HEALTH MANAGEMENT ASSOCIATES
HMA COMMUNITY STRATEGIES

Promoting Health Among Teens! Abstinence Only Program Evaluation

PREPARED FOR THE SEXUAL RISK EDUCATION (SRAE) PROGRAM OF THE NEVADA DIVISION OF PUBLIC AND BEHAVIORAL HEALTH

BY
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Background

The Sexual Risk Avoidance Education Program (SRAE) of the Maternal, Child, and Adolescent Health Section (MCAH), Bureau of Child, Family and Community Wellness (BCFCW), in the Nevada Division of Public and Behavioral Health contracted with Health Management Associates, Inc. (HMA), a national research and consulting firm to evaluate the implementation and outcomes of *Promoting Health Among Teens! Abstinence Only* (*PHAT!-AO)* in Nevada. The evaluation uses both program and interview data from SRAE grantees who are funded to teach *PHAT!-AO* curriculum.

The Title V Sexual Risk Avoidance Education (SRAE) provides funding for projects that support young people in making decisions to abstain from sexual activity by providing abstinence programing as defined by Section 510(b) of the Social Security Act.

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The goal of the evaluation was to assess the degree of fidelity and adherence to the published *PHAT!-AO* model, and the extent to which programs are obtaining positive outcomes. As part of the process, HMA engaged in evaluation of:

- Adherence to recommended facilitator qualifications;
- Adherence to facilitator professional development;
- Number of modules delivered; and
- Completeness and duration of module delivery.

The timing of the evaluation took place during the global pandemic event caused by the novel coronavirus-2019 (COVID-19). With implementation of *PHAT!-AO* based on in person curriculum delivery strategies, it quickly became clear that COVID-19 would disrupt the way in which the program has historically been delivered, shifting classes primarily to a virtual platform. Additional research questions were added to understand programmatic adaptations designed to make the curriculum more relevant to youth in Nevada, as well as to understand changes necessary to address the impacts of COVID-19.

About PHAT!-AO Curriculum

The *PHAT!-AO* curriculum provides evidence-based, medically accurate abstinence education to youth ages 10-19 years of age with priority enrollment given to high risk youth. The overall goal is to prevent teen pregnancy and exposure to sexually transmitted infections (STIs), including HIV/AIDS. Additionally, *PHAT!-AO* teaches young people sexual risk avoidance, personal responsibility, self-regulation, goal setting, and healthy decision making, while promoting prevention of youth risk behaviors without normalizing teen sexual activity and emphasizing a focus on a positive future.

The program consists of eight one-hour modules with interactive, youth-centered small group discussions, activities, videos, and practice, that give adolescents the tools needed to reduce their risk of STIs, including HIV, and pregnancy, and to allow them to feel comfortable abstaining from sexual activity

The curriculum is rooted in research-based protocols, procedures, and content. Fidelity to the model requires attention to two sets of Core Elements:

Content Core Elements, which are the essential ingredients in what is being taught in the intervention that have been found to change risk behaviors:

1. Correct information about HIV, STIs, and pregnancy and prevention strategies;
2. Behavioral attitudes/outcome expectancies;
3. Negotiation skills and problem-solving skills; and
4. Self-efficacy in adolescents and a desire to practice abstinence.

Implementation Core Elements, which are the essential ingredients in how the intervention can be implemented with fidelity, resulting in a positive learning experience with successful outcomes:

1. Facilitators must demonstrate a caring and supportive attitude;
2. Facilitators use only the core intervention materials; and
3. Facilitators' have specific experience, education, skillset, and delivery style.

PHAT!-AO programs must maintain fidelity with the Core Elements to be effective; however, there are allowable modifications to certain activities and delivery methods if better suited for the participating youth and setting.

About the SRAE grantees Implementing PHAT!-AO

Carson City Health and Human Services Adolescent Health Program (Carson City) is a local health department housed within Carson City that aims to protect and improve the quality of life of those in the community through disease prevention, education, and support services. Carson City implements the *PHAT!-AO* program in several middle schools and high schools in Carson City. Schools include Carson City High School, Bishop Manogue, and Virginia City Middle School and Elementary School. Prior to focusing on school settings, the program was offered in correctional settings such as China Springs and Aurora Pines correctional facilities, and Boys & Girls Clubs.

Family Resource Centers of Northeastern Nevada (FRC) enhances the quality of life for Northeastern Nevada residents through education, programs, and community connections. FRC offers *PHAT!-AO* through its Teen Health Education program, which delivers medically-accurate, evidence-based health education programs to youth 5th to 7th grades and adolescents in 9th to 12th grades. FRC implements the *PHAT!-AO* program in community settings.

Quest Counseling & Consulting (Quest) is a nonprofit corporation that provides behavioral health inpatient and outpatient therapy and counseling to adults, families, and adolescents in the Reno area. Their adolescent services include behavioral health assessments, individual substance use counseling, group counseling, and residential treatment for mental health and substance use conditions. Quest implements the *PHAT!-AO* program in their residential house/s. Prior to the onset of the COVID-19 pandemic, Quest operated both a boys' and girls' residential program. The *PHAT!-AO* curriculum was

historically delivered to mixed gender groups from both houses. Because of the risks associated with group living during the pandemic, Quest has closed its girls' residential facility.

History of Abstinence Only Programs

Over time, competing philosophies about the purpose and scope of sexual health education have influenced public sentiment and approaches to providing resources and information to young people about sex and sexual health. Much of the debate has been centered around beliefs about whether providing comprehensive, medically accurate information about sexual health, including information about contraception, would encourage sexual behavior in young people. While research has shown this not to be the case, the debate persists.

In the United States, public support for school-based sex education was relatively widespread between 1960 and about 1981 when Congress passed the Adolescent Family Life Act which began funding for what we now refer to as abstinence-only education. This shift in funding priority fueled a debate between supporters of comprehensive sex education approaches and abstinence-only education approaches.[1] Generally, abstinence only programs are programs that encourage youth to remain abstinent from sex and assert abstinence as the only safe and effective way to prevent unwanted pregnancies and STIs. Comprehensive sexual health programs usually include information about abstinence as the preferred method of prevention, but also include additional, research-based information about contraception and condom use. These categories are broad, and include a range of programming, but most fall within these general guidelines.[2]

In 1996, prioritization of abstinence-only education continued with the passage of welfare reform which introduce an eight-point definition of abstinence only education referred to as the "A-H definition". The eight points included:

A. Have as its exclusive purpose teaching the social, psychological, and health gains to be realized by abstaining from sexual activity;
B. Teach abstinence from sexual activity outside marriage as the expected standard for all school-age children;
C. Teach that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy, sexually transmitted diseases, and other associated health problems;
D. Teach that a mutually faithful, monogamous relationship in the context of marriage is the expected standard of sexual activity;
E. Teach that sexual activity outside the context of marriage is likely to have harmful psychological and physical effects;

[1] https://www.plannedparenthood.org/uploads/filer_public/da/67/da67fd5d-631d-438a-85e8-a446d90fd1e3/20170209_sexed_d04_1.pdf
[2] https://www.kff.org/womens-health-policy/fact-sheet/abstinence-education-programs-definition-funding-and-impact-on-teen-sexual-behavior/

F. Teach that bearing children out of wedlock is likely to have harmful consequences for the child, the child's parents, and society;
G. Teach young people how to reject sexual advances and how alcohol and drug use increases vulnerability to sexual advances; and
H. Teach the importance of attaining self-sufficiency before engaging in sexual activity.

Welfare reform legislation also altered parts of Title V in ways that required states to ensure that federal funding was used to support only programs that complied with the A-H definition. [3]

In 2012, abstinence-only education was rebranded as "sexual risk avoidance education" (SRAE), and in 2018, funding available to states under Title V were also retitled as such and disconnected from the federal A-H definition described above, although the funding still requires an exclusive focus on abstinence. SRAE funded programs must now comply with the following standards:

- Curricula, interventions, and activities that exclusively implement education in sexual risk avoidance (defined as voluntarily refraining from non-martial sexual activity) and address the trauma needs of vulnerable youth;
- Curriculum is medically accurate, age-appropriate including the developmental stage of the intended audience, culturally appropriate, and linguistically appropriate;
- Interventions, materials, and curricula must not promote, encourage, or normalize sexual activity outside of marriage; and
- Curricula, interventions, and activities can provide information on contraception that does not include demonstrations and/or simulations of contraceptive devices. Any information provided on contraception must ensure that youth understand that contraception offers physical risk reduction and not risk elimination.

And, programs must address the following topics:

- The holistic individual and societal benefits associated with personal responsibility, self-regulation, goal setting, healthy decision-making, and a focus on the future;
- The advantage of refraining from non-marital sexual activity to improve physical and emotional health of youth;
- The increased likelihood of avoiding poverty when youth attain self-sufficiency and emotional maturity before engaging in sexual activity;
- The foundational components of healthy relationships and their impact on the formation of healthy marriages and safe and stable families;
- How other youth risk behaviors, such as drug and alcohol usage, increase the risk for teen sex; and
- How to resist and avoid, and receive help regarding sexual coercion and dating violence, recognizing that even with consent, teen sex remains a youth risk behavior.[4]

[3] Title V, Section 510 (b)(2)(A-H) of the Social Security Act (P.L. 104-193).
[4] https://www.acf.hhs.gov/fysb/resource/srae-facts

A nine-year congressionally mandated study of four Title V Abstinence-Only-Until-Marriage (AOUM) programs found that teens in such programs were no more likely to abstain from sex, delay sexual initiation, or have fewer partners than teens not in such programs.[5] While teens in the Title V AOUM programs were more adept at identifying types of STIs, they were less knowledgeable about the function of condoms in effectively preventing STIs than their counterparts.[6] Any short-term success of the programs was limited to a subset of outcome measures, such as support for abstinence and less support for teen sex, not in increased refusal or communication skills.[7] Further, these findings disappear after the first year and do not impact long-term sexual choices.[8] In comparison, two CDC meta-analyses found that comprehensive sexual education programs—not abstinence programs— achieved success in reducing sexual activity, frequency of unprotected, number of sex partners, and STIs.[9] A separate systematic review found similar results— only comprehensive programs result in improved knowledge, attitudes, behaviors, and outcomes.[10] In addition to not achieving its goals, abstinence curricula reinforce gender stereotypes, which has a particularly harmful effect on both the physical and psychological health of women and girls. Specifically, abstinence programs perpetuate the idea of "good" girls who are sexually passive, which creates a culture of shame around sexual activity and results in girls not carrying contraceptives or seeking medical treatment for STIs.[11] Abstinence programs often include false and misleading information rendering them ineffective at reducing risk-taking behaviors and delaying sexual initiation.

While still centering abstinence only messages, the inclusion of strategies that have some overlap with comprehensive sex education programs has helped in the development of programming that demonstrates efficacy in some areas not previously seen with abstinence programming. For example, a study that found abstinence-only intervention delayed sexual activity within a two-year period was based on programs with three additional strategies. Specifically, the programs did not interrelate morality and decision to have sex, stressed waiting until youth is ready to have sex rather than waiting until marriage and did not criticize condom use.[12]

As described above, in 2012 the Health and Human Service's general department established the SRAE Program (GD-SRAE) to provide funding for programs that teach methods for voluntarily not engaging in

[5] (2018, June). *Abstinence education programs: definition, funding, and impact on teen sexual behavior*. Kaiser Family Foundation. https://www.kff.org/womens-health-policy/fact-sheet/abstinence-education-programs-definition-funding-and-impact-on-teen-sexual-behavior/
[6] Ibid.
[7] Trenholm, C., et al. (2007, April). Impacts of four Title V Section 510 abstinence education programs.
[8] Ibid.
[9] Ibid.
[10] Carroll, A.E. (2017, August 22). *Sex education based on abstinence? There's a real absence of evidence.* New York Times. https://nyti.ms/2vUD7Ft
[11] Kay, J.F. & Jackson, A. (2006, September). Sex, lies & stereotypes. *Legal Momentum*. www.legalmomentum.org
[12] Ibid.

non-marital sexual activity and other risky behaviors.[13] These programs include additional strategies such as self-regulation, success sequencing for poverty prevention, healthy relationships, and goal setting. Effectiveness of SRAE programs is measured by delaying sexual initiation, abstaining from non-marital sex. It is recommended that organizations implementing SRAE programs work with local community partners and agencies to improve health outcomes for program participants. The GD-SRAE explicitly prescribes that SRAE Programs and their partners cannot normalize teen sex.

PHAT!-AO is an SRAE program that was developed to be delivered in settings where comprehensive sex education was not feasible for political or other reasons. *PHAT!-AO* focuses on skill building around relationship building, decision making, goal setting, and self-reflection, and includes interactive exercises that allow young people to practice these skills as a part of development. The inclusion of these additional skills contributes to the presumed efficacy of the program and allows for adaptations for older youth that may already be sexually experienced but might benefit from making different decisions around sex and sexual health. *PHAT!-AO* has been evaluated twice, with mixed results.

In the original *PHAT!-AO* efficacy study (referred to throughout this report as "the original study"), the results demonstrated that the program delayed sexual debut among 6th and 7th grade African American youth 24 months after the intervention ended and significantly impacted other sexual behaviors.[14] A secondary data analysis of the original *PHAT!-AO* study found normative beliefs about sex did not mediate outcomes; rather, involving participants' parents or friends may improve outcomes by reducing expectations for normative approval of sexual involvement. However, *PHAT!-AO*'s additional strategies do not always lead to increased efficacy— this analysis also found that increased HIV/STI knowledge was not associated with a reduction in self-reported sexual initiation.[15]

In a subsequent evaluation of the program, researchers in Yonkers, New York replicated the original evaluation of the program, but did not obtain the same evidence of effectiveness.[16] This could be due to differences relating to sexual experience at baseline, race, and ethnicity between the population group and original group. The results of the replication study may indicate that the program model is only suitable for participants with the same characteristics as those in the original study.

[13] (2020, May 18). *Sexual risk avoidance education program- general department program fact sheet*. ACF. https://www.acf.hhs.gov/fysb/resource/srae-facts

[14] Jemmott, J.B., Jemmott, L.S., & Fong, G.T. (2010). Efficacy of a theory-based abstinence-only intervention over 24 months. *Arch Pediatr Adolesc Med,* 164(2): 152-159. doi:10.1001/archpediatrics.2009.267

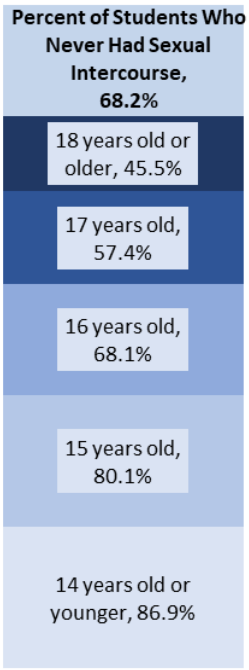
[15] Zhang, J., Jemmott, J. B. III, & Jemmott, L. S. (2015). Mediation and moderation of an efficacious theory-based abstinence-only intervention for African American adolescents. *Health Psychology, 34*(12), 1175-1184.

[16] Walker, E.M., Inoa, R., & Coppola, N. (2016). Evaluation of promoting health among teens abstinence-only intervention in Yonkers, NY. Sametric Research. Princeton, N.J.

Adolescent Sexual Health in Nevada

According to 2019 Nevada High School Youth Risk Behavioral Surveillance System (YRBSS) data, 68.2 percent of high school students reported as not ever having sexual intercourse (significantly higher than in 2017 when the rate was 63.2%).[17] The percent of youth reporting having sexual intercourse for the first time before the age of 13 was 2.4 percent (significantly lower than in 2017 when the rate was 4.1%).[18] Figure 1 shows the proportion of sexually active high school students by age based on 2019 YRBSS data, showing that by age 18, more than half of youth have had sexual intercourse.[19] Just under one in four (22.4%) high school students reported having had sexual intercourse with at least one person in the past three months and 8.1 percent reported having sexual intercourse with four or more persons during their life.[20]

Figure 1: Percent of Students who Never Had Sexual Intercourse, by Age, 2019



Looking at harm reduction behaviors, in 2019, only 56.8 percent of Nevada's high school students reported using a condom during their last sexual intercourse, 19.0 percent reported using birth control pills, and 7.4 percent reported using a long-acting reversible contraceptive (e.g., IUD, Depo-Provera, Nuva Ring).[21] Use of protection during sex increases slightly from 2017 to 2019, but the change was not significant. Overall, 15.3 percent of high school students did not use any method to prevent pregnancy during their last sexual intercourse (higher than the national rate of 13.8% in 2017).[22]

According to 2017 Nevada High School YRBS data, 83.7 percent of high school students self-identified as heterosexual or straight, while 3.0 percent identify as gay or lesbian, 9.6 percent identify as bisexual, and 3.6 percent are not sure about their sexuality.[23] For those who identify as lesbian, gay, bisexual (LGB) (12.6%), 42.8 percent reported as ever having sexual intercourse and 7.6 percent reported having sexual intercourse for the first time before age 13.[24] LGB high school students also reported lower levels of condom use (41.9%), and overall higher levels of not using any method to prevent pregnancy during

[17] Diedrick, M., Lensch, T. Zhang, F., Peek, J., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. 2019 Nevada High School Youth Risk Behavior Survey (YRBS) Report. Note that in 2017, the percent of high school students reported as not ever having sexual intercourse in Nevada was higher than in youth across the United States at 60.5%. 2019 national YRBS data are not yet available.
[18] Ibid.
[19] Ibid.
[20] Ibid.
[21] Ibid.
[22] Kann, L., et al. (2018). Youth Risk Behavior Surveillance — United States, 2017. 2019 national YRBSS data are not yet available.
[23] Lensch, T., et al. *2017 Nevada High School Youth Risk Behavior Survey (YRBS) Report*. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno, 2018. Retrieved from https://www.unr.edu/Documents/public-health/2017_yrbs/2017 Nevada High School YRBS.pdf.
[24] Lensch, T., et al. *2017 Nevada High School Youth Risk Behavior Survey (YRBS) Report*.

their last sexual intercourse (38.2%) compared to both the overall student body and students who identified as heterosexual.[25]

Among different race and ethnicities, Hispanic/Latino students had the highest proportion of students who ever had sexual intercourse at 34.5 percent, followed by Black (34.1%), American Indian/Alaska Native (33.6%), and White (32.1%) students.[26]Asian students had the lowest proportion at 14.3 percent.

Trends in Sexual Health Behavioral Outcomes Among Adolescents

Nevada was one of 38 states with a significant decline in birth rates for females aged 15–19 between 2017 and 2018.[27] In 2018, Nevada's teen birth was 20.5 per 1,000 teens, higher than the U.S. teen birth rate at 17.3. From 2017 to 2018, the teen birth rate in Nevada has declined by six percent (compared to national decline of 7.0%).[28] While teen birth rate as decreased for the largest racial and ethnic groups, disparities persist. In 2017, non-White Black teens experience the highest teen birth rate at 34.8 births per 1,000 births followed by Hispanic teens at 25.6 and non-Hispanic White teens at 13.4. From 2017 to 2018, Hispanic and Non-Hispanic White teens had an eight percent decrease over that one-year period, while Non-Hispanic Blacks experienced a four percent decrease.[29]

STIs are another health issue related to having unprotected sexual intercourse. In 2018, in Nevada, there were 3,959 chlamydia cases among adolescents, ages 10 to 19, and those between the ages 15 to 19 accounted for 22.0 percent of all chlamydia cases statewide (corresponding to a rate of 1,917 cases per 100,000 population).[30] Female adolescents were much more likely to report chlamydia, making up 75.4 percent of all cases reported in 2018 among those between ages 10 to 19.[31] Looking at STIs, the percent of chlamydia cases increased 5.5 percent between 2017 and 2018 among youth ages 10 to 19, with youth 15 to 19 driving that increase.[32]

Looking at gonorrhea, another common STI among adolescents, there were 1,075 cases of gonorrhea for those ages 10 to 19, accounting for 16.6 percent of all gonorrhea cases statewide (lower than the

[25] Lensch, T., et al. *2017 Nevada High School Youth Risk Behavior Survey (YRBS) Report*.
[26] Diedrick, M., Lensch, T. Zhang, F., Peek, J., Clements-Nolle, K., Yang, W. State of Nevada, Division of Public and Behavioral Health and the University of Nevada, Reno. 2019 Nevada High School Youth Risk Behavior Survey (YRBS) Report.
[27] National Vital Statistics System. (2019). National Outcome Measure 23: Teen birth rate, ages 15 through 19, per 1,000 females.
[28] National Vital Statistics System. (2019). National Outcome Measure 23: Teen birth rate, ages 15 through 19, per 1,000 females.
[29] National Vital Statistics System. (2019). National Outcome Measure 23: Teen birth rate, ages 15 through 19, per 1,000 females.
[30] Office of Public Health Informatics and Epidemiology, and Division of Public and Behavioral Health. (2019). *2018 STD Fast Facts*. Retrieved from http://dpbh.nv.gov/uploadedFiles/dpbh.nv.gov/content/Programs/STD/dta/Publications/Fast%20Facts%202018%20State%20final.pdf
[31] Office of Public Health Informatics and Epidemiology, and Division of Public and Behavioral Health. (2019). *2018 STD Fast Facts*
[32] Office of Public Health Informatics and Epidemiology, and Division of Public and Behavioral Health. (2019). *2018 STD Fast Facts*..

national percentage of 17.2%).[33] Female adolescents again accounted for the majority of the cases in the age group, accounting for 58.1 percent of cases.[34] For the same population, gonorrhea cases increased by 44.8 percent between 2017 and 2018 for those between the ages 10 to 19.[35]

For HIV, in 2019 there were 90 new HIV diagnoses for those between the ages 13 to 24 years, accounting for 17.8 percent of all new HIV cases statewide.[36] Male adolescents made up the majority of those new infections, accounting for 94.4 percent of cases in that age group.[37] For new HIV Stage 3 (AIDS) diagnoses, there were 15 cases among those ages 13 to 24 years, again a majority of them among male adolescents (80.0%).[38,39] Overall, in 2019 there were 321 individuals living with HIV in the state between the ages of 13 to 24 years, making up 2.7 percent of all people living with HIV in Nevada.[40] The number of new HIV diagnoses among youth ages 13 to 24 decreased by 8.0 percent per year 2017 to 2019.

Influences Driving Sexual Health Behaviors Among Adolescents in Nevada

In 2019, SRAE and HMA partnered to develop a statewide needs assessment of adolescent health and safety, including youth sexual health and risk. Findings from the assessment describe the environment in which *PHAT!-AO* is being implemented and the needs of adolescents living in Nevada. Recommendations from the assessment support implementation of sexual health education programs like *PHAT!-AO*. This is because the assessment identified a lack of consistent education about sexual health. Many schools have no standardized curriculum, if they have one at all, and many leave it up to the individual teacher to implement sexual health education in the way they are most comfortable. This means that many students have varying levels of information, which they often supplement with information gleaned online and from one another. This leads to perpetuation of myths and misinformation about sex, often amplified online via social media. Compounding this challenge are the unique challenges facing Nevada's families, including:

- Many families are struggling to make ends meet and finding adequate housing, so other needs like adolescent sex education are not prioritized. Meanwhile, teens often find themselves struggling to balance work and school themselves.

[33] Office of Public Health Informatics and Epidemiology, and Division of Public and Behavioral Health. (2019) *2018 STD Fast Facts*
[34] Office of Public Health Informatics and Epidemiology, and Division of Public and Behavioral Health. (2019) *2018 STD Fast Facts*
[35] Office of Public Health Informatics and Epidemiology, and Division of Public and Behavioral Health. (2019) *2018 STD Fast Facts*
[36] Office of Public Health Informatics and Epidemiology, Division of Public and Behavioral Health. (2020). *2019 HIV Fast Facts*. Retrieved from http://dpbh.nv.gov/uploadedFiles/dpbh.nv.gov/content/Programs/HIV-OPHIE/dta/Publications/Nevada-2019-HIV-Fast-Facts.pdf.
[37] Office of Public Health Informatics and Epidemiology. *2019 HIV Fast Facts*
[38] Office of Public Health Informatics and Epidemiology. *2019 HIV Fast Facts*
[39] Stage 3 (AIDS) diagnoses and HIV diagnoses may duplicate case counts if the person was diagnosed with both stage 3 (AIDS) and HIV in the same year.
[40] Office of Public Health Informatics and Epidemiology. *2019 HIV Fast Facts*

- Barriers to discussions about sexual health and risk among parents, youth, providers of adolescent health services and schools, in part due to predominantly conservative mindset about adolescence and sexual health and that discussing sex with young people will make them more likely to engage in sex, lead to sexual health and risk being a difficult subject across the state.

Another issue commonly mentioned was that consent is not a topic often broached with youth and that there are concerns about how much youth understand about asking for and exercising consent. Stakeholders also identified high levels of relationship violence, as many teens struggle to define what a healthy relationship should look like and how to communicate with one another about topics like consent.

Lastly, the assessment found that youth and community leaders shared similar ideas regarding the influences driving sexual health behaviors among adolescents in Nevada, as described in Figure 2.[41]

Figure 2 Influences for why youth decide to engage in sexual behaviors

Quotes from Youth

- "There are no positive activities for teens in our community"
- "Living in a small community makes it hard to avoid peer pressure"
- "Abstinence does not exist anymore."
- "Some people make it a thing where you are not cool if you're a virgin."
- "It's like a trend that if you ain't got a baby you're not cool."
- "In Pahrump, one person had a baby and everybody else got baby fever."
- "[Some teens are] choosing to have a baby to change their life – a baby provides responsibility that keeps them from doing bad things."

Quotes from Community Leaders

- "[Teens talk about sex] in a way that makes it seem like you have to do it; life changing; like it will give you the love of your life."
- "There is stigma in both becoming a teen mom but also in talking about prevention."
- "Sex is not talked about in the home."
- "Sex ed is part of the health class curriculum and what gets taught (and how much of it – 1 period or 1 week) is up to the health class teacher."
- "Kids don't want to use protection- youth say, 'We don't have time'.
- "[Teens don't want to] get made fun of for being virgin."
- "[When I lost my virginity at 13,] the community health nurse was everything to me."
- "Kids feel like it won't happen to them."

Looking at certain sub-populations of adolescents, the assessment identified two populations as being more at risk: LGBTQ youth and migrant youth. For LGBTQ youth, there are issues related to

[41] HMA. (2019). Adolescent Health Assessment.

homelessness as they are more likely to be rejected by their families and kicked out of their homes. Youth with access to shelters may fear being bullied or treated poorly in those shelters and so feel they must stay on the street. These same youth have a hard time finding jobs, particularly in areas where the work is centered around alcohol and gambling (meaning they need to be 18 years of age) and so turn to sex work for income, which is then linked to issues of trafficking. Specifically related to sexual health education, there are few places that have an LGBTQ-specific curriculum inclusive of their needs and concerns and so they may be more at-risk for sexual risk behaviors because they do not have the appropriate information.

For migrant children, there are issues related to cultural assimilation due to the current political climate and the focus on immigration. Many migrants are fearful of accessing services (whether they are legally documented or not) and so have "gone underground." This then puts migrant youth at greater risk of health issues because they cannot access resources or help.

Methodology

The evaluation was designed using a mixed method approach grounded in *PHAT!-AO* literature and evidence. Both quantitative and qualitative data were collected, reviewed, and analyzed to inform both a process and outcome evaluation. The design was sensitive to capacity of grantees for new data collection and prioritized how best to use existing data for the evaluation.

Literature Review

A scan of published studies on the implementation and achieved outcomes of *PHAT!-AO* was conducted. Search words such as 'promoting health among teens abstinence only intervention' and 'abstinence only evaluation' were used to identify relevant studies. Two studies were identified. From each study, key characteristics regarding fidelity and participant demographics were identified and then used to assess alignment with the curriculum implementation by current SRAE grantees in Nevada. The eight key characteristics include:

1. Type of facilitator/educator
2. Setting
3. Number of days to deliver modules
4. Gender composition of the group
5. Race of facilitator(s)
6. Race of participants
7. Age of participants
8. Group size[42]

PHAT!-AO Existing Data Review

HMA worked with *PHAT!-AO* funded SRAE grantees to gather existing program implementation ("process") data. There were four main data sources available to use for the process evaluation:

1. *PHAT!-AO* grantee monthly, quarterly and annual reports;

[42] The *PHAT!-AO* Logic Model

2. Curriculum implementation data;
3. Participant demographic data; and
4. Participant survey data.

Data from each area was collected, reviewed, and summarized to demonstrate fidelity to *PHAT!-AO* implementation standards.

PHAT!-AO grantee monthly, quarterly, and annual reports

Each grantee is required to submit monthly, quarterly, and bi-annual reports to SRAE about their activities as it relates to each of the five program goals and objectives.

Qualitative analysis of these reports was conducted to organize the information into meaningful themes to understand implementation strengths and challenges across each *PHAT!-AO* funded partner, as shown in Table 1.

Table 1 Themes Used for Qualitative Analysis of SRAE Grantee Reports

Goal	Theme Topics and Other Data
Goal 1: To Implement Evidence-Based Programing	Reviewed training and supports for program facilitators that included: • *PHAT!-AO*/Evidence based curricula training; • Trauma informed care; • Topic specific training (e.g. teen dating violence, suicide); • Medical Accuracy.
Goal 2 Community Outreach and Collaboration	Reviewed outreach and partnership activities that included: • List of program partners; • List of Outreach activities and outcomes; • Referral resources for youth.
Goal 3: Provide Information and Promote	Reviewed activities focused on program promotion, that included: • Descriptions of educational and promotional efforts.
Goal 4: Youth Participation	Reviewed activities focused on increase and sustaining youth participation that included: • Recruitment and retention plans; • Barrier reduction policies; • Use of incentives; • Inclusion of positive youth development strategies.
Goal 5: Reporting and Program Fidelity	Reviewed activities related to reporting and program fidelity that included: • Tracking and reporting efforts for participant demographics, and eligibility, enrollment, and completion rates; • Program activity reporting processes.

Curriculum implementation data

PHAT!-AO funded partners report data on each class taught, including date or time period of class and how many modules were completed per class participant. The years over which data were collected and provided for the evaluation differed by partner, and therefore, the amount of participant data available to be analyzed differed. Analysis sought to control for this through calculation of averages, medians, and per month estimates. In some cases, data on whether participant incentive were offered was provided. However, these data were incomplete and removed from the analysis.

Descriptive statistics were calculated to estimate an average, range, and median ("typical") number of days to deliver modules and group size. Trend analysis was also conducted to learn if and how these key characteristics have changed over time. Analyses were conducted using Excel.

Participant demographic data

Demographic data about participants are collected and were used by the evaluation. Demographics include race, gender, and age. Other demographics such as parenting or pregnant teen and foster youth were collected to varying extents across the SRAE grantees. However, these data were incomplete and removed from the analysis. Participant demographics were used to understand the gender, age, racial, and ethnic composition of a typical group. Trend analysis was also conducted to learn if and how these key characteristics have changed over time. Lastly, paired sample t-tests were conducted to understand whether any difference among different participant demographics were significantly different. Analyses were conducted using Excel.

Participant survey data

For the outcome evaluation, HMA analyzed pre- and post-participant data to explore the degree to which intended participant-level outcomes of the *PHAT!-AO* programs were met. The extent to which participant survey data are collected by each partner varies. Additionally, among those who collect survey data, what is asked in the survey differs. Therefore, this analysis was limited to some extent in offering a cross-partner understanding of outcomes, including if and where outcomes differ and an exploration of what might be driving that difference in outcomes. Paired sample t-tests were conducted to understand whether any difference found pre to post participation in *PHAT!-AO* was significantly different. Survey data analysis was conducted using Excel.

Key Informant Interviews

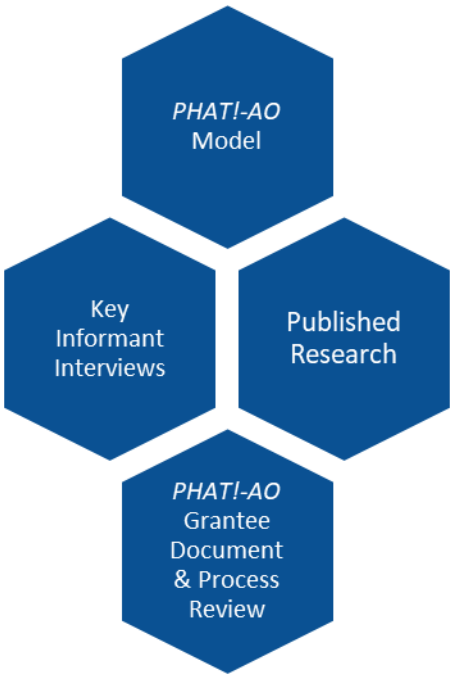
HMA conducted semi-structured interviews with *PHAT!-AO* facilitators with each of the SRAE grantees in July 2020. An interview guide was developed and vetted by SRAE. Areas of inquiry included:

1. Program implementation and adaptations;
2. Perceived and known participant outcomes;
3. The key characteristics of the curriculum and the perceived extent to which each characteristic may drive positive participant outcomes;
4. Opportunities and barriers to sustainability and expansion, pre COVID-19 and during COVID-19; and
5. Evaluation capacity.

The interview guide is provided as Appendix A. Interview notes were coded and analyzed against eight key characteristics of the *PHAT!-AO* curriculum, findings from review of published studies about *PHAT!-AO*, and the evaluation goals. The results of this comparison are described below.

Putting it all Together

To assess actual outcomes achieved among adolescents receiving the curriculum in Nevada would require a new level of rigor in data collection that has not previously been required of grantees. Such an effort would require a higher level of dedicated finding for data collection and evaluation than is currently available. In light of resource limitations, HMA has assembled data about *PHAT!-AO* implementation in Nevada along with the published evidence from prior evaluation studies of the program demonstrating participants outcomes. By focusing on fidelity of implementation, and compliance with the fundamental core elements of *PHAT!-AO*, SRAE *may be able to assume,* based on this evidence, that its *PHAT!-AO* grantees are having similar outcomes in Nevada.



Findings on *PHAT!-AO* Participation

Program data on overall participation for two of the three SRAE grantees was reported from 2014 - 2020, with one partner providing data from 2018-2020. Generally, the number of participants engaging in *PHAT!-AO* is increasing over time, as shown in Figure 3.

Figure 3 Total Number of Participants, by Year

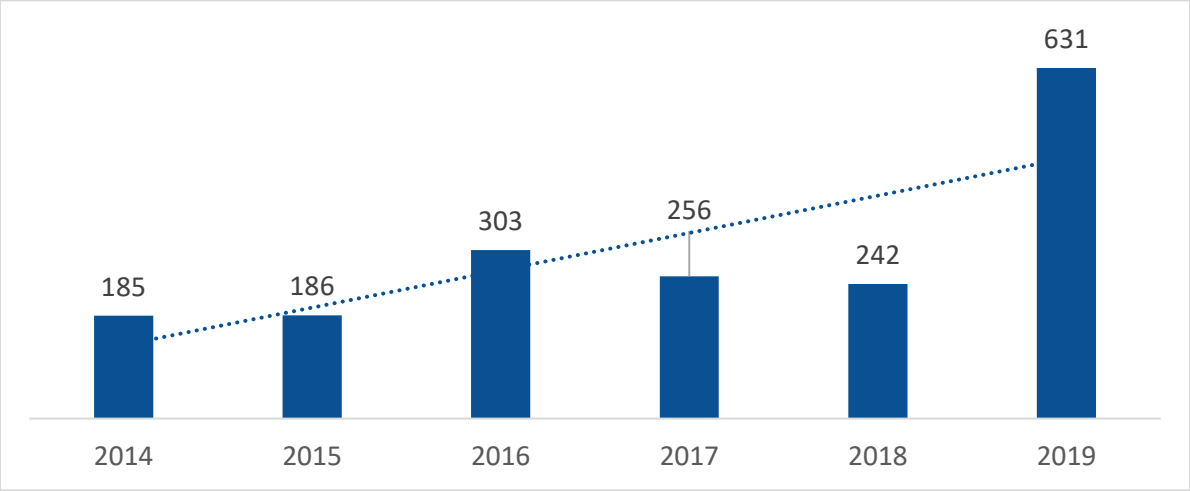
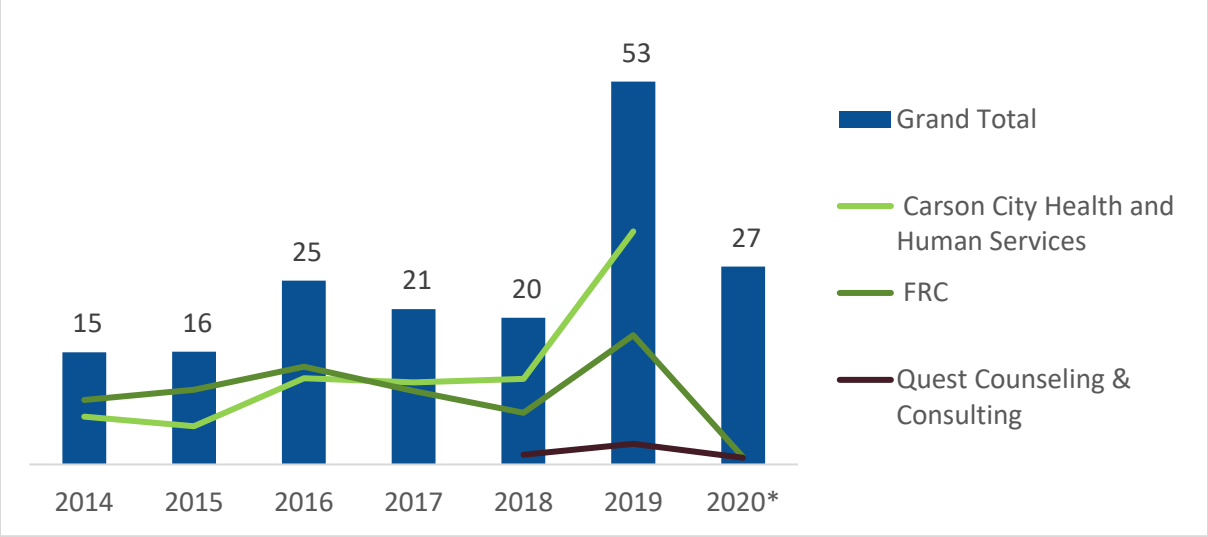


Figure 4 shows the average number of *PHAT!-AO* participants per month 2014-2020. Overall, the average number of participants is increasing over time, with Carson City contributing to the higher than normal average number of participants per month in 2019.

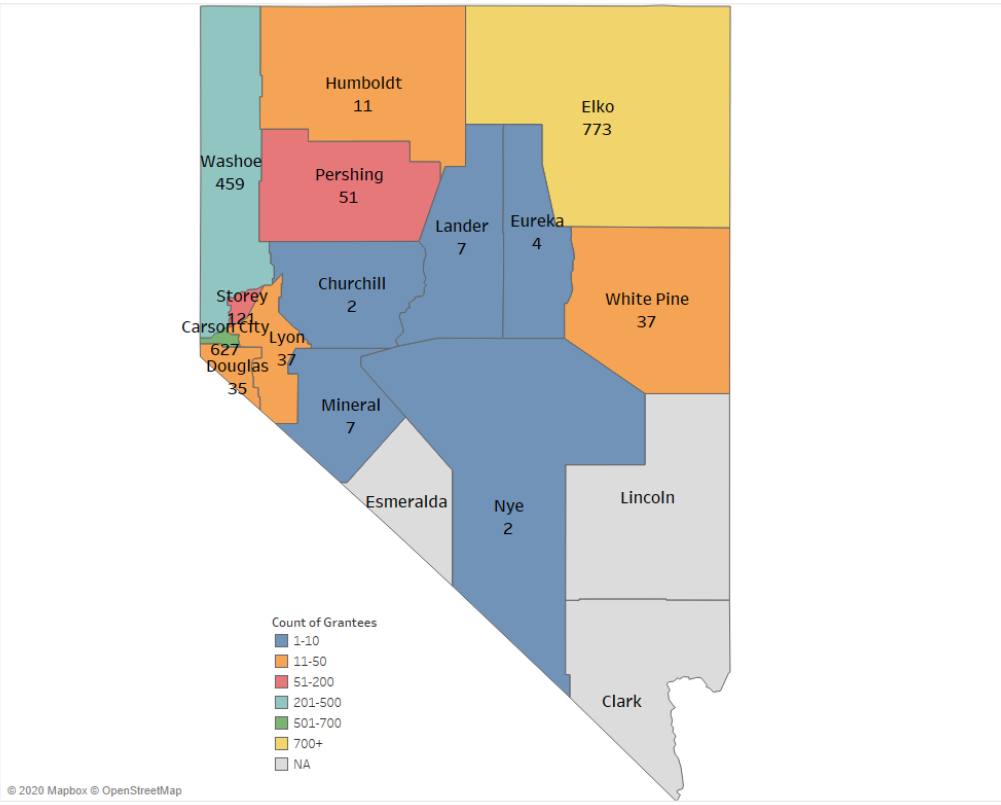
Figure 4 Average Number of Participants per Month, by Year



Note: 2020 includes no more than 4 months, January through April 2020.

Since 2014, as shown in Figure 5, SRAE grantees are serving youth across the state, with the highest number of young people served living in Elko, Washoe, and Carson City County. These three counties are also where each grantee is physically located, suggesting a presence in the community may greatly increases opportunities to engage youth.

Figure 5 Number of PHAT!-AO Participants by County



Findings on Fidelity

Over the last few decades, our understanding of what works in sexual health education programming has grown considerably. Alongside this increase in data and knowledge about effectiveness has been a growing call for the use of evidence-based programming to maximize the potential for success in preventing unplanned pregnancy, STI, and HIV/AIDS. Implementing evidence-based programs in real world settings, however, is much more challenging than the direct call for their use might imply. In Nevada, the three programs funded by SRAE and included in this evaluation all work within uniquely challenging contexts to implement the *PHAT!-AO* program.

Quest is differentially situated from the other two grantees. Quest is implementing the program with high-risk adolescents in a residential environment designed to address to co-occurrence of mental health and substance use. The population engaged by *PHAT!-AO* facilitators in the Quest residential facilities is often older than the recommended age for the program, and may be sexually experienced. In interviews with HMA researchers, *PHAT!-AO* facilitators working at Quest identified ongoing issues with the amount of misinformation the youth in their program have about sex and sexual health. The need to

correct and replace myths and misinformation has made *PHAT!-AO* useful to the population served by Quest, in spite of the older trending age. While the facilitators did acknowledge that a comprehensive sex education curriculum, such as Personal Responsibility Education Program (PREP), might be more appropriate for the youth they encounter, a comprehensive approach is not supported by parents of their clients, nor the community at large. Given this, the facilitators have work hard to adapt *PHAT!-AO* in ways that identify abstinence as something "reclaimable" for the youth going forward and can support fidelity of implementation of the program. The idea is widely accepted as an approach to abstinence only education.

All three of the funded programs have recently been impacted by the onset of COVID-19. The pandemic will continue to challenge the ability of grantees to implement the program with fidelity and require ongoing adaptation as the social context resulting from the spread of the virus continues to evolve. While this is discussed in detail in a later section, it is important to keep in mind when considering the extent of following fidelity.

The eight key characteristics used to assess fidelity of *PHAT!-AO* implementation in Nevada include:

1. Number of days to deliver modules
2. Group size[43]
3. Race of participants
4. Gender composition of the group
5. Age of participants
6. Type of facilitator/educator
7. Race of facilitator(s)
8. Setting

Number of Days to Deliver the Modules

Fidelity: The intervention can be implemented in eight sessions of sixty minutes each or in four 2-hour modules. In community settings, it can be implemented in a two-day format (4 hours each day), an eight-day format (1 hour each day) or one-day (Saturday) for approximately eight hours, plus time for serving lunch and snacks. All 8 modules must be implemented in order. If possible, *PHAT!-AO* curriculum should be implemented in a 2-week period.

Overall, the three programs implement the eight modules within the two-week period with an average of two days per module. Each program, however, offers programs in different settings which often requires adapting implementation of the modules to best match the context. Carson City and FRC offer the program within, or close to within, the two-week period. However, Quest, on average, delivers the program over the course of 5.1 weeks.

[43] The *PHAT!-AO* Logic Model

	Average of Length of Time Over Which Course Was Delivered (weeks)	Maximum Number of Weeks	Average Number of Days per Module	Standard Deviation (weeks)
Carson City Health and Human Services	2.5	10.1	2	1
FRC	0.6	8.4	1	1
Quest Counseling & Consulting	5.1	11.9	5	4
Overall	1.8	11.9	2	2

Carson City Health and Human Services Adolescent Health Program

Carson City has an average delivery time span of approximately 2.5 weeks (18 days) over which it delivers the complete curriculum. The program has historically delivered the *PHAT!-AO* curriculum in schools, where scheduling can be challenging and dependent on the class schedule. School class periods do not last a full hour, which can mean a single session of the *PHAT!-AO* Program can require multiple class sessions to deliver, as indicated by the average number of days per module at two days. This can extend the delivery timeframe for delivering the curriculum. Overall, there is low variation in the number of days over which *PHAT! -AO* is implemented.

Family Resource Centers of Northeastern Nevada

FRC delivers the *PHAT!-AO* Program in community settings, as opposed to school settings, and is generally able to deliver the *PHAT!-AO* curriculum over a 4-day time span through its Teen Health Education Program. The delivery time span can vary depending on whether the classes are being delivered directly through the Family Resources Center, or in cooperation with a community partner. When delivered through community partners, the time frame is dictated by the existing schedule for programming offered. Delivering the program in community settings does offer FRC a high degree of flexibility to schedule fewer, longer sessions that translate into higher engagement and completion rates for teens.

Quest Counseling & Consulting

Quest is somewhat unique in its delivery of the *PHAT!-AO* Program, because they deliver it with the confines of a residential treatment setting for youth with dual diagnoses in substance use and mental health disorders. Delivering *PHAT!-AO* sessions to youth in this setting is done over the course of 5.1 weeks (36 days) on average. As a youth enters treatment, counselors enroll them in *PHAT!-AO* course taking place at that time. This may mean starting in the middle of the curriculum, and then attending any missed classes with the next cohort in order to complete all eight modules. Additionally, youth in residential treatment engage in other education and mental health efforts the *PHAT!-AO* facilitators do not control. Youth are sometimes pulled out of sessions to see a counselor or may be subject to arrest or disciple that takes them out of the program and can extend the average amount of time needed for program delivery.

Group Size

Fidelity: In the original study, the group size was 6-12 teens in a group. Additional facilitators are needed for groups larger than 12 teens to ensure that the activities remain interactive and the youth are able to participate and practice new skills.

Overall, the average group size is 12 youth (Standard Deviation (SD)=27).[44] FRC generally offers the program to groups of nine, within the recommended six to 12 youth in a group. Carson City however typically has groups twice this size, with an average of 26 youth per group. Quest has fewer, at an average of two youth per group.

	Average Group Size (# of participants)	SD
Carson City Health and Human Services	26	50
FRC	9	7
Quest Counseling & Consulting	2	2
Overall	**12**	**27**

Carson City Health and Human Services Adolescent Health Program

Overtime, the average group size facilitated by Carson City has increased, with an average of 26 youth per group. The group size varies from cohort to cohort, and over time (SD=50). For example, Carson City taught 192 students 2019. This is a marked increase in group size related to a reported higher number of teacher requests for classes based on word of mouth recommendations.

Family Resource Centers of Northeastern Nevada

FRC primarily delivers the *PHAT!-AO* program in community settings. Class sizes vary throughout the year but are often larger in the summer and during school breaks. Therefore, groups depend on youth enrollment when not in school, and awareness of parent and youth about *PHAT!-AO* and how to participate.

Quest Counseling & Consulting

Average cohort size is one to two participants, with a high of 10 participants in February 2019. Offering *PHAT!-AO* in a substance use treatment facility, including residential, presents opportunities and challenges for participant recruitment and retention. As a function of their rolling enrollment into *PHAT!-AO*, there are very few participants who in fact have the same session start and end dates, which were used to identify a "group". Therefore, while a group as defined by this evaluation, maybe indicate that class is taught to one or two youth, there is likely additional youth in that group with a different

[44] Group size is defined by a group of participants with the same "session dates" recorded in Race, Ethnicity, and Age reporting template.

session start and end date. Completion of all eight modules is high. As even if a youth enrolls at the time Module 3 is being implemented, they will participant in Modules 1 and 2 with a later group.

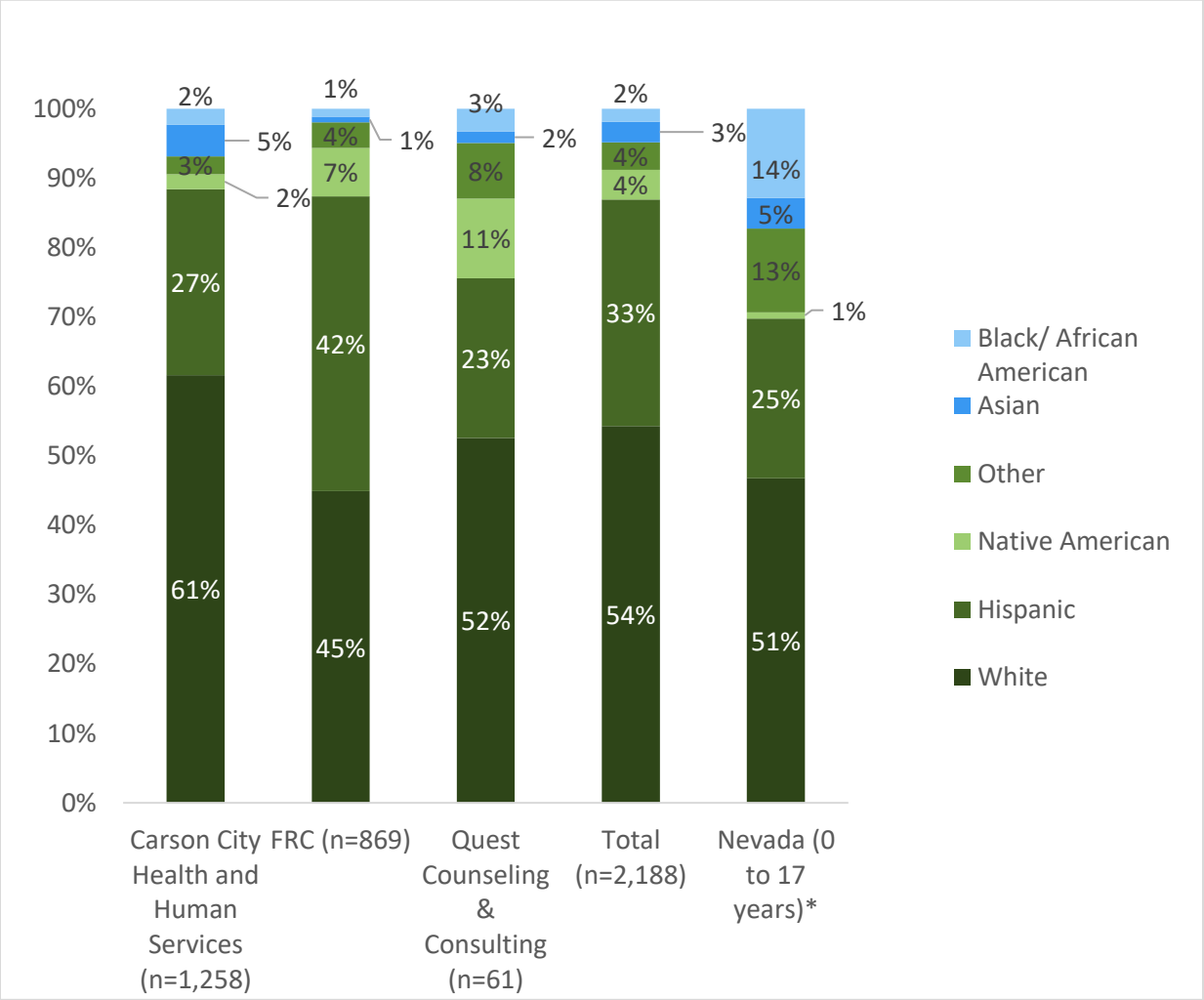
Participant Race

Fidelity:
Positive outcomes were identified in one study the *PHAT!-AO* program with African American teens. However, a second study was not able to substantiate these findings among youth of other races. The program can be delivered to all teens, and it is recommended that the names of the teens in the role plays and the settings of the situations should be adapted to be culturally and ethnically appropriate/relevant to the teens in the group.

Overall, as shown in Figure 6, just under one half of participants across all grantees (45%, n=588) identify as a minority race and ethnicity. The racial and ethnic composition of *PHAT!-AO* participants in Nevada is Non-Hispanic White (54%) and Hispanic White (33%). Native American and Other (including Native Hawaiian) participants make up the third largest racial and ethnic groups (4%), followed by Asian (3%) and Black or African American (2%). Overall, SRAE grantees are serving as diverse a group of youth than the statewide population estimates among youth ages 0 to 17. [45] Comparison to census population estimates, SRAE grantees may be serving a disproportionate number of Black, Hispanic and Native American youth compared to the statewide estimates.

[45] U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates, Children Characteristics, Table S0901

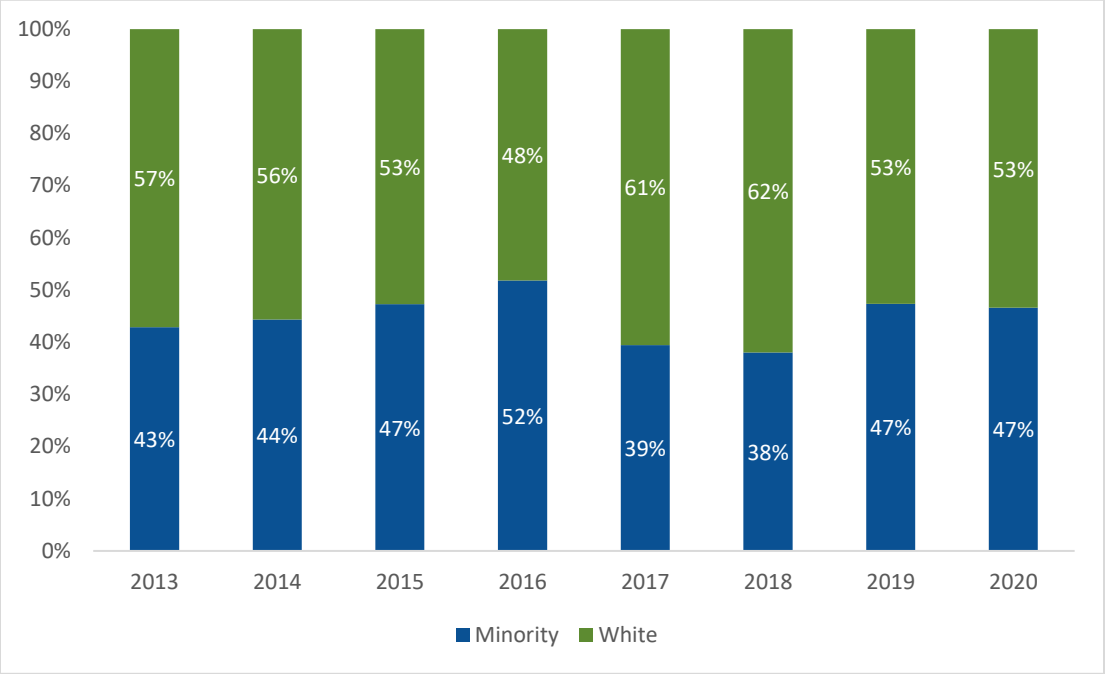
Figure 6 Racial and Ethnic Diversity (n=2,188)



Note: Estimates do not add up to 100% due to the Hispanic youth estimate being inclusive of Hispanic youth of any race.

Overtime, participants are becoming more racially and ethnically diverse, reflective of what is happening among Nevada's population overall. In 2013 and 2014, close to 40 percent of participants identified as a minority, this has increased slightly to 47 percent of participants in 2019 and 2020, as shown in Figure 7. Changing names during role plays was the only adaptation reported based on racial and ethnic diversity of the participants among SRAE grantees.

Figure 7 Participant Racial and Ethnic Diversity, by Year



Carson City Health and Human Services Adolescent Health Program

Carson City delivers the *PHAT!-AO* program primarily in school-based settings, with some classes being delivered in juvenile detention settings. This means that program demographics should be fairly representative of the service area population. Nearly two thirds of participants identify as White, another 27 percent identify as Hispanic, and 12 percent identify a non-Hispanic minority.

Family Resource Centers of Northeastern Nevada

Over half of the participants taught by FRC are non-White youth, specifically 42 percent are Hispanic, and 13 percent are of a race other than White. Among non-White participants, 54 percent are Native American, 27 percent are Other or Multiracial, and 6 percent are Asian.

Quest Counseling & Consulting

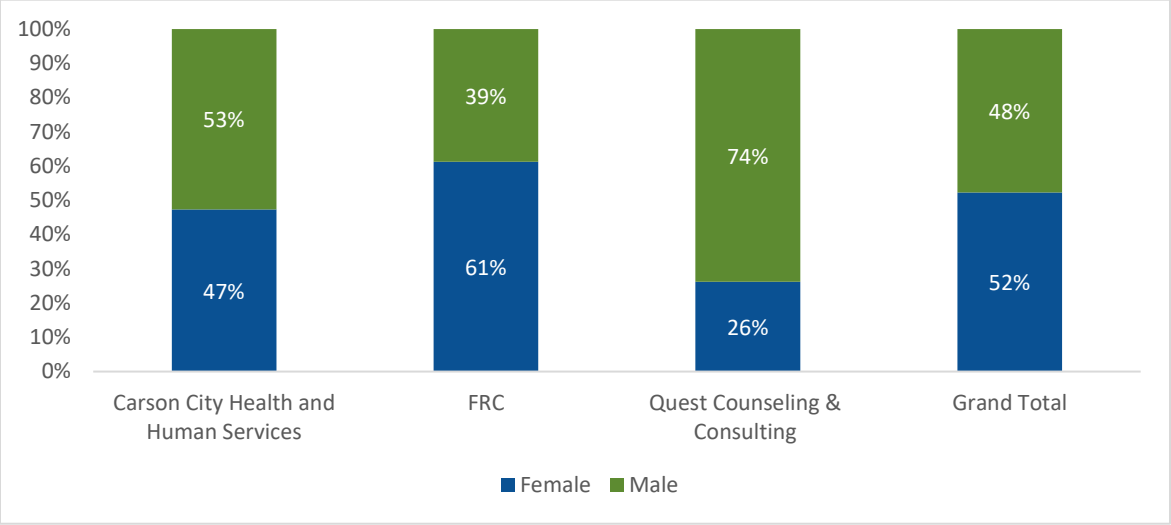
PHAT!-AO cohorts at Quest average 52 percent non-Hispanic White, 23 percent Hispanic, 11 percent Native American, and 4 percent were Black. Native Americans are disproportionately represented relative to both the state and Washoe County Native American population estimates.

Participant Gender

Fidelity: Gender composition of the group: In the original study, the groups were mixed with boys and girls; however, the program can be delivered to boys only, girls only, or mixed gender groups.

Gender – female or male - among all *PHAT!-AO* participants is nearly an even split, with 52 percent (n=1,144) of participants identifying as female and 48 percent (n=1,044) identifying as male, as shown in Figure 8. There is some variation across the SRAE partner with FRC predominately teaching females with Quest primarily teaching to males.

Figure 8 Participants, by Gender (n=2,188)



Both Carson City and FRC conduct mixed gender *PHAT!-AO* groups. Neither program has had trans identified youth in their programs, so have not developed adaptations for this population. Both groups talked about the desire to build adaptations or hold separate cohorts for lesbian, gay, bisexual, transgender and queer (or questioning) and others (LGBTQ+) identified youth. To date, however the number of youths that have publicly identified as LGBTQ+ has been small. There was some concern among all the facilitators about the lack of cultural relevancy of the *PHAT!-AO* curriculum for these youth.

Quest Counseling & Consulting

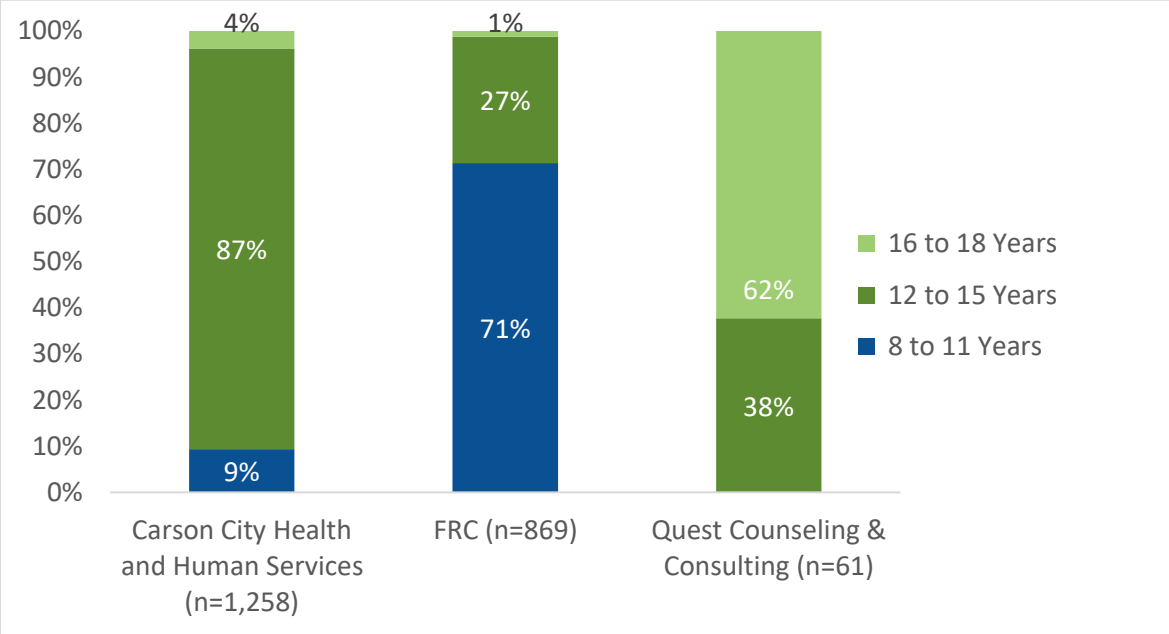
Question operates residential facilities for youth and has historically run mixed gender groups pulling cohort members from multiple gender-specific residential settings. Historically, the groups have averaged 74 percent male and 26 percent female. COVID-19 has led to the closure of the girls residential building, resulting in classes that include only male participants. This shift has not affected the delivery of the content, although the facilitator noted a somewhat higher level of resistance to role playing from the youth, particularly when asked to play a female role.

Participant Age

Fidelity: The students in the original study were ages 11-15. They were divided into group using similar age ranges—this intervention should not be implemented with a mixed group (e.g., 11-year-olds with 15-year-olds). This intervention can also be used with older teens. When assessing outcome, it is important to note that fewer than 2% of youth have sex by the age of 12 and on average teens are likely to initiate sex around the age of 17. Successful outcomes for younger participants will likely not be associated with sexual behavior.

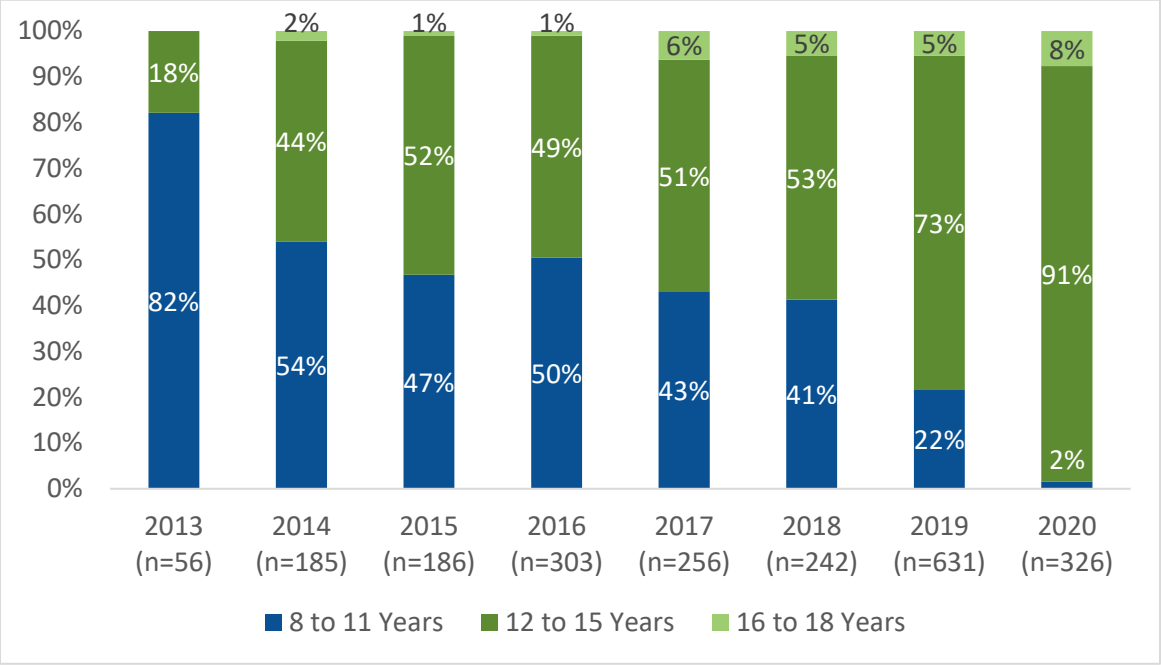
The average age of *PHAT!-AO* participants is 12.8 years (SD=2.1). Carson City primarily reaches youth ages 12 to 15 while FRC reaches youth ages 8 to 11. Quest meanwhile reaches older youth, ages 16 to 18.

Figure 9 Participant Age Group



Overtime, the participants are older. Youth ages 8 to 11 made up nearly 50 percent of the participants, and this has dropped to a low of 22 percent in 2019. This is driven by the schools and community settings who elect to offer *PHAT!-AO* and perceived need for sexual health education among youth.

Figure 10 Participant Age Group, by Year



Carson City Health and Human Services Adolescent Health Program

Carson City is seeing fewer middle school students. This is primarily based on the perceptions of teachers and parents that students need more comprehensive sexual health education, and subsequent decisions to change the curriculum from *PHAT!-AO* to PREP.

Family Resource Centers of Northeastern Nevada

FRC prioritizes delivering *PHAT!-AO* curriculum to youth ages 8 to 12. For their older youth they offer PREP. However, at times, parents elect to have their older child take *PHAT!-AO* and that is allowed.

Quest Counseling & Consulting

The age distribution with the *PHAT!-AO* cohorts at Quest skew older than the age range in the original study cohort. The residential program where the curriculum is delivered, serves very high-risk adolescents who often have not had access to accurate information about sex and sexual health. The facilitators note there it a lot of persistent misinformation about sexual health and they spend a good deal of time dispelling that.

Taken together, a summary of the three key characteristics regarding participants demographics finds that there is variation across the three SRAE *PHAT!-AO* grantees. Specifically:

- Carson City teaches primarily ages 12 to 15, in school settings in Carson City, Washoe, and Storey Counties.
- FRC teaches primarily teaches girls, ages 10 to 11, who are in community settings in Elko and Pershing.[46]

[46] FRC served only 136 youth who were 8 and 9 years old between 2013 and 2019. Therefore, FRC primarily teaches youth ages 10 to 11 years.

- Quest teaches primarily boys, ages 16 to 18, in residential treatment settings in Reno.

Facilitator Background/Experience

Fidelity: In the original study, the facilitators were African American community leaders, counselors and teachers. Facilitators can have different ethnic backgrounds and be health educators or nurses, etc. if they have experience working with teens and demonstrate they have the skills and characteristics of a good facilitator, including good listening skills, a caring and non-judgmental attitude, etc. Experience working with multiracial youth from diverse backgrounds and ages is recommended. Peer facilitators should be paired with an adult facilitator. Formal training on *PHAT!-AO* curriculum is encouraged.

Carson City Health and Human Services Adolescent Health Program

Carson City utilizes a full time Program Coordinator and a part-time Program Facilitator to deliver programming. Both the Program Coordinator and the Program Facilitator have extensive experience in working with youth to deliver training, and self-report high levels of comfort working with youth from different backgrounds and ages, discussing sexual health and sensitive topics with youth, and a deep belief in the leadership and resilience of youth. In fact, facilitators with Carson City often let youth co-lead sessions in the *PHAT!-AO* curriculum when appropriate. This is in line with the recommended adaptation guidelines for the program.

Family Resource Centers of Northeastern Nevada

FRC implements the *PHAT!-AO* program with one facilitator who has a background in health and human development and teaching. The current facilitator came from AmeriCore with formal training in facilitating youth and adults. While the Lead Facilitator with FRC has not had the formal *PHAT!-AO* training yet, she was trained by the prior *PHAT!-AO* facilitator, and keeps up with the program updates and supplemental materials shared by the SRAE program. Additionally, she has extensive experience in delivering training to youth, and self-reports a high levels of comfort working with youth from different backgrounds and ages, discussing sexual health and sensitive topics with youth, and a deep belief in the leadership and resilience of youth. All program staff from FRC engage in extensive, consistent ongoing training relates to sexual heath and related topics such as dating violence, suicide, teen mental health, and a range of facilitation and youth engagement topics.

Quest Counseling & Consulting

Quest has historically used two facilitators to run *PHAT!-AO* groups within residential settings. Recently, they have moved to just one facilitator because of the drop in the number of resident youths because of COVID-19. The current *PHAT!-AO* facilitator was training by her predecessor but has not received other formal training specifically on the curriculum. Facilitators working with Quest do receive 40 hours of continuing education annually. This continuing education include topic specific training on suicide, sexual violence, and relationship violence.

Setting

Fidelity: In the original study, the intervention was implemented in schools on Saturday. The program can take place in other sites, such as clinics, community-based organizations or schools during the regular school day or in after school programming, etc. However, the activities must remain interactive and all youth must have a chance to participate and practice new skills. The curriculum must be adjusted if/when it is integrated into the school class period because class periods are less than an hour (for which the curriculum is designed).

Carson City Health and Human Services Adolescent Health Program

Currently, Carson City delivers the *PHAT!-AO* program in multiple school settings, including Carson City High School, Eagle Valley Middle School, Bishop Manogue High School, Virginia City Middle School, and Virginia City Elementary School. In addition to the school settings, the program is delivered in China Springs Youth Camp/Aurora Pines Girls facility a youth correctional setting. Carson City has not delivered classes virtually since the onset of the pandemic in March 2020 but has continued to deliver a small number of in person classes.

Family Resource Centers of Northeastern Nevada

FRC delivers *PHAT!-AO* programming exclusively in non-school community settings in their 6-county service area. While they continue to negotiate to deliver programming in schools, the program engages in a significant amount of promotion and relationship building to increase the number of youth reached. Since the advent of COVID-19, FRC has begun to deliver programs online, which allows them to hold classes that include participants from multiple counties.

Quest Counseling & Consulting

Quest operates residential housing for youth and has historically delivered the *PHAT!-AO* curriculum to residents.

Below is a summary table of *PHAT!-AO* fidelity metrics, and a cross walk with each SRAE grantee and overall.

	Fidelity	*PHAT!-AO* Grantees	FRC	Carson City	Quest
Timeframe	2 weeks		4 days	17.5 days	36 days
Group Size	6-12	12	9	26	2 (high of 10)
Facilitators	- Leaders - Well-trained - Experience working with teens - Facilitation skills		- Trained facilitator for youth and adults - Experience in health and human development	- Part-time facilitator - Full-time coordinator - Experience working with youth	- Therapist and counselor at Quest - Trained annually
Settings	- Schools - Community settings - Correctional settings	- Schools - Community setting - Treatment setting - Online	- Community settings - Online	- Schools - Juvenile detention settings	- Residential treatment setting - Online
Age/ Gender/Race	- Ages 11-15, or older teens - Boys only, girls only, or mixed - Race can vary but curriculum should be adapted for cultural/ethnic appropriateness	- Average age is 12.8 - 52% female; 48% male - 45% identify as a minority race and ethnicity	- Ages 8-11 - Predominately female (61% female; 39% male) - 55% identify as a minority race and ethnicity	- Ages 12-15 - 47% female; 53% male - 39% identify as a minority race and ethnicity	- Ages 16-18 - Predominately male (74% male; 26% female) - 48% identify as a minority race and ethnicity

Overall, the three funded programs are implementing the *PHAT!-AO* program with a high level of fidelity. Adaptations have been minor, and have been made within the recommended guidelines for *PHAT!-AO*. Quest has unique contextual challenges that make implementation challenging in some instances, and as a result fall outside of the recommendations for adaptations in their delivery timeline, the order of classes the students receive, and the number of classes some youth receive.

Findings on Impact

According to literature on *PHAT!-AO* curriculum, decisions to have unprotected sex are influenced by:

- Limited information;
- Negative attitudes and beliefs about abstinence;
- Minimal negotiation and refusal skills;
- Low self-efficacy or lack of confidence to negotiate abstinence; and
- Need for strengthened problem-solving skills.

SRAE grantees were asked to rank these five key influences based on their experiences, with number one being the *biggest influencer* among their youth to five being the *smallest influencer*. Generally, *negative attitudes and beliefs about abstinence* was identified as the most influential driver of behavior, among Carson City and Quest participant, as shown in Table 2. *Limited information* and *minimal negotiation and refusal skills* were second and third most influential drivers, respectively. It is important to understand what is at the root of youths' decision to have unprotected sex in general, and whether and how these motivations may be different among Nevada's youth. This understanding will allow the SRAE program to then assess to what extent *PHAT!-AO* is effectively addressing those influencers for youth in Nevada.

Table 2 SRAE Grantee Ranking of Influences

	Carson City Health and Human Services	Family Resource Center	Quest Counseling & Consulting	Overall Rank
Negative attitudes and beliefs about abstinence	1	3	1	1.7 (Biggest influencer)
Limited information	2	1	3	2.0
Minimal negotiation and refusal skills	3	2	2	2.3
Low self-efficacy or lack of confidence to negotiate abstinence	4	4	4	4.0
Need for strengthened problem-solving skills	5	5	5	5.0 (Smallest influencer)

SRAE grantees were asked to what extent they felt this list represented the key influences behind youth's decision to have unprotected sex. Partners all agreed the elements on the list were influences, but also added two additional ones. For Nevada youth, *PHAT!-AO* facilitators felt that peer pressure and social norms around sexual activity and using protection, as well as gender norms about having sex, were important additions.

Highlights From Partners About Reasons Why Youth have Unprotected Sex:

Carson City: Boys have an attitude that they need to be having sex, and girls have the attitude that if they do not have sex they will lose their boyfriend.

FRC: Sense that youth feel they are "untouchable"

Quest: Persistent misinformation about sexual health

Carson City youth participants, between 2014 and 2017, were increasingly more likely to respond via participant survey "yes" to abstaining from sex prior to the *PHAT!-AO* curriculum (from 13% in 2014 to 32% in 2017, with a high of 41% in 2016).[47] Those who have reported "no" decreased. Fewer participants reported they did not know what abstinence meant in 2017 compared to 2014. These findings suggest that perhaps youth in school settings, as Carson City increasingly serves over time, are receiving sexual health education in other venues prior to taking *PHAT!-AO*. This suggestion is borne out in survey data, and may presents a challenge for *PHAT!-AO* facilitators to ensure curriculum stays relevant to youth going forward.

Of these influences for youth engaging in unprotected sex, what does the PHAT!-AO curriculum most effectively address?

The goal of *PHAT!-AO* is to provide youth with the skills and knowledge to counteract these negative influences. Partners were asked to discuss to what extent they felt *PHAT!-AO* stated goals are achieved among their participants. The stated goals are:

- Increase knowledge about puberty, HIV/STDs, and abstinence;
- Develop abstinence-only strategies;
- Bolster positive attitudes toward practicing abstinence
- Increase confidence/self-efficacy and skills in negotiation, refusal, and problem solving for practicing abstinence;
- Build stronger intentions to abstain from sex; and
- Build a sense of pride and responsibility for practicing abstinence

SRAE grantees were asked to rate on a scale of one to 10, one being *not at all* to 10 being *a great deal*, to what extent are the goals of the *PHAT!-AO* curriculum are achieved among their participants. Overall, *increase knowledge about puberty, HIV/STDs, and abstinence* and *develop abstinence only strategies* are

[47] Carson City administered a pre and post curriculum survey between 2014 and 2017. Survey data includes 370 pre-survey responses and 361 post-survey responses. The survey responses lack a common identifier to match pre and post survey respondents. Therefore, pre to post survey changes should be interpreted with caution.

the perceived top two goals achieved among participant, as shown in Table 2. Achieving these two goals are important among Nevada's youth as SRAE grantees felt that *limited information* and *negative attitudes and beliefs about abstinence* are key influences driving youth to choose unprotected sex. This suggests that *PHAT!-AO* is meeting a need among the youth – a need for information and understanding about what abstinence means and the ways in which it may present a good alternative.

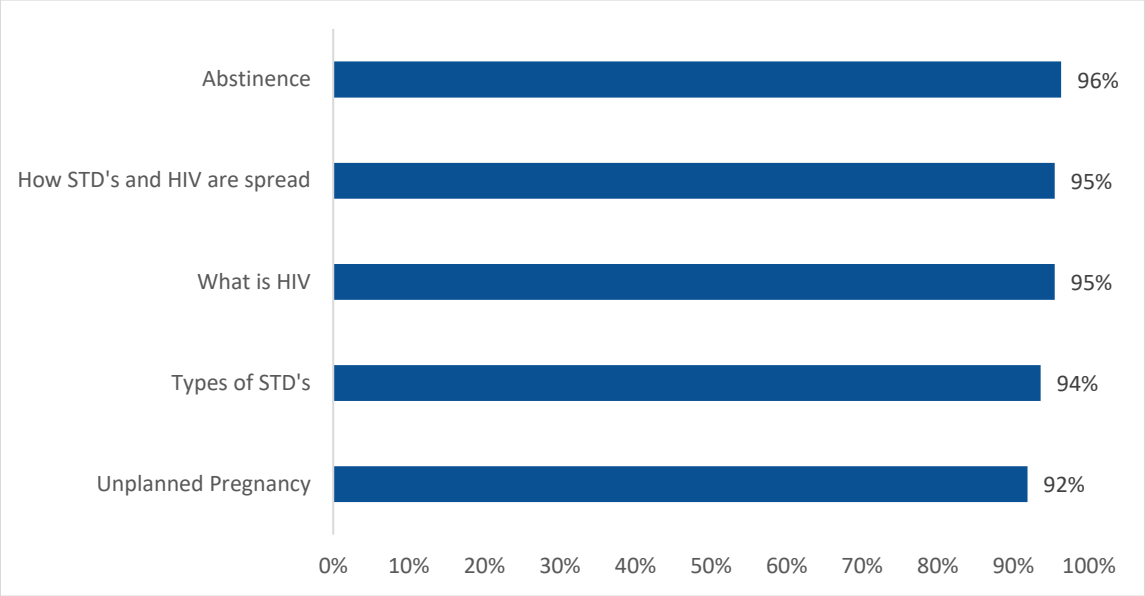
Table 3 SRAE Grantee Ranking of PHAT!-AO Goals Achieved Among Youth Participants

	Carson City Health and Human Services	Family Resource Center	Quest Counseling & Consulting	Overall Average Score
Increase knowledge about puberty, HIV/STDs, and abstinence	10	8	8	9 (Most effective)
Develop abstinence-only strategies	6.5	10	9	9
Increase confidence/self-efficacy and skills in negotiation, refusal, and problem solving for practicing abstinence	6	10	7.5	8
Build stronger intentions to abstain from sex	5	10	8	8
Build a sense of pride and responsibility for practicing abstinence	6	10	7	8
Bolster positive attitudes toward practicing abstinence	5	8	9	7 (Least effective)

Survey data among Carson City participants suggests an increase in knowledge as a result of *PHAT!-AO* participation. After taking the *PHAT!-AO* curriculum, over 90 percent of participants reported "yes" to changes in knowledge, with the most change in knowledge about abstinence, as shown in Figure 11.[48] Survey data among Quest participants also suggest an increase in knowledge. Specifically, participants were more likely to believe the statement "Abstinence is one of guaranteed ways to avoid STD" to be true after their participation in *PHAT!-AO* (Mean (M)=2.89, SD=.10) than before (M=2.68, SD=23), $p<.05$).[49] Regarding the statement "Abstinence is one of the guaranteed ways to avoid pregnancy", participants were not significant more likely to believe the statement to be true before participation (58%, n=24) as compared to after their participation in *PHAT!-AO* (74%, n=14).

[48]Carson City pre and post survey data, 2014 to 2017.
[49]Quest pre and post survey data, 2017 to 2020.

Figure 11 Percent of Carson City participants who report knowing more about... (n=361)



Regarding the goal among participants to *develop abstinence only strategies*, one SRAE grantee mentioned that among youth who are or have been sexually active, the curriculum helps to show them that abstinence is something that they can still choose and/or that they have other choices all together.

> Among older youth, one SRAE grantee emphasizes that "abstinence as something to be reclaimed rather than preserve"
> - SRAE grantee

However, the goal of *bolster positive attitudes toward practicing abstinence* is perceived to be a goal least likely to be achieved among participants (SRAE grantee average score of seven out of 10), which may act as a barrier for some youth to choose abstinence-only strategies for themselves. All partners mentioned that among youth who already are having sex, it is not that they are likely to accept or favor abstaining but rather, approach a decision to have sex differently. For example, Quest mentioned that their youth often have a lot of the wrong information at the start of the program, and find these youth talk very differently after going through the curriculum. Specifically, they do see changes in attitudes about sexual safety and understanding someone else's choice for abstinence and the importance of consent.

Build strong intentions to abstain from sex is suggested from participant survey data to be an outcome among youth served by Carson City. Change from pre to post participation in *PHAT!-AO* suggests that participants are more likely after the class to report "yes" or "maybe" to whether "they currently or would like to abstain from sex". Before *PHAT!-AO*, 50 percent of participants reported "yes" or "maybe" while 41 percent reported "the didn't know what abstinence meant". After the curriculum, this percentage increased to 89 percent with just one percent reporting they "didn't know what abstinence meant". Therefore, youth who first learn about abstinence through *PHAT!-AO* may depart from the class with strong intentions of abstaining from sex. Related, these same youth were more likely to think kids their age who abstain from sex "are responsible", "respect themselves", and "are proud of

themselves" than they did before participation in *PHAT!-AO* suggesting again that attitudes towards abstinence may be impacted through *PHAT!-AO* in Nevada.

The evaluation examined the impact of *PHAT!-AO* on increasing parental or trusted adult involvement in the participants sexual health with the data available. The percent of Carson City participants who reported a parent or guardian who ever talked to them about puberty, sex, or abstinence increased, although non-significantly (p=0.24), from 71 percent to 75 percent pre to post *PHAT!-AO* participation. While this is an encouraging sign, however, more data are needed to confirm that *PHAT!-AO* is having a positive impact on trusted adult or parental involvement. There was a similar increase on a related survey measure among Quest.[50] Prior to *PHAT!-AO* implementation, 63 percent of participants reported they had a trusted adult to speak to. This also increased, although non-significantly (p=.07), to 74 percent after *PHAT!-AO* participation.

Which PHAT!-AO method for delivering curriculum most resonates with the youth served in Nevada and helps drives positive outcomes?

There are several different methods for conveying the *PHAT!-AO* content. These include:

- Small group discussions or "talking circles";
- Games and interactive activities, role plays, handouts, and posters;
- Videos/DVDs;
- Practice and feedback and HIV/ STD; and
- Homework assignments.

Across all SRAE grantees, the small group discussions followed by the games and interactive activities are thought to resonate the most with the youth. It is thought that the peer-to-peer interaction is important facilitator for youth taking in the information, as one SRAE grantee reported youth "learn from each other and find out someone they respect is abstinent and that may change their thinking."

[50] Quest administered a pre and post curriculum survey for 2017 to 2020 participants. Survey data includes 41 pre-survey responses and 19 post-survey responses. The survey responses lack a common identifier to match pre and post survey respondents. Therefore, pre to post survey changes should be interpreted with caution.

Also, SRAE grantees have found that the youth like to be listened to and have these opportunities for their voice to be heard. Discussions are seen to help develop trust and understanding among the group.

The role-play activities are impactful – providing tangible scenarios to reinforce information learned, and test out learned refusal skills and decision-making strategies.

There were some mentioned drawbacks of role plays. For example, role plays appear to be less effective among just boys or just girls. Among boys, there may be times they are challenged by playing the role of the compromised or vulnerable in the role plays. Additionally, some youth are hesitant because they are not great readers and find the role plays hard for that reason.

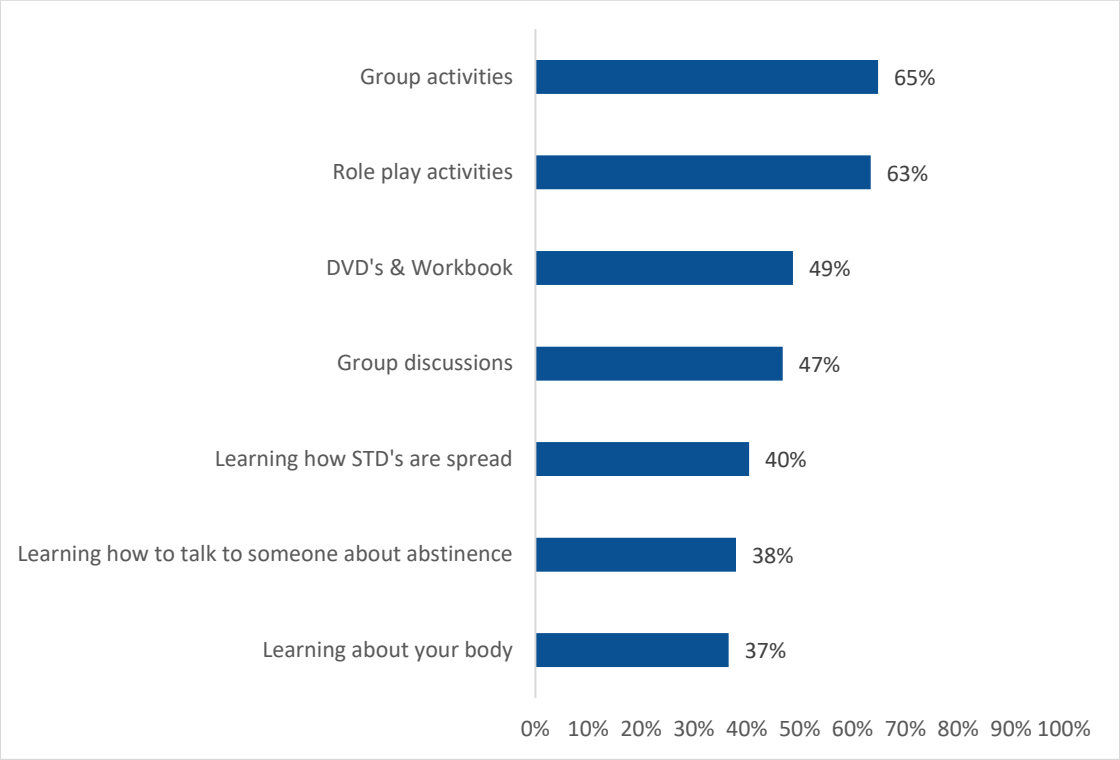
> "When the kids move around the room and see that not everyone is having sex they are surprised, and it is powerful. The conversation helps them learn." – SRAE grantee
>
> "Kids need a lot of enforcement about refusal skills and decision making. The **curriculum scenarios and role plays** are a little silly, but they can explore through these. They get a lot of information about drug use and refusal skills but learning that can translate across issues is important for them as well. They don't realize it can be applied in multiple areas of their life." – SRAE grantee

Adaptations are made to better suit different age groups and make information, discussions, and activities less heteronormative. For example, Carson City now emphasizes it is about relationships, and not just those which are heteronormative. Additionally, facilitators from all three grantees report getting questions about safer sex, not just about abstinence. The youth provide feedback that they would like to see more comprehensive sexual education. While this may not be socially or politically feasible in all sites, the programs are able to implement the program with fidelity, emphasizing the role of abstaining from sex in prevention of pregnancy and STIs, while also making sure youth have the medically accurate information they need to keep themselves safe in response to youth-posed questions.

Carson City participants report feeling similarly about each of the different delivery methods, with group activities and role playing identified as the aspects of the curriculum liked most, as shown in Figure 12.[51] Quest participants also reported liking the discussions the most, with 53 percent (n=9) of participants reports a such.[52]

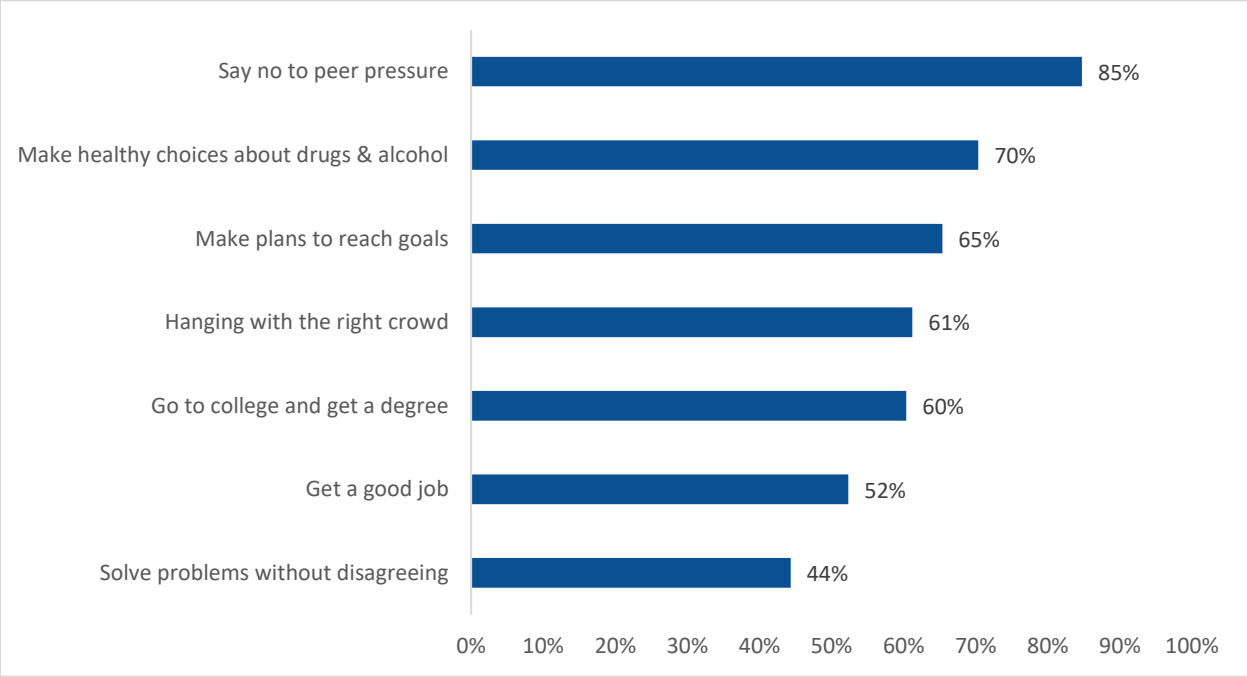
[51]Carson City Health and Human Services, pre and post survey data, 2014 to 2017.
[52]Quest Counseling and Consulting, pre and post survey data, 2017 to 2020

Figure 12 Percent of Carson City Participants who Liked ... (n=361)



Long-term outcomes among participants are important to understand effectiveness of *PHAT!-AO* curriculum. Existing data among SRAE grantees do not permit an understanding of what happens in the long run. However, the Carson City survey approach sheds light on what those outcomes may be among Nevada youth. Participants were asked to indicate how they will most likely apply the learning from *PHAT!-AO*. The most common response was to "Make plans to reach goals", "Make healthy choices about drugs & alcohol", and "Say no to peer pressure", as shown in Figure 13. Solving problems without disagreeing and getting a good job were the least common.

Figure 13 Percent of Carson City Participants who Reported "I will use what I've learned in these situations..." (n=361)



Participants in the *PHAT!-AO* program in Carson City were asked to self-report about what they will take from the program and use, they identified a number of skills that should help them navigate future choices around sex and sexual health, but also can potentially apply to other situations in their lives. The ability to goal set, and to imagine a future for themselves can increase self-efficacy among youth. Being able to solve problems constructively can contribute to healthier relationship norms. Identifying peers with pro-social norms around sex, violence, and other behaviors can make it easier for young people to make safe, healthier choices, and refuse high risk situations such as unprotected sex, or engaging in drug and alcohol use. The potential that *PHAT!-AO* is continuing to the development of individual level protective factors for some youth seems clear. Further investigation would be needed to assess how long these effects are lasting, and the extent to which the youth engage in the behavior that matches their self-report.

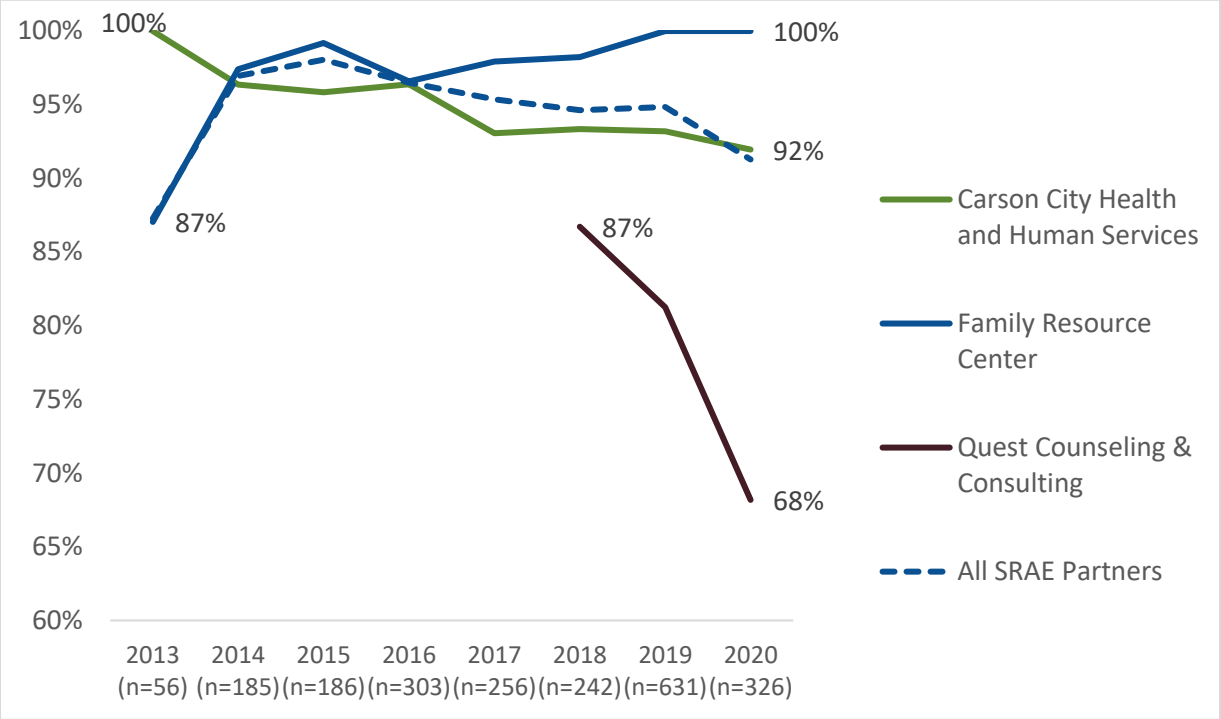
Findings on Program Engagement, Overall Strengths and Weaknesses, and the Impact of COVID-19

Engagement

Overall, participant retention rate (defined as average percent modules out of eight modules completed per participant) among *PHAT!-AO* participants in Nevada is 95 percent, and has been trending down since a high of 98 percent in 2015, as shown in Figure 14. It is important to note that average number of

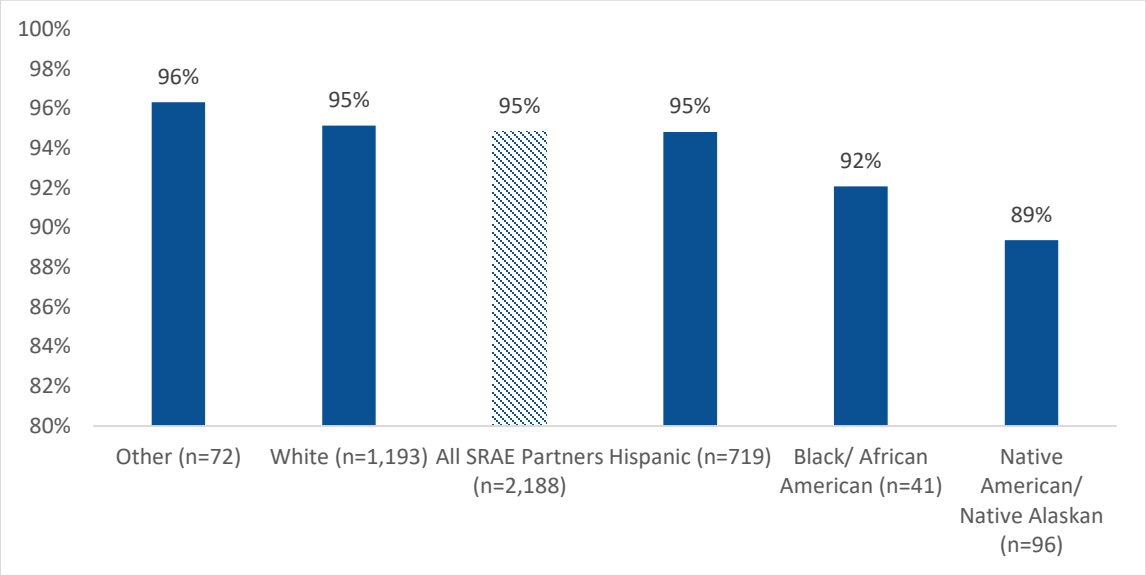
participants per month is increasing (as referenced above) which may be an inadvertent driver of this decline in retention.

Figure 14 Participant Retention Rate (Average Percent of Modules Completed)



A paired-samples t-test was conducted to find that there was not a significant difference (p=0.2457) in the retention rate among non-Hispanic White youth (M=95%, SD=0.13) and minority youth (M=94%, SD=0.15). However, for some minority groups, there was variation in retention rate. Native Alaskan and Native American (n=96) youth were found to have significantly lower retention rates at 89 percent (SD=0.22, p=.0122) than all remaining participants who did not identify as Native Alaskan and Native American (M=95%, SD=0.13).

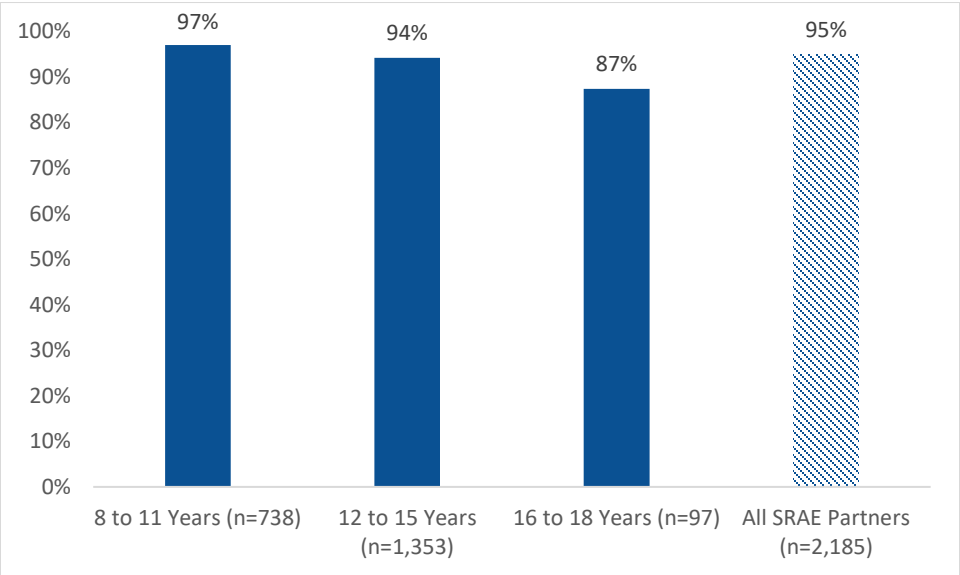
Figure 15 SRAE Grantee Retention Rates, by Race and Ethnicity



A paired-samples t-test was conducted to find that there was a significant difference ($p<.05$) in the retention rate among Nevada *PHAT!-AO* males (M=94.1%, SD=0.01) and females (M=95.5%, SD=0.02). These results suggest that females are more likely to complete the *PHAT!-AO* eight modules than males.

Finally, another paired samples t-test identified that there was a significant difference ($p<.000$) in retention rates by age group, as shown in Figure 16. Younger participants, ages 8 to 11 were more likely to complete all eight modules (M=97%, SD=0.14) than adolescents, ages 12 to 18 (M=94% , SD=0.02).

Figure 16 SRAE Grantee Retention Rates, by Age Group



Taken together, the increase in the age of participants as well as participant racial and ethnic diversity may be in part driving the decreasing retention rates over time.

Overall Strengths and Weaknesses

In 2019, HMA conducted an adolescent health needs assessment across Nevada for the SRAE program. During this assessment, HMA engaged stakeholders across Nevada (e.g., assessment key informants, focus group participants, and survey respondents) who were familiar with *PHAT!*-AO. These stakeholders identified both strengths and weaknesses of the program.[53]

The most common strength of *PHAT!*-AO reported by stakeholders was that it went beyond just teaching about abstinence and unsafe sex, but also included information about healthy relationships and communication. The introduction of life skills was also seen as a great plus, as the topics of teamwork and the use of role-playing helped to keep kids engaged throughout the program. Stakeholders also felt that the program was a great way to introduce youth to a trusted adult (i.e., the program implementer) who can provide youth with correct information about sexual health issues.

The current evaluation found similar strengths. Additionally, a closer examination of the SRAE grantee *PHAT!-AO* enhancements, such as creative positive youth development efforts, grantee adaptions to the curriculum to honor different cultural backgrounds of participants, and grantee engagement of community partners all strengthen the acceptance of this program in communities that may have reluctance towards the curriculum. These efforts both reduce barriers to inclusion of this curriculum in school-, treatment- and community-based programming and help to ensure youth hear are aware of the availability of *PHAT!*-AO, and understand how to access the program. As discussed below, these efforts may need to look different due to circumstances related to COVID-19.

Weaknesses of the program reported in the initial, 2019 assessment included that the program was too long and many teachers are not able to spare the time amid all the other requirements they meet throughout a school year. Some also felt the *PHAT!-AO* curriculum was too rigid, and they wished it allowed more flexibility, such as to include or exclude modules some teachers may or may not want to include in their classroom. Some felt since the curriculum is geared towards a younger population (i.e., middle school) it was challenging at times to implement the program in high schools so they would prefer to be able to alter some of the language to better match the population. Related to this, for youth who are already having sex, the focus on abstinence only makes it harder to reach them as they would rather talk about topics such as birth control and STIs. Finally, stakeholders reported it can be challenging for some to get parental consent and many would like to see parents more involved and engaged in the program in some way.

While the current evaluation of *PHAT!*-AO heard similar challenges, SRAE grantees are working hard to creatively engage decision makers (i.e. parents, teachers, etc.) regarding whether *PHAT!*-AO curriculum is adopted, implemented, and sustained. Efforts to introduce themselves and offer alternative programming perhaps less controversial than sexual health program is one effective strategy deployed

[53] HMA. Adolescent Health Assessment, 2019.

to gain community trust and has worked in Carson City. However, in some communities, gaining entry into schools, and other environments, to teach *PHAT!-AO* will remain challenging, particularly now in light of COVID-19.

Impact of COVID-19

The onset of the global pandemic has caused significant disruption to community life. Many community and public health programs aimed at engaging young people have been interrupted because of the inability to gather groups of people together and the closure of schools in an attempt to stop the spread of virus. Shifting to virtual delivery of the program has brought both opportunities and challenges to the grantees.

Cohort Size

All programs are unsure what cohort size will look like going forward because of the effects of COVID-19 on the gathering of groups and the opening of schools. It is possible all programs will have to begin, or continue, to engage youth online, which appears to be translating to smaller cohort sizes, or intentionally gather smaller groups in person to maintain safe distance protocols. The following describes each SRAE grantee's status of *PHAT!-AO* implementation as of July 2020:

- Carson City: Carson City has not been delivering the *PHAT!-AO* at all virtually. During the span of data collection, there were able to deliver the curriculum once in a small, socially distanced class. With schools opening in the fall in either hybrid formats, or fully virtual, Carson City will have to consider what options are available to continue to reach a broad swath of youth in the schools they serve.
- FRC: Since the outbreak of the COVID-19 pandemic, FRC has been delivering the curriculum virtually. These online classes have been much smaller than past in-person sessions and include 2-3 youth per class. This small class size is helpful in protecting confidentiality.
- Quest: Due to the onset of COVID-19, *PHAT!-AO* cohort size at Quest residential sites have decreased significantly from a high of 10 participants in February 2020 to an average size of 1-2 participants more recently. The pandemic has caused Quest to close their female residential facility, and has fewer residents in the male facility, which has resulted in the smaller group size. There are many unique challenges facing residential treatments environments in the near future.

Confidentiality

Virtual platforms for *PHAT!-AO* delivery make it difficult for facilitators to maintain or ensure confidentiality for youth. Without using specialized software or a dedicated, protected website, programs cannot be sure that internet connections are safe. Additionally, internet access has been a challenge for a number of families during the pandemic, and the lack of access is driving disparities in all types of learning. If families have computers, they may be in public spaces in the home, and may be in demand of other children have classes, or it is needed for work. Children may not have access to headphones, or other ways to limit access to their conversations, putting them at risk, particularly if their choices about sex differ from their parents wishes, or there is violence in the home.

FRC is the only grantee that regularly engaged virtual delivery of the program during the evaluation time frame. The facilitators expressed a lot of concern about confidentiality for young people engaging in the *PHAT!-AO* program. What they found was that with a much smaller cohort, their fears had not played out. Youth were able to find a private place and work with the material in ways that felt comfortable. This has meant much smaller cohorts, and fewer longer sessions. Additionally, some of the content included in the curriculum does not readily lend itself to online delivery with the current program resources. Playing videos over an online platform can be difficult, and potentially not possible with slower internet speeds. FRC has yet to figure out a solution for this challenge. They have been able to alter some of the other interactive exercises to remain interactive, but others, like the AIDS Basketball activity have not been delivered since going virtual.

While FRC has managed to make some adjustments allow for virtual delivery, it may not be possible for the other programs that offer *PHAT!-AO* in much different contexts to do the same. Also, none of the adaptations for virtual delivery guarantees safety or confidentiality in the longer run.

Content

The ongoing nature of the pandemic has the potential to change behaviors and physical interactions for the longer term. The use of virtual platforms to hold meetings and trainings is not likely to return to pre-pandemic levels now that it is understood how efficiently virtual platforms can make some engagements. Additionally, the use of virtual platforms in personal relationships is not likely to return to pre-pandemic levels. Many youth do not have access to their friends while under quarantine, and the advent of virtual, or hybrid school, may influence the way peer relationship and peer pressure operate. While issues around sexting and other ways digital devices are used for sexual and romantic encounters among youth have been a conversation point for years, it may be necessary to examine the need for sexual health content that includes negotiation and decision making skills around a broader range of digital and virtual engagement tools available to young people and now normalized in our personal relationships. To date, no grantee has developed additional content to address this possibility.

HMA Summary of Recommendations

HMA recommends that sustainability of the *PHAT!-AO* program going forward should be considered in light of the general trends and experiences of grantees described above, and with an eye towards the short and long-term impacts of COVID-19. In order to ensure that program continues to be implemented with a high level of fidelity, the SRAE Program should support grantees in developing adaptations that can allow for implementation to continue during pandemic and safer at home orders and identify strategies that may bring opportunities for sustainability and expansion even after we move out of strict distancing requirements. Some additional recommendations to enhance sustainability of the program at either state level or grantee level are provided below.

State-Level Recommendations

1. Continue to support programs educating adolescents on healthy relationships and life skill development and encourage mandatory school district-wide policies for middle and high school

student participation. Provide support for teachers and administrators in providing information and skill development around sexual health.

2. Develop a specific parent component to support the delivery of sexual health education in Nevada schools and community settings. This component should include resources for parents to understand sexual health from a human development perspective and equip them to engage youth in conversations around sex and sexual health during, and after a school or community-based program ends.
3. Identify, or develop, an LGBTQ+ specific program, or general content, that can be offered in school and community settings, or as an additional resource through the *PHAT!-AO* program.
4. Enhance the requirement for positive youth development strategies and provide more specific guidance to SRAE grantees on how to integrate these into program delivery.
5. Consider the multiple contexts the *PHAT!-AO* program is being delivered in and develop specific support for the use of pre-implementation work to maximize the opportunity for success in each location. These supports can include guidance around pre-implementation activities like meeting with school boards, school administrators, teachers, parents, and other stakeholders to discuss concerns, logistical issues, and resources needs, and work to resolve any challenges in program implementation.
6. Develop processes and recommendations for delivery of *PHAT!-AO* and other sexual health programming virtually. This could include exploring the potential for offering resources like earphones and tablets to youth, the development of online engagement strategies, and physical locations where youth can safely gather in appropriate size groups to access computers.
7. Define evaluation and quality improvement goals and standardize data collection to meet those goals.
8. Engage with partners to increase the availability of comprehensive sex education in Nevada to meet the needs of diverse youth, including LGBTQ+ youth, older youth, and youth already engaging in sexual activity.

Grantee-Level Recommendations

1. Continue to provide community resources referrals to youth with enhanced information about strategies for access.
2. Engage community partners that provide wrap around services to youth to strengthen referrals.
3. Develop the ability to deliver *PHAT!-AO* programming in virtual settings safely and confidentially. Identify program and participant needs, safety concerns, and strategies for enhancing confidentiality.
4. Broaden partnerships intended to increase opportunities for program delivery beyond schools to increase the ability to leverage community resources to improve engagement and increase delivery options. These partnerships can include working with employers, foundations and private charities, and technology companies to increase access and safety for youth.
5. Develop strategies to engage parents and community stakeholders in order to increase the availability of comprehensive sex education in Nevada.

6. Develop strategies to retain older youth in sexual health programming, by providing foundational information included in *PHAT!-AO*, as well as additional, developmentally appropriate resources.

Appendix A: Key Informant Interview Guide

Introduction

HMA is working for the Sexual Risk Education (SRAE) Program of the Nevada Division of Public and Behavioral Health to conduct an evaluation of the Promoting Health Among Teens! Abstinence-Only (*PHAT!-AO*) curriculum. As part of that evaluation we are conducting background document review, program data review, and key informant interviews with three organizations implementing the SRAE program. The goal of the evaluation is to synthesize and analyze data to create a picture of what implementation looks like for each organization, and how implementation has differed from one organization to another.

The *PHAT!-AO* has an existing evidence base; the purpose of this evaluation is to understand how it works in Nevada with the specific communities in which it is being implemented. The data we collect through the evaluation process will be used to develop recommendations for the SRAE Program around future implementation guidelines and support for grantees and program providers. The final report will identify gaps, priorities, and stakeholder needs.

There are no wrong answers to the questions we ask. We really want to know about your experience with *PHAT!-AO* implementation and your perspective on the strengths and opportunities of this curriculum, so we hope you feel free to talk openly. Again, this information will be used to shed light on the curriculum's impact for those you serve and develop recommendations to address any unmet needs.

We estimate this interview will take no more than 90 minutes. We will not include any names of individuals who have been part of these conversations in the evaluation report. Do you have any questions for us before we begin?

Questions

Program implementation and adaptation

1) We'd like to describe the elements of your *PHAT!-AO* curriculum implementation as we understand it from a review of previous data and initial conversation to ensure our understanding is accurate. We'll describe our understanding of each of the following:
    a. Timeframe
    b. Group size
    c. Facilitator
    d. Settings
    e. Cultural relevance
    f. Target population
    g. Content (i.e., supplemental program elements used to address AO! topics)
    h. Add-ons, such as positive youth development

i. Participant incentives
j. Facilitator training or TA
k. Data collection

2) Is our understanding accurate?
   a. Explore with staff to learn about any areas that need additional understanding.

Curriculum adaptations and enhancements

1. For the adaptations and enhancements, you described in the first question, what informed your decisions to make these changes?

2. If program is delivered in different settings, what are the strengths with each setting type in delivering *PHAT!-AO* including engagement of youth and community partners? What are the challenges within each setting?

Participant outcomes

1) According to literature on *PHAT!-AO* curriculum, decisions to have unprotected sex are influenced by:

- Limited information
- Negative attitudes and beliefs about abstinence
- Minimal negotiation and refusal skills
- Low self-efficacy or lack of confidence to negotiate abstinence
- Need for strengthened problem-solving skills

   a. What other influences might there be based on the experience with the youth you serve?

   b. Among the youth you serve, how would you rank the list of influences (described above) youth decide to have unprotected sex from least to most common?

   c. Of these influences for youth engaging in unprotected sex, what do you believe the *PHAT!-AO* curriculum **most effectively** addresses? **Least effectively?** Why?
      i. Are there any anecdotes or stories to share with us about these strengths and limitations?

2) Now we turn to the stated goals of the *PHAT!-AO* curriculum. On a scale of 1 to 10, one being not at all to 10 a great deal, are the goals of the *PHAT!-AO* curriculum achieved among your participants[54]:
   - Increase knowledge about puberty, HIV/STDs, and abstinence.

1	2	3	4	5	6	7	8	9	10

[54] https://www.hhs.gov/ash/oah/sites/default/files/ash/oah/oah-initiatives/tpp_program/db/programs/webinars/phatao-webinarslides.pdf

- Develop abstinence-only strategies.

1	2	3	4	5	6	7	8	9	10

- Bolster positive attitudes toward practicing abstinence.

1	2	3	4	5	6	7	8	9	10

- Increase confidence/self-efficacy and skills in negotiation, refusal, and problem solving for practicing abstinence.

1	2	3	4	5	6	7	8	9	10

- Build stronger intentions to abstain from sex.

1	2	3	4	5	6	7	8	9	10

- Build a sense of pride and responsibility for practicing abstinence

1	2	3	4	5	6	7	8	9	10

3) Do you have any stories or anecdotes to support your rating? Please explain.

Key characteristics and to what extent they drive outcomes

4) There are several key characteristics of the curriculum that can be delivered. Let's talk through your application of each of these methods and if possible, whether there are differences in approaches based on participant demographics (i.e. age, experience, race/ethnicity, language, setting)
    - Small group discussions or "talking circles"
    - Games and interactive activities, role plays, handouts, and posters
    - Videos/DVDs
    - Practice and feedback and HIV/ STD
    - Homework assignments

    a. Of these methods, which do you feel resonates most with the youth you serve and helps drives positive outcomes?

    b. Do you see differences among youth who happen to be LGBTQIA+, gender, race/ethnicity, or other groups(such as parenting or pregnant teen youth, and foster youth in engagement across these methods?

Opportunities and barriers to sustainability and expansion

5) Thinking back before COVID-19, what were the assets and resources in the communities you serve that have facilitated your ability to sustain and perhaps expand *PHAT!-AO*
    a. Prompts:
        - Accepting/open school board, principals and parents to discuss their issues and strategies to resolve them
        - After school and off-campus youth serving agencies
        - Partners for wrap-around services
        - Incentives for participation

6) Thinking back before COVID-19, what were the barriers and limitations in the communities you serve that have threatened sustainability and perhaps expansion of *PHAT!-AO*
    a. Prompts:
        - Attitudes of school administrators, teachers, and parents about sex education in school settings
        - In school class size, limited time, and student absenteeism (missing components of the program)

7) Thinking back before COVID-19, were there youth you felt were missing from your cohorts that could really benefit from the program? If yes, who were they and why do you think they weren't engaged?

8) How have these factors changed considering current circumstances due to COVID-19? Are there new or expanded opportunities? New or exacerbated barriers and challenges? New target populations?

9) Do you believe there is a need to adapt the *PHAT!-AO* content in light of COVID-19? If so, why?

10) If so, how are you adapting *PHAT!-AO* implementation in light of COVID-19?
    a. Participant recruitment
    b. Site recruitment
    c. Delivery adaptations
    d. Data collection adaptations

Evaluation Capacity

11) Tell us how it is going with meeting the data collection and reporting expectations of SRAE Performance Measures?
    a. What is working well?
    b. What do you find challenging with data collection and reporting?
        i. Prompts regarding the three sets of performance measures
            1. Structure, cost, and support for program implementation
            2. Attendance, reach, and dosage

3. Anticipation of collecting participants' characteristics, program experiences, and perceptions of program effects (currently not being collected or reported)

12) What do you hope to learn from an evaluation of the *PHAT!-AO* curriculum?

13) How would you want to use the findings of an evaluation?

14) Do you have anything else you'd like to share that you haven't already?