Natural High
Impact Assessment

Final Report

July 31, 2014

harder+company
community research

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Introduction

For two decades, Natural High has proclaimed the message that "just say no" is not enough to prevent young people from substance abuse; young people need to be inspired to "say yes" to their passions, their natural high. The purpose of this report is to provide an overview of the outputs (what Natural High does) and impacts (how what Natural High does change young people and society) of Natural High over the past twenty years and to provide recommendations to further optimize impact and sustainability as Natural High escalates into a nation-wide movement. As in any study, it is important to consider the limitations of the findings. The data analyzed were collected for a variety of reasons and not necessarily to inform this particular study. In addition, there are no control groups in which to compare the impact of the intervention nor longitudinal data to measure change over time in specific individuals. However, this report is grounded in previous findings from the scientific literature that provide the linkage between the outputs and impacts of Natural High, highlighting that the Natural High message being shared with youth is positively impacting them. To establish long-term effectiveness, Natural High may consider moving towards an evidence-based program.

Organizational History

Created in 1994, Natural High has spent the last two decades disseminating their programmatic message and providing relevant and encouraging examples of individuals living substance abuse free lifestyles as they find and pursue their natural high. Originally sharing its message through school assemblies, and then providing video cassettes to schools early-on, Natural High continued to assess culture shifts and work with educators, parents and the youth to ensure that their message was disseminated in formats that maximized exposure and impact. Through time and as technology evolved, cassettes were replaced by DVDs, and educators received teacher guides and additional material to enhance student engagement. Natural High lessons have been refined over time utilizing current research, and allow for flexibility depending on the need and desire of the school. The basic format includes sharing stories via videos and engaging in short discussion questions and work sheets. A more intensive format is also available, which includes longer-length curricula companions, such as the NH Unit – each of which has been developed to facilitate a post-video discussion that captures the following themes: value, role models, decision making, natural high definition and identification, and consequences of drug use. These videos/curricula have been linked to CA Health Education Standards, and Common Core. In recent years, Natural High also engaged the community in summer months by appearing at strategic locations such as Vans Warped Tour, a traveling music festival where there is a prevalence of drugs and alcohol. Throughout the last twenty years, both youth and adults have shared their stories of how Natural High impacted them. Individuals typically submitted testimonials, pictures, and/or online pledges documenting their natural high. Recently, Natural High made the transition to all-digital programming and support materials:

- Online video platforms with downloadable curriculum (e.g., YouTube, Vimeo, SchoolTube, etc.),
- Social media platforms (e.g., Facebook, Twitter, Instagram, etc.), and
- Mobile device applications (iPad, etc.).

This transition is based on the recognition that schools are migrating to electronic textbooks and digital platforms, youth are spending the majority of their time connected to digital devices, and the enhanced functionality and ease of use to manage online content facilitates the work of Natural High staff. Exhibit 1 provides a visual summary of Natural High.

Exhibit 1. Natural High Organizational Timeline
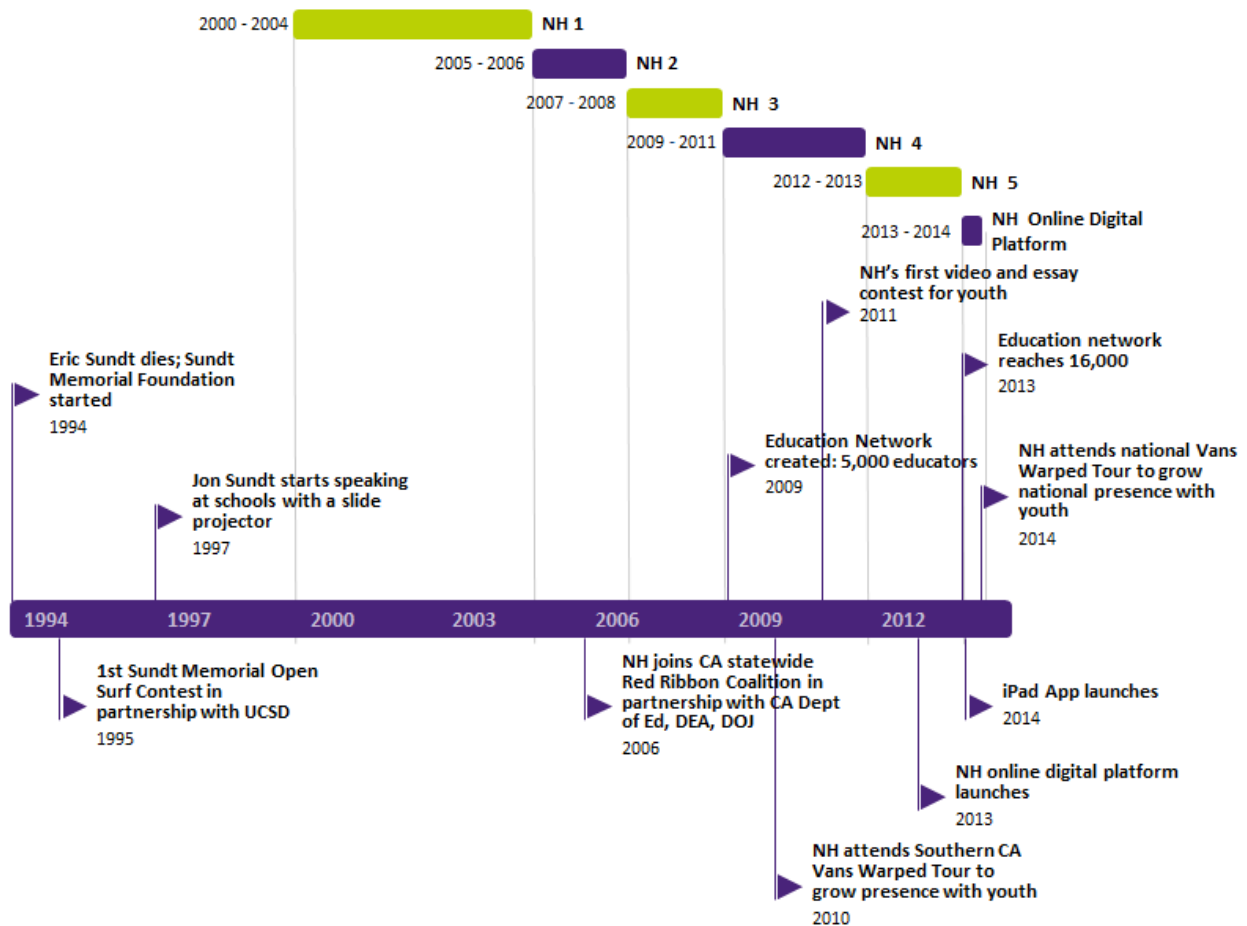
Moving Forward

Within the past year, Natural High has refocused their efforts to reach youth at school and maintain a large presence on social media, while upholding some key relationships within the community. Furthermore, Natural High has set the following organizational goals:

- Demonstrate the impact of Natural High to a variety of stakeholders (educational establishment, potential funders, government organizations, etc.),
- Expand Natural High's sphere of influence (bring about a movement and connect with other youth organizations),
- Streamline and bolster current data collection efforts, and
- Become self-sustaining (communicate impacts of Natural High and obtain funds to sustain current and future works).

Methods

A rigorous and exhaustive review of secondary program data (data collected for purposes other than this study) was undertaken to inform this report. Utilizing a data inventory template, Natural High staff populated past or ongoing data collection events (e.g., program feedback surveys, counts of pledges, testimonials, social media analytics, etc.) and provided additional salient information related to the program's aim and purpose, frequency, format, and how the data is currently utilized at Natural High. The inventory was reviewed by evaluation staff and key data were requested based on how well the selected data appeared to support the reach and impact of Natural High and responded to the Natural High key outcomes (see text box to the right). The following criteria were used in determining which data would be analyzed and included in this report: data relevancy (e.g., financial data were not pertinent to program impact, nor were data collected using outdated processes) and data representation (e.g., data collection events with very few records/participants were excluded from this analysis). Natural High staff then provided either a sample of the data set or the entire data set. The following is a list of the data sets analyzed for this report:

Natural High Key Outcomes
■ Youth can identify/discover/activate their natural high,
■ Youth perceive their natural high as more important/cooler than substance abuse and therefore, don't engage in substance abuse,
■ Youth perceive substance abuse as "uncool," and
■ Youth have an accurate perspective of substance abuse prevalence (i.e., youth don't think that everyone is engaging in substance abuse).

- Educator and Student Natural High Feedback Surveys (n=10),
- Social Media Metrics (Facebook Insights, HootSuite, Tumblr, etc.; n=8),
- Website and Email Metrics (Google Analytics and Mailchimp; n=2), and
- Various data files of testimonials, pledges, contest entries, etc., (n=6).

In addition, building off of the work already completed by Natural High staff, a literature review was conducted to identify current trends and outcomes related to drug prevention in youth, youth development, school climate and safety, and the impact of social media on youth. The majority of data analyzed in this report to measure the impacts of Natural High on youth are from surveys administered to youth and educators from 2009 to the present.

In order to better understand the programmatic impact of Natural High and how Natural High aligns with current drug prevention research and best-practices, a theory of change model, Reasoned Action Approach (RAA), has been utilized and is presented in Exhibit 2 (next page). The Natural High logo indicates a component which is addressed by Natural High. The RAA states that attitudes towards the behavior, perceived norms, and perceived behavioral control determine people's intentions and, in turn, people's intentions predict their behaviors; for additional information visit here.[1]

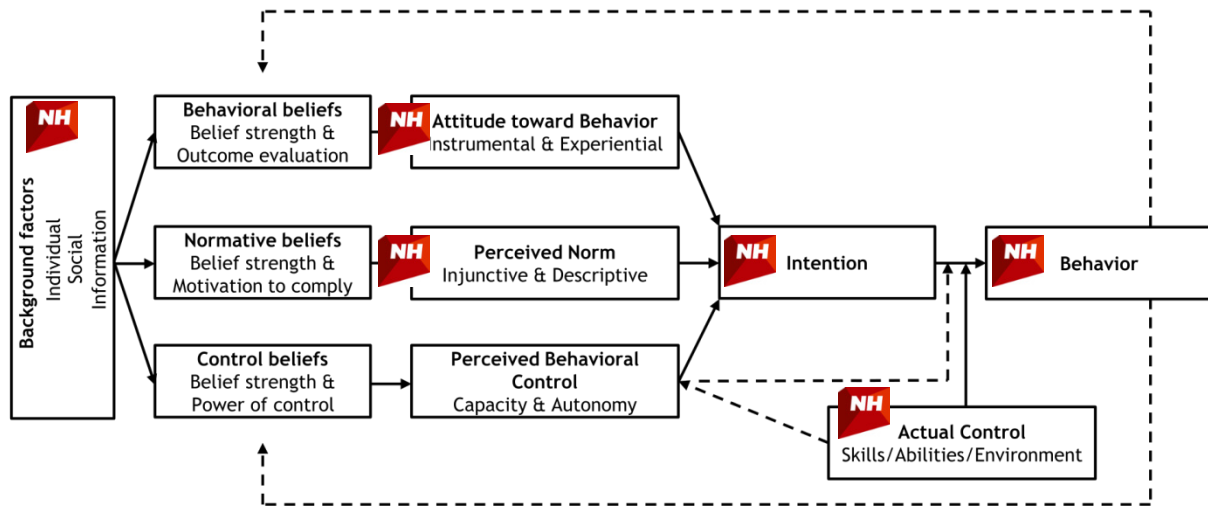
[1] Fishbein, M., & Ajzen, I. (2010). Predicting and changing behavior: The Reasoned Action Approach. New York: Taylor & Francis.

Exhibit 2. Reasoned Action Approach Aligned with Natural High

As seen in Exhibit 2, Natural High aims to impact the following components of RAA:

- Background Factors

  + Information
    - Natural High informs students about the concept of positive activity/passion and helps one identify one's own natural high.
    - Natural High provides up-to-date information regarding prevalence of substance abuse, the science underlying addiction, and peer pressure and refusal strategies.

- Attitude toward Behavior

  + Instrumental: anticipated positive or negative consequences.

  + Experiential: perceived positive or negative experiences.
    - Finding and engaging one's natural high, in combination with emphasizing the negative real-life consequences of substance abuse, may directly impact one's attitude toward engaging in substance abuse.

- Perceived Norm

  + Injunctive Norm: perceptions concerning what should or ought to be done.
    - All prevention programs highlight that substance abuse is illegal and should not be done. Natural High is no exception.

  + Descriptive Norms: perceptions that others are or are not performing the behavior in question.
    - Ensuring that youth have an accurate perception related to the prevalence of substance abuse is a key focus of Natural High and falls within the Social Norms Approach, an increasingly popular and impactful approach to prevention.[2]

- Actual Control

  + Relevant skills and abilities as well as barriers to and facilitators of behavioral performance.

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[2] Berkowitz, AD. (2004). *The Social Norms Approach: Theory, Research and Annotated Bibliography*. Retrieved from: http://www.alanberkowitz.com/articles/social_norms.pdf

- Though not the main focus of Natural High, encouraging and supporting youth to find and live out their Natural High may facilitate skill building that prevents substance abuse.
- Intention (perceived probability of performing a given behavior) and Behavior,
    + Both are key targets of Natural High and provide opportunities to measure the impact of Natural High.
        - Engaging in a Natural High lifestyle by delaying or totally preventing substance abuse is the aim of Natural High; all programmatic impacts should aim to support related intentions and behaviors.

For this report, these complex and detailed components have been summarized into three general categories:

+ Knowledge,

+ Attitudes, and

+ Intentions/Behaviors.

In addition, the key outcomes of Natural High and findings of the literature review provided additional guidance on targeting and analyzing the data. Data from SurveyMonkey was extracted, cleaned and frequencies were recombined and analyzed using appropriate statistical methodology.

Key Findings

The findings presented in this section are not strictly quantifications of the secondary data, but are combined and contextualized with the findings from the literature review and with prior organizational decisions (e.g., shifting from DVDs to all digital platform, etc.). The aim of this section is to highlight available data to document what Natural High does to achieve the goals identified in the introduction. This section is arranged in the following manner:

- Literature Review,
- Reach,
- Program Impacts,
- Program Feedback, and
- Data Collection Alignment and Utilization at the Organizational Level.

The findings section was to be stratified into the three following categories: Schools, Online, and Community; however, there were not enough data to differentiate into three groups.

Literature Review

There have been major shifts in the perception of "drug-abuse prevention" over the past two decades. Every year, more data is collected, synthesized and presented indicating the prevalence, complexity and far-reaching impact of substance abuse. In addition to the RAA conceptual model (Exhibit 2), the researchers conducted a review of literature produced by the National Institute on Drug Abuse (NIDA), the foremost drug prevention research and policy-informing institute. The National Institute on Drug Abuse synthesized the pre-imminent research-based guide for drug prevention programs (NIDA guide).[3] This document identified foundational, common elements found in effective prevention programs and summarized them into 16 key prevention principles. In addition, the NIDA guide utilized the concepts of protective factors[4] and risk factors[5] as an overachieving framework to allow for discussion across the myriad of prevention programs. As stated in the guide, "An important goal of prevention, then, is to change the balance between risk and protective factors so that protective factors outweigh risk factors." According to the elements found in the guide, Natural High is a universal, school-based prevention intervention aimed at youth (10-15 years old) that addresses the following key protective and risk factors:

- Identification of activities and interests that engage children and youth to focus on positive lifestyle choices (Natural High),
- Antidrug use policies,
- Misperceptions of the extent and acceptability of drug-abusing behaviors in school, peer, and community environments, and
- Acceptance of conventional norms against drug abuse.

The 16 prevention principles are not applicable to every program; Exhibit 3 displays the current coordination between Natural High and the 16 prevention principles.

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[3] U.S. Department of Health and Human Services. *Preventing Drug Use among Children and Adolescents: A Research-Based Guide for Parents, Educators, and Community Leaders, Second Edition.* (2003). (NIH Publication No. 04-4212(A).

[4] A characteristic associated with a lower likelihood of problem outcomes or that reduces the negative impact of a risk factor on problem outcomes.

[5] A characteristic at the biological, psychological, family, community, or cultural level that precedes and is associated with a higher likelihood of problem outcomes.

Exhibit 3. Alignment of Natural High and 16 Prevention Principles

#	Prevention Principles	Natural High
	Risk Factors and Protective Factors	
1	Prevention programs should enhance protective factors and reverse or reduce risk factors.	✓
2	Prevention programs should address all forms of drug abuse, alone or in combination, including the underage use of legal drugs (e.g., tobacco or alcohol); the use of illegal drugs (e.g., marijuana or heroin); and the inappropriate use of legally obtained substances (e.g., inhalants), prescription medications, or over-the-counter drugs.	✓
3	Prevention programs should address the type of drug abuse problem in the local community, target modifiable risk factors, and strengthen identified protective factors.	✓
4	Prevention programs should be tailored to address risks specific to population or audience characteristics, such as age, gender, and ethnicity, to improve program effectiveness.	✓
	Prevention Planning- Family Programs	
5	Family-based prevention programs should enhance family bonding and relationships and include parenting skills; practice in developing, discussing, and enforcing family policies on substance abuse; and training in drug education and information. Family bonding is the bedrock of the relationship between parents and children. Bonding can be strengthened through skills training on parent supportiveness of children, parent-child communication, and parental involvement.	n/a
	Prevention Planning- School Programs	
6	Prevention programs can be designed to intervene as early as preschool to address risk factors for drug abuse, such as aggressive behavior, poor social skills, and academic difficulties.	✓
7	Prevention programs for elementary school children should target improving academic and social-emotional learning to address risk factors for drug abuse, such as early aggression, academic failure, and school dropout. Education should focus on the following skills: self-control; emotional awareness; communication; social problem-solving; and academic support, especially in reading.	✓
8	Prevention programs for middle or junior high and high school students should increase academic and social competence with the following skills: study habits and academic support; communication; peer relationships; self-efficacy and assertiveness; drug resistance skills; reinforcement of anti-drug attitudes; and strengthening of personal commitments against drug abuse.	✓
	Prevention Planning- Community Programs	
9	Prevention programs aimed at general populations at key transition points, such as the transition to middle school, can produce beneficial effects even among high-risk families and children. Such interventions do not single out risk populations and, therefore, reduce labeling and promote bonding to school and community.	✓
10	Community prevention programs that combine two or more effective programs, such as family-based and school-based programs, can be more effective than a single program alone.	✕
11	Community prevention programs reaching populations in multiple settings—for example, schools, clubs, faith-based organizations, and the media—are most effective when they present consistent, community-wide messages in each setting.	✓
	Prevention Program Delivery	
12	When communities adapt programs to match their needs, community norms, or differing cultural requirements, they should retain core elements of the original research-based intervention.	✓
13	Prevention programs should be long-term with repeated interventions (i.e., booster programs) to reinforce the original prevention goals. Research shows that the benefits from middle school prevention programs diminish without follow-up programs in high school.	✕
14	Prevention programs should include teacher training on good classroom management practices, such as rewarding appropriate student behavior. Such techniques help to foster students' positive behavior, achievement, academic motivation, and school bonding.	n/a
15	Prevention programs are most effective when they employ interactive techniques, such as peer discussion groups and parent role-playing, that allow for active involvement in learning about drug abuse and	✓

Exhibit 3. Alignment of Natural High and 16 Prevention Principles		
#	**Prevention Principles**	**Natural High**
	reinforcing skills.	
16	Research-based prevention programs can be cost-effective. Similar to earlier research, recent research shows that for each dollar invested in prevention, a savings of up to $10 in treatment for alcohol or other substance abuse can be seen.	✕

✔ = strong alignment; ✕ = potential alignment improvement; n/a = not applicable to Natural High

As seen in Exhibit 3, Natural High has aligned strongly with many areas of research-based prevention interventions, though there are some areas to increase alignment. Substance abuse research has moved from viewing substance abuse as a singular issue to a more complex issue which must be incorporated into mental and behavioral health, education and the school climate, strength-based approaches to youth development, economic/societal costs, and social media. As summarized in the Substance Abuse and Mental Health Services Administration (SAMHSA)'s 2011-2014 action plan[6],

- The annual total estimated societal cost of substance abuse in the United States is $510.8 billion,
- By 2020, behavioral health disorders will surpass all physical diseases as a major cause of disability worldwide,
- In 2009, an estimated 23.5 million Americans aged 12 and older needed treatment for substance abuse, and,
- Half of all lifetime cases of mental and substance use disorders begin by age 14 and three-fourths by age 24.

Furthermore, SAMHSA's first strategic initiative is prevention of substance abuse and mental illness. Substance Abuse and Mental Health Services Administration prioritizing prevention as the first strategic prevention is best summarized by a 2009 Institute of Medicine report indicating that, "Several decades of research have shown that the promise and potential lifetime benefits of preventing mental, emotional, and behavioral (MEB) disorders are greatest by focusing on young people and that early interventions can be effective in delaying or preventing the onset of such disorders."[7] In addition, the theme of 'school climate' is becoming a leading focus in prevention efforts. School climate is a multi-faceted concept that describes the extent to which a school community creates and maintains a safe school campus, a supportive academic, disciplinary, and physical environment, and respectful, trusting, and caring relationships throughout the school community. Another emerging facet to "drug-abuse prevention" is the intersection of strength-based approaches to youth development. Strength-based approaches (a.k.a. Positive Youth Development) focus on identifying those activities and interests that truly engage children and youth to focus on positive lifestyle choices that will lead to successful life-long outcomes.[8] An example of such a program is Sparks; youth participating in this program tend to be, and feel, healthier and engage in fewer risk-taking behaviors, such as substance use or violence or unsafe sexual behaviors, than other students.[9] The two components that led to

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[6] Substance Abuse and Mental Health Services Administration. (2011). *Leading Change: A Plan for SAMHSA's Roles and Actions 2011-2014 Executive Summary and Introduction* (HHS Publication No. (SMA) 11-4629). Rockville, MD.

[7] O'Connell, M.E., Boat, T., & Warner, K.E. (Eds). (2009) Institute of Medicine and National Research Council. *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities.* Washington, DC: The National Academies Press.

[8] Search Institute. Sparks and Thriving. Retrieved from http://www.search-institute.org/sparks

[9] Search Institute. (2010). *Finding the Student Spark: Missed Opportunities in School Engagement* (Vol 5.1). Search Institute Insights & Evidence. Retrieved from https://www.searchinstitutestore.org/ProductDetails.asp?ProductCode=E494%2DW&CartID=1

successful outcomes were youth discovering their "spark" and adults who support the development of those sparks. As this is a newer field, researchers caution, "Evaluating these approaches requires understanding the approaches and the support they have from previous empirical work, building a chain of logic between what is built and what stakeholders value, and moving to a more complex, cumulative, and often more probabilistic model of causality."[10] Highlighted by the research on SPARKS and other research on substance abuse, quality parent engagement and involvement is a potent and important protective factor, or conversely, lack of parent engagement is a major risk factor.[11, 12, 13, 14]

Funders, both private and public entities, place a large emphasis on the cost-benefit of program they may potentially fund. There are multiple studies that highlight the long-term savings of effective "drug-abuse prevention" programs. For example, a 2008 study by SAMHSA proclaimed that these programs could save an estimated $18 per $1 invested if implemented nationwide.[15] Ensuring that this is communicated effectively is paramount for organizational relevance and long-term sustainability. Lastly, social media and online engagement is now essential to connect with the youth of today; 95% of teens ages 12-17 are online and 37% own a smartphone.[16] Social media engagement can increase feelings of self-efficacy, resources and support (peer support and otherwise) specifically in the realm of substance abuse treatment.[17] Social media appeals to youth by allowing visible, quick action and allowing positive, meaningful change quickly.[18] It encourages active communication among the target audience unlike previous forms of media. It also allows fostering of discourse, promotes sense of belonging to a like-minded or similarly-affected group, and taps into, and leverages large numbers of formal and informal relationships. Facilitating social support via online communities has had an implication for improving youth mental health.[19] In addition, social media allows

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[10] Blyth, D. (1999). *Reflections on Evaluating Strength-Based Approaches to Youth Development.* (The Evaluation Exchange, 5 (1), 2–3). Retrieved from http://www.hfrp.org/evaluation/the-evaluation-exchange/issue-archive/children-and-youth/reflections-on-evaluating-strength-based-approaches-to-youth-development

[11] Substance Abuse and Mental Health Services Administration. *Information Sheet 3: Key Features of Risk and Protective Factors.* Retrieved from http://captus.samhsa.gov/sites/default/files/capt_resource/capt_behavioral_health_fact_sheets_2012_0.pdf

[12] Perry CL, Williams CL, Veblen-Mortenson S, Toomey TL, Komro K, Anstine PS, et al. (1996). *Project Northland: outcomes of a communitywide alcohol use prevention program during early adolescence.* American Journal of Public Health; 86(7):956–965.

[13] Storr CL, Ialongo NS, Kellam SG, Anthony JC. (2002). *A randomized controlled trial of two primary school intervention strategies to prevent early onset tobacco smoking.* Drug and Alcohol Dependence;66:51–60.

[14] Gerra, G., L. Angioni, et al. (2004). *Substance use among high-school students: Relationships with temperament, personality traits, and parental care perception.* Substance Use & Misuse, 39(2), 345-367.

[15] Miller, T. & Hendrie, D. (2008). *Substance Abuse Prevention Dollars and Cents: A Cost-Benefit Analysis.* (DHHS Pub. No. SMA 07-4298). Rockville, MD: Center for Substance Abuse Prevention, Substance Abuse and Mental Health Services Administration.

[16] Pew Research Internet Project. (2012). *Teens Fact Sheet.* Retrieved from http://www.pewinternet.org/fact-sheets/teens-fact-sheet/

[17] Kaplan, Arline (2012, May 08). *Social Networking and Teen Drug Use: Tremendous Potential to Help -- and Harm.* Retrieved from http://www.psychiatrictimes.com/apa2012/social-networking-and-teen-drug-use-tremendous-potential-help-and-harm

[18] Wallce, Kelly (2013, November 22). *The upside of selfies: Social media isn't all bad for kids.* Retrieved from http://www.cnn.com/2013/11/21/living/social-media-positives-teens-parents/

[19] Goodman, J., Wennerstrom, A., & Springgate, B. F. (2011). *Participatory and social media to engage youth: From the Obama campaign to public health practice.* Ethnicity & disease, 21(3 0 1), S1.

users to contribute their own content and help shape the perception of social norms; a critical component of RAA and prevention models. However, some have raised concern about the "addictive" nature of social media.[20] All of these different topics are interrelated to the vision and mission of Natural High and may help inform practice.

Reach

Over the past twenty years, Natural High has disseminated its message to a large number of individuals throughout the United States and through a variety of platforms: schools, online and the community. Thus, it is difficult to measure the actual number of individuals who have heard the Natural High message. In addition, in some schools, the message is heard year after year, potentially enhancing the impact of the message due to the increased dosage (frequency of experiencing the intervention). After reviewing the data provided by Natural High, it is estimated that the Natural High message has been heard seven million times; however, it is unknown exactly how many students have heard the message and how many have heard it multiple times. Over 17,000 educators have used Natural High curriculum in one form or another and over 2,300 educators have utilized the new Natural High Education Network web platform. Currently there are approximately six thousand users who "like" Natural High on Facebook; however, this approximates a weekly total reach of approximately 160 thousand Facebook users. Social media's large reach and general accessibility makes it a valuable tool for drug prevention efforts.

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[20] Tamir, D. & Mitchell, Jason. (2012). Disclosing information about the self is intrinsically rewarding. *PNAs.* Retrieved from http://wjh.harvard.edu/~dtamir/Tamir-PNAS-2012.pdf
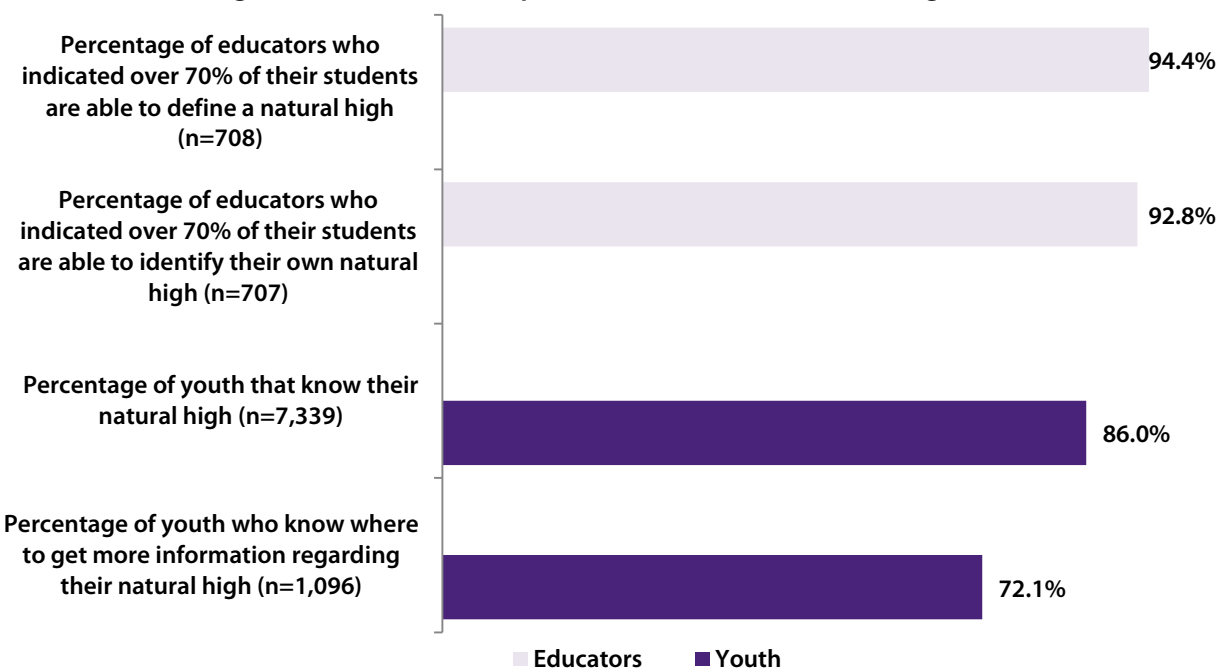
Program Impacts

Using terminology found in both the RAA and the NIDA guide, the impacts of Natural High are highlighted across three categories: knowledge, attitudes, and intentions/behaviors. A total of four separate Natural High feedback surveys, ranging from 2009 to 2012 and with sample sizes ranging from 518 to 5,704, were included in this analysis.

Knowledge

Knowledge about the concept of a natural high and being able to identify their natural high is paramount and constitutes a protective factor. Defining, identifying, and working toward a natural high are core component of the Natural High drug prevention message. After receiving the natural high message, educators and youth were asked about their knowledge of the concept of natural high. As seen in Exhibit 4, nearly all teachers reported that over 70% of the students in their classroom were able to *define* a natural high (94.4%) and *identify* their own natural high (92.8%). In addition, a large percentage of students (86.0%) indicated they *know* their natural high. Close to 75% of youth (72.1%) reported knowing where to get more information regarding their natural high.

Exhibit 4. Knowledge Related to the Concept and Identification of Natural High

Percentage of educators who indicated over 70% of their students are able to define a natural high (n=708)	94.4%
Percentage of educators who indicated over 70% of their students are able to identify their own natural high (n=707)	92.8%
Percentage of youth that know their natural high (n=7,339)	86.0%
Percentage of youth who know where to get more information regarding their natural high (n=1,096)	72.1%

■ Educators ■ Youth

Attitudes

Attitudes are complex and change over time, but are vital corollaries to behavior (Exhibit 2). Youth and educators were asked a variety of questions about their attitudes related to Natural High's impact. The vast majority of educators (82.6%) indicated that they saw a positive change in the way their students *viewed* drugs and alcohol (Exhibit 5; next page). Nearly all youth (96.3%) reported that having a natural high is *better* than substance abuse, while slightly fewer youth (81.4%) *believed* that a natural high will help fight the temptation to turn to substance abuse. Regarding the impact of the Natural

> When asked, "What if anything, impacted you most during the film (NH 4)," 25.6% mentioned Jon Sundt's Testimony

High Program, over 75% of youth reported that the Natural High Program *encouraged* them to abstain from substance abuse (78.0%) and identify their natural high (76.2%).
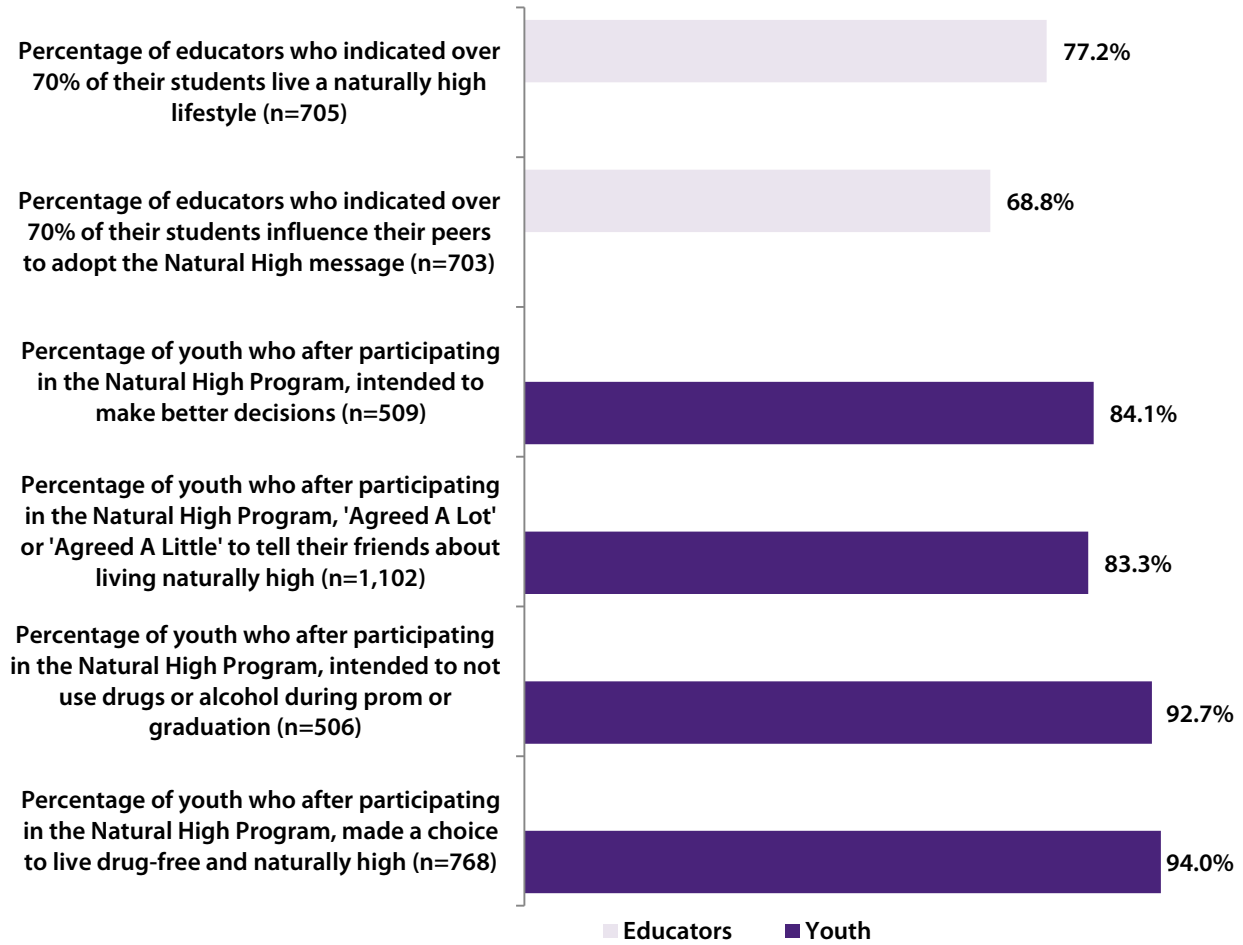
Exhibit 5. Attitudes Related to Natural High and Living Naturally High

Percentage of educators who reported exposure of students to Natural High led to a positive change in students' perception of substance abuse (n=1,490)	82.6%
Percentage of youth who indicated having a natural high is better than substance abuse (n=511)	96.3%
Percentage of youth who indicated a belief that a natural high can make you happy (n=5,516)	83.4%
Percentage of youth who indicated having a natural high will help fight the temptation to turn to substance abuse (n=1,627)	81.4%
Percentage of youth who strongly indicated the Natural High Program encouraged them to abstain from substance abuse (n=6,669)	78.0%
Percentage of youth who strongly indicated the Natural High Program encouraged them to identify their natural high (n=6,638)	76.2%

■ Educators   ■ Youth

Intentions/Behaviors

Observation and self-reported intentions of behavior are important outcomes when measuring the impact of substance abuse-prevention programs. When asked, over two-thirds of educators reported that their students *live* a Naturally High lifestyle (77.2%) and *influence* their peers to adopt the Natural High message (68.8%; Exhibit 6; next page). After participating in the Natural High Program, the large majority of youth reported *intentions* to make better decisions (84.1%), tell their friends about living naturally high (83.3%), abstain from substance abuse during prom or graduation, and made a choice to live naturally high.

Exhibit 6. Intentions and Behaviors Related to Living Naturally High

Percentage of educators who indicated over 70% of their students live a naturally high lifestyle (n=705)	77.2%
Percentage of educators who indicated over 70% of their students influence their peers to adopt the Natural High message (n=703)	68.8%
Percentage of youth who after participating in the Natural High Program, intended to make better decisions (n=509)	84.1%
Percentage of youth who after participating in the Natural High Program, 'Agreed A Lot' or 'Agreed A Little' to tell their friends about living naturally high (n=1,102)	83.3%
Percentage of youth who after participating in the Natural High Program, intended to not use drugs or alcohol during prom or graduation (n=506)	92.7%
Percentage of youth who after participating in the Natural High Program, made a choice to live drug-free and naturally high (n=768)	94.0%

■ Educators   ■ Youth

Pledges, Posts, and Content

Beyond hearing the Natural High message and providing a self-reported answer on a survey, there is a deeper level of connection—engagement. It is difficult to quantify the exact impact of engagement on choosing a naturally high lifestyle, but it should be noted that thousands of youth and adults have taken the additional step to connect with Natural High by pledging to live naturally high (3,179), submitting testimonials (thousands), and signing up to an Educator Network (2,153); all are indicators of protective factors and measure intention to live naturally high. These personal stories are important as they provide additional context to the overall quantification of individuals who have heard the Natural High message. In addition, they also play an important role when communicating the impact and value of Natural High to a variety of stakeholders and potential funders. Along with pledges and testimonials, engagement with Natural High can be measured via people's engagement with the program's social media presence. As social media is a core component of Natural High engagement, it is imperative to understand the associated nuances. Exhibit 7 displays important social media metrics and their meanings (next page). Youth who follow and engage Natural High via the multitude of social media outlets are not only receiving the message, but are a part of enhancing the message and changing the perceived norm of living naturally high. Furthermore, those youth who participate as contributors of user-generated content (pictures, videos,

> The hashtag, #LiveNaturallyHigh, was used in over 2,000 tweets.

comments, etc.) serve a key role in changing the perceived norm of substance abuse, a potent component of changing intention.

Exhibit 7. Social Engagement Metrics and Definitions	
Social Engagement Metric	**Definition**
Conversation Rate	The number of conversations per post. On Twitter, this is a reply to a tweet, or on Pinterest, Facebook, and Instagram, it's a comment on the pin, post, or photo.
Amplification Rate	Any time a post is retweeted or re-shared, it's being amplified. Every program allows one to do this; think of this as the number of re-pins, retweets, or reshares of a particular post.
Applause Rate	The applause rate is based on the number of "likes" each post gets. Every social network out there has an "easy" touch point to show appreciation (thumbs up, etc.). For example, Twitter has favorites, Facebook has likes, and Google+ has plusses.
Relative Engagement Rates	Average number of conversations happening per post, per follower. For example, this can allows one to compare the conversation rate on Facebook with the conversation rate on Instagram.
User-Generated Content	Content (posts, pictures, video, etc.) created by participants who make content available to contributors and non-contributors alike due to implicit (intangible rewards) or explicit (tangible rewards) incentives.

Program Feedback

Some of the data collected from youth and educators were aimed at obtaining program participant demographics and obtaining feedback on ways to improve program content and delivery. Feedback surveys typically focused on which Natural High program was used, grade level and number of youth who participated, and school context (e.g., Red Ribbon Week, during class time, etc.). The move to an all-digital platform renders some question themes obsolete:

- Utility of supplemental materials, and
- Version of Natural High utilized.

Digital Network Feedback

Educators did provide feedback on the new digital platform and education network. The average rating of the digital education network's ease of use was 8.0 out of 10, indicating it was very easy to use (n=346; not shown). One-third of educators (33.1%) reported no challenges utilizing the digital platform (n=347; not shown). The top challenges faced by educators were generally unrelated to the Natural High content and included:

+ Slow or no internet connection,

+ Access to computers,

+ School district filters and firewalls blocking access, and

+ Familiarity using the internet.

Many educators did not provide additional suggestions, but stated that the digital platform worked well. Those educators that did provided suggestions, request that Natural High continue to create relevant and engaging content and add lesson plans and activities. One educator suggested, "Maybe have focus questions at the end of each clip. I am not a computer expert but I would

"Students could relate to the speakers because they have seen them on TV and are aware of their Natural High. The Natural High DVD lets students know that there is a Natural High within them and life can be enjoyed without alcohol or drugs."

-Educator

like to see the option of clicking on a menu where I could create my own 20-25 minute video. For example: All video creations would start and end with the same uniform format of Natural High Intro with the great graphics each of your DVD's has had and they would end with a message from John just like the DVD's . The teacher /class would then select middle portion of the video that could include the celebrities of their choice."

Natural High Effectiveness
Educators provided feedback on what they felt was the most and least effective about Natural High (Natural High 5). Exhibit 8 highlights these themes.

Exhibit 8. Educator Identification of Natural High Effectiveness	
Most Effective	**Least Effective**
■ Testimonials ■ Use of celebrities and role-models ■ The focus on finding your Natural High ■ Relatable and engaging videos ■ Real-life negative impact of substance abuse	■ Language and content was not age-appropriate for 6th grade and below ■ Some celebrities/spokespersons appeared "too wealthy" and un-relatable ■ Not enough students in videos ■ Too much focus on sports and music/art

Data Collection Alignment and Utilization at the Organizational Level

In addition to informing the data selection and analysis for this report, the completed data inventory, which listed 52 unique data collection activities/events, provided a frame to understand what Natural High collects and how those data are currently utilized within the organization. As part of ongoing organizational capacity building, Natural High identified 20 "departments" within their organization. Department staff then indicated if they currently used data from the 52 data collection events. The majority of data collected were via online systems:

- Website hosting,
- SurveyMonkey,
- Social Media,
- Salesforce, and
- Form Assembly.

There were a few instances where hardcopies (letters, photos, paper surveys) were obtained. Most data collection tools are currently administered and collected in an ongoing fashion, but there were many educator and youth feedback surveys that were no longer collected, which is to be expected. In almost every case, there was no data quality assurance or data cleaning conducted. There was significant overlapping utilization of the data across the organization. As seen in Exhibit 9, of the 52 data collection events, 48.1% were used by at least five departments. 26.9% were not currently used by any department, and 25.0% were used by one to four departments.

Exhibit 9: Data Collection Event Utilization Across Natural High Departments
(n=52)

26.9%	25.0%	48.1%
■ 0 Departments	■ 1-4 Departments	■ 5 or More Departments

Discussion and Recommendations

Natural High appears to be taking steps to become a more effective and sustainable organization. Natural High has engaged in targeted capacity building efforts through a SWOT[21] analysis, strategic planning, and this impact assessment, providing a foundation for actionable and impactful decision making. Based on the findings from the literature review and secondary data analysis, Natural High has shown positive impact on the lives of youth by enhancing protective factors, helping youth identify their Natural High, and impacting attitude toward behaviors and perceived norms. These impacts are most clearly seen in the youths' increased knowledge of what is a natural high, identification of their own Natural High, belief that a natural high can help them maintain a substance abuse free lifestyle, and intention to abstain from substance abuse. In addition to programmatic impacts, Natural High is poised to continue to reach and engage youth of the current and upcoming generation. As previously discussed, the literature emphasized parental engagement as a key area to impact substance abuse both short- and long-term.[22,23] Currently, Natural High has minimal parental engagement and, as youth discover their natural high(s), parental support (both socially and resource-wise) will likely be critical. In the following paragraphs, we summarize recommendations to strengthen data collection and to demonstrate, communicate, and enhance organizational impact and effectiveness.

Recommendations for Enhancing Natural High as a Prevention Program

As indicated previously, Natural High promotes many protective factors and impacts key areas of the RAA. The research identified a few key areas to assist Natural High with even further program improvements. In particular, Natural High could increase alignment with principles 10, 13, and 16 of the 16 prevention principles (Exhibit 3). For principle 10, Natural High could combine into a number of non-profit and governmental youth programs to further strengthen its message, for example the YMCA, religious institutions, Boys and Girls Club, and local and state youth development departments, among others. Such partnerships would encourage increased alignment to principle 10. As a child may attend three separate schools between the ages of ten to fifteen, attempting to work with school districts to implement Natural High across a district would allow for a long-term intervention with repeated exposures and better align Natural High to principle 13. As outlined in principle 16, continuing to document the impacts of Natural High and engage in a research evaluation study will lead Natural High towards recognition as a research-based prevention program. A final and important recommendation is to increase parental and family involvement with Natural High. Parents are cited as the most predictive factor (either as risk or as protective) for substance abuse and a myriad of other deleterious behaviors. As such, parents and families play a critically important, pragmatic role in encouraging youth to engage in their natural high. Some potential next steps could include: specific Natural High messaging for parents/families; specific engagement with parents at the school, community, and online; and greater emphasis on the role and importance of parents/families.

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[21] SWOT Analysis is a technique used by organizations to understand and identify organizational Strengths and Weaknesses, Opportunities and Threats.

[22] U.S. Department of Health and Human Services. *Preventing Drug Use among Children and Adolescents: A Research-Based Guide for Parents, Educators, and Community Leaders, Second Edition.* (2003). (NIH Publication No. 04-4212(A).

[23] Search Institute. (2010). *Finding the Student Spark: Missed Opportunities in School Engagement* (Vol 5.1). Search Institute Insights & Evidence. Retrieved from https://www.searchinstitutestore.org/ProductDetails.asp?ProductCode=E494%2DW&CartID=1

Recommendations for Program Outputs and Impacts

A main factor for why Natural High isn't able to fully demonstrate the totality of their impact is due to a lack of robust data and targeted indicators. To date, Natural High's evolution as it relates to programming and support materials has been guided by input from organizational staff or review of some of their existing data. This approach has allowed Natural High improve the quality and reach of its programming. However, this secondary analysis and the findings in this report suggest that Natural High is at a point where it can formalize its program evaluation and data collection content and process so that it is can fully assess the impact of its work. Collecting high quality data from multiple stakeholders is necessary to demonstrate impact. As seen in Exhibit 10, there are gaps in the indicators and associated data sources.

Exhibit 10. Current Alignment and Recommendations for Natural High Key Outputs, Outcomes and Indicators			
Key Outputs	**Current Indicators**	**Current Data Source(s)**	**Recommendations**
Reach	▪ Number of youth and educators that participate(d) in Natural High ▪ Number of celebrities who share their stories	▪ Feedback surveys via SurveyMonkey	▪ Maximize the new digital platforms to measure reach ▪ Attempt to determine the duplicated vs unduplicated reach
Key Outcomes			
Youth can identify their natural high	▪ Percentage of youth who report knowing their natural high ▪ Percentage of educators who report their students know their natural high	▪ Feedback surveys via SurveyMonkey	▪ Strengthen indicator by asking youth to name their natural high ▪ Revise current feedback questions and increase methods for obtaining feedback from both educators and students ▪ Utilize same questions to measure impact over time ▪ Capture some element of dosage
Youth perceive their natural high as more important/cooler than substance abuse and therefore, don't engage in substance abuse	▪ Percentage of youth who after participating in Natural High made a choice to live naturally high ▪ Percentage of youth who after participating in Natural High intended to not use drugs or alcohol during prom or graduation	▪ Feedback surveys via SurveyMonkey	▪ Increase and leverage alternative indicators for behavior change ▪ Strengthen and standardize survey questions ▪ Increase methods for obtaining feedback from both educators and students ▪ Utilize same questions to measure impact over time ▪ Capture some element of dosage
Youth perceive substance abuse as "uncool"	n/a	n/a	▪ Identify and leverage indicators ▪ Draft and standardize survey questions ▪ Increase methods for obtaining feedback from students ▪ Utilize same questions to measure impact over time

Exhibit 10. Current Alignment and Recommendations for Natural High Key Outputs, Outcomes and Indicators

			■ Capture some element of dosage
Youth have an accurate perspective of substance abuse prevalence	n/a	n/a	■ Identify and leverage indicators ■ Draft and standardize survey questions ■ Increase methods for obtaining feedback from students ■ Utilize same questions to measure impact over time ■ Capture some element of dosage
Youth report a delay in engaging in substance abuse	n/a	n/a	■ Identify and leverage indicators ■ Draft and standardize survey questions ■ Increase methods for obtaining feedback from students ■ Utilize same questions to measure impact over time
Engagement and User-Generated Content	■ Social media impressions and website hits ■ Testimonials, etc.	■ Hootsuite ■ Google Analytics ■ Facebook Insights ■ Letters, comments, photos, emails,	■ Continue to utilize these indicators and data sources, but ensure that the most current terms are used ■ Continue to collect and utilize testimonials

In addition to the recommendations to bolster current indicators and data collection, Natural High could

- Revise and standardize current feedback questions,
- Increase methods for obtaining feedback from both educators and students (feedback forms from participating schools),
- Utilize same questions to measure impact over time, and
- Capture some element of dosage (i.e. intensity or frequency of exposure to Natural High content).

In order to most effectively communicate program impacts and leverage potential funding, Natural High should consider incorporating and/or re-contextualizing key outcomes and indicators to address the school-climate field, the strength-based youth development field, and include some component of cost-benefit. This would require additional resources to determine the most appropriate, relevant and feasible indicators and organizational processes to maintain them (For additional details about potential indicators and data sources, please see *Recommendations for Leveraging Existing Indicators and Data Sources*).

Recommendations for Data Collection Alignment and Utilization at the Organizational Level

The result of the data inventory was a very useful and informative document which highlighted the various data collected and how it was currently used. As Natural High continues to evolve, this process should occur at least annually to determine redundancies in data collection and unleveraged data. This process may be integrated into an already occurring professional development/organizational capacity building event. In addition, to ensure that this information is utilized throughout the year, some organizational processes should be created and maintained (e.g., one staff person is in charge of reviewing the document monthly and touching base with other staff).

Recommendations for Leveraging Existing Indicators and Data Sources

As Natural High considers moving forward with expanding indicators, there are a few key recommendations:

+ Create a dashboard to monitor impact: Dashboards are utilized in all types of sectors and industries and provide a quick and easy way to monitor impact over time. Dashboards are typically aligned with strategic or implementation plans. The dashboard can be developed within Natural High's data system so that data is available in real time.

+ Utilize already existing indicators and nomenclature: There are an abundance of potential indicators already created and maintained by other organizations, especially around behavioral health and school-climate. Natural High staff could incorporate some of this metrics in its process and thus increase its ability to measure program alignment and impacts against other substance abuse prevention models.
    - Safe Supportive Learning: http://safesupportivelearning.ed.gov/state-profiles/data-trends-indicators
    - National School Climate Center: http://www.schoolclimate.org/climate/practice.php
    - California Health Interview Survey: http://healthpolicy.ucla.edu/chis/Pages/default.aspx
    - Youth Risk Behavior Surveillance System: http://www.cdc.gov/healthyyouth/yrbs/index.htm
    - SAMHSA: http://www.samhsa.gov/data/
    - ChildStats.gov: http://www.childstats.gov/
    - Children Now: http://www.childrennow.org/index.php/

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