing, and using repellants.
- 2. General public education will be accomplished using the following venues:
 - o County website
 - o Facebook, Twitter
 - o Health fairs, and community presentations
 - o Materials placed in key areas in community
 - Home/building stores that sell screens, dunks etc
 - Refuse/tire collection sites
- CDS will intensify frequency and scope of above activities and add PSA on local radio stations if
 A. albopictus is identified in Cattaraugus County.
- 4. Educate traveling public on overview of Zika, with particular emphasis on current locations of active Zika transmission, prevention measures, S/S to report to healthcare, and post travel recommendations based on information found at http://wwwnc.cdc.qov/travel/page/zika-travel-information All clients of CCHD clinic who are receiving travel vaccines will be educated in person by CDS.
- Education provided to pregnant women will be more frequent and in-depth than for the general public
 using information at http://www.cdc.gov/zika/pregnancy/index.html All clients of CCHD FP/STD clinic
 who are not using effective birth control, are pregnant or are seeking pregnancy will be educated by
 CDS/NP in person.

In response to NYSDOH Article 6 - State Aid for General Public Health Work Program Guidance Statement / Zika Action Plan

Education of healthcare provid	ers
about Zika virus including risk,	testing,
diagnosing and monitoring	

- CDS will conduct outreach to health care providers in Cattaraugus County, regarding risk reduction, testing, diagnosing and monitoring patients based on information found at: http://www.cdc.gov/zika/hc-providers/index.html using any of the following venues: telephone calls, in person visits, presentation at medical meetings, electronic communications and /or paper guidelines for offices.
- HCP will receive initial education and patient education materials for office. Outreach will be conducted
 at intervals and whenever new guidelines become available. OB/GYNs will receive more frequent and in
 depth outreach/education.
- 3. Outreach/education to HCP will be intensified if A. albopictus is identified in Cattaraugus County.

Describe how your LHD will educate appropriate persons on effective measures to prevent infection through sexual transmission (e.g., abstinence or condom use).

- Individuals who have traveled, or who have sex with a person who has traveled to area with active Zika
 transmission will receive information regarding effective measures to prevent sexual transmission
 including abstinence, condom use, and/or other contraception.
- 2. CDS will use information from this site as basis for education: http://www.cdc.gov/zika/pregnancy/thinking-about-pregnancy.html
- Key recommendations include:
 - M & F who were <u>possibly exposed</u> to the virus should wait for at least <u>8 weeks</u> before attempting conception
 - Women DX'd with Zika should wait at least eight weeks after symptoms began before trying to conceive, while men should wait at least six months
 - Even if they do not feel sick, travelers returning to the United States from an area with Zika should take steps to prevent mosquito bites for 3 weeks so that they do not spread Zika to uninfected mosquitos.

Outline educational efforts related to potential mosquito breeding habitats and habitat reduction, which may include standing water elimination, trash cleanup, and standing water treatment options.	1. Public education regarding standing water elimination, trash cleanup, and standing water treatment will be accomplished using the following venues:							
		~				80		
		=						
Describe how education about mosquito-borne disease, specifically Zika virus, and mosquito control are currently conducted in your county.	local new Releases,	hip with our loo vspaper regard /Bulletins- Zika	cal newspape ing mosquito information	ling mosquito-borne er. Once our county control techniques including medical, acebook, Twitter) ac	is in "mosq that the citi pregnancy, s	uito season" a izens can do a exual transmis	n article is sha round their pr	ared with the

In response to NYSDOH Article 6 - State Aid for General Public Health Work Program Guidance Statement / Zika Action Plan

Provide a detailed plan on how education about Zika virus, mosquito control, and mosquito bite prevention will change if local transmission of Zika virus via Aedes Albopictus occurs.

 Education provided to pregnant women and healthcare providers should be more frequent and in-depth. Issue press releases and bulletins in accordance with our Communications/Public Information Officer plan #COM-02. Residents will be informed about increased surveillance and necessary precautions. Those at higher risk will be urged to seek advice from their health care providers.

NYSDOH Health Advisories, CDC and CCDH Zika testing and diagnosis guidance and procedures emailed to all hospital infection control departments, ERs, medical directors, obstetric providers, and health clinics

4. PLANNING REQUIREMENTS FOR MOSQUITO TRAPPING, TESTING, AND HABITAT INSPECTIONS:

Describe how your LHD will perform mosquito collection activities, related to mosquitoes generally, as well as activities specific to A. albopictus.

The following planning elements should be addressed:

- Number / distribution of collection sites
- Equipment used
- Types / number of mosquito traps
- Number of pools collected
- Time period during which mosquito collection is performed
- How specimens are processed /

Currently 10 sites located along the Allegheny River Valley area which runs east to west through the lower part of the County.

10 CDC Light Traps, 1 Gravid Trap

Currently we are allowed to submit 10 pools a week for 20 weeks to the NYSDOH's Wadsworth Laboratory for arbovirus testing.

May - August

Specimens are identified, pooled and shipped according to shipping regulations.

We are in the process of purchasing 2 - Sentinel 2 Mosquito Traps and chemical lure. Traps will be set in populated areas at east and west ends of our traditional surveillance areas. Traps will be weekly so as not to become larval sites.

shipped to Wadsworth Center.	
Describe how your LHD will identify potential mosquito habitat(s) and collect <i>A. albopictus</i> for testing.	 Populated areas Near thickets or vegetation (<200 yards from a residence) Fresh water or artificial containers (<200 yards from a residence)
Describe how your LHD will change its mosquito surveillance activities if a case of local transmission of Zika virus occurs in within the county.	We would move the Sentinel 2 trap to the appropriate area. Recommend habitat be removed if possible (e.g. artificial container, brush, etc.) Provide education materials to victim and immediate neighbors. Also, do widespread education through the media.
5. PLANNING REQUIREMENTS FOR MOSQUITO CONTROL:	
Describe how your LHD will perform mosquito control, including when larviciding / adulticiding is conducted, the equipment that used, and any follow-up.	Identify and remove any breeding habitat that is possible especially artificial containers. Ensure that the Onsite Wastewater System is functioning. If proven necessary, we will recommend use of larvicide. If found to be necessary to use chemical control of adult mosquitoes we will recommend according to current CDC guidelines. (The above 2 are dependent on the availability of funding.)
Describe how individual home visits or inspections will be performed and documented.	A staff member will go to subject property. They will conduct a visual inspection of the outside for any artificial breeding habitats and natural habitat. Also do inspection for barriers between house and outside. Provide resident with education information. Potentially move a trap to this location. Form will be developed and utilized for inspection.

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Describe how your LHD will incorporate Mosquito Control Days as part of your control efforts, in cooperation with NYSDOH.	Mosquito control brochures will be distributed widely throughout the county. Mailer will be sent out to Cattaraugus County residents advising them to take action to protect themselves from mosquito bites. Medi campaign encouraging residents to clean up their area, removing standing water, repairing screens, etc.
Describe, in detail, how the LHD will change its mosquito control activities if a Zika virus-positive mosquito pool is found.	Intensify our surveillance by moving both traps to the area. Formally enforce the control of breeding in artificial containers and potentially even natural habitat. Vector control -the risks associated with the possib presence of infected, adult mosquitoes may require adulticiding to reduce the number of adult mosquitoes. If such a situation arises when conditions still favor continued mosquito reproduction, larval control may also be required to prevent recovery of mosquito populations. A target area would be delineated based on surveillance and natural boundaries to mosquito migration. Ground or aerial ULV adulticiding or larviciding would be chosen, depending on the area requiring treatment and other technical and epidemiological factor Follow-up adulticiding/larviciding interventions are likely to be required if transmission was taking place relatively early in the season (July or August) but may not be necessary late in the season or if follow-up surveillance indicates a high degree of success.
Once local transmission is identified, Zika Rapid Response Teams (ZRRTs) should be used to assist with active disease monitoring.	
6. PLANNING REQUIREMENTS FOR STA	TE-COORDINATED ZRRTS:
dentify staff for three ZRRTs: a	Beverly Bennett, Debra Nichols (Educators)
orimary, secondary and tertiary team.	2) Chris Covert (Public Health Sanitarian)
Of those identified for each of the three ZRRTs, describe which staff can act as (1) educators; (2)	3) Contact WR Vector Surveillance Program at 716-847-4508.
epidemiologists, or other persons experienced in disease investigation to	4) NYSDOH Epidemiologists

	conduct active surveillance; and (3) site inspectors to advise on mosquito control.	
•	Additional planning considerations for ZRRTs: ZRRTs will include NYS staff representatives, as well as county staff, as described above.	

SPECIAL REPORT

Zika Virus and Birth Defects — Reviewing the Evidence for Causality

Sonja A. Rasmussen, M.D., Denise J. Jamieson, M.D., M.P.H., Margaret A. Honein, Ph.D., M.P.H., and Lyle R. Petersen, M.D., M.P.H.

SUMMARY

The Zika virus has spread rapidly in the Americas since its first identification in Brazil in early 2015. Prenatal Zika virus infection has been linked to adverse pregnancy and birth outcomes, most notably microcephaly and other serious brain anomalies. To determine whether Zika virus infection during pregnancy causes these adverse outcomes, we evaluated available data using criteria that have been proposed for the assessment of potential teratogens. On the basis of this review, we conclude that a causal relationship exists between prenatal Zika virus infection and microcephaly and other serious brain anomalies. Evidence that was used to support this causal relationship included Zika virus infection at times during prenatal development that were consistent with the defects observed; a specific, rare phenotype involving microcephaly and associated brain anomalies in fetuses or infants with presumed or confirmed congenital Zika virus infection; and data that strongly support biologic plausibility, including the identification of Zika virus in the brain tissue of affected fetuses and infants. Given the recognition of this causal relationship, we need to intensify our efforts toward the prevention of adverse outcomes caused by congenital Zika virus infection. However, many questions that are critical to our prevention efforts remain, including the spectrum of defects caused by prenatal Zika virus infection, the degree of relative and absolute risks of adverse outcomes among fetuses whose mothers were infected at different times during pregnancy, and factors that might affect a woman's risk of adverse pregnancy or birth outcomes. Addressing these questions will improve our ability to reduce the burden of the effects of Zika virus infection during pregnancy.

POTENTIAL RELATIONSHIP BETWEEN ZIKA VIRUS INFECTION AND BIRTH DEFECTS

Since the identification of the Zika virus in Brazil in early 2015, the virus has spread rapidly throughout the Americas (www.cdc.gov/zika/ geo/active-countries.html). An increase in the number of infants with microcephaly in Brazil was first noted in September 2015, after the recognition of Zika virus transmission in the country earlier in the year1; this was followed by the recognition of a similar increase in French Polynesia after an outbreak there in 2013 and 2014.2 Despite accumulating evidence that supports the link between Zika virus infection and microcephaly, most experts have taken care not to state that Zika virus infection is causally related to these adverse outcomes.3 This cautious approach toward ascribing Zika virus as a cause of birth defects is not surprising, given that the last time an infectious pathogen (rubella virus) caused an epidemic of congenital defects was more than 50 years ago, no flavivirus has ever been shown definitively to cause birth defects in humans,4 and no reports of adverse pregnancy or birth outcomes were noted during previous outbreaks of Zika virus disease in the Pacific Islands.5,6

On the basis of the available evidence, the public health response to the outbreak of Zika virus disease has moved forward, with the distribution of health messages about the importance of mosquito-bite prevention, recommendations by public health authorities in some of the most severely affected countries to delay pregnancy, and advisories that pregnant women avoid travel to areas with active Zika virus transmission. However, communications regarding Zika virus have been challenging: a recent survey showed

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Table 1. Shepard's Criteria for Proof of Teratogenicity in Humans as Applied to the Relationship between Zika Virus Infection and Microcephaly and Other Brain Anomalies,*

Criterion No.	Criterion	Evidence	Criterion Met	
1	Proven exposure to the agent at one or more critical times during prenatal development	On the basis of case reports, case series, and epidemiologic studies of microcephaly that are associated with laboratory-confirmed or presumed Zika virus infection, the timing of Zika virus infection associated with severe microcephaly and intracranial calcifications appears to be in the late first or early second trimester. 14-20	Yes	
2	Consistent findings by ≥2 high-quality epidemiologic studies, with control of confounding factors, sufficient numbers, exclusion of positive and negative bias factors, prospective studies if possible, and relative risk ≥6	On the basis of data from Brazil, the temporal and geographic association between Zika virus illness and cases of microcephaly is strong.\(^1\) Two epidemiologic studies have been published. In a study in Brazil\(^1\) that used a prospective cohort design, 29% of women with Zika virus infection at any time during pregnancy had abnormalities on prenatal ultrasonography, some of which have not been confirmed postnatally, In a study in French Polynesia,\(^2\) retrospective identification of eight cases of microcephaly and the use of serologic and statistical data and mathematical modeling suggested that 1% of fetuses and infants born to women with Zika virus infection during the first trimester had microcephaly; the risk ratio in this analysis was approximately 50, as compared with the baseline prevalence of microcephaly. No other epidemiologic studies have examined this association to date.	Partially	
3	Careful delineation of clinical cases; a specific defect or syndrome, if present, is very helpful	The phenotype has been well characterized in fetuses and infants with presumed congenital Zika virus infection, including microcephaly and other serious brain anomalies, redundant scalp skin, eye findings, arthrogryposis, and clubfoot, 15,20-23 The phenotype in some infants appears to be consistent with the fetal brain disruption sequence, 20,22 which has been observed after infection with other viral teratogens. 24	Yes	
4	Rare environmental exposure that is associated with rare defect	Reports of fetuses and infants with microcephaly who are born to women with brief periods of travel to countries with active Zika virus transmission are consistent with Zika virus being a rare exposure. 16.15.19 The defect, congenital microcephaly, is rare, with a birth prevalence of approximately 6 cases per 10,000 liveborn infants, according to data from birth-defects surveillance systems in the United States. 25	Yes	
5	Teratogenicity in experimental animals important but not essential	No results of an animal model with Zika virus infection during pregnancy and fetal effects have yet been published.	No	
6	Association should make biologic sense	Findings are similar to those seen after prenatal infection with some other viral teratogens (e.g., cytomegalovirus, rubella virus). 26 Animal models have shown that Zika virus is neurotropic, 27,28 which supports biologic plausibility. Evidence that Zika virus infects neural progenitor cells and produces cell death and abnormal growth, 29 along with evidence of Zika virus in brains of fetuses and infants with microcephaly, on the basis of immunohistochemical staining and identification of Zika virus RNA and live virus, 16,17,19 provides strong biologic plausibility.	Yes	
7	Proof in an experimental system that the agent acts in an unaltered state	This criterion applies to a medication or chemical exposure, not to infectious agents.	NA	

^{*} The criteria listed here were proposed by Shepard.9 Criteria 1, 2, and 3 or criteria 1, 3, and 4 are considered to be essential, whereas criteria 5, 6, and 7 are helpful but not essential. Partial evidence is insufficient to meet a criterion. NA denotes not applicable.

tal abnormalities were observed in 12 (29%); none of the 16 women with negative tests had fetal abnormalities. The abnormalities that were observed on ultrasonography varied widely, and some findings lacked postnatal confirmation because the pregnancies were ongoing.¹⁴

A retrospective analysis after the 2013-2014

outbreak of Zika virus disease in French Polynesia identified eight cases of microcephaly; the authors used serologic and statistical data and mathematical modeling to estimate that 1% of the fetuses and neonates who were born to mothers who had been infected with Zika virus in the first trimester had microcephaly²— a prevalence

Table 2. Bradford Hill Criteria for Evidence of Ca	usation as Applied	to the Relationship	between Zika Vir	us Infection
and Microcephaly and Other Brain Anomalies*				

Criterion	Evidence	Criterion Meti			
Strength of association	A recent epidemiologic study from French Polynesia suggests a strong association between prenatal Zika virus infection and microcephaly (estimated risk ratio, approximately 50). ² The substantial increase in the number of cases of microcephaly and other brain anomalies that have been associated with the Zika virus outbreak in Brazil suggests a strong association. ^{1,2}				
Consistency	Two epidemiologic studies, one from Brazil and one from French Polynesia, ^{2,14} support the association between prenatal Zika virus infection and microcephaly and other serious brain anomalies. The observed increase in the number of cases of microcephaly after outbreaks of Zika virus infection in Brazil and French Polynesia, as well as preliminary reports of cases in Colombia, support consistency. ^{1,2,42} Case reports of Zika virus infection in fetuses or infants with microcephaly or other brain anomalies who were born to mothers who traveled to areas of active Zika virus transmission support consistency. ^{16,18,19}	Yes			
Specificity	Other causes of microcephaly exist; however, on the basis of clinical descriptions that are available for a small number of infants with presumed congenital Zika virus infection, 20 the clinical phenotype linked to the Zika virus appears to be an unusual form of microcephaly that is consistent with the fetal brain disruption sequence.	Yes			
Temporality	Zika virus infection in mothers during pregnancy precedes the finding of mi- crocephaly or other brain anomalies in fetuses or infants. 1420 Zika virus outbreaks in Brazil and French Polynesia preceded the increase in the number of cases of microcephaly. 1.2	Yes			
Biologic gradient	Infection is a phenomenon that is either present or absent; there is no dose- response relationship. No data are available regarding whether women with an increased viral load have a higher risk of adverse pregnancy or birth outcomes.	NA			
Plausibility	Findings are similar to those seen after prenatal infection with some other viral teratogens (e.g., cytomegalovirus and rubella virus). ²⁶ Evidence that Zika virus infects neural progenitor cells and produces cell death and abnormal growth, ²⁹ along with evidence of Zika virus in brains of fetuses and infants with microcephaly, on the basis of on immunohistochemical staining and identification of Zika virus RNA and live virus, ^{16,17,19} provides strong biologic plausibility.	Yes			
Coherence	No results in an animal model of effects of Zika virus on pregnancy have yet been published, but animal models have shown that Zika virus is neurotropic, 27,28 a finding that is consistent with prenatal Zika virus infection causing microcephaly and other brain anomalies. Zika virus infects neural progenitor cells and produces cell death and abnormal growth, 39 a finding that is consistent with a causal relationship between Zika virus infection and microcephaly.	Yes			
Experiment	No experimental animal model of Zika virus teratogenicity is available.	No			
Analogy	No other flavivirus has been shown to definitively cause birth defects in humans, but flaviviruses, Wesselsbron and Japanese encephalitis viruses, have been shown to cause stillbirth and brain anomalies in animals. Findings are similar to those seen after prenatal infection with other viral teratogens (e.g., cytomegalovirus, rubella virus).	Yes			

^{*} The criteria listed here were proposed by Hill. We have updated a recent analysis by Frank et al. 41

with severe brain anomalies after maternal infection at 11 weeks of gestation. ¹⁶ Furthermore, Zika virus efficiently infects neural progenitor cells and produces cell death and abnormal growth, thus providing a possible mechanism for microcephaly.²⁹ The seventh criterion, proof in an experimental system that the agent acts in an unaltered state, is aimed at medications or chemical exposures and does not apply to infectious agents. Thus, given Shepard's criteria as a framework,

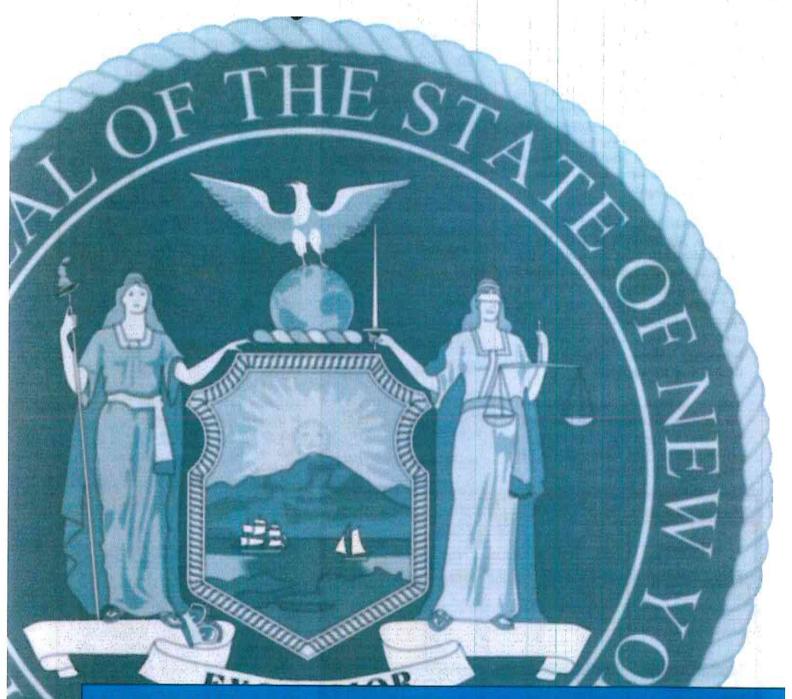
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2015 New York Prevention Needs Assessment Survey



Survey Results for:

Cattaraugus County

Sponsored b CAReS, In 201 South Union P.O. Box 567, Olean, NY 147 716-373-43

2015 Prevention Needs Assessment Survey Profile Report

This report summarizes the findings from the Prevention Needs Assessment (PNA) Survey that was conducted during 2015. The results are presented along with comparisons to national data sources such as the Monitoring the Future Survey (only grades 8, 10, and 12 are surveyed) and the Bach Harrison Norm (BH Norm), which consists of a large, weighted, nationwide sample.

The survey was designed to assess students' involvement in a specific set of problem behaviors, as well as their exposure to a set of scientifically validated risk and protective factors. The risk and protective factors have been shown to influence the likelihood of academic success, school dropout, substance abuse, violence, and delinquency among youth.

Table 1 contains the characteristics of the students who completed the survey from your community. When using the information in this report, please pay attention to the number and

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percentage of students who participated from your community. The sample size for this survey administration was 5,694 students. If 60% or more of the students sample participated, the report is a good indicator of the levels of substance use, risk, protection, and antisocial behavior. If fewer than a review participated, of who participated should be completed prior to generalizing the results to the entire community.

The Risk and Protective Factor Model of Substance Abuse Prevention

Many states and local agencies have adopted the Risk and Protective Factor Model to guide their prevention efforts. The Risk and Protective Factor Model of Prevention is based on the simple premise that to prevent a problem from happening, we need to identify the factors that increase the risk of that problem developing and then find ways to reduce the risks. Just as medical researchers have found risk factors for heart disease such as diets high in fat, lack of exercise, and smoking; a team of researchers at the University of Washington have defined a set of risk factors for youth problem behaviors.

Risk factors are characteristics of school, community, and family environments, as well as characteristics of students and their peer groups that are known to predict increased likelihood of drug use, delinquency, school dropout, teen pregnancy, and violent behavior among youth. Dr. J. David Hawkins, Dr. Richard F. Catalano, and their colleagues at the University of Washington, Social Development Research Group have investigated the relationship between risk and protective factors and youth problem behavior. For example, they

Student Totals						
			Cattaraugu	s County		
Total Students	201	1 8 10/4 7	201	3	201	5
	Number	Percent	Number	Percent	Number	Percent
4	2101	100	1760	100	4413	1
Grade	A CONTRACTOR OF THE PARTY.					MA CHE
6	197	9.4	n/a	n/a	570	12
7	r/a	n/a	165	9.4	604	13
8	268	12.8	176	10.0	618	14
9	437	20.8	396	22.5	743	16
10	409	19,5	342	19.4	641	14
11	423	20.1	355	20.2	614	10
12	387	17.5	326	18.5	623	14
Gender						
Male	977	46.7	850	48,5	2195	49
Female	1114	53.3	903	51.5	2203	50
Ethnicity*				THE RESERVE	ALC: HOLL OF	VI III
Native American	146	7.0	85	4.7	315	7
Aslan	31	1.5	18	1.0	62	50 TO 10
African American	56	2.7	46	2.5	116	
Pacific Islander	7	0.3	3	0.2	19	
Hispanic	33	1.6	89	4.9	66	
White	1688	80.6	1488	81.6	3504	79
Multi-racial or Other	132	6.3	94	5.2	307	7

Table 1. represents the total survey population. Students were given the option to skip questions, and not all students completed the survey. The percentages in remaining tables/figures of this report reflect the percent of students responding to each question, rather than the percent of the total survey population.

Risk and Protective Factors

The Risk and Protective Factor Model of Substance Abuse Prevention (Continued)

have found that children who live in families with high levels of conflict are more likely to become involved in problem behaviors such as delinquency and drug use than children who live in families with low levels of family conflict.

Protective factors exert a positive influence or buffer against the negative influence of risk, thus reducing the likelihood that adolescents will engage in problem behaviors. Protective factors identified through research reviewed by Drs. Hawkins and Catalano include social bonding to family, school, community and peers; healthy beliefs and clear standards for behavior; and individual characteristics. For bonding to serve as a protective influence, it must occur through involvement with peers and adults who communicate healthy values and set clear standards for behavior. Research on risk and protective factors has important implications for prevention efforts.

The premise of this approach is that in order to promote positive youth development and prevent problem behaviors, it is necessary to address those factors that predict the problem.

By measuring risk and protective factors in a population, prevention programs can be implemented that will reduce the elevated risk factors and increase the protective factors. For example, if academic failure is identified as an elevated risk factor in a community, then mentoring, tutoring, and increased opportunities and rewards for classroom participation can be provided to improve academic performance. The chart to the

WEST SANSANDER VERY SANSANDER		Pr	oblem	Behavi	ors	
Risk Factors for Adolescent Problem Behavior	Substance Abuse	Delinquency	Teen Pregnancy	School Drop-Out	Violence	Depression & Anxiety
Community						
Availability of Drugs	1	10.1			1	N In S
Availability of Firearms		1	4	May All	1	
Community Laws and Norms Favorable Toward Drug Use, Firearms and Crime	~	1			1	
Media Portrayals of the Behavior	1	S State		V 22	1	
Transitions and Mobility	1	1		1	1	1
Low Neighborhood Attachment and Community Disorganization	1	1	#		1	
Extreme Economic Deprivation	1	1	1	1	1	
Family						
Family History of the Problem Behavior	1	1	~	1	1	1
Family Management Problems	1	1	1	1	1	1
Family Conflict	1	1	1	1	1	1
Favorable Parental Attitudes and Involvement in the Problem Behavior	1	1			1	
School						
Academic Failure Beginning in Late Elementary School	~	1	1	1	1	1
Lack of Commitment to School	1	1	1	1	1	
Peer / Individual						
Early & Persistent Antisocial Behavior	1	1	1	1	1	1
Rebelliousness	9 V	1	7 12	1	1	
Gang Involvement	1	1			1	
Friends Who Engage in the Problem Behavior	1	1	1	1	1	
Favorable Attitudes Toward the Problem Behavior	1	1	1	1	1	e est d
Early Imitation of the Problem Behavior	1	1	1	1	1	
Constitutional Factors	1	1	A No.	1499	1	1

right shows the links between the 20 risk factors and the six problem behaviors. The check marks have been placed in the chart to indicate where at least two well designed, published research studies have shown a link between the risk factor and the problem behavior.

Building a Strategic Prevention Framework

The survey is an important data source for the Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Substance Abuse Prevention (CSAP) Strategic Prevention Framework (SPF). CSAP created the SPF model to guide states and communities in creating planned, data-driven, effective, and sustainable prevention programs. Each part represents an interdependent element of the ongoing process of prevention coordination.

Assessment: Profile Population Needs, Resources, and Readiness to Address the Problems and Gaps in Service Delivery. The SPF begins with an assessment of the needs in the community that is based on data. One of

Evaluation

the primary sources of needs assessment data is this Prevention Needs Assessment Survey (PNA). While planning prevention services, communities are urged to collect and use multiple data sources, including archival and social indicators, assessment of existing resources, key informant interviews, and community readiness. The PNA results presented in this Profile Report will help you to identify needs for prevention services. PNA data include adolescent substance use, anti-social behavior, and many of the risk and protective factors predict adolescent problem behaviors.

Capacity: Mobilize and/or Build Capacity to Address Needs. Engagement of key stakeholders at the State and community levels is critical to plan implement successful prevention activities that will be sustained over time. Some of the key tasks to mobilize the state and communities are to work with leaders and stakeholders to build coalitions, provide training, leverage resources, and help sustain prevention activities.

Planning: Develop a Comprehensive

Strategic Plan. States and communities should develop a strategic plan that articulates not only a vision for the prevention activities, but also strategies for

organizing and implementing prevention efforts. The strategic plan should be based on the assessments conducted during Step 1. The Plan should address the priority needs, build on identified resources/strengths, set measurable objectives, and identify how progress will be monitored. Plans should be adjusted with ongoing needs assessment and monitoring activities.

Implementation: Implement Evidence-based Prevention Programs and Infrastructure Development Activities. By measuring and identifying the risk factors and other causal factors that contribute to the targeted problems specified in your strategic plan, programs can be implemented that will reduce the prioritized substance abuse problems. After completing Steps 1, 2, and 3, communities will be able to choose prevention strategies that have been shown to be effective, are appropriate for the population served, can be implemented with fidelity, are

Assessment

Sustainability Cultural Competence

Implementation

Planning

Capacity

Building a Strategic Prevention Framework (cont'd)

culturally appropriate, and can be sustained over time. The Western Center for the Application of Prevention Technology has developed an internet tool located at http://casat.unr.edu/bestpractices/search.php for identifying Best Practice Programs. Another resource for evidence-based prevention practices is SAMHSA's National Registry of Evidence-based Programs and Practices www.nrepp.samhsa.gov.

Evaluation: Monitor Process, Evaluate Effectiveness, Sustain Effective Programs/Activities, and Improve or Replace Those That Fail. Finally, ongoing monitoring and evaluation are essential to determine if the desired outcomes are achieved, assess service delivery quality, identify successes, encourage needed improvement, and promote sustainability of effective policies, programs, and practices. The OPNA allows communities to monitor levels of ATOD use, antisocial behavior, risk, and protection.

Sustainability and Cultural Competence: Incorporate principles of cultural competence and sustainability in each of the five elements. At the center of the SPF model, sustainability and cultural competence play a key role in assessment, capacity appraisal, planning, implementation and evaluation, ensuring successful, long lasting prevention programs.

Sustainability is accomplished by utilizing a comprehensive approach. States and communities should plan adaptive, flexible programs around a variety of resources, funding, and organizations. An inclusive design helps build sustainable programs and achieve sustainable outcomes. A strategic plan that dynamically responds to changing issues, data, priorities, and resources is more likely to achieve long term results.

Sharing information gathered during the evaluation stage with key stakeholders, forging partnerships and encouraging creative collaboration all enhance sustainability.

Cultural Competence recognizes unique needs, styles, values and beliefs of the recipients of prevention efforts. Culturally competent prevention strategies use interventions, evaluations and communication strategies appropriate to their intended community. Cultural issues reflect a range of influences and are not just a matter of ethnic or racial identity. Learning to communicate with audiences from diverse geographic, cultural, economic, social, and linguistic backgrounds can increase program efficacy and ensure sustainable results.

Whether enlisting extended family networks as a prevention resource for single parent households, or ensuring there are resources available to bridge language gaps, cultural competency will help you recognize differences in prevention needs and tailor prevention approaches accordingly.

A one-size-fits-all program is less effective than a program that draws on community-based values, traditions, and customs and works with knowledgeable people from the community to develop focused interventions, communication, and support.

Validity Measures

Honesty: Because the survey was anonymous, and because confidentiality was stressed through the survey's administration process, most of the reasons for students to exaggerate or deny behaviors were eliminated. However, Bach Harrison has built several checks into the data analysis to minimize the impact of students who were either not truthful in their responses or who did not take the survey seriously. Surveys were eliminated from the final data reported in this report for meeting one or more the following five pre-determined dishonesty indicators:

- In response to a question about whether or not they had been honest in completing the survey, the students
 indicated that they were "Not Honest At All" in completing the survey.
- The students indicated that they had used a non-existent, fictitious drug in their lifetime or in the past 30 days.
- The students reported an impossibly high level of multiple drug use (having used substances on 120 or more occasions in the past 30 days).
- The students indicated past-month use rates that were higher than lifetime use rates.

Validity Measures (cont'd) and How to Read the Charts

 The students reported an age that was inconsistent with their grade or their school; for example, a 10 year-old 12th grader or 19 year old 6th grader.

Additionally, if a student did not answer enough of the validity questions to determine whether or not they were honest in their responses, their survey data were also removed from the final analysis presented in this report.

There are four types of charts presented in this report:

- 1. Substance use charts
- 2. Antisocial behavior (ASB) and Gambling charts
- 3. Risk factor charts
- 4. Protective factor charts.

Data from the charts are also presented in Tables 3 through 10. Additional data found in later tables are explained at the end of this section.

Understanding the Format of the Charts

There are several graphical elements common to all the charts. Understanding the format of the charts and what these elements represent is essential in interpreting the results of the PNA survey.

The Bars on substance use and antisocial behavior charts represent the percentage of students in that grade who reported a given behavior. The bars on the risk and protective factor charts represent the percentage of students whose answers reflect significant risk or protection in that category. Each set of differently colored bars represents one of the past administrations of the PNA. By looking at the percentages over time, it is possible to identify trends in substance use and antisocial behavior. By studying the percentage of youth at risk and with protection over time, it is possible to determine whether the percentage of students at risk or with protection is increasing, decreasing, or staying the same. This information is important when deciding which risk and protective factors warrant attention.

Dots and Diamonds provide points of comparison to larger samples. The dots on the charts represent the percentage of all of the youth surveyed who reported substance use, problem behavior, elevated risk, or elevated protection. Please note that the dot represents the aggregate results of all participating students rather than a random sample of students. The survey results provide considerable information for communities to use in planning prevention services.

The diamonds represent national data from either the Monitoring the Future (MTF) Survey or the Bach Harrison Norm (BH Norm). The BH Norm was developed by Bach Harrison L.L.C. to provide states and communities with the ability to compare their results on risk, protection, and antisocial measures with more national measures. Survey participants from eight statewide surveys and five large regional surveys across the nation were combined into a database of approximately 460,000 students. The results were weighted to make the contribution of each state and region proportional to its share of the national population. Bach Harrison analysts then calculated rates for antisocial behavior and for students at risk and with protection. The results appear on the charts as BH Norm. In order to keep the BH Norm relevant, it is updated approximately every two years as new data become available.

A comparison to state-wide and national results provides additional information for your community in determining the relative importance of levels of alcohol, tobacco and other drug (ATOD) use, antisocial behavior, risk, and protection. Information about other students in the state and the nation can be helpful in determining the seriousness of a given level of problem behavior. Scanning across the charts, it is important to observe the factors that differ the most from the BH Norm. This is the first step in identifying the levels of risk and protection that are higher or lower than those in other communities. The risk factors that are higher than the BH Norm and the protective factors are lower than the BH Norm are probably the factors that you addressing consider when planning prevention programs.

Cut-Points

Before the percentage of youth at risk on a given scale could be calculated, a scale value or cut-point needed to be determined that would separate the at-risk group from the not at-risk group. The Prevention Needs Assessment (PNA) survey was designed to assess adolescent substance use, anti-social behavior, and the risk and protective factors that predict these adolescent problem behaviors. Since the PNA survey has recently been given to over 460,000 youth nationwide, it was possible to select two groups of youth, one that was more at risk for problem behaviors and another group that was less at risk. A cut-point score was then determined for each risk and protective factor scale that best divided the youth from the two groups into their

How to Read the Charts and Tables

appropriate group, more at-risk or less at-risk. The criteria for separating youth into the more at-risk and the less at-risk groups included academic grades (the more at-risk group received "D" and "F" grades, the less at-risk group received "A" and "B" grades), ATOD use (the more at-risk group had more regular use, the less at-risk group had no drug use and use of alcohol or tobacco on only a few occasions), and antisocial behavior (the more at-risk group had two or more serious delinquent acts in the past year, the less at-risk group had no serious delinquent acts).

The cut-points that were determined by analyzing the results of the more at-risk and less at-risk groups will remain constant and will be used to produce the profiles for future surveys.

Since the cut-points for each scale will remain fixed, the percentage of youth above the cut-point on a scale (atrisk) will provide a method for evaluating the progress of prevention programs over time. For example, if the percentage of youth at risk for family conflict in a community prior to implementing a community-wide family/parenting program was 60% and then decreased to 50% one year after the program was implemented, the program would be viewed as helping to reduce family conflict.

Lifetime, 30 Day & Heavy ATOD Use Charts

There are three types of use measured on the ATOD charts.

Ever-used is a measure of the percentage of students who tried the particular substance at least once in their lifetime and is used to show the percentage of students who have had experience with a particular substance.

30-day use is a measure of the percentage of students who used the substance at least once in the 30 days prior to taking the survey and is a more sensitive indicator of the level of current use of the substance.

Heavy use is measured in two ways: binge drinking (five or more drinks in a row over the last two weeks), and use of one-half a pack or more of cigarettes per day.

Antisocial Behavior, Driving and Alcohol, and Gambling Charts

Antisocial behavior (ASB) is a measure of the percentage of students who report any involvement during the past year with the two antisocial behaviors listed in the charts.

Driving and Alcohol is a measure of the percentage of students who report drinking and driving, or being a passenger in a car where the driver had been drinking in the past 30 days.

Gambling Behavior is a measure of the percentage of students who report any involvement during the past year with the ten types of gambling listed in the charts. Gambled in the Past Year is a measure of any participation in any of the gambling types whatsoever.

Risk and Protective Factor Charts

Risk and protective factor scales measure specific aspects of a youth's life experience that predict whether he/she will engage in problem behaviors. The scales, defined in Table 2, are grouped into four domains: community, family, school, and peer/individual. The risk and protective factor charts show the percentage of students at risk and with protection for each of the scales. Along with the scales, there are bars that show the percentage of High Risk Youth and percentage of High Protection Youth. High Risk Youth is defined as the percentage of students who have more than a specified number of risk factors operating in their lives. The number of factors is listed on the charts and tables. High Protection Youth is defined as the percentage of students who have more than a specified number of protective factors operating in their lives and is also listed on the tables and graphs.

Additional Tables

Additional Tables in this Report

Table 11 presents the percentages of how and where students obtained and used alcohol during the past year. The data focus on a subgroup of students who indicated at least one means of obtaining or using alcohol. (Students reporting no alcohol use are not represented.) It is important to note that the table represent a subgroup of users and not the entire survey population. Additionally, the smaller the sample, the more dramatic the influence of a student's responses. For example, if only one student in a particular grade reported where he/she obtained alcohol, each category would show up as either 0% or 100%. The table indicates the sample size for each grade surveyed to help clarify the value of the data.

After the Student Alcohol Tables are tables containing information required by communities with CSAP Grants, such as the parent attitudes regarding drinking, police response to drinking, and problems associated with drinking.

After the CSAP questions are tables containing information required by communities with Drug Free Communities Grants, such as the perception of the risks of ATOD use, perception of parent and peer disapproval of ATOD use, past 30-day use, and average age of first use.

After the DFC Tables are the Youth Perception Tables. Youth often overestimate the percentage of their peers who are using substances. Youth perceptions of the percentage of their peers who use cigarettes, alcohol, marijuana, and other illegal drugs are shown in these tables.

Finally, there are any extra questions your agency might have asked.

No Child Left Behind

The Safe and Drug Free Schools and Communities section of the No Child Left Behind Act (NCLB) requires that schools and communities use guidelines in choosing and implementing federally funded prevention and intervention programs. The results of the PNA Survey presented in this report can help your schools and community comply with the NCLB Act in three ways:

- Programs must be chosen based on objective data about problem behaviors in the communities served. The PNA reports these data in the substance use and antisocial behavior charts and tables presented on the following pages.
- 2. NCLB-approved prevention programs can address not only substance use and antisocial behavior (ASB) outcomes, but also behaviors and attitudes demonstrated to be predictive of the youth problem behaviors. Risk and protective factor data from this report provide valuable information for choosing prevention programs.
- Periodic evaluations of outcome measures must be conducted to evaluate the efficacy of ongoing programs. This report provides schools and communities the ability to compare past and present substance use and ASB data.

Tools for Assessment and Planning

What are the numbers telling you?

Review the charts and data tables presented in this report. Note your findings as you discuss the following questions.

Which 3-5 risk factors appear to be higher than you would want when compared to the Bach Harrison Norm?

Which 3-5 protective factors appear to be lower than you would want when compared to the Bach Harrison Norm?

Which levels of 30-day drug use are increasing and/or unacceptably high? Which substances are your students using the most? At which grades do you see unacceptable usage levels?

Which antisocial behaviors are increasing and/or unacceptably high? Which behaviors are your students exhibiting the most? At which grades do you see unacceptable behavior levels?

How to identify high priority problem areas

Once you have familiarized yourself with the data, you can begin to identify priorities.

Look across the charts for items that stand out as either much higher or much lower than the others.

Compare your data with statewide, and/or national data. Differences of 5% between local and other data are probably significant.

Prioritize problems for your area according to the issues you've identified. Which can be realistically addressed with the funding available to your community? Which problems fit best with the prevention resources at hand?

Determine the standards and values held within your community. For example: Is it acceptable in your community for a percentage of high school students to drink alcohol regularly as long as that percentage is lower than the overall state rate?

Use these data for planning.

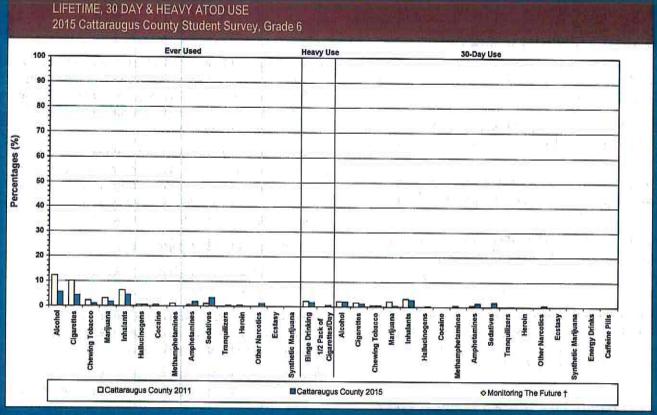
Once priorities are established, use data to guide your prevention efforts.

Substance use and antisocial behavior data are excellent tools to raise awareness about the problems and promote dialogue.

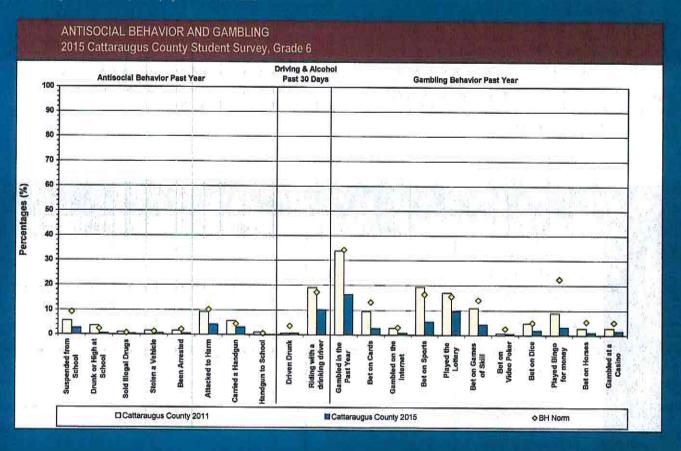
Risk and protective factor data can be used to identify exactly where the community needs to take action.

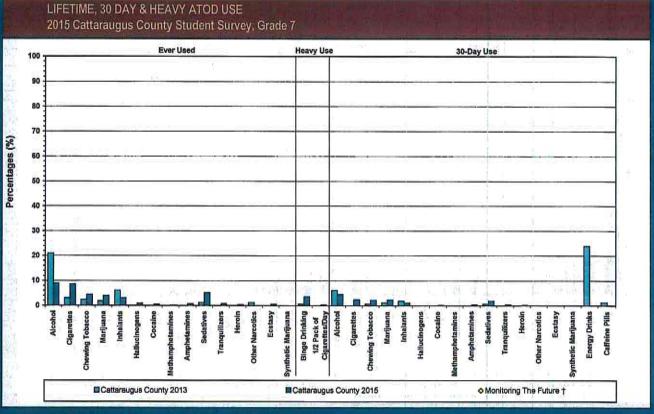
Promising approaches for any prevention goal are available through resources listed on the last page of this report. These contacts are a great resource for information about programs that have been proven effective in addressing the risk factors that are high in your community, and improving the protective factors that are low.

	Sample	Priority Rate 1	Priority Rate 2	Priority Rate 3
Risk Factors	6th grd Fav. Attitude to Drugs (Peer/Indiv. Scale) © 152 (8% > 8-state av.)	3 4		
Protective Factors	10th grd - Rewards for prosocial irvolum. (School Domain) 402 (down 52 from 2 grs ago 8 162 below state av.)			1 25 7 24
30-day Substance Abuse	8th grd Binge Drinking 1817 (52 above state av.)	i ko		
Antisocial Behavior	12th grd - Drunk/High at School @ 212 (about same as state, but remains a priority;)			

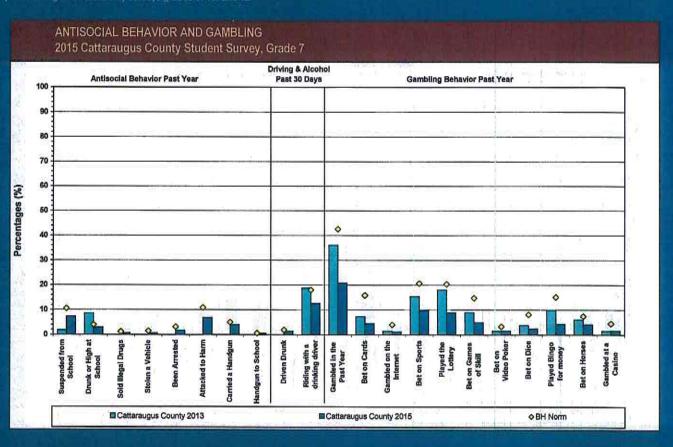


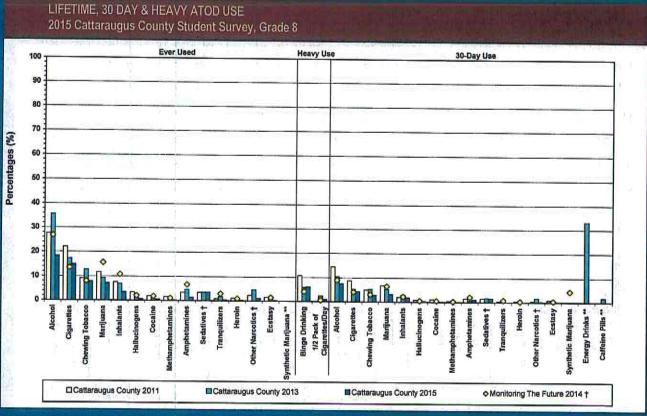


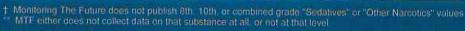


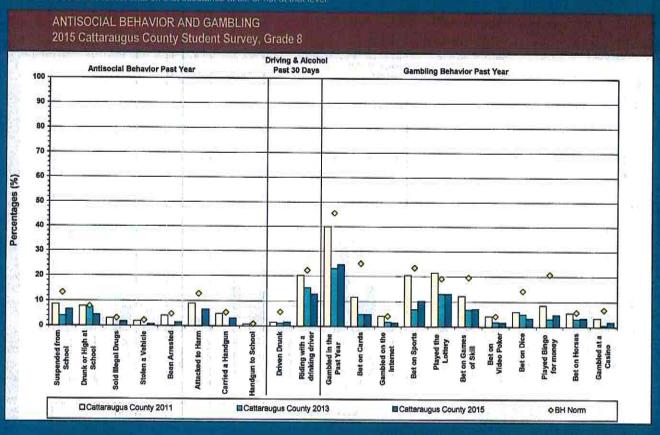


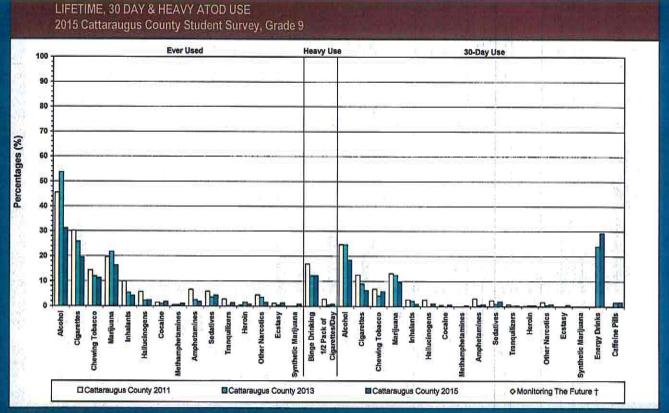
† Monitoring The Future only surveys grades 8, 10, and 12



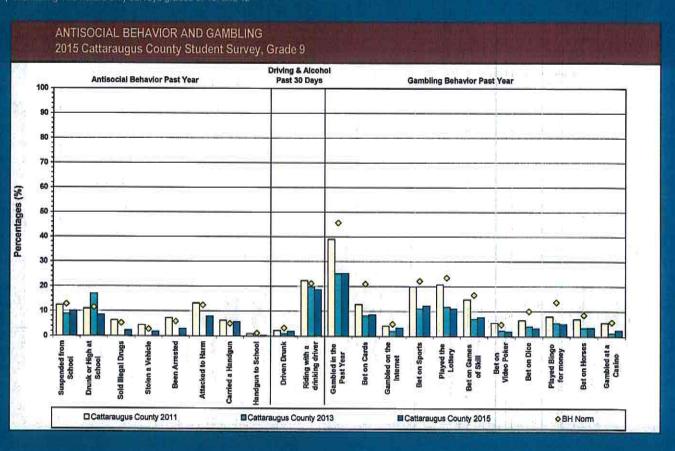


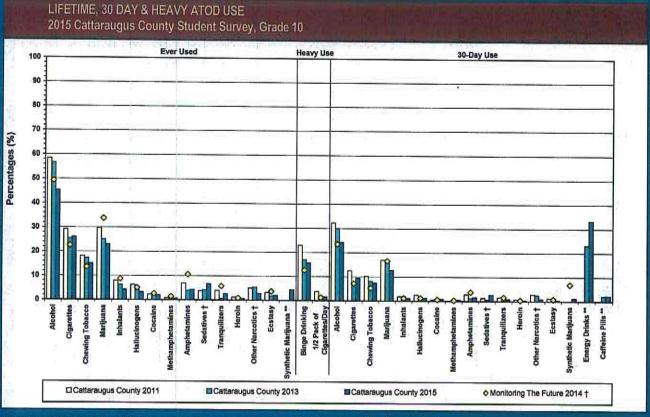




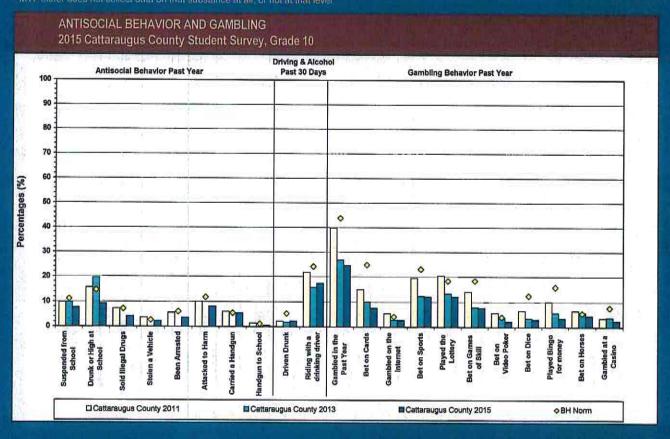


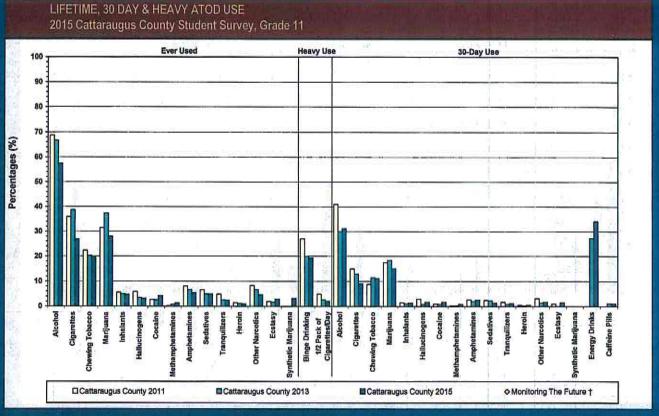




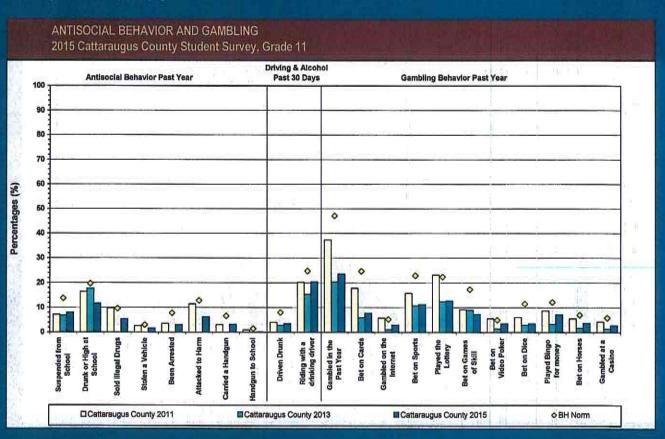


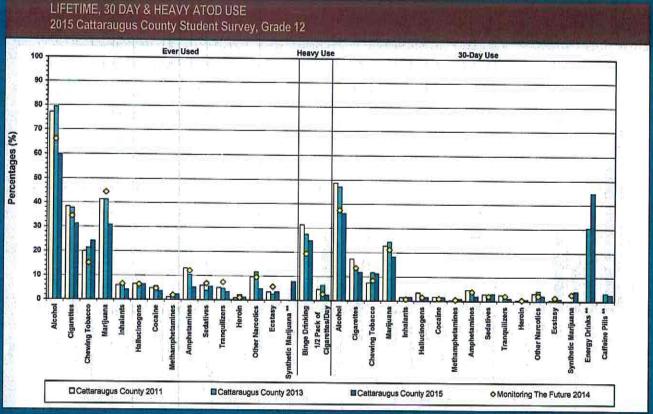
† Monitoring The Future does not publish 8th, 10th, or combined grade "Sedatives" or "Other Narcotics" values MTF either does not collect data on that substance at all, or not at that level



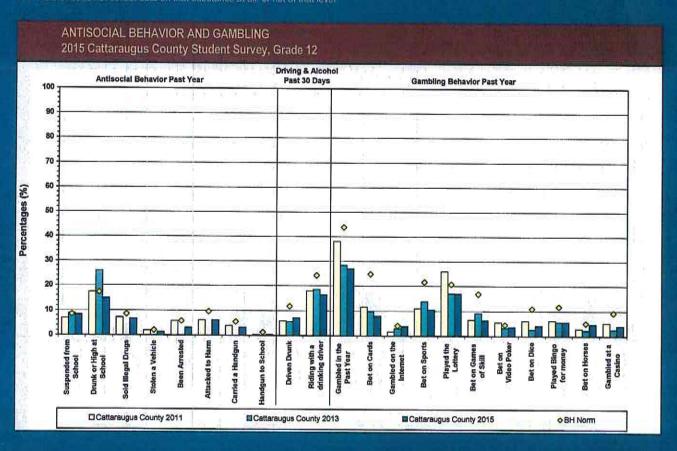




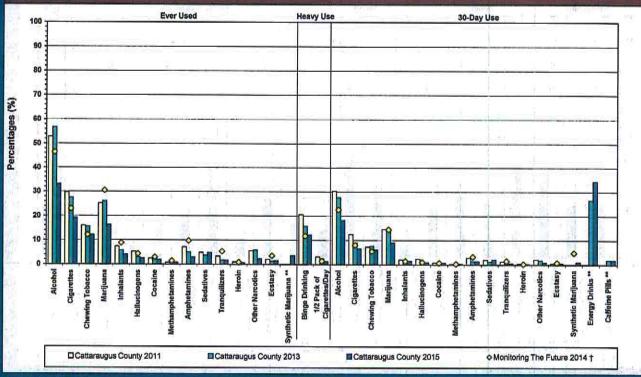






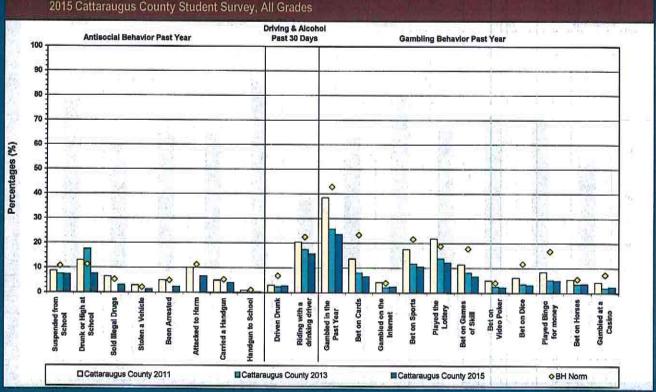


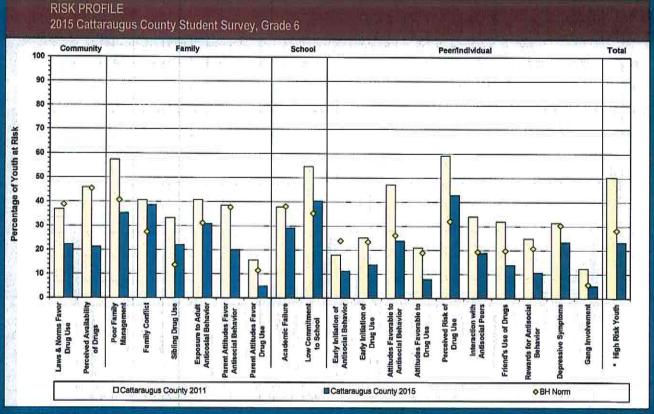




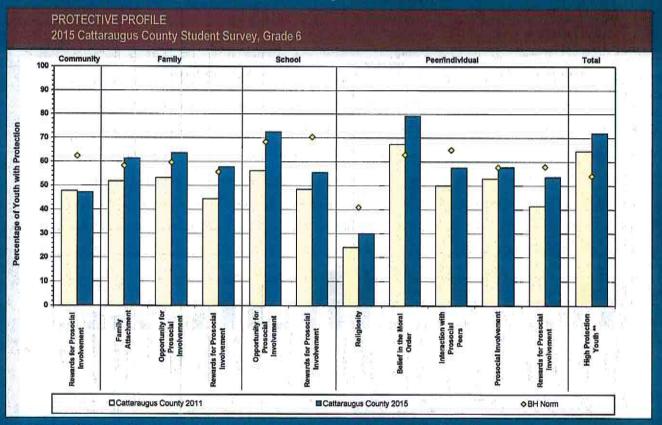
† Monitoring The Future does not publish 8th, 10th, or combined grade "Sedatives" or "Other Narcotics" values "MTF either does not collect data on that substance at all, or not at that level

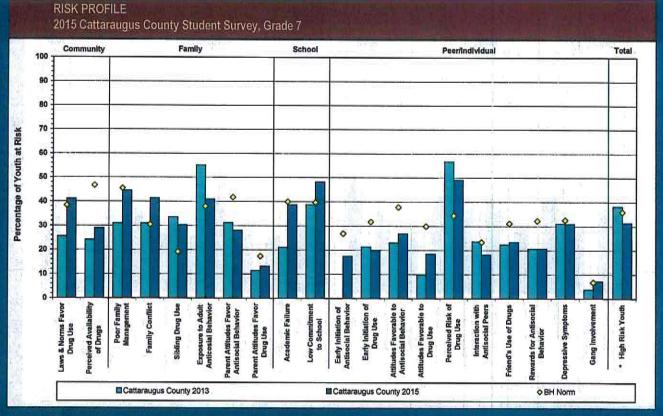
ANTISOCIAL BEHAVIOR AND GAMBLING 2015 Cattaraugus County Student Survey, All Grades



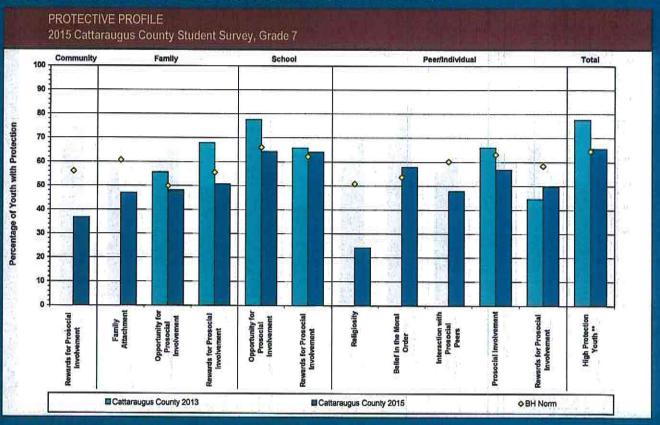


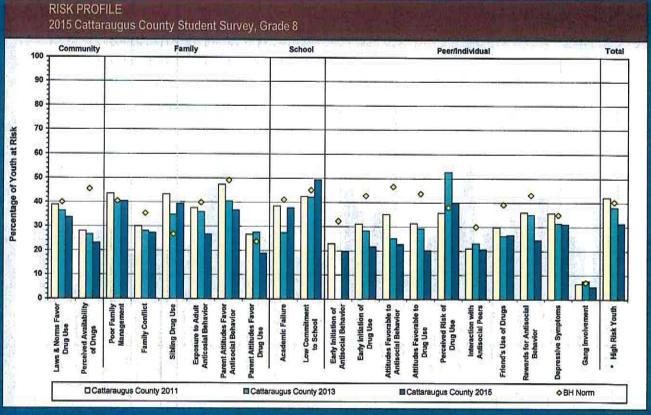
High Risk Youth are defined as the percentage of students who have more than a specified number of risk factors operating in their lives (6th grade 5 or more risk factors, 7th 9th grades 5 or more factors, 10th 12th grades 7 or more factors)



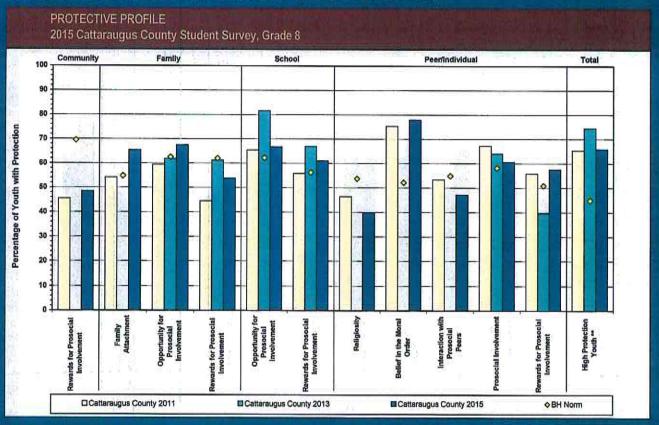


High Risk Youth are defined as the percentage of students who have more than a specified number of risk factors operating in their lives (6th grade, 5 or more risk factors, 7th-9th grades, 6 or more factors, 10th-12th grades, 7 or more factors)

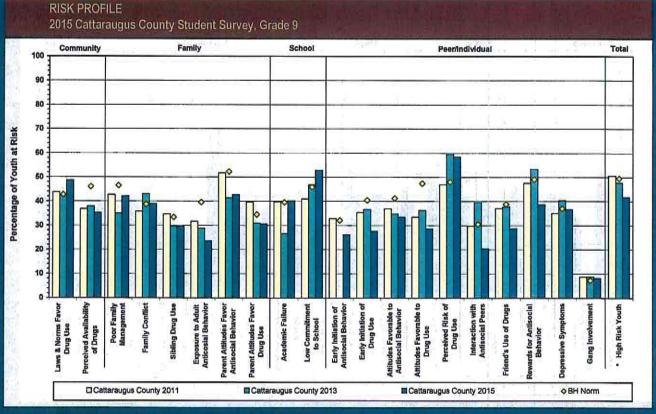




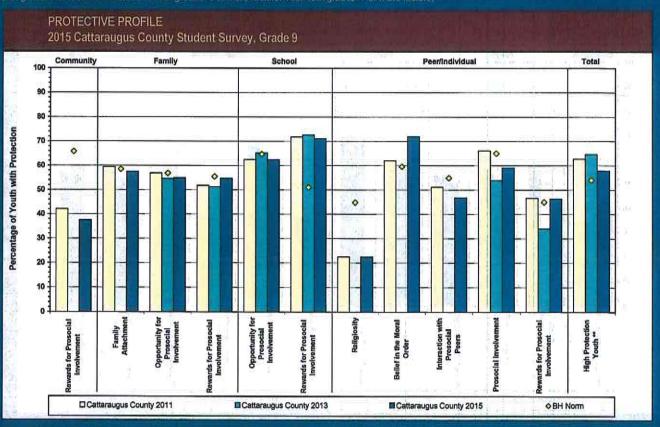
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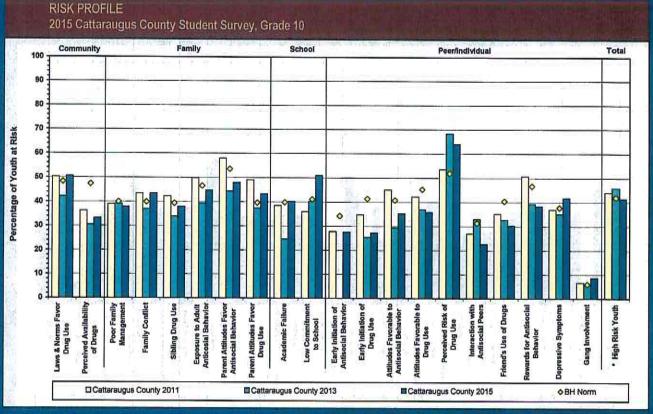


High Protection Youth are defined as youth with 6th and 7th grades 3 or more protective factors, 8th 12th grades 4 or more factors

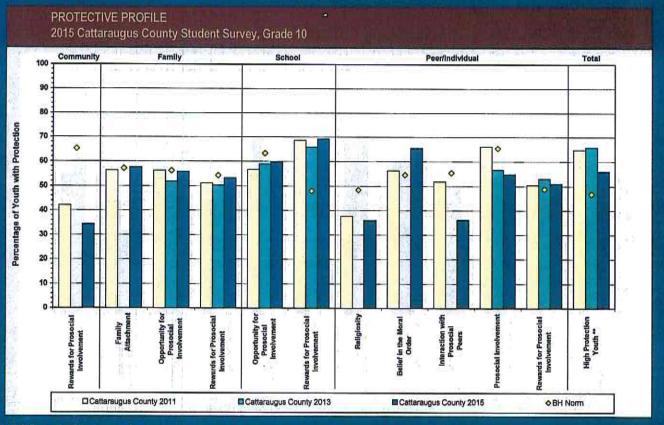


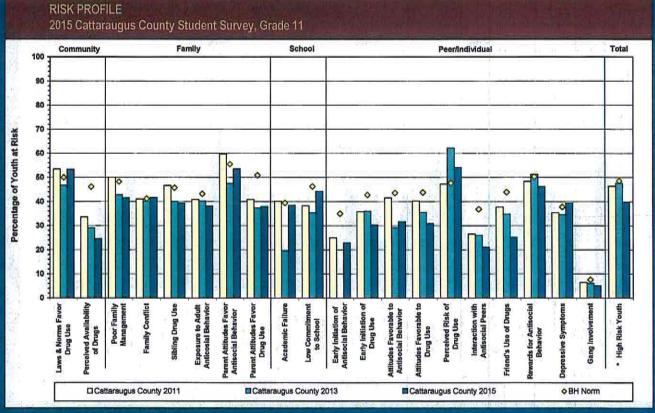
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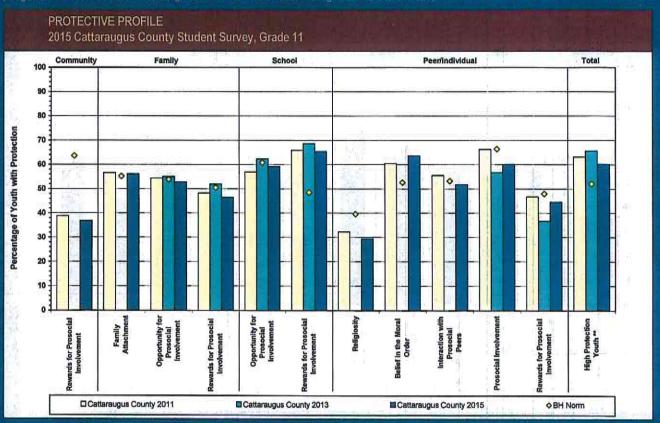


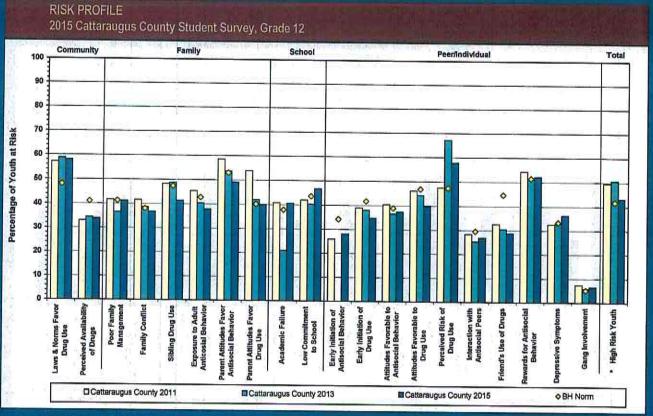
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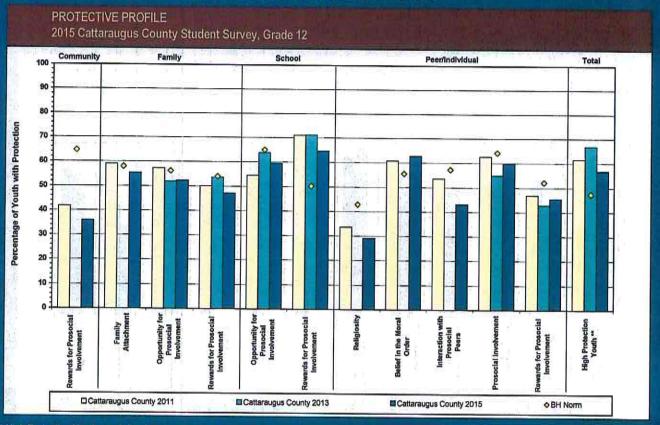


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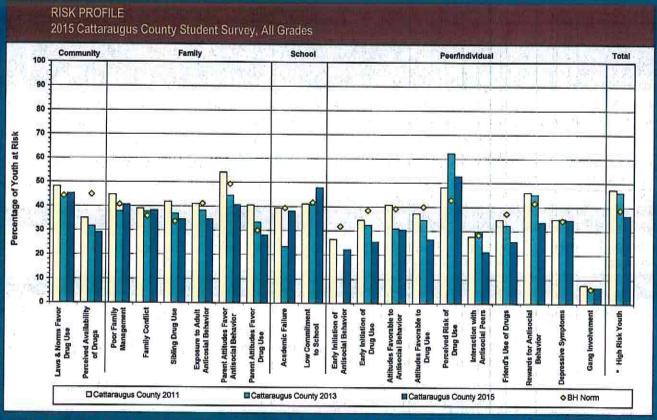




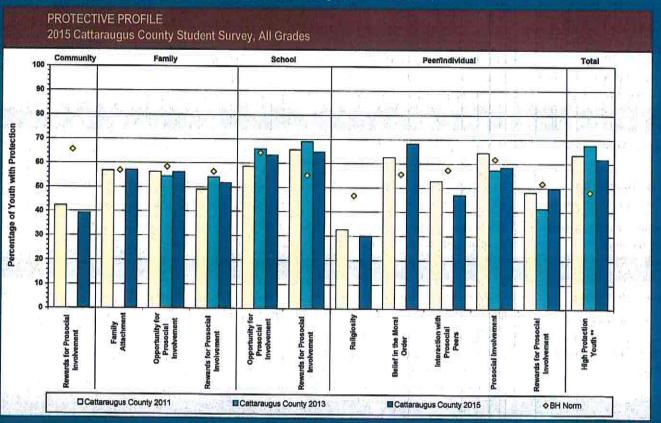
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riigh Protection Youth are defined as youth with 6th and 7th grades 3 or more protective factors 8th 12th grades 4 or more factors

Risk and Protective Scale Definitions

Community Domain Risk	Factors
Laws and Norms Favorable Toward Drug Use	Research has shown that legal restrictions on alcohol and tobacco use, such as raising the legal drinking age, restricting smoking in public places, and increased taxation have been followed by decreases in consumption. Moreover, national surveys of high school seniors have shown that shift in normative attitudes toward drug use have preceded changes in prevalence of use.
Perceived Availability of Drugs	The availability of cigarettes, alcohol, marijuana, and other illegal drugs has been related to the use o these substances by adolescents.
Community Domain Prote	retive Factors
Rewards for Prosocial Involvement	Rewards for positive participation in activities helps youth bond to the community, thus lowering their risk for substance use.
Family Domain Risk Facto	ors
Poor Family Management	Parents' use of inconsistent and/or unusually harsh or severe punishment with their children place them at higher risk for substance use and other problem behaviors. Also, parents' failure to provid dear expectations and to monitor their children's behavior makes it more likely that they will engag in drug abuse whether or not there are family drug problems.
Family Conflict	Children raised in families high in conflict, whether or not the child is directly involved in the conflict, appear at risk for both delinquency and drug use.
Sibling Drug Use and Exposure to Adult Antisocial Behavior	When children are raised in a family with a history of problem behaviors (e.g., violence or ATOD use), the children are more likely to engage in these behaviors.
Parental Attitudes Favorable Toward Antisocial Behavior and Parental Attitudes	In families where parents use illegal drugs, are heavy users of alcohol, or are tolerant of children's use, children are more likely to become drug abusers during adolescence. The risk is further increased if parents involve children in their own drug (or alcohol) using behavior, for example, asking the child to light the parent's cigarette or get the parent a beer from the refrigerator.
Samily Domain Protective	Factors
Family Attachment	Young people who feel that they are a valued part of their family are less likely to engage in substance use and other problem behaviors.
Opportunities for Prosocial Involvement	Young people who are exposed to more opportunities to participate meaningfully in the responsibilities and activities of the family are less likely to engage in drug use and other problem
Rewards for Prosocial Involvement	When parents, siblings, and other family members praise, encourage, and attend to things done we by their child, children are less likely to engage in substance use and problem behaviors.
School Domain Risk Facto	ois
Academic Failure	Beginning in the late elementary grades (grades 4-6) academic failure increases the risk of both drug abuse and delinquency. It appears that the experience of failure itself, for whatever reasons, increase the risk of problem behaviors.
Low Commitment to School	Surveys of high school seniors have shown that the use of drugs is significantly lower among students who expect to attend college than among those who do not. Factors such as liking school spending time on homework, and perceiving the coursework as relevant are also negatively related to

Risk and Protective Scale Definitions

Table 2. Scales that Mea	asure the Risk and Protective Factors Shown in the Profiles
School Domain Protective F.	actors
Opportunities for Prosocial Involvement	When young people are given more opportunities to participate meaningfully in important activities at school, they are less likely to engage in drug use and other problem behaviors.
Rewards for Prosocial Involvement	When young people are recognized and rewarded for their contributions at school, they are less likely to be involved in substance use and other problem behaviors.
Peer-Individual Risk Factors	
Early Initiation of Antisocial Behavior and Early Initiation of Drug Use	Early onset of drug use predicts misuse of drugs. The earlier the onset of any drug use, the greater the involvement in other drug use and the greater frequency of use. Onset of drug use prior to the age of 15 is a consistent predictor of drug abuse, and a later age of onset of drug use has been shown to predict lower drug involvement and a greater probability of discontinuation of use.
Attitudes Favorable Toward Antisocial Behavior and Attitudes Favorable Toward Drug Use	During the elementary school years, most children express anti-drug, anti-crime, and pro-social attitudes and have difficulty imagining why people use drugs or engage in antisocial behaviors. However, in middle school, as more youth are exposed to others who use drugs and engage in antisocial behavior, their attitudes often shift toward greater acceptance of these behaviors. Youth who express positive attitudes toward drug use and antisocial behavior are more likely to engage in a variety of problem behaviors, including drug use.
Perceived Risk of Drug Use	Young people who do not perceive drug use to be risky are far more likely to engage in drug use.
Interaction with Antisocial Peers	Young people who associate with peers who engage in problem behaviors are at higher risk for engaging in antisocial behavior themselves.
Friends' Use of Drugs	Young people who associate with peers who engage in alcohol or substance abuse are much more likely to engage in the same behavior. Peer drug use has consistently been found to be among the strongest predictors of substance use among youth. Even when young people come from well-managed families and do not experience other risk factors, spending time with friends who use drugs greatly increases the risk of that problem developing.
Rewards for Antisocial Behavior	Young people who receive rewards for their antisocial behavior are at higher risk for engaging further in antisocial behavior and substance use.
Depressive Symptoms	Young people who are depressed are overrepresented in the criminal justice system and are more likely to use drugs. Survey research and other studies have shown a link between depression and youth problem behaviors.
Gang Involvement	Youth who belong to gangs are more at risk for antisocial behavior and drug use.
Peer-Individual Protective F.	actors
Religiosity	Young people who regularly attend religious services are less likely to engage in problem behaviors.
Belief in the Moral Order	Young people who have a belief in what is "right" or "wrong" are less likely to use drugs.
Interaction with Prosocial Peers	Young people who associate with peers who engage in prosocial behavior are more protected from engaging in antisocial behavior and substance use.
Prosocial Involvement	Participation in positive school and community activities helps provide protection for youth.
Rewards for Prosocial Involvement	Young people who are rewarded for working hard in school and the community are less likely to engage in problem behavior.

Grade	e 6	Grade	7		Grad	e 8			Grade 9	
2011	2015	2013	2015	2011	2013	2015	MTF 2014	2011	2013	2015
197	570	165	604	268	176	618	†	437	396	743
		ATODs Du		Lifetime						
Grade	96	Grade	97		Grad	e 8			Grade 9	32
2011	2015	2013	2015	2011	2013	2015	MTF 2014	2011	2013	2015
12.2	5.6	21.0	9.0	27.7	35.6	18.4	26.8	45.5	53.7	31.1
10.1	4.4	3.0	8.6	22.1	17.2	14.9	13.5	30.1	25.8	19.5
2.2	1.0	2.4	4,4	9.2	12.8	7.9	8.0	14.3	11.9	11.3
3.2	1.8	1.8	4.0	11.7	9.4	7.2	15.6	19.7	21.8	16.3
6.4	4.6	6.1	3.1	7.6	6.9	3.5	10.8	10.0	5.4	4.2
0.5	0.6	0.0	0.9	3.4	1.1	0.5	2.0	5.7	2.3	2.4
0.5	0.0	0.0	0.5	1.9	0.6	0.5	1.8	1.4	1.0	1.8
1.1	0.0	0.0	0.2	1,5	0.0	0.2	1.0	0.5	0.5	1.1
0.5	1.8	0.0	0.7	3,4	4.6	1.4	6.7	6.6	2.6	1.8
1.1	3.4	1.2	5.2	3.4	3.4	3.5	n/a	5.9	3.6	4.4
0.0	0.4	0.0	0.7	0.8	1.7	0.4	2.9	2.8	0.3	1.4
0.5	0.0	0.0	0.4	1.1	0.6	0.2	0.9	0.5	1.5	0.9
0.0	1.2	1.2	0.0	2.3	4.6	1.1	n/a	4.5	3.6	1.5
0.0	0.0	0.0	0.6	1.5	1.2	0.2	1.4	1.2	0.5	1.4
n/a	0.0	n/a	0.0	n/a	n/a	0.0	n/a	n/a	n/a	0.9

re (MTF) website (www.monitoringthefuture org) 10 and 12, and does not publish 8th. 10th, or combined grade "Sedatives" or "Other Narcotics" values, data on that substance at all, or not at that level

1 35	Grad	e 10			Grade 11			Grad	e 12		7	To	tal	1
2011	2013	2015	MTF 2014	2011	2013	2015	2011	2013	2015	MTF 2014	2011	2013	2015	MTF 2014
409	342	641	- †	423	355	614	367	326	623	†	2101	1760	4413	-10.4
entag	e of Stu	dents V	/ho Used	dOTA E	s During	Their L	ifetime							
	Grad	e 10			Grade 11	13		Grad	e 12		- 1 - 6 - 1	To	tal	
2011	2013	2015	MTF 2014	2011	2013	2015	2011	2013	2015	MTF 2014	2011	2013	2015	MTF 2014
58.5	56.7	45.3	49.3	68.8	66.7	57.4	77.2	79.4	59.9	66.0	52.9	56.8	33.2	46.4
29.3	25.5	26.2	22.6	35.9	38.7	26.9	38.4	37.8	31.3	34.4	29.7	27.5	19.2	22.9
18.2	17.4	15.1	13.6	22.4	20.2	19.5	20.0	21.4	24.2	15.1	16.0	15.6	12.2	12.1
29.7	25.1	23.1	33.7	31.5	37.3	28.0	41.4	41.3	30.8	44.4	25.2	26.1	16.3	30.5
8.0	6.3	4.3	8.7	5.6	4.9	4.8	5.9	5.7	4.2	6.5	7.4	5.7	4.1	8.8
6.3	4.2	3.3	5.0	5.9	3.5	3.2	6.5	4.7	6.4	6.3	5.2	3.0	2.5	4.3
2.3	2.7	2.1	2.6	2.7	2.6	4.3	4.8	5.7	3.6	4.6	2.4	2.4	1.9	2.9
0.8	0.6	0.7	1.4	0.2	0.9	1.4	1.1	1.6	2.3	1.9	0.8	0.7	0.9	1.4
7.0	3.9	4.3	10.6	8.1	6.7	5.5	13.1	10.4	5.2	12.1	7.1	5.1	3.0	9.7
3.8	4.2	6.7	n/a	6.6	5.0	4.9	6.0	3.8	5.6	6.8	4.9	3.8	4.8	n/a
4.0	0.6	2.6	5.8	4.9	2.6	2.6	5.1	4.7	3.5	7.4	3.3	1.7	1.7	5.3
1.3	0.6	0.7	0.9	1.5	1.2	1.0	0.9	2.2	1.2	1.0	1.0	1.2	0.6	0.9
5.0	5.4	2.8	n/a	8.3	6.7	4.6	9.7	11.7	4.7	9.5	5.6	5.9	2.3	n/a
3.2	1.8	2.1	3.7	2.0	1.7	2.9	3.4	2.5	3.5	5.6	2.1	1.4	1.6	3.5
n/a	n/a	4.3	n/a	n/a	n/a	3.2	n/a	n/a	7.8	n/a	n/a	n/a	3.7	n/a

MTF) website ("www.monitoringthefuture cirg") nd 12 and does not publish 8th. 10th. or combined grade "Sedatives" or "Other Narcotics" values on that substance at all. or not at that level

Grade	6	Grad	e7		Grad	e 8		AND DESCRIPTION	Grade 9	8.4 IEE VA
2011	2015	2013	2015	2011	2013	2015	MTF 2014	2011	2013	2015
2.1	2.0	6.1	4.5	14.5	10.4	7.6	9.0	24.6	24.6	18.
1.7	1.2	0.0	2.4	8.8	5.2	4.2	4.0	12.5	8.9	6
0.6	0.6	0.6	2.2	5.0	5.2	2.8	3.0	6.9	4.2	5
2.1	0.4	1.2	2.4	6.8	5.2	3.2	6.5	13.1	12.4	9
3.2	2.8	1.8	1,1	1.9	2.9	1.8	2.2	2.6	2.1	0
0.0	0.4	0.0	0.0	0.8	0.6	0.4	0.5	2.6	0.0	1
0.0	0.0	0.0	0.2	1.1	0.0	0.2	0.5	0.5	0.0	C
0.5	0.0	0.0	0.0	0.4	0.0	0.0	0.2	0.0	0.0	C
0.5	1.4	0.0	0.4	1.5	0.6	1.1	2.1	3.1	0.5	C
0.0	1.8	0.6	1.9	1.5	1.7	1.6	n/a	2.4	1.0	2
0.0	0.2	0.0	0.4	0.4	1.1	0.0	0.8	0.7	0.3	
0.0	0.0	0.0	0.2	0.4	0.6	0.0	0.3	0.2	0.5	C
0.0	0.6	0.0	0.0	0.4	1.7	0.2	n/a	1.7	0.5	C
0.0	0.0	0.0	0.0	0.8	0.6	0.2	0.4	0.0	0.0	0
n/a	0.0	n/a	0.0	n/a	n/a	0.0	4.4	n/a	n/a	C
n/a	0.0	23.9	0.0	n/a	33.1	0.0	n/a	n/a	23.9	29
n/a	0.0	1.2	0.0	n/a	1.7	0.0	n/a	n/a	1.6	- 1
udents V	ith Proble	em ATOD l	Jse							
2011	2015	2013	2015	2011	2013	2015	MTF 2014	2011	2013	2015
2.2	1.8	0.6	3.6	10.8	5.8	6.1	4.1	16.9	12.2	12
0.0	0.6	0.0	0.4	0.0	2.3	0.9	0.5	2.8	0.5	C
2011	2015	2013	2015	2011	2013	2015	BH Norm	2011	2013	2015
0.5	0.8	0,0	1.4	1.5	1.2	1.7	5.6	2.3	1.0	2
19.0	10.3	18.8	12.6	20.2	15.4	12.9	22.3	22.3	19.9	18

e (MTF) website ("www.monitoringthefulture org.) D and 12, and does not publish 8th, 10th, or combined grade "Sedatives" or "Other Narcotics" values late on that substance at all, or not at that level

	Grade	e 10			Grade 11			Grade	12		Americal	Tot	al	a transfer and
2011	2013	2015	MTF 2014	2011	2013	2015	2011	2013	2015	MTF 2014	2011	2013	2015	MTF 2014
32.3	30.0	24.4	23.5	41.0	30.0	31.2	48.7	47.1	36.1	37.4	30.3	27.7	18.3	22.6
12.5	6.9	9.5	7.2	15.0	13.0	9.1	17.3	13.5	11.8	13.6	12.4	9.0	6.5	8.0
10.3	8.1	7.4	5.3	8.8	11.5	11.1	7.5	11.7	11.3	8.4	7.2	7.6	6.1	5.4
17.0	16.9	12.8	16.6	17.4	18.4	15.1	22.8	24.4	18.3	21.2	14.6	14.9	9.1	14.4
1.8	1.8	1.0	1.1	1.5	1.2	1.4	1.4	0.6	1.6	0.7	2.0	1.6	1.5	1.4
2.5	0.9	1.2	1.2	2.9	0.9	1.7	3.4	1.0	1.6	1.5	2.3	0.6	0.9	1.0
0.5	0.6	0.9	0.6	1.0	0.9	1.7	1.7	0.6	1.6	1.0	8.0	0.4	0.7	0.7
0.0	0.3	0,5	0.3	0.2	0.3	0.9	0.3	0.0	0.9	0.5	0.2	0.1	0.4	0.3
2.8	1.2	1.6	3.7	2.7	2.0	2.6	4.6	3.2	1.9	3.8	2.8	1.4	1.4	3.2
1.3	0.6	2.6	n/a	2.5	2.3	1.4	2.9	1.0	3.0	2.0	1.9	1.2	2.0	n/a
1.5	0.3	0.9	1.6	1.7	0.9	1.2	2.6	1.3	1.0	2.1	1.3	0.6	0.6	1.5
0.8	0.6	0.3	0.4	0.5	0.3	0.5	0.3	0.6	0.7	0.4	0.4	0.5	0.3	0.3
2.8	2.4	0.9	n/a	3.2	1.5	1.7	3.1	4.1	2.1	2.2	2.1	1.8	0.9	n/a
1.2	1.2	0.3	0.8	1.0	0.0	1.6	0.3	1.3	0.9	1.4	0.6	0.5	0.5	0.8
n/a	n/a	1.1	6.8	n/a	n/a	0.0	n/a	n/a	3.9	2.7	n/a	n/a	1.1	4.8
n/a	23.2	33.3	n/a	n/a	27.2	34.0	n/a	30.5	44.7	n/a	n/a	26.6	34.3	n/a
n/a	2.1	2.2	n/a	n/a	1.2	1.1	n/a	3.2	2.6	n/a	n/a	1.9	1.9	n/a
entag	je of Stu	dents W	lith Prob	olem AT	OD Use									46.15
2011	2013	2015	MTF 2014	2011	2013	2015	2011	2013	2015	MTF 2014	2011	2013	2015	MTF 2014
23.1	17.0	15.7	12.6	27.0	20.0	19.4	31.4	27.4	24.8	19,4	20.6	15.8	12.2	11.7
3.8	1.8	1,5	1.2	4.9	2.7	2.1	4.6	6.3	2.3	2.6	3.1	2.4	1.2	1.4
2011	2013	2015	BH Norm	2011	2013	2015	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm
2.3	1.8	2.3	5,3	4.1	2.9	3.6	5.9	5.6	7.2	11.8	3.0	2.4	2.7	6.8
21.8	15.8	17.3	24.0	20.2	15.4	20.5	18.0	18.5	16.4	24.1	20.4	17.4	15.7	22.5

VITF) website (www.monitoringthefuture.org) ind 12: and does not publish 8th 10th or combined grade "Sedanves" or "Other Narcotics" values con that substance at all, or not at that level

ave you ever smoked cigarettes?" And "How frequently have you smoked cigarettes during the past 30 days?"

ave you ever used smokeless tobacco (chew, snuff, plug, dipping tobacco, or chewing tobacco)? " and "How frequently have you used smokeless tobacco ring the past 30 days?"

) have you:

d alcoholic beverages (beer, wine or hard liquor) to drink in your lifetime (or during the past 30 days) -- more than just a few sips?

ed marijuana (grass, pot) or hashish (hash, hash oil) in your lifetime (or during the past 30 days)?

ffed glue, breathed the contents of an aerosol spray can, or inhaled other gases or sprays, in order to get high in your lifetime (or during the past 30 days)?

ed LSD (acid) or other hallucinogens (like PCP, mescaline, peyote, "shrooms" or psilocybin) in your lifetime (or during the past 30 days)?

ed cocaine (like cocaine powder) or "crack" (cocaine in chunk or rock form) in your lifetime (or during the past 30 days)?

id methamphetamines (meth, speed, crank, crystal meth) in your lifetime (or during the past 30 days)?

id prescription stimulants or amphetamines (such as Adderall, Ritalin, or Dexedrine) without a doctor telling you to take them, in your lifetime (or during the it 30 days)?

d prescription sedatives including barbiturates or sleeping pills (such as phenobarbital, Tuinal, Seconal, Ambien, Lunesta, or Sonata) without a doctor ng you to take them, in your lifetime (or during the past 30 days)?

d prescription tranquilizers (such as Librium, Valium, Xanax, Ativan, Soma, or Klonopin) without a doctor telling you to take them, in your lifetime (or ing the past 30 days)?

d heroin in your lifetime (or during the past 30 days)?

d narcotic prescription drugs (such as OxyContin, methadone, morphine, codeine, Demerol, Vicodin, Percocet) without a doctor telling you to take them, our lifetime (or during the past 30 days)?

d MDMA (X,E, or ecstasy) in your lifetime (or during the past 30 days)?

d "synthetic marijuana" ("K2", "Spice") to get high in your lifetime (or during the past 30 days)?

nk energy drinks with caffeine (like Red Bull, Monster, Rockstar, or 5-Hour-Energy during the past 30 days?

d caffeine pills (No-Doz, Vivarin, Dexatrim) during the past 30 days?

nk back over the last two weeks. How many times have you had five or more alcoholic drinks in a row? (A "drink" is a glass of wine, a bottle of beer, a scooler, a shot glass of liquor, or a mixed drink.)

v frequently have you smoked cigarettes during the past 30 days?

ing the past 30 days, how many times did you DRIVE a car or other vehicle when you had been drinking alcohol?

ing the past 30 days, how many times did you RIDE in a car or other vehicle driven by someone who had been drinking alcohol?

100		Grade 6	-		Grade 7			Grac	e 8		Grade 9				
14	2011	2015	BH Norm	2013	2015	BH Norm	2011	2013	2015	BH Norm	2011	2013	2015	BH Nom	
at Mari	5.7	2.6	9.2	1.8	7.4	10.6	8.6	4.0	6.6	13.4	12.4	8.9	10.1	12.8	
,,68	3.6	0.6	2.3	8.6	3.0	4.0	7.8	7.4	4.4	7.8	11.0	17.0	8.5	11.5	
2000	1.0	0.4	0.7	n/a	0.7	1.2	3.0	n/a	1.7	3.1	6.3	n/a	2.3	5.2	
1,12	1.5	0.6	1.2	n/a	0.7	1.5	1.9	n/a	0.7	2.2	4.4	n/a	1.9	2.8	
1.32	1.6	0.6	2.1	n/a	1.8	3.1	4.1	n/a	1.5	4.8	7.2	n/a	2.9	5.8	
iously	9.3	4.2	10.2	n/a	6.9	10.8	9.0	n/a	6.6	12.9	13.2	n/a	7.9	12.4	
P. W. 6	5.7	3.0	4.4	n/a	4.0	5.0	4.9	n/a	3.0	5.4	6.3	n/a	5.7	5.0	
1 1000	10	0.0	0.6	n/a	0.5	0.6	0.8	n/a	0.0	0.9	0.0	n/o	0.3	12	

Tion I		Grad	e 10		Y	Grad	e 11	7 4575	/	Grad	e 12	11-ye-11-1		To	tal	
	2011	2013	2015	BH Norm												
- Cla	9.8	9.8	7.6	11.2	7.1	6.9	8.0	13.8	6.9	9.0	8.4	8.5	8.8	7.5	7.4	10.8
	15.7	19.6	9.3	14.7	16.5	17.8	11.7	19.7	17.4	25.9	15.0	17.3	13.0	17.5	7.6	11.3
	7.4	n/a	4.2	7.2	9.8	n/a	5.4	9.6	7.2	n/a	6.7	8.6	6.5	n/a	3.1	5.2
650	3.7	n/a	2.3	2.7	2.6	n/a	1.7	3.0	1.9	n/a	1.4	2.0	2.9	n/a	1.3	2.1
i jejn	5.6	n/a	3.7	6.0	3.6	n/a	3.1	7.8	5.8	n/a	3.1	5.8	5.0	n/a	2.4	4.9
ously	10.0	n/a	8.2	11.8	11.5	n/a	6.3	12.9	6.1	n/a	6.1	9.6	10.1	n/a	6.7	11.3
GRW.	6.1	n/a	5.5	5.5	3.1	n/a	3.2	6.6	3.9	n/a	3.2	5.5	4.9	n/a	4.0	5.3
39	1.5	n/a	0.5	1.2	1.0	n/a	0.2	1.5	0.3	n/a	0.3	1.2	0.9	n/a	0.3	1.0

its Gamb	ling	in	the	Past	Year
			-		

		Grade 6		a tengahan	Grade 7	in the may		Grad	ie 8		17 1	Grad	de 9	1 1 1 1 1
, 1	2011	2015	BH Norm	2013	2015	BH Norm	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm
C KARS	33.8	16,3	34.2	36.0	20.9	42.6	40.0	23.0	24.6	45.5	38.9	25.1	25.2	45.6
8/16	9.7	2.7	13.3	7.4	4.5	15.8	11.8	4.8	4.8	25.0	12.8	8.2	8.6	21.0
1/2 / 1/2	2.8	0.8	3.0	1.5	1.2	4.0	4.2	1.8	1.5	4.1	4.1	2.1	3.5	4.9
	19.3	5.4	16.4	15.4	9.7	20.6	20.4	6.9	10.2	23.4	19.9	11.1	12.3	22.2
74,8	17.0	9.7	15.6	18.0	8.9	20.4	21.5	13.1	13.1	19.1	20.7	11.7	11.1	23.5
	11.0	4.3	14.2	9.0	4.9	14.8	12.3	6.7	7,1	19.6	14.7	7.0	7.6	16.5
1 4 20	0.7	0.5	2.6	1.5	1.6	3.3	4.2	1.9	1.7	4.2	5.4	2.4	2.0	4.8
	4.8	1.9	5.0	3.8	2.5	8.1	6.0	5,0	3.3	14.3	6.4	4.0	3.3	10.1
TOTAL S	9.0	3.3	22.4	9.8	4.3	15.1	8.5	3.1	4.8	20.8	8.0	5.4	5.0	13.7
	2.8	1.1	5.4	6.1	4.1	7.4	5.5	3.1	3.4	5.8	6.9	3.5	3.5	8.6
32 0	2.8	1.6	5.1	1.5	1.7	4.5	3.4	0.6	1.9	6.8	5.4	1.3	2.5	5.7

of Students Gambling in the Past Year

150-1		Grad	le 10		SAME OF	Grad	e 11	200		Grad	le 12		N CONTRACT	To	tal	771/31
Tuest.	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm
	39.8	26.8	24.5	43.8	37.3	20.4	23.6	47.1	38.1	28.3	26.9	43.8	38.4	25.8	23.6	42.8
- Pagin	15.0	10.1	7.6	24.7	17.8	6.0	7.8	24.6	11.7	9.8	8.0	24.7	13.7	8.0	6.5	23.4
	5.4	2.8	2.8	4.1	5.8	1.2	3.0	5.3	1.6	3.0	3.8	4.1	4.2	2.1	2.5	3.9
CIVID.	19.5	12.4	12.2	23.0	15.8	10.8	11.3	22.9	11.1	13.9	10.6	21.6	17.5	11.8	10.5	21.7
	20.4	13.4	12.2	18.3	23.2	12.4	12.8	22.4	25.9	17.0	16.9	20.8	21.8	13.8	12.3	18.8
- 4	14.2	7.9	7.6	18.4	9.2	9.0	7.3	17.4	6.5	9.2	6.3	16.9	11.5	8.1	6.6	17.7
1,500	5.7	3.8	2.2	4.0	5.5	1.5	3.5	4.9	5.6	3.3	3.6	4.5	5.0	2.5	2.3	4.1
10.00	6.5	3.5	3.0	12.5	6.1	3.0	3.6	11.5	6.2	2.6	4.2	11.1	6.1	3.5	3.2	11.7
7.5	10.1	5.7	3.5	15.9	8.7	3.3	7.1	12.2	6.2	5.6	5.6	11.8	8.4	5.2	4.9	16.8
148	6.5	5.8	4.5	5.5	5.5	1.8	3.8	7.0	2.9	2.3	4.7	5.2	5.4	3.5	3.7	5.5
	3.5	3.8	2.4	7.7	4.3	1.5	2.9	5.9	5.2	2.6	4.0	9.3	4.3	2.0	2.5	7.3

		Grade 6		100	Grade 7	100		Grad	le 8		. 1-4	Grad	le 9	
	2011	2015	BH Norm	2013	2015	BH Norm	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm
No.	47.8	47.1	62.3	n/a	36.7	56.1	45.5	n/a	48.5	69.5	42.1		97.6	0.5
dae.	Carl Const		La	LE THE	30.1	30.1	45.5	IVa	40.5	09.5	42.1	n/a	37.6	65.
	51.8	61.3	58.2	n/a	47.1	60.7	54.2	n/a	65,3	54.8	59.4	n/a	57.6	58.
373	53.2	63.7	59.6	55.6	48.1	49.9	59.4	61.8	67.4	62.5	56.9	54.6	54.9	56.9
SALLY.	44.4	57.7	55.7	67.9	50.7	55.5	44.5	61.2	53.8	61.9	51.8	51.3	54.7	55.5
	56.2	72.5	68.3	77.6	64.3	66.0	65.4	81.6	66.7	62.1	62.4	65.2	62.4	64.7
	48.4	55.4	70.3	65.8	64.1	62,2	55.9	66.9	61.0	56.2	71.8	72.6	71.1	51.0
	24.2	30.0	40.9		244	50.0		Yar.						
Te l	67.4	79.2	62.9	n/a n/a	24.1 57.9	50.8	46.4	n/a	39.8	53.7	22.5	n/a	22.5	44.8
rational dis	50.0	57.5	64.9	n/a	47.8	53.6 60.1	75.3 53.3	n/a	77.9	52.1	62.0	n/a	72.0	59.5
	52.8	57.7	57.7	66.1	56.8	63.1	67.2	n/a 84.0	47.2 60.6	54.9	51.2	n/a	46.8	54.9
	41.5	53.5	57.9	44.6	49.7	58.4	55.9	39.6	57.6	58.1 50.9	66.1 46.6	34.0	59.1 46.3	65.0
	04.5	74.0	540		No area									CENE
- 1117	64.5	71.9	54.0	77.6	65.6	64.5	65.3	74.4	65.9	44.9	62.7	64.6	57.9	Sant :

e percentage of students who have more than a specified number of protective factors operating in their lives. (6th and 7th grades, 3 or more protective factors, ause not all scales were asked in 2013, what is reported is the 2013 value, 2011 has been recalculated.

		Grad	e 10	1 2.0	- F-90-100	Grad	e 11			Grad	e 12		CZC-L-HILLA	То	tal	
j.	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm
	42.1	n/a	34.3	65.2	38.9	n/a	36.9	63.6	41.8	n/a	35.9	64.6	42.3	n/a	39.2	65.5
PLAN!														e e e		
1 (6)	56.3	n/a	57.6	57.1	56.6	n/a	56.1	55.2	59.0	n/a	55.4	57.9	56.8	n/a	57.1	56.9
	56.3	51.8	55.8	56.2	54.4	55.0	52.8	53.8	57.3	51.9	52.4	56.2	56.3	54.5	56.2	58.4
	51.1	50.3	53.3	54.3	48.3	51:9	46.5	50,5	50.1	53.7	47.2	54.0	49.1	54.2	51.9	56.4
4.3	56.7	58.9	59.6	63.3	56.9	62.3	59.2	60.8	54.6	63.8	59.5	64.9	58.6	66.0	63.3	64.3
180	68,7	65.9	69.2	48.0	65.9	68.6	65.4	48.5	71.0	71.2	64.6	50.3	65.7	69.0	64.7	55.0
	37.7	n/a	36.0	48.4	32.2	n/a	29.4	39.6	33.6	n/a	29.1	42.9	32.6	n/a	30.0	46.7
7.72	56.3	n/a	65.4	54.6	60.4	n/a	63.6	52.6	60.8	n/a	62.7	55.6	62.6	n/a	68.3	55.6
02. 7	51.9	n/a	36.1	55.4	55.5	n/a	51.8	53.2	53.6	n/a	43.2	57.3	52.8	n/a	47.0	57.3
3 2	66.2	58.7	54.8	65.4	66.3	56.7	60.1	66.4	62.6	55.0	59.7	64.2	64.5	57.4	58.4	61.7
AV.	50.5	53.0	51.1	48.8	46.8	36.7	44.5	48.0	47.0	42.9	45.5	52.2	48.1	41.4	49.6	51.7
	64.8	65.8	56.0	46.8	63.1	65.6	60.3	52.0	61.6	66.9	56.8	47.4	63.5	67.7	61.8	48.1

13 and can not be recalculated to match 2011 and 2015. What is reported is the 2013 value e percentage of students who have more than a specified number of protective factors operating in their lives. (6th and 7th grades, 3 or more protective factors, ause not all scales were asked in 2013, what is reported is the 2013 value. 2011 has been recalculated.

0.00		Grade 6	1		Grade 7	4.4		Grad	le 8			Grad	le 9	
	2011	2015	BH Norm	2013	2015	BH Norm	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm
														CONTR
	36.9	22.3	38.8	25.5	41.1	38.4	38.8	36.3	33.6	40.0	43.8	42.8	48.7	42.7
	45.9	21.3	45.3	24.1	29.0	46.7	28.0	26.6	23.1	45.4	36.8	37.9	35.2	46.1
	57.4	35.3	40.7	31.0	44.5	45.4	43.5	40,2	40.4	40.4	42.7	35.0	42.1	46.5
9-69 (0)	40.6	38.6	27.4	31.0	41.3	30.5	30.0	28.1	27.3	35.3	35.8	43.0	38.9	38.7
E.U.	33.3	22.1	13.7	33.5	30.3	19.2	43.3	34.8	39.4	26.7	34.6	29.7	29.6	33.3
	40.8	30.9	31.1	55.1	41.0	38.0	37.6	35.9	26.8	39.9	31.7	28.8	23.6	39.6
rior	38.6	20.0	37.7	31.2	28.1	41.8	47.4	40.5	36.7	49.1	51.7	41.4	42.7	52.2
177	15.8	4.9	11.4	11.5	13.3	17.4	26.7	27.5	18.9	23.7	39.7	30.9	30.6	34.5
WEISSIE										billions.			THE DEEP	
100	37.9	29.1	38.1	21.1	38.8	40.0	38.5	27.4	37.7	41.1	39.8	26.6	40.2	39.5
	54.6	40.3	35.2	38.8	48.2	39.7	42.5	42.2	49.4	45.1	40.9	46.8	52.9	45.8
											THE RESERVE OF THE PERSON NAMED IN			A STATE OF
21.57	17.9	11.2	23.8	n/a	17.5	26.9	22.9	n/a	19.7	32.2	32.8	n/a	26.2	32.1
	25.1	13.8	23.4	21.3	20.0	31.7	31.1	28.3	21.7	42.8	35.3	36.6	27.6	40.4
ior	47.2	23.8	26.1	23.0	26.9	37.8	35.1	25.1	22.7	46.6	36.9	34.8	33.5	41.2
1,000	21.0	7.9	18.9	9.8	18.5	29.9	31.3	29.3	20.2	43.7	33.5	36.3	28.7	47.4
1.24	59.3	42.8	32.0	56.7	49.1	34.3	35.7	52.6	40.0	37.9	46.9	59.5	58.5	48.0
y	34.0	18.8	19.3	23.6	18.2	23.4	21.1	23.2	20.7	30.0	29.7	39.6	20.5	30.5
	32.0	13.8	19.7	22.4	23.5	31.1	29.8	26.2	26.7	39.2	37.0	37.7	28.8	38.8
1,000	24.9	10.7	20.7	20.6	20.7	32.3	35.9	35.0	24.5	43.2	47.5	53.4	38.7	49.1
y 178	31.4	23.3	30.3	31.1	31.0	32.6	35.6	31.4	31.1	34.8	35.0	40.4	36.6	36.9
	12,3	5.1	5.6	3.7	7.2	6.7	6.4	7.6	5.1	6.9	8.7	8.8	8.2	7.3
Manager Co.				Apple of the second					فأنبا بالسانة	A STREET	1 1 1 1 1 1 1 1			DIMINICAL PROPERTY.

entage of students who have more than a specified number of risk factors operating in their lives (6th grade, 6 or more risk factors, 12th grades, 7 or more factors). Because not all scales were asked in 2013, what is reported is the 2013 value, 2011 has been recalculated.

		Grad	e 10			Grad	e 11	51 BH 5 M		Grad	e 12		777	То	tal	
11.3	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm	2011	2013	2015	BH Norm
								FINE!	KIO TALL			NAME OF TAXABLE				dimini
47.0	50.3	42.3	50.6	48.4	53.4	46.7	53.3	49.9	57.2	58.8	58.1	48.1	48.1	44.4	45.2	44.2
	36.4	30.5	33.2	47.4	33.6	29.1	24.6	46.1	33.0	34.4	33.9	41.0	35.0	31.7	29.0	44.8
	39.0	39.3	38.0	40.0	50.0	42.8	41.6	48.2	41.7	36.6	41.2	41.2	44.6	37.8	40.6	40.7
110	43.5	37.0	43.5	39.9	41.1	40.2	41.7	41.2	41.6	38.7	36.8	38.0	39.1	37.9	38.3	35.9
- 66	42.3	34.0	38.0	39.4	46.6	40.1	39.4	45.7	48.3	48.8	41.4	47.4	41.9	37.0	34.6	33.6
	49.9	39.4	44.7	46.6	40.8	40.2	38.2	43.2	45.5	40.5	38.0	42.9	41.0	38.3	34.6	41.1
r	57.9	44.4	48.0	53.5	59.6	47.5	53.5	55,4	58.5	53.6	49.1	52.9	54.1	44.4	40.7	49.2
39.07	49.1	37.5	43.4	39.6	40.9	37.4	38.0	50.8	53.8	42.1	40.0	40.3	40.6	33.4	28.0	30.0
																00.0
	38.6	24.6	40.3	39.8	40.1	19.6	38.5	39.4	40.8	21.1	40.7	37.9	39.4	23 4	38.1	39.4
10.0	36.0	40.4	51.0	41.1	38.2	35.4	44.3	46.2	42.1	40.4	46.8	43.6	41.1	40.9	47.8	41.7
						MILITER.				R. Alle				077	ENIVE IN	W. Lewis
7.31	27.8	n/a	27.5	34.2	24.9	n/a	22.9	35.0	25.9	n/a	28.1	34.2	26.4	n/a	22.2	31.7
13/1/2	34.8	25.4	27.2	41.4	35.8	36.0	30.3	42.7	39.1	38.1	34.7	41.8	34.5	32.3	25.3	38.5
	45.1	29.5	35.3	40.8	41.6	29.2	31.7	43.5	40.5	36.6	37.4	39.0	40.8	30.9	30.4	39.2
1.86	42.3	37.0	35.9	45.3	40.2	35.5	30.9	43.8	46.2	44.4	40.0	46.9	37.3	34.6	26.4	40.0
9.31	53.5	68.3	63.9	51.9	47.2	62.1	54.0	47.6	47.6	67.1	57.7	47.4	48.1	62.2	52.7	42.8
1017	27.0	33.0	22.7	31.3	26.5	26.0	21.1	36.8	28.4	25.2	26.9	29.6	27.6	29.8	21.3	28.3
	35.3	32.7	30.3	40.4	37.8	34.9	25.2	43.9	32.6	30.5	28.8	44.7	34.7	32.3	25.6	37.2
1	50.7	39.4	38.4	46.7	48.3	51.3	46.2	50.2	54.3	51.4	52.1	51.5	45.9	45.0	33.6	41.6
100	37.0	35.2	41.7	37.8	35.4	34.6	39.5	37.8	32.6	32.8	36.4	33.4	34.8	35.0	34.5	34.3
Marie Company	6.6	6.0	8.6	5,9	6.4	6.0	5.1	7.5	7.4	5.9	6.5	5.2	7.6	6.5	6.6	6.0
U SY	44.0	45.9	41.5	42.0	46.3	47.6	39.7	48.6	49.6	50.6	43.3	41.9	47.2	46.0	36.4	38.8

stage of students who have more than a specified number of risk factors operating in their lives (6th grade, 5 or more risk factors, this grades 7 or more factors). Because not all scales were asked in 2013, what is reported is the 2013 value, 2011 has been recalculated.

Table

taste)	Gra	de 6	Gra	ide 7		Grade	8	No.	Grade:	9	(Grade 1	0	(Grade 1	1 / 6	(Grade 1	2	1 8 8	Total	e.
	2011	2015	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	201
	18	31	20	45	70	42	91	166	148	185	224	159	238	258	193	303	255	220	316	991	782	1,20
	5.6	0.0	0.0	2.2	1.4	0.0	2.2	6.0	4.1	1.6	4.0	2.5	2.1	5,8	4.1	3.3	5.9	7.7	7.0	5.1	4.5	3.6
14.	44.4	16.1	20.0	37.8	58.6	40.5	42.9	67.5	60.8	58.9	75.0	58.5	58.0	76.0	77.2	68.0	81.2	77.3	74.4	73.9	66.9	62.0
xe.	11.1	6.5	0.0	11.1	25.7	14.3	16.5	30.7	23.0	28.1	53.6	36.5	33.2	60.1	52.3	39.3	59.6	59.1	49.4	50.3	42.1	35.4
er.	44.4	12.9	30.0	28.9	54.3	45.2	34.1	51.8	54.7	49.2	63.8	53.5	49.6	64.7	64.8	61.1	68.6	75.0	66.1	62.3	61.5	53.8
	16.7	6.5	5.0	24.4	37.1	21.4	28.6	36.7	40.5	29.7	45.1	27.7	37.0	48.4	42.5	37.3	46.7	36.8	39.2	43.9	35.4	34.7
ner than	38.9	16.1	35.0	26.7	38.6	54.8	34.1	41.6	42.6	36.8	38.4	32.7	34.9	41.9	44.0	43.9	40.0	48.2	36.7	40.3	43.0	37.1
sion.	38.9	41.9	70.0	40.0	37.1	42.9	31.9	32.5	39.2	34.6	30.8	42.8	44.1	38.0	40.4	47.2	38.4	46.8	40.8	35.5	43.4	41.4
nission.	27.8	9.7	20.0	24.4	40.0	35.7	29.7	41.6	36.5	38.9	37.9	38.4	38.7	37.6	35.8	36.6	32.9	39.5	31.3	37.1	37.1	34.3
	5.6	6.5	5.0	0.0	5.7	2.4	2.2	5.4	2.7	4.9	4.0	3.8	3.8	7.4	2.1	3.3	5,1	6.8	6.0	5.5	4.0	4.2
	11.1	3.2	n/a	4.4	2.9	n/a	2.2	3.0	n/a	3.2	1.3	n/a	2.5	1.9	n/a	1.0	0.8	n/a	1.6	1.9	n/a	2.1
17	38.9	25.8	n/a	17.8	20.0	n/a	20.9	25.9	n/a	16.8	14.7	n/a	12.2	14.0	n/a	8.3	11.0	n/a	7.6	16.2	n/a	11.9
	Gra	de 6	Gra	de 7		Grade 8	3	PL I	Grade 9		(Grade 1	0	(Grade 1	1 11 11	(Grade 1	2	£18	Total	
you places?	2011	2015	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015	2011	2013	2015
	25	28	23	65	76	39	96	172	138	180	221	142	238	254	179	307	238	208	312	986	729	1,226
out any	28.0	17.9	17.4	26.2	44.7	38.5	39.6	50.6	58.7	57.2	64.7	52.8	53.8	63.0	58.7	51.8	65.1	61.1	53.8	59.4	55.8	50.4
. 12	48.0	60.7	69.6	53.8	44.7	66.7	37.5	43.6	46.4	41.1	38.5	54.9	50.0	45.3	49.7	52.1	45.8	63.0	51.0	43.6	55.4	48.9
S	12.0	17.9	26.1	15.4	28.9	41.0	22.9	33.1	37.0	28.3	37.6	43.7	39.1	50.0	61.5	45.6	54.2	59.1	52.9	42.7	50.5	39.6
k road.	28.0	17.9	8.7	20.0	31.6	12.8	19.8	34.9	30.4	21.1	38.0	28.9	21.8	40.2	36.9	27.4	46.6	37.5	28.8	39.4	32.1	24.6
festival,	12.0	7.1	8.7	10.8	15.8	7.7	15.6	17.4	15.9	18.3	19.0	20.4	15.1	24.0	24.0	19.9	29.4	31.7	24.0	22.1	22.6	18.7
- 273	16.0	3.6	8.7	6.2	5.3	2.6	4.2	11.6	7.2	7.8	9.0	5.6	6.7	8.7	8.9	6.8	14.7	16.8	7.1	10.6	9.9	6.7
745	8.0	7.1	4.3	13.8	15.8	10.3	14.6	24.4	19.6	18.3	26.2	19.0	18.9	31.5	25.7	22.5	28.2	27.9	20.5	26.5	22.4	19.2
	12.0	7.1	4.3	7.7	13.2	5.1	12.5	11.0	15.9	7.2	12.2	8.5	6.3	11.0	10.6	8.8	13.9	14.4	7.7	12.2	11.8	8.0
70	8.0	3.6	4.3	4.6	9.2	2.6	10.4	7.0	5.8	7.2	5.4	9.2	5.0	10.2	8.4	6.5	6.7	6.7	5.8	7.6	7.1	6.3
		1.000	Toronto de			200000000000000000000000000000000000000		TO ME CALL	1000	17.00	The state of the s		1200			110000	10.000		_			
X ₀	8.0	10.7	n/a	6.2	17.1	n/a	6.3	15.1	n/a	7.8	10.0	n/a	7.1	10.6	n/a	6.8	11.8	n/a	4.5	12.0	n/a	6.4

who answered the question not including students reporting no use in the past year. In the case of smaller sample sizes impressits and yearly trends to the entire community.

Response	Gra	de 6	Gra	de 7	Gra	de 8	Gra	de 9	Grad	de 10	Grad	de 11	Grad	e 12	To	otal
to di Guigo															Number	
ng the past 12 months, i adult caregivers wheth	have you	talked w	ith at le	ast one	of your	parents	(by pare	ints, we	mean e	ither yo	ur biolo	gical pa	rents, ac	loptive	parents,	r yell
The second secon								48/4							أحساني	
Yes	251	65.5	277	56.3	330	60.8	324	53.2	272	49.8	298	52.6	277	49.6	2029	54.9
No You	132	34.5	215	43.7	213	39.2	285	46.8	274	50.2	269	47.4	281	50.4	1669	45.1
Yes	270	70.5	300	61.5	352	65.2	343	56.7	304	56.0	323	57.3	295	53.1	2187	59.4
No	113	29.5	188	38.5	188	34.8	262	43.3	239	44.0	241	42.7	261	46.9	1492	40.6
didn't drink.	362	86.8	449	86.3	469	84.4	474	74.9	372	65.8	318	55.4	309	54.4	2753	71.8
drank but I was not aught.	1	0.2	12	2.3	30	5.4	58	9.2	78	13.8	103	17.9	108	19.0	390	10.2
was caught but there vere no consequences.	0	0.0	_ 3	0,6	3	0.5	25	3.9	44	7.8	74	12,9	76	13.4	225	5.9
here were minor onsequences.	3	0.7	10	1.9	7	1.3	25	3.9	36	6.4	47	8.2	49	8.6	177	4.6
here were major onsequences.	51	12.2	46	8.8	47	8.5	51	8.1	35	6.2	32	5.6	26	4.6	288	7.5
here would be no onsequence.	20	4.9	40	7.9	43	7.8	52	8.3	48	8.6	55	9.6	65	11.6	323	8.5
would be given a aming and then let go.	19	4.7	. 41	8.1	29	5.3	76	12.1	62	11.1	84	14.7	93	16.6	404	10.7
would be taken home on my parents.	198	48.5	249	48.9	270	49.2	310	49.2	305	54.5	286	49.9	272	48.5	1890	49.9
would be arrested but ould get no penalty.	52	12.7	48	9.4	67	12.2	73	11.6	54	9.6	40	7.0	33	5.9	367	9.7
would be arrested and ne court would impose penalty.	119	29.2	131	25.7	140	25.5	119	18.9	91	16.3	108	18.8	98	17.5	806	21.3
ng the past 12 months, i	ow many	times h	as each	of the f	ollowing	things	happen	ed?	AE			T TO E				News.
lever	418	99.1	512	98.5	554	99.3	619	97.5	553	98.0	561	97.6	558	98,2	3775	98.3
)nce	0	0.0	6	1.2	3	0.5	9	1.4	5	0.9	2	0.3	8	1.4	33	0.9
wice	2	0.5	- 41	0.2	0	0.0	4	0.6	3	0.5	6	1.0	0	0.0	16	0.4
hree or four times	0	0.0	0	0.0	0	0.0	1	0.2	1	0.2	4	0.7	0	0.0	6	0.2
ive or more times	2	0.5	- 1	0.2	1	0.2	2	0.3	2	0.4	2	0.3	2	0.4	- 12	0.3

	Gra	de 6	Gra	de 7	Gra	de 8	Gra	de 9	Grad	de 10	Gra	de 11	Grac	le 12	To	tal
Response	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percen
ng the past 12 months	how many	times l	nas each	of the I	ollowing	, things	happen	ed?		al ran	Walls		Net :		DE ST	KI
lever	421	100.0	510	98.3	546	97.8	612	96.1	528	94.1	548	95.3	541	95.1	3706	96.5
Once	0	0.0	9	1.7	9	1.6	14	2.2	22	3.9	14	2.4	18	3.2	86	2.2
wice -	0	0.0	0	0.0	2	0.4	5	0.8	6	1.1	7	1.2	6	1.1	26	0.7
hree or four times	0	0.0	0	0.0	0	0.0	5	0.8	4	0.7	4	0.7	2	0.4	15	0.4
ive or more times	0	0.0	0	0.0	1	0.2	1	0.2	1	0.2	2	0.3	2	0.4	7	0.2
lever	421	100.0	511	98.6	548	98.2	605	95.1	525	93.4	534	93.2	525	92.3	3669	95.6
Once	0	0.0	6	1.2	7	1.3	22	3.5	20	3.6	20	3.5	25	4.4	100	2.6
wice	0	0.0	1	0.2	2	0.4	4	0.6	12	2.1	8	1.4	8	1.4	35	0.9
hree or four times	0	0.0	0	0.0	0	0.0	2	0.3	4	0.7	7		6	1.1	19	0.5
ive or more times	0	0.0	0	0.0	1.	0.2	3	0.5	1	0.2	4		5	0.9	14	0.4
lever	420	99.8	505	97.9	536	96.1	572	90.4	476	84.5	439	76.7	429	75.7	3377	88.2
Once	. 1	0.2	9	1.7	12	2.2	27	4.3	32	5.7	55	9.6	39	6.9	175	4.6
wice	0	0.0	0	0.0	4	0.7	13	2.1	23	4.1	27	4.7	43	7.6	110	2.9
hree or four times	0	0.0	1	0.2	2	0.4	9	1.4	10	1.8	20	3.5	27	4.8	69	1.8
ive or more times	0	0.0	1	0.2	4	0.7	12	1.9	22	3.9	31	5.4	29	5.1	99	2.6
lever	420	99.8	509	98.1	540	96.8	595	94.0	508	90.6	470	82.0	470	82.9	3512	91.6
Once	0	0.0	6	1.2	11	2.0	20	3.2	29	5.2	50	8.7	39	6.9	155	4.0
wice	0	0.0	2	0.4	4	0.7	7	1.1	8	1.4	30	5.2	- 28	4.9	79	2.1
hree or four times	0	0.0	2	0.4	0	0.0	8	1.3	- 5	0.9	13	2.3	19	3.4	47	1.2
ive or more times	1	0.2	0	0.0	3	0.5	3	0.5	11	2.0	10	1.7	11	1.9	39	1.0
lever	420	99.8	513	98.8	552	98.9	610	96.4	539	95.7	524	91.4	527	93.1	3685	96.1
Once	0	0.0	5	1.0	5	0.9	13	2.1	13	2.3	33	5.8	25	4.4	94	2.5
wice	0	0.0	1	0.2	0	0.0	5	0.8	4	0.7	9	1.6	4	0.7	23	0.6
hree or four times	0	0.0	0	0.0	1	0.2	2	0.3	3	0.5	4	0.7	6	1.1	16	0.4
ive or more times	1	0.2	0	0.0	0	0.0	3	0.5	4	0.7	3		4	0.7	15	0.4
lever	421	100.0	510	98.3	550	98.9	609	95.8	547	97.2	544	95.1	541	95.6	3722	97.1
Ince	0	0.0	7-	1.3	4	0.7	19	3.0	5	0.9	15	2.6	16	2.8	66	1.7
wice	0	0.0	1	0.2	1	0.2	4	0.6	5	0.9	7	1.2	6	1.1	24	0.6
hree or four times	0	0.0	0	0.0	0	0.0	2	0.3	5	0.9	4	0.7	0	0.0	11	0.3
ive or more times	0	0.0	M 1	0.2	1	0.2	2	0.3	1	0.2	2		3	0.5	10	0.3
lever	418	99.8	511	99.2	549	99.1	621	98.1	547	97.5	546	95.5	545	96.5	3737	97.9
nce	1	0.2	2	0.4	3	0.5	8	1.3	7	1.2	9	1.6	9	1.6	39	1.0
wice	0	0.0	0	0.0	1	0.2	3	0.5	4	0.7	7		5	0.9	20	0.5
hree or four times	0	0.0	1	0.2	1	0.2	0	0.0	0	0.0	6		2	0.4	10	0.3
ive or more times	0	0.0	1	0.2	0	0.0	1	0.2	3	0.5	4	-	4	0.7	13	0.3

erception Tables

Definition	Gra	ide 6	Gra	de 7	Gra	ide 8	Gra	de 9	Grad	de 10	Gra	de 11	Grad	de 12	To	tal †	M	ale	Fer	male
Deliniber 1	Per.	Num.	Per.	Num.	Per.	Num.	Per.	Num.	Per.	Num.	Per.	Num.	Per.	Num.	Per.	Num.	Per.	Num.	Per.	Num.
drinks of an alcoholic r, wine, liquor) nearly	71.2	510	70.5	555	69.6	578	64.7	668	62.1	597	66.3	584	65.6	582	67.0	4074	63.6	1994	70.2	2069
ore drinks of an age once or twice	75.0	508	71.5	551	75,6	577	72.4	670	67.9	598	71.1	581	67.1	580	71.4	4065	66.9	1988	75.9	2065
re packs of day.	79.3	507	76.4	556	81.9	579	78.3	673	76.9	598	78.7	586	78.3	581	78.5	4080	78.6	1993	78.5	2075
na once or	75.3	507	71.1	554	70.2	577	57.0	670	49.3	600	49.2	583	42.7	581	58.8	4072	57.4	1990	60.2	2070
n pain relievers scribed to them?	81.3	508	80.1	553	84.8	579	81.6	670	81.2	597	83.4	583	82.0	582	82.1	4072	80.4	1989	83.6	2071
o drinks of an age nearly every day?	99.3	428	98.7	525	97.5	561	96.7	637	94.9	565	94.6	575	92.6	570	96.2	3861	96.3	1862	96,1	1986
es .	99.5	428	97.7	528	97.3	561	95.4	636	95.2	564	93.8	577	92.8	570	95.8	3864	96.2	1864	95.4	1987
na en en en	99.3	427	96.6	527	95.0	559	92.3	633	89.4	564	88.1	573	87.2	571	92.2	3854	92.9	1868	91.7	1973
n pain relievers scribed to them?	99.5	429	98.7	524	98.4	558	97.8	637	97.2	567	97.0	574	97.2	567	97.9	3856	98.2	1860	97.6	1983
o drinks of an age nearly every day?	98.1	538	93.1	569	87.1	590	79.4	705	72.6	610	69.5	594	61.1	592	79.8	4198	79.3	2065	80.3	2120
95	98.5	537	92.6	571	88.6	589	86.6	707	80.5	609	79.1	593	70.6	591	85.0	4197	84.6	2065	85,5	2119
na in	98.5	536	92.1	567	85.0	588	74.2	702	66.8	609	65.7	592	59.2	591	76.9	4185	77.5	2056	76.4	2116
n pain relievers scribed to them?	98.7	535	95.8	570	94.1	589	92.4	706	88.2	609	89.4	593	85.5	592	91.9	4194	91.6	2063	92.3	2118
e nor Disapprove	23.2	120	21.2	117	19.3	110	23.6	155	23,4	138	28.1	163	28.3	163	23.9	966	25.9	509	22.0	453
approve	3.5	18	6.4	35	9.6	- 55	14.0	92	19.5	115	17.4	101	21.4	123	13.3	539	14.2	280	12.5	257
prove	63.9	331	61.0	336	59.9	342	46.9	308	43.0	253	40.9	237	39.4	227	50.3	2034	47.1	927	53.4	1102
an't say	9.5	49	11.4	63	11.2	64	15.5	102	14.1	83	13.6	79	10.9	63	12.4	503	12.8	252	12.1	250
The second second	2.0	498	4.5	550	7.6	567	18.4	667	24.4	591	31.2	586	36.1	579	18.3	4038	17.3	1969	19.1	2056
	1.2	494	2.4	542	4.2	568	6.3	664	9.5	581	9.1	583	11.8	574	6.5	4006	6.0	1948	7.0	2045
TVS TV	0.4	500	2.4	549	3.2	566	9.7	661	12.8	576	15.1	583	18.3	573	9.1	4008	8.2	1952	9.9	2045
n Drug	3.4	494	2.2	546	2.5	570	2.9	663	4.1	581	4.6	585	5.0	575	3.5	4014	2.8	1955	4.3	2046
	Age	Num	Age	Num	Age	Num	Age	Num	Age	Num	Arje	Num.	Age	Num	Age	Num	Age	Num	Age	Num
100	10.3	59	11.2	106	11.6	160	12.4	284	12.9	332	13.6	377	14.1	385	12.9	1703	12.7	782	13.2	913
1000	10.2	27	11.4	46	11.6	91	12.2	147	12.1	163	12.7	167	13.1	191	12.3	832	12.2	377	12.4	452
#/1.VD/-2011	10.2	6	11.8	32	12.0	53	12.6	137	13.1	162	13.7	184	14.3	204	13.3	778	13.2	368	13.4	405
in Relievers	,	0	ab) The	0		0	12.7	3	13.8	4	14.3	6	14.5	6	14.0	19	13.3	6	14.3	13

the number of youth who answered the question). The "Per" column represents the percentage of youth in the sample answering the question as specified number of youth who reported any age of first use for the specified substance other than "Nover Used."
(Indents in all grades surveyed.)

erception Tables

	Gra	de 6	Gra	de 7	Gra	de 8	Gra	de 9	Grad	de 10	Grad	de 11	Grad	de 12	· · · To	otal
Substance	Number	Percent	Number	Percen												
€ (0%)	418	76.0	292	50.1	211	34.6	166	23.1	126	20.4	87	14.5	89	14.8	1389	32.4
(1-10%)	105	19.1	193	33.1	205	33.6	192	26.7	140	22.6	120	20.0	123	20.5	1078	25.2
e (11-30%)	19	3.5	60	10.3	100	16.4	157	21.9	150	24.2	170	28.3	196	32.6	852	19.9
or less (31-50%)	4	0.7	- 20	3.4	54	8.9	97	13.5	97	15.7	104	17.3	95	15.8	471	11.0
or more (51-70%)	3	0.5	9	1.5	29	4.8	63	8.8	65	10.5	76	12.7	58	9.7	303	7.1
(71-90%)	. 1	0.2	2	0.3	6	1.0	30	4.2	31	5.0	33	5.5	28	4.7	131	3.1
st All (91-100%)	0	0,0	7	1.2	5	0.8	13	1.8	10	1.6	10	1.7	12	2.0	57	1.3
∌ (0%)	419	76.2	342	58.6	228	37.4	165	23.0	103	16.7	67	11.2	65	10.8	1389	32.5
(1-10%)	101	18.4	147	25.2	164	26.9	123	17.1	94	15.2	43	7.2	36	6.0	708	16.5
e (11-30%)	20	3.6	56	9.6	113	18.6	141	19.6	98	15.9	76	12.7	69	11.5	573	13.4
or less (31-50%)	5	0.9	19	3.3	52	8.5	111	15.5	116	18.8	119	19.8	110	18.3	532	12.4
or more (51-70%)	4	0.7	12	2.1	27	4.4	86	12.0	110	17.8	128	21.3	133	22.1	500	11.7
(71-90%)	1	0.2	4	0.7	18	3.0	63	8.8	79	12.8	126	21.0	132	22.0	423	9.9
st All (91-100%)	0	0.0	4	0.7	7	1,1	29	4.0	18	2.9	41	6.8	56	9.3	155	3.6
(0%)	475	86.7	376	64.5	268	44.1	186	26.0	121	19.7	79	13.2	76	12.7	1581	37.0
(1-10%)	59	10.8	126	21.6	149	24.5	131	18.3	95	15.4	89	14.8	87	14.5	736	17.2
e (11-30%)	7	1.3	42	7.2	79	13.0	131	18.3	105	17.1	121	20.2	104	17.3	589	13.8
or less (31-50%)	3	0.5	16	2.7	55	9.0	. 82	11.5	92	15.0	99	16.5	114	19.0	461	10.8
or more (51-70%)	2	0.4	8	1.4	32	5.3	81	11.3	99	16.1	99	16.5	88	14.7	409	9.6
(71-90%)	0	0.0	4	0.7	15	2.5	73	10.2	63	10.2	76	12.7	91	15.2	322	7.5
st All (91-100%)	2	0.4	11	1.9	10	1.6	32	4.5	40	6.5	37	6.2	40	6.7	172	4.0
(0%)	470	85.6	404	69.4	306	50.2	259	36.1	186	30.3	125	20.9	118	19.7	1868	43.8
(1-10%)	69	12.6	130	22.3	172	28.2	199	27.7	189	30.8	211	35.3	242	40.5	1212	28.4
9 (11-30%)	6	1,1	23	4.0	76	12.5	105	14.6	114	18.6	110	18.4	114	19.1	548	12.8
or less (31-50%)	2	0.4	13	2.2	26	4.3	66	9.2	52	8.5	55	9.2	52	8.7	266	6.2
or more (51-70%)	0	0.0	4	0.7	13	2.1	40	5.6	41	6.7	39	6.5	37	6.2	174	4.1
(71-90%)	1	0.2	4	0.7	9	1.5	28	3.9	25	4.1	38	6.4	23	3.8	128	3.0
st All (91-100%)	1	0.2	4	0.7	7	1.1	21	2.9	7	1.1	19	3.2	12	2.0	71	1.7

	Response	Gra	de 6	Gra	de 7	Gra	de 8	Gra	de 9	Grad	de 10	Grad	de 11	Grad	le 12	To	otal
-	- Kaspollae	Number	Percent	Number	Percen												
-	Yes	10	2.8	43	9.1	75	14.2	139	23.6	169	32.3	211	38.0	207	38.2	854	23.9
	No	350	97.2	431	90.9	453	85.8	451	76.4	355	67.7	344	62.0	335	61.8	2719	76.1
	Never	353	99.4	449	94.9	487	92.4	518	87.5	449	85.7	447	81.1	425	78.6	3128	87.8
	1 or 2 days	1	0.3	9	1.9	25	4.7	29	4.9	34	6.5	41	7.4	51	9.4	190	5.3
any	3 to 5 days	1	0.3	3	0.6	7	1.3	18	3.0	16	3.1	22	4.0	19	3.5	86	2.4
tes	6 to 9 days	0	0.0	3	0.6	2	0.4	4	0.7	7	1.3	9	1.6	17	3.1	42	1.2
	10 to 19 days	0	0.0	3	0.6	1	0.2	12	2.0	8	1.5	13	2.4	11	2.0	48	1.3
	20 to 39 days	0	0.0	2	0.4	2	0.4	3	0.5	0	0.0	10	1.8	4	0.7	- 21	0.6
	40+ days	0	0.0	4	8.0	3	0.6	8	1.4	10	1.9	9	1.6	14	2.6	48	1.3
	I have never tried any tobacco product	333	95.1	408	89.5	429	83.5	435	74.9	340	65.6	333	61.3	304	56.5	2582	73.8
	Cigarettes	9	2.6	23	5.0	43	8.4	79	13.6	93	18.0	102	18.8	102	19.0	451	12.9
	Cigars, cigarillos or little cigars	2	0.6	4	0.9	2	0.4	7	1.2	10	1.9	21	3.9	33	6.1	79	2.3
	Tobacco in a hookah or waterpipe	. 1	0.3	3	0.7	3	0.6	8	1.4	4	0.8	5	0.9	4	0.7	28	0.8
st?	Electronic cigarettes, e-cigarettes, vape pens, or e-hookahs	2	0.6	11	2,4	19	3,7	23	4.0	41	7.9	38	7.0	31	5.8	165	4.7
	Chewing tobacco, snuff or dip	0	0.0	3	0.7	11	2.1	20	3.4	17	3.3	33	6.1	54	10.0	138	3.9
	Snus (moist smokeless tobacco usually sold in small pouches)	0	0.0	2	0.4	0	0.0	7	0.2	2	0.4	3	0.6	6	1.1	. 14	0.4
	Other	3	0.9	2	0.4	7	1.4	8	1.4	11	2.1	8	1.5	4	0.7	43	1.2
	Very hard	313	89.7	327	70.8	341	66.2	277	47.5	179	34.5	170	30.7	110	20.5	1717	48.8
ape	Sort of hard	22	6.3	56	12.1	75	14.6	113	19.4	91	17.5	108	19.5	73	13.6	538	15.3
ld it	Sort of easy	7	2.0	43	9.3	62	12.0	90	15.4	127	24.5	118	21.3	150	27.9	597	17.0
	Very easy	7	2.0	36	7.8	37	7.2	103	17.7	122	23.5	158	28.5	204	38.0	667	19.0
nic	NO!	341	96.3	404	86.0	420	80.8	405	69.1	314	59.8	329	59.5	296	54.9	2509	70.7
re-	no	10	2.8	42	8.9	57	11.0	102	17.4	112	21.3	106	19.2	115	21.3	544	15.3
xt	yes	2	0.6	15	3.2	33	6.3	- 53	9.0	66	12.6	78	14.1	95	17.6	342	9.6
	YESI	1	0.3	9	1.9	10	1.9	26	4.4	33	6.3	40	7.2	33	6.1	152	4.3
ou/	NO!	338	95.2	390	84.2	393	75.4	371	63.2	276	52.6	289	52.2	263	49.0	2320	65.5
e,	no all farm seed and are	12	3.4	48	10.4	61	11.7	107	18.2	103	19.6	99	17.9	106	19.7	536	15.1
use	yes	4	1.1	17	3.7	56	10.7	70	11.9	105	20.0	113	20.4	126	23.5	491	13.9
	YESI	1	0.3	8	1.7	11	2.1	39	6.6	41	7.8	53	9.6	42	7.8	195	5.5

	Response	sponse Grade 6		Grade 7		Gra	Grade 8		Grade 9		Grade 10		Grade 11		Grade 12		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
ow:	Yes	136	38.0	204	42.9	222	42.0	253	42.6	235	44.7	239	42.9	206	37.9	1495	41.7	
	No	222	62.0	271	57.1	306	58.0	341	57.4	291	55.3	318	57.1	337	62.1	2086	58.3	
ow:	Yes	35	9.8	60	12.6	62	11.8	85	14.3	78	14.8	83	14.9	62	11.4	465	13.0	
•	No	323	90.2	415	87.4	465	88.2	509	85.7	449	85.2	474	85.1	481	88.6	3116	87.0	
ow:	Yes	41	11.5	62	13.1	86	16.3	96	16.2	91	17.3	96	17.2	95	17.5	567	15.8	
Ment an	No	317	88.5	413	86.9	441	83.7	498	83.8	435	82.7	461	82.8	448	82.5	3013	84.2	
es	Yes	189	52.8	224	47.2	243	46.1	268	45.1	222	42.2	264	47.4	262	48.2	1672	46.7	
	No	169	47.2	251	52.8	284	53.9	326	54.9	304	57.8	293	52.6	282	51.8	1909	53.3	
	All of the time	26	7.4	47	10.0	47	9.0	84	14.3	70	13.5	79	14.3	88	16.4	441	12.5	
	Most of the time	28	8.0	45	9.6	46	8.8	67	11.4	74	14.3	79	14.3	71	13.3	410	11.6	
did	Some of the time	78	22.3	102	21.7	131	25.0	148	25.3	138	26.7	138	25.0	136	25.4	871	24.6	
	A little of the time	121	34.6	144	30.6	156	29.8	122	20.8	117	22.6	136	24.6	112	20.9	908	25.7	
	None of the time	97	27.7	132	28.1	143	27.3	165	28.2	118	22.8	121	21.9	128	23.9	904	25.6	
N-CH-	All of the time	26	7.5	43	9.3	38	7.3	75	12.9	58	11.2	62	11.3	63	11.8	365	10.4	
200	Most of the time	12	3.5	39	8.4	37	7.1	44	7.5	49	9.4	47	8.6	42	7.9	270	7.7	
did	Some of the time	34	9.8	38	8.2	55	10.6	67	11.5	74	14.3	94	17.2	90	16.9	452	12.9	
	A little of the time	52	15.0	71	15.3	92	17.7	87	14.9	99	19.1	106	19.4	91	17.1	598	17.0	
	None of the time	223	64.3	273	58.8	297	57.2	310	53.2	239	46.1	238	43.5	247	46.3	1827	52.0	
,	All of the time	25	7.2	51	10.9	54	10.4	80	13.7	67	13.1	. 83	15.1	80	15.2	440	12.6	
did	Most of the time	16	4.6	51	10.9	45	8.7	62	10.6	71	13.9	68	12.4	64	12.1	377	10.8	
uiu	Some of the time	60	17.2	59	12.7	65	12.6	102	17.4	102	19.9	103	18.8	118	22.4	609	17.4	
	A little of the time	65	18.7	96	20.6	111	21.5	97	16.6	98	19.1	109	19.9	101	19.2	677	19.3	
	None of the time	182	52.3	209	44.8	242	46.8	244	41.7	174	34.0	186	33.9	164	31.1	1401	40.0	
A = 4	All of the time	24	6.9	51	10.9	49	9.4	78	13.4	56	10.9	54	9.8	67	12.6	379	10.8	
did	Most of the time	8	2.3	23	4.9	27	5.2	40	6.9	48	9.3	47	8.5	43	8.1	236	6.7	
ng	Some of the time	29	8.4	49	10.4	47	9.1	61	10.5	67	13.0	74	13.5	66	12.4	393	11.2	
	A little of the time	59	17.0	65	13.8	81	15.6	81	13.9	83	16.1	96	17.5	89	16.7	554	15.8	
	None of the time	227	65.4	282	60.0	315	60.7	323	55.4	260	50.6	279	50.7	268	50.3	1954	55.6	

	Response	Grade 6		Grade 7		Grade 8		Grade 9		Grade 10		Grade 11		Grade 12		Total	
		Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percen
	All of the time	43	12.4	68	14.6	76	14.7	83	14.2	72	14.1	82	14.9	85	16.0	509	14.5
allal	Most of the time	34	9.8	59	12.7	52	10.1	70	12.0	68	13.3	79	14.4	57	10.8	419	12.0
did ort?	Some of the time	57	16.4	62	13.3	64	12.4	107	18.3	97	18.9	109	19.9	104	19.6	600	17.1
	A little of the time	60	17.2	72	15.5	81	15.7	102	17.5	98	19.1	96	17.5	109	20.6	618	17.6
	None of the time	154	44.3	205	44.0	243	47.1	222	38.0	177	34.6	183	33.3	175	33.0	1359	38.8
	All of the time	25	7.2	51	10.9	48	9.2	85	14.7	62	12.1	76	13.9	65	12.3	412	11.8
ara.	Most of the time	11	3.2	35	7.5	25	4.8	32	5.5	40	7.8	30	5.5	42	7.9	215	6.1
did	Some of the time	21	6.1	29	6.2	41	7.9	41	7.1	54	10.5	68	12.5	62	11.7	316	9.0
	A little of the time	31	9.0	50	10.7	64	12.3	80	13.8	68	13.2	79	14.5	78	14.7	450	12.9
	None of the time	257	74.5	301	64.6	341	65.7	342	59.0	290	56.4	293	53.7	283	53.4	2107	60.2
ol?	Yes	306	92.7	429	92.1	498	96.0	554	96.2	505	99.0	542	98.7	532	99.4	3366	96.6
	No	24	7.3	37	7.9	21	4.0	22	3.8	5	1.0	7	1.3	3	0.6	119	3.4

Contacts for Prevention

NATIONAL RESOURCES

Human Services (USDHHS)
Substance Abuse and Mental Health
Service Administration (SAMHSA)
1 Choke Cherry Rd., Rm. 8-1054
Rockville, Maryland 20857
240-276-2000

info@samhsa.hhs.org

(From this web-site, the programs and services provided by the Center for Substance Abuse Treatment, and Center for Mental Health Services can be accessed)

Center for Substance Abuse Prevention (CSAP)

1 Choke Cherry Rd., Ste 4-1057
Rockville, Maryland 20857
240-276-2420
info@samhsa.hhs.org
http://prevention.samhsa.gov/

CSAP's Centers for the Advancement of Prevention Technologies (all five CSAP Centers can be accessed through this web site)

http://captus.samhsa.gov/home.cfm
National Institutes of Health (NIH)
6001 Executive Blvd., Rm. 5213
Bethesda, Maryland 20892-9561
301-443-1124
http://www.nida.nih.gov/

STATE RESOURCES

New York State
Office of Alcoholism and Substance Abuse
Services (OASAS),
Division of Prevention and Treatment
prevention@oasas.state.ny.us
www.oasas.state.ny.us

National Council on Alcoholism & Other Drug Dependencies/Putnam 67 Gleneida Avenue Carmel, NY 10512 845-225-4646 www.putnamncadd.org

Putnam Family & Community Services 1808 Route Six Carmel, NY 10512 845-225-2700 www.pfcsinc.org

Putnam County Departments of Mental Health and Social Services 110 Old Route Six Building Two Carmel, NY 10512 845-808-1500 www.putnamcountyny.com/

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Adults who are Current Smokers by NYS County, 2013-2014 Expanded Behavioral Risk Factor Surveillance System

THE STATE OF THE S	Estimated Number of Current Smokers	Estimated Percent of Current Smokers	95% Confidence Interval for Percent		
New York State	2,464,221	16.6%	(15.5% – 17.7%)		
Albany	39,049	16.3%	(13.3% – 19.7%)		
Allegany	9,981	26.8%	(20.7% – 33.8%)		
Broome	34,578	22.3%	(18.1% – 27.2%)		
Cattaraugus	16,998	28.4%	(21.2% – 36.8%)		
Cayuga (percent unreliable due to large standard error)	18,620	30.6%	(21.2% – 41.9%)		
Chautauqua	25,284	24.7%	(19.0% – 31.5%)		
Chemung	16,865	24.8%	(17.4% – 34.2%)		
Chenango	7,285	18.9%	(13.9% – 25.1%)		
Clinton	14,782	22.6%	(17.4% – 28.7%)		
Columbia	10,331	21.0%	(15.6% – 27.5%)		
Cortland	8,377	21.4%	(14.2% – 30.8%)		
Delaware	8,566	22.9%	(16.7% - 30.4%)		
Dutchess	36,239	16.1%	(11.5% – 22.0%)		
Erie	133,426	18.8%	(15.9% – 22.0%)		
Essex	5,205	16.6%	(12.0% – 22.7%)		
Franklin	11,039	27.0%	(20.0% - 35.3%)		
Fulton	12,394	29.0%	(23.2% – 35.5%)		
Genesee	11,981	25.8%	(19.1% – 34.0%)		
Greene	9,434	24.5%	(17.3% – 33.4%)		
Hamilton	750	19.0%	(13.1% – 26.7%)		
Herkimer	12,843	25.8%	(19.7% – 33.1%)		
Jefferson	19,667	22.1%	(16.6% – 28.7%)		
Lewis	3,060	14.9%	(10.5% - 20.8%)		
Livingston	11,804	23.0%	(16.8% – 30.8%)		
Madison	9,621	17.0%	(11.3% – 24.9%)		
Monroe	82,910	14.5%	(11.9% – 17.6%)		
Montgomery	8,754	23.4%	(18.1% – 29.6%)		
Nassau	128,120	12.7%	(8.4% – 18.7%)		
New York City	836,449	13.3%	(9.9% – 17.6%)		
Niagara	34,404	20.8%	(16.2% - 26.2%)		

Adults who are Current Smokers by NYS County, 2013-2014

Expanded Behavioral Risk Factor Surveillance System

A COLUMN TO THE REAL PROPERTY OF THE PARTY O	Estimated Number of Current Smokers	Estimated Percent of Current Smokers	of 95% Confidence Interval for Percent		
Oneida	39,622	22.0%	(17.4% – 27.4%)		
Onondaga	71,467	20.3%	(16.8% - 24.3%)		
Ontario	14,655	17.6%	(12.4% - 24.5%)		
Orange	41,418	15.7%	(12.1% - 20.2%)		
Orleans	8,566	25.7%	(18.6% – 34.3%)		
Oswego	25,456	28.0%	(22.1% – 34.8%)		
Otsego	13,146	26.3%	(18.7% – 35.7%)		
Putnam	10,608	13.9%	(9.6% - 19.7%)		
Rensselaer	29,431	23.8%	(18.3% - 30.3%)		
Rockland	22,626	10.2%	(7.3% – 14.1%)		
Saratoga	30,141	17.7%	(13.8% – 22.4%)		
Schenectady	22,677	19.3%	(15.5% - 23.9%)		
Schoharie	4,929	19.3%	(14.4% – 25.4%)		
Schuyler	3,233	22.3%	(15.6% - 30.9%)		
Seneca	3,769	13.7%	(9.3% – 19.7%)		
St. Lawrence	17,009	19.5%	(14.5% - 25.6%)		
Steuben	17,794	23.7%	(18.9% – 29.2%)		
Suffolk	160,678	14.4%	(10.8% - 18.8%)		
Sullivan	14,102	24.5%	(18.6% - 31.4%)		
Tioga	8,732	22.8%	(16.8% - 30.0%)		
Tompkins	11,882	14.1%	(8.9% – 21.6%)		
Ulster	30,593	21.1%	(15.2% – 28.6%)		
Warren	9,357	18.7%	(14.4% – 24.0%)		
Washington	10,281	21.0%	(16.3% – 26.6%)		
Wayne	17,170	24.5%	(17.7% – 33.0%)		
Westchester	83,515	11.7%	(9.0% – 15.2%)		
Wyoming	7,196	21.6%	(16.0% – 28.4%)		
Yates	2,660	13.8%	(10.2% – 18.6%)		

New York State-level data were produced using the 2013 Behavioral Risk Factor Surveillance System. County-level data are from the 2013-2014 New York Expanded Behavioral Risk Factor Surveillance System (eBRFSS) Survey. Please note that adding the numbers of current smokers over all counties does not agree with the New York State number due to different sources and different timeframes. eBRFSS data were used to generate percentages of non-institutionalized adult (18+) NYS residents for 50 health indicators. For more Information on the eBRFSS please visit https://health.data.ny.gov

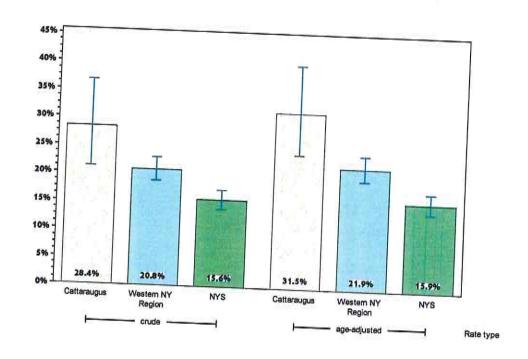
A confidence interval is a range around a measurement that conveys how precise the measurement is.

Please forward questions or comments to the Bureau of Chronic Disease Evaluation and Research, New York State Department of Health at (518) 473-0673 or type "eBRFSS" in the subject line of an e-mail and send it to top@health.nv.gov

Cattaraugus

Prevent Chronic Diseases

Percentage of adults who are current smokers



	Catt	araugus (County	Western NY					
	Est. # of Adults	Percent	95% CI	Est. # of Adults	Percent				
Total Age	16,998	28.4	(21.2-36.8)	247,835	20.8	95% CI (18.8-23.0)			
18-24 25-34		#		25,309	14.9	(9.9-21.7)			
35-44 45-64	E 574	#		56,094 38,389	32.7 22.9	(25.8-40.4) (18.1-28.6)			
65+ Race	5,574 1,715	25.0 14.2^	(17.5-34.5) (7.0-26.5)	107,073 20,570	25.2 8.4	(21.7-29.1) (6.2-11.3)			
White, NH Black, NH Hispanic Other, NH Sex	12,178	22.9 # # #	(17.6-29.4)	189,505 34,273 18,226 5,830	19.0 38.2^ 31.1^ 13.1	(16.9-21.3) (29.0-48.3) (19.3-46.1) (7.7-21.6)			
male female	9,679 7,319	32.7 [^] 24.1	(21.4-46.4) (16.6-33.8)	126,440 121,395	22.0 19.7	(18.8-25.7) (17.2-22.5)			
ge-adjusted& cent is age-adjusted to		31.5	(24.1-40.1)		21.9	(19.7-24.2)			

[&]amp; Percent is age-adjusted to the 2000 United States Population.

[#] Rates with <10 in the numerator or <50 in the denominator are suppressed.

[^] Highly variable rate (confidence interval with a half-width greater than 10).

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TOBACCO 21

A "Tobacco 21" policy limits sales
of tobacco products to
customers age 21 and older.
It does not punish youth for possessing,
purchasing or attempting to purchase
purchasing or attempting to purchase
tobacco, nor does it require sales clerks
to be 21 years old.

Tobacco 21 delays smoking initiation

- Tobacco 21 prohibits tobacco sales to anyone younger than 21, the period during which the vast majority of smokers become addicted.¹
- Approximately 96% of smokers begin smoking before age 21² with most beginning before age 16.³ Smokers frequently transition from experimentation to addiction between the ages of 18 and 21.⁴
- ❖ Youth get their cigarettes from social sources, 5 most of whom are peers ages 18 to 21.6 Today, there are more 18 and 19 year olds in high school than in past years; 7 thus, permitting tobacco sales to 18 or 19 years olds no longer makes sense.
- Few 21 year olds travel within high school social circles; Tobacco 21 will effectively remove this critical source of tobacco,⁸ thereby delaying or preventing smoking initiation.⁹

Starting later means fewer addicted, long-term smokers

- Evidence shows the younger the age of initiation, the greater the risk of nicotine addiction, heavy daily smoking and difficulty quitting.¹⁰
- Adolescents are particularly susceptible to the "rewarding" effects of nicotine.¹¹ In fact, nicotine addiction (which can develop at low levels of exposure, well before established daily smoking¹²) causes three out of four young smokers to continue smoking into adulthood, even if they intended to quit after a few years.¹³
- We now know the brain continues to develop until approximately age 25,¹⁴ particularly in ways that affect impulsivity, addiction¹⁵ and decision making.¹⁶ Thus, science does not support permitting the sale of nicotine to 18 year olds.
- Delaying smoking initiation reduces the likelihood of ever starting! It also reduces the number of regular smokers¹⁷ and immediate, mid- and long-term health effects of smoking to an individual.¹⁸

Stopping the tobacco epidemic requires policies that delay and prevent smoking initiation. 19

- Tobacco industry survival depends on youth tobacco use and addiction.²⁰ Without policy intervention,²¹ the industry will continue to successfully entice youth to use their products.²²
- Despite declines in New York State's smoking rate, 2.1 million adults continue to smoke statewide.²³
- African Americans, non-Hispanic multiple race individuals, the mentally ill, LGBT individuals and individuals of low-socioeconomic status or lower education smoke at higher rates compared to the general population.²⁴
- Despite declines in youth smoking rates, 7.3% of New York high school students and 1.2% of New York middle school students reported smoking cigarettes in 2014.²⁵ Without sustained action, nearly 874,000 New York youth alive in 2014 are projected to become smokers, and an estimated 280,000 of them will die prematurely.²⁶



"[T]he base of our business is the high school student." -Lorillard Tobacco Company

"[Youth] represent tomorrow's cigarette business...they will account for a key share of total [sales] for at least the next 25 years."

-R.J. Reynolds Tobacco Company

Tobacco 21 can be effective even as a local policy.

- In 2005 Needham, MA became the first municipality to implement Tobacco 21. The city realized a significantly greater reduction in youth smoking compared to surrounding communities immediately following adoption of Tobacco 21, despite the mobility of Needham youth.²⁷
- All Needham tobacco retailers remain in business ten years after stopping tobacco sales to 18-20 year olds. 28
- New York jurisdictions are taking notice. With the implementation of Tobacco 21 policies in New York City and Suffolk County, half of all New Yorkers are covered by the policy.²⁹

Tobacco 21 policies have broad public support.30

- Three out of four American adults (and 70% of cigarette smokers) favor Tobacco 21.31
- Tobacco 21 will not harm business—only 2% of national cigarette sales are made to 18-20 year olds.³² Because declines in smoking occur gradually, retailers will have time to adjust to the changing market conditions.³³ Additionally, Tobacco 21 will make ID checks easier for New York retailers.³⁴
- Despite initial resistance to raising the legal drinking age to 21, the policy resulted in lower rates of youth drinking,³⁵ Additionally, the alcohol industry was unharmed.³⁶
- Tobacco 21 is gaining momentum; one state and 84 local jurisdictions in eight states have adopted Tobacco 21³⁷ (and more are considering it³⁸).





Tobacco 21 is most effective when it is a part of a comprehensive tobacco control plan.39

- Comprehensive tobacco control policies (which include high excise taxes, smoke-free laws, effective enforcement of youth access restrictions, mass-media campaigns and accessible cessation services) are associated with reduced tobacco use among adolescents and adults. Importantly, comprehensive policies are associated with decreased youth smoking prevalence.
- A strong Tobacco 21 policy will include electronic nicotine delivery devices (ENDS). ENDS are currently the most common nicotine products used by high school and middle school students⁴² and ENDS use has been associated with an increased likelihood of cigarette smoking.⁴³

Examples of Tobacco 21 policies:

Jurisdiction	Description: "" " have made and a silver contact the made and severe at					
Hawaii	Prohibits sale of tobacco products, including electronic cigarettes, to persons under age 21 HI Rev. Stat. §709-908 (as amended by Act 122 of 2015 Session Laws).					
Suffolk County, NY	Prohibits the sale of tobacco products, including electronic cigarettes, and herbal cigarettes to persons under age 21. Suffolk Cty, NY Local Law §792(A)(2).					
New York, NY	Prohibits the sale of tobacco products, including electronic cigarettes, to persons under age 21. NYC Admin. Code. §17-706					
Needham, MA (W. 0029 1.09)	Prohibits the sale of tobacco products or nicotine delivery products to persons under age 21. Needham, MA: Board of Health Regulation §1.6.1					

August 26, 2015



¹ U.S. Dep't of Health & Human Servs., The Health Consequences of Smoking—50 Years of Progress, 708 (2014) [hereinafter 2014 SG Report]; U.S. Dep't. of Health & Human Servs., Preventing Tobacco Use Among Youth and Young Adults, A Report of the Surgeon General, 134 (2012) [hereinafter 2012 SG Report.

² 2012 SG REPORT, supra note 1 at 268, Table 3.1.9; see also CAMPAIGN FOR TOBACCO FREE KIDS, INCREASING THE MINIMUM LEGAL SALE AGE FOR TOBACCO PRODUCTS TO 21, 1 (2015)

³ 2012 SG REPORT, supra note 1 at 268, Table 3.1.9; see E. Croghan et al., The importance of social sources of cigarettes to school students, 12 TOBACCO CONTROL 67, 67 (2003).

⁵ Id. at 69-70; see also id. at 68 (74% of occasional smokers report obtaining cigarettes from social sources); Leslie A. Robinson et al., Changes in Adolescents' Sources of Cigarettes, 39 J. ADOLESCENT HEALTH 861, 865 (2006); Leslie A Robinson et al., Gender and Ethnic Differences in Young Adolescents' Sources of Cigarettes, 7 TOBACCO CONTROL 353, 357 (1998);

⁶ INSTITUTE OF MEDICINE OF THE NATIONAL ACADEMIES, PUBLIC HEALTH IMPLICATIONS OF RAISING THE MINIMUM AGE OF LEGAL ACCESS TO TOBACCO PRODUCTS, 6-15 (2015) [hereinafter IOM REPORT]; Joseph R DiFranza et al., Sources of Tobacco for Youths in Communities with Strong Enforcement of Youth Access Laws, 10 TOBACCO CONTROL 323, 327 (2001); CAMPAIGN FOR TOBACCO FREE KIDS, WHERE DO YOUTH SMOKERS GET THEIR CIGARETTES?, 1-2 (January 6, 2015) [hereinafter CTFK CIGARETTES]; see also Sajjad Ahmad, Closing the youth access gap: The projected health benefits and cost savings of a national policy to raise the legal smoking age to 21 in the United States, 75 HEALTH POLICY 74, 75 (2005);); Kurt M Ribisl et al, Which Adults Do Underaged Youth Ask for Cigarettes?, 89 Am. J. Public Health, 1561, 1562.

⁷ CTFK CIGARETTES; Jonathan P. Winickoff et al., Retail Impact of Raising Tobacco Sales Age to 21 Years, Am. J. PUBLIC HEALTH, e1 (September 2014) [hereinafter Retail Impact]; Ribisl, supra note 6 at 1562.

8 Ahmad, supra note 6 at 75; Winckoff, Retail Impact, supra note 7 at e1.

⁹ Youth are unlikely to obtain cigarettes from other sources. See IOM REPORT, supra note 6 at 5-19 (importance of social sources has increased since 1997); see also id. at 5-9 (no evidence youth are using illicit channels to get cigarettes); see also id. at 5-9 (bans on non-commercial distribution of cigarettes unenforced).

¹⁰ IOM REPORT, *supra* note 6 at 2-21; see also *id.* at 4-14 ("A younger age of initiation is associated with an increased risk of many adverse health outcomes, such as a hospital inpatient stay in the past year and lifetime risk of respiratory disease, especially chronic obstructive pulmonary disease, ad lung cancer"); 2014 SG REPORT, *supra* note 1 at; *see also* Winickoff, *Retail Impact, supra* note 7 at

11 IOM REPORT, supra note 6 at 3-13 and 3-16; Winickoff, Retail Impact, supra note 7 at e3.

12 IOM REPORT, supra note 6 at 2-20.

¹³ CAMPAIGN FOR TOBACCO FREE KIDS, INCREASING THE MINIMUM LEGAL SALE AGE FOR TOBACCO PRODUCTS TO 21, 2 (2015) (citing 2012 SG REPORT).

14 IOM REPORT, supra note 6 at 3-12.

15 Winickoff, Retail Impact, supra note 7 at e1.

¹⁶ IOM REPORT, supra note 6 at 3-14; see also id. at 3-8 ("The development of some cognitive abilities, such as understanding risks and benefits, is achieved by age 16. However, many areas of psychosocial maturity, including sensation seeking, impulsivity, and future perspective taking continue to develop and change through late adolescence and into young adulthood."); see also id. at 3-12 ("While the development of some cognitive abilities is achieved by age 16, the parts of the brain most responsible for decision making, impulse control, sensation seeking, future perspective taking, and peer susceptibility and conformity continue to develop and change through young adulthood."); Alexander C. Wagenaar and Traci L. Toomey, Effects of Minimum Drinking Age Laws: Review and Analyses of the Literature from 1960 to 2000, J. STUDIES ON ALCOHOL, Suppl. 14, 220, 222 (2002).

17 IOM REPORT, supra note 6 at S-6 and S-3.

¹⁸ IOM REPORT, supra note 6 at 8-20. Short-term/immediate health effects include: nicotine addiction, inflammation, impaired immune status, oxidative stress, and respiratory symptoms which render the individual more susceptible to other adverse health outcomes such as acute illness and a reduced capacity to heal wounds. Intermediate health effects include: subclinical atherosclerosis, impaired lung function, susceptibility to lung disease, Type 2 diabetes, periodontitis, and adverse surgical outcomes/wound healing (among others) which also lead to reduced productivity and absenteeism. Long-term health effects include: cancer, vascular disease, COPD, RA, and bone disease. Maternal/fetal health effects include: decreased likelihood of conception, pregnancy complications, and impairment of fetal development. Id. at 8-12 to 8-18

¹⁹ See Ahmad, supra note 6 at 74 (finding that efforts to prevent youth smoking initiation could produce health benefits seven times greater than efforts to promote adult smoking ecssation).

²⁰ See RJ Reynolds, "Estimated Change in Industry Trend Following Federal Excise Tax Increase," September 10, 1982, Bates Number 513318387/8390, http://legacy.library.ucsf.edu/tid/tib23d00;jsessionid=211D4CCF0DBD25F9DC2C9BB025239484.tobacco03 ("If a man has never smoked by age 18, the odds are three-to-one he never will. By age 24, the odds are twenty-to-one."); see also August 30, 1978Lorillard memo from Achey to CEO Curtis Judge about the "fantastic success" of Newport. Bates No. TINY0003062 ("Our profile taken locally shows this brand [Newport] being purchased by black people (all ages), young adults (usually college age), but the base of our business is the high school student."); see also September 30, 1974 R.J. Reynolds Tobacco Co. marketing plan presented to the company's board of directors. Bates No. 501421310-1335 ("They represent tomorrow's cigarette business. . . As this 14-24 age group matures, they will account for a key share of the total cigarette volume -- for at least the next 25 years.")

- ²¹ Tobacco use is driven by industry marketing tactics; comprehensive tobacco control programs are necessary to combat industry actions and includes implementation of evidence based policies. 2012 SG REPORT, *supra* note 1 at ES-7, 8, 487, 508, 540, 601, and 851-852.
- ²² 2012 SG REPORT, supra note 1 at ES-5 and 508 (industry marketing, particularly at the point of sale, causes youth smoking.)
- ²³ See Press Release, Governor of New York, Governor Cuomo Announces New York's Smoking Rates Reduced to Lowest Levels in Recorded State History (June 8, 2015), https://www.governor.ny.gov/news/governor-cuomo-announces-new-yorks-smoking-rates-reduced-lowest-levels-recorded-state-history (last accessed August 2, 2015) (adult smoking rate was 14.5% in 2014); see also New York State Behavioral Risk Factor Surveillance System (2014) (weighted adult population for 2014 was 14,461,387).
- ²⁴ CTRS FOR DISEASE CONTROL & PREVENTION, CURRENT CIGARETTE SMOKING AMONG ADULTS IN THE UNITED STATES, http://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/ (2013); IOM REPORT, supra note 6 at 2-9 (tobacco use is more common among those with mental illness, but nature of relationship remains unclear); see also LEGACY, TOBACCO FACTSHEET: YOUTH AND SMOKING, 2-3 (Results from 2009 show more than twice as many LGB students have smoked before age of 13 compared to heterosexual students; they smoke more than heterosexual counterparts; LGBT young adults smoke more than heterosexual young adults; Youth smoking increases with decreasing levels of parental education; more 19-22 year olds NOT enrolled in a 4 year college are smokers (compared to those who ARE enrolled in college).
 ²⁵ NEW YORK STATE DEPARTMENT OF HEALTH, BUREAU OF TOBACCO CONTROL, TRENDS IN SMOKING PREVALENCE AMONG NEW YORK STATE YOUTH, Statshot Vol. 8, No.1 (January 2015)
- ²⁶ AMERICAN CANCER SOCIETY CANCER ACTION NETWORK, PREVENTING MILLIONS OF LIVES LOST TO TOBACCO USE: MAKING THE NEXT GENERATION TOBACCO-FREE, http://www.acscan.org/content/wp-content/uploads/2014/02/Potential-for-Millions-Lives-Lost-to-Tobacco-Use.pdf (February 2014) (accessed August 17, 2015); see also New York State Department of Health, Smoking and Tobacco Use-Cigarettes and Other Tobacco Products, https://www.health.ny.gov/prevention/tobacco control/ (accessed August 17, 2015).
- ²⁷ Shari Kessel Schneider, Community Reductions in Youth Tobacco Smoking After Raising the Minimum Tobacco Sales Age to 21, TC Online First (June 12, 2015) 3-4; Winickoff, Retail Impact, supra note 7 at e3.
- ²⁸ Winickoff, *Retail Impact, supra* note 7 at e3 (while high school smoking rate declined by 47% in 4 years following age increase, no retailers went out of business as of 2014).
- ²⁹ See U.S. DEPT. OF COMMERCE, STATE & COUNTY QUICKFACTS, http://quickfacts.census.gov/qfd/states/36/3651000.html (2013 New York City population estimate) and http://quickfacts.census.gov/qfd/states/36/36103.html (2013 Suffolk County population estimate).
- ³⁰ Jonathan P Winickoff et al., Public Support for Raising the Age of Sale for Tobacco to 21 in the United States, TC Online First (April 15, 2015); King et al., Attitudes toward Raising the Minimum Age of Sale for Tobacco Among U.S. Adults, Am. J. OF PREVENTIVE MED. 1, 3 (July 15, 2015); see Ahmad, supra note 6 at 76
- 31 King, supra note 29 at 3.
- ³² Winickoff, *Retail Impact*, *supra* note 7 at e2 (uses number of cigarettes consumed by18-20 year olds, so includes sales to those individuals as well as to others on behalf of those individuals.)
- 33 Winickoff, Retail Impact, supra note 7 at e2.
- ³⁴ New York, Department of Motor Vehicles, New York's New Driver License, available at http://dmv.ny.gov/driver-license/nys-new-driver-license.
- 35 Winickoff, Retail Impact, supra note 7 at e2
- 36 Winickoff, Retail Impact, supra note 7 at e2.
- ³⁷ TOBACCO21.ORG, http://tobacco21.org/wp-content/uploads/2014/02/Tobacco-21-Cities-new17.pdf (accessed August 17, 2015); CAMPAIGN FOR TOBACCO-FREE KIDS, STATES AND LOCALITIES THAT HAVE RAISED THE MINIMUM LEGAL SALE AGE FOR TOBACCO PRODUCTS TO 21, https://www.tobaccofreekids.org/content/what_we_do/state_local_issues/sales_21/states_localities_MLSA_21.pdf (July 14, 2015).
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- 39 IOM REPORT, supra note 6 at 6-20.

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- 40 2012 SG REPORT, supra note 1 at ES-7.
- ⁴¹ Id. at ES-7, 696 and 854; see also IOM REPORT, supra note 6 at 6-20; see generally Center for Public Health and Tobacco Policy, Tobacco Retail Licensing: Local Regulation of the Number, Location and Type of Tobacco Retail Establishments in New York (2013) (effectiveness of limiting/reducing density of tobacco retail outlets and youth access); see also Center for Public Health and Tobacco Policy, Tobacco Price Promotion: Local Regulation of Discount Coupons and Certain Value-Added Sales (2013) (effectiveness of maintaining high prices on tobacco products and youth access); see also Center for Public Health and Tobacco Policy, Cause and Effect: Tobacco Marketing Increases Youth Tobacco Use (2012).
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Key Facts:

Tobacco use is HIGHER in Cattaraugus County than in the rest of NYS:

- More than 28% of Cattaraugus County adults are current smokers.¹⁰
- In the past 30 days,6.5% of 7-12th graders and 11.8% of seniors have smoked cigarettes, most obtain products from 18-20 year-olds. ¹¹
- 21% of high school seniors and 12% of 7-12th graders in Cattaraugus County have vaped in the past 30 days.¹¹

Tobacco use is closely linked to heart disease and cancer, both costly to treat.¹

- Over 300 County residents die every year due to heart disease; many are under age 65.¹²
- Nearly 300 County residents are diagnosed with cancer every year, and there are over 150 cancer deaths yearly.¹³

What about businesses?

- Tobacco sales to 18-20 year olds are only 2% of retail tobacco sales. 14
- 98% of tobacco sales and all ancillary purchases food, drink, etc. — will be unaffected.¹⁴
- Research has shown only a minimal retail impact of raising the sales age to 21.¹⁴

Tobacco 21 for a Healthier Future

Smoking among adolescents and young adults

Smoking is the single most preventable cause of death and disease in the United States and New York State, costing the lives of 28,200 New Yorkers annually. "Tobacco 21" laws, which raise the minimum age of legal access to purchase tobacco to 21 years, discourage youth from becoming addicted to tobacco, reduce tobacco use, and prevent costly tobacco-related diseases.

Why raise the minimum age to purchase tobacco to 21?

Most regular smokers start by age 21.

- 95% of adult smokers start smoking before age 21.²
- Many smokers transition from experimental to regular tobacco use between ages 18 and 21. ²

Reduce youth access to tobacco.

- Studies show that high school smokers under age 18 are more likely to get cigarettes from social sources, such as borrowing or having someone else buy the cigarettes they smoked.³
- 90% of people who buy cigarettes to give to minors are under age 21.4
- Smokers age 18 to 19 are the most likely age group to be asked to provide tobacco to minors.⁵

Reduce youth smoking rates.

• In the five years following a law in Needham, MA that raised the age for tobacco sales to 21, youth smoking in Needham dropped by nearly half, from 13% to 7%.⁶

It could result in substantial health benefits.

• In March 2015, the Institute of Medicine (IOM) concluded that raising the tobacco sale age to 21 could substantially reduce youth tobacco use initiation, smoking prevalence, and negative health consequences of smoking.⁷

Nicotine has a stronger impact on youth and young adults.8

- Brain development continues through young adulthood, making young people highly susceptible to nicotine.
- Adolescents become addicted to nicotine more quickly and at lower levels of use than adults.

Tobacco and E-cigarette companies target youth.

 Tobacco companies market heavily to youth and young adults to recruit "replacement smokers" to sustain their profits.

State and local "Tobacco 21" laws8

Although the federal minimum age for tobacco sales is 18, states and local jurisdictions have the authority to enact laws requiring a higher minimum age.

- In 2015, Hawaii became the first state to raise the minimum age of tobacco sales to 21.
- Over 100 municipalities in the U.S., including New York City, Suffolk County, and recently Chautauqua County have raised the minimum age for tobacco sales to 21.

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