Live Well NYU

A Comprehensive Public Health Framework to Improve Student Health throughout the Global Network University


Alcohol, Tobacco, and Other Drugs
Health Literacy
Interpersonal Relationships
Mental Health/ Depression
Nutrition
Physical Activity
Safe and Healthy Campus Community
Sexual Health
Sleep
Stress
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Table of Contents


NEW YORK UNIVERSITY
PERSTARE ET PRÆSTARE
MDCCCXXXI

Letter from the President

For more than 175 years, NYU has been home to talented scientists, artists, writers and other scholars whose presence has drawn top students from all over the world to study with them. As NYU continues to make strides as one of the premier global universities, it is paramount to our students' success that they are healthy.

Over the last few years, NYU has built a student wellness model that has been recognized nationally and that has helped thousands and thousands of NYU students with a wide range of issues that affected their well-being. As successful as that model has been, we would like to go a step further and introduce a new emphasis on prevention. The **LiveWellNYU** framework — our new prevention effort — will enable us to achieve new levels of student health and well-being, and set the standard for university wellness initiatives across the country.

LiveWellNYU combines an evidence-based public health approach with innovative engagement strategies that will help students take charge of their health by developing a healthy lifestyle and habits.

It will be a springboard to create an environment that facilitates a healthy lifestyle, provides students with the tools to make their own healthy decisions, and challenges them to become active participants in their health and wellness. .

As we move forward with **LiveWellNYU**, I invite you all to take an active role in this important and innovative prevention initiative.

Sincerely,

John Sexton

[LiveWellNYU] will be a springboard to create an environment that facilitates a healthy lifestyle, provides students with the tools to make their own healthy decisions, and challenges them to become active participants in their health and wellness.

Introduction

LiveWellNYU is a comprehensive framework that combines an evidence-based public health approach with innovative strategies for engagement to help students be healthy. Acknowledging that student health is inextricably linked to student success, LiveWellNYU aims to empower students to achieve their best possible health and to foster a University environment in which students can reach their full potential in all facets of their lives – in and out of the classroom.

Mission Statement

LiveWellNYU endeavors to increase students' use of preventive behaviors and to empower students to become active partners in their own health, thereby improving their general well-being, helping them reduce impediments to academic success, and equipping them with important, lifelong self-care skills.

The health issues that most impede academic achievement are largely preventable or treatable, which gives the University a huge opportunity for positive impact. LiveWellNYU promotes not only what can be done by individual students and the NYU Student Health Center but also provides strategies for faculty and staff; student leaders; parents, family, friends; and community partners to work together in a united and coordinated effort to improve the health and wellness of students. In collaboration with our partners in prevention, LiveWellNYU will create and sustain a healthy, thriving student population that will help build a healthier, more productive community.

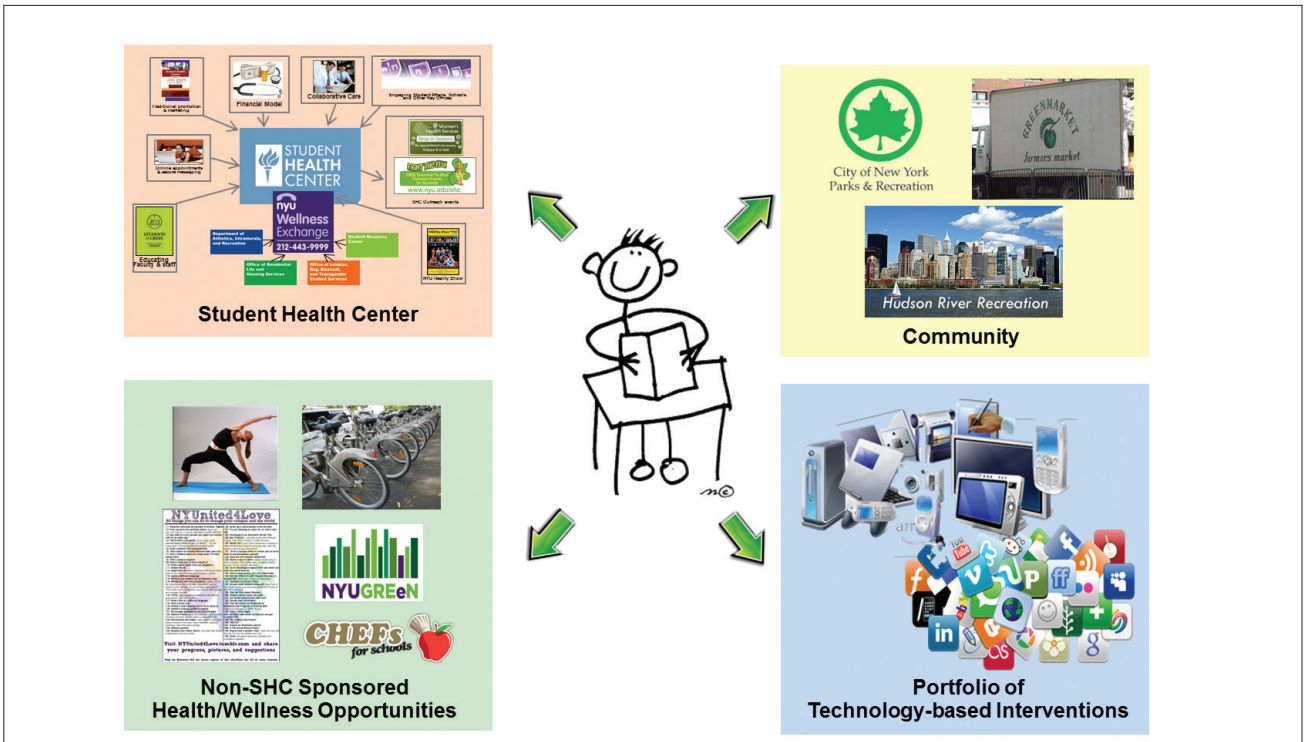

Fig. 1: *LiveWellNYU represents a student-centered paradigm focusing on providing students with the knowledge, skills, and resources to be active partners in their personal well-being; LiveWellNYU will serve as the hub of the many health and wellness resources within the University and external community.*

LiveWellNYU: A Collaborative Effort

A multidisciplinary and culturally diverse committee of over 150 NYU students, staff, and faculty helped to envision the design and implementation of the LiveWellNYU framework. This committee — comprised of 10 advisory committees focused on each of the priority areas and 2 ad hoc groups for engagement and technology — functions to: coordinate existing health and wellness opportunities throughout NYU and identify new opportunities for prevention; mobilize University stakeholders; identify and meet the unique needs of particular groups of students; leverage members' specialized expertise; recommend and champion the implementation of new programs, policies, and strategies for effectively engaging NYU students around their health; and provide transparency, accountability, and benchmarks for priority areas.

Strategic Approaches

The magnificent diversity of NYU's student body — its varied ethnicity, country of origin, socioeconomic background, sexual orientation, and even course of study — makes it especially critical for LiveWellNYU to adapt carefully to meet the specific needs of each individual student. Moreover, as NYU continues to build a leading global university, challenges arise in providing the necessary support to more than 50,000 students across multiple continents. Yet its very global nature presents NYU with enormous opportunities for LiveWellNYU to create healthful change around the globe. LiveWellNYU has identified six strategic approaches that serve as the building blocks to support NYU students in achieving health and success.

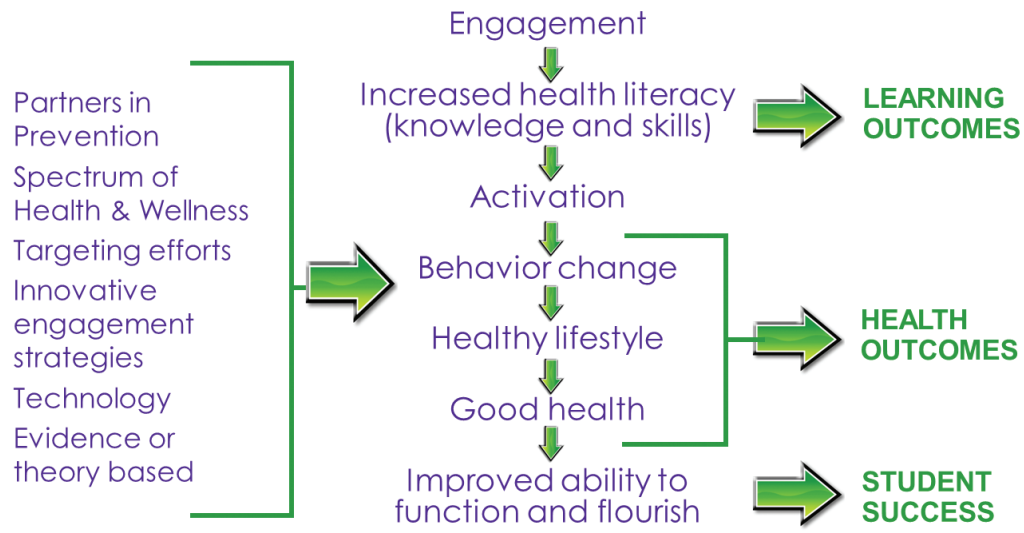

Fig. 2: *The left side contains the six strategic approaches that serve as the building blocks to support NYU students in achieving health and success. The center characterizes the processes that lead to NYU students' ability to maintain overall good health and to succeed socially and academically. The right side represents the initial, intermediate, and longer-term outcomes, which will be measured using a variety of evaluation instruments and techniques.*

1. Engaging Our Partners in Prevention

LiveWellNYU promotes collaboration among key members of the NYU community — our "partners in prevention" — who have the capacity to influence the health of individual students. Engaging these partners also contributes profoundly to the formation of a wellness-supporting environment.

- **Student Leaders** - Students in leadership roles have the potential to change community norms by modeling positive health behaviors.[1] Empowered as trusted, credible leaders in the university community, with effective communication skills[2] and the ability to inspire policy and decision making, these students can introduce new healthy trends into their spheres of influence.

- **Faculty and Staff** - As educators and mentors, University faculty and staff are uniquely positioned to have a positive influence on their students' health. University faculty have a strong impact on students' experiences; in fact, students who are engaged with faculty tend to be among those reporting the highest levels of achievement[3] and in other cases have been found to be less prone to reporting negative health outcomes.[4] NYU faculty and staff can positively influence their students' health behaviors and outcomes by providing support, information, and resources.

- **NYU Student Health Center** - NYU's award-winning Student Health Center (SHC) has been recognized for its excellence in health-related programs and services for students. The SHC employs the necessary expertise to meet the unique health needs and challenges of college students. By continuing to prioritize education and prevention,[5] in addition to providing exceptional healthcare services, the NYU Student Health Center works to ensure the long-term health of NYU students.

- **Parents, Family & Friends** - Research demonstrates that both parents and peers play important roles in shaping young adults' health beliefs and behaviors.[6] Family members and friends' behaviors may be the most powerful socialization technique in the development of healthy lifestyles.[6]

- **Community Partners** - Improving coordination between NYU and the wealth of available resources within the surrounding community will maximize opportunities for the health and wellness of students both in and outside the University. Enhanced through collaboration with local businesses and organizations, these partnerships will increase the capacity of LiveWellNYU to implement comprehensive preventive health strategies.

2. Addressing the Full Spectrum of Health and Wellness

Ninety-four percent of NYU students describe their general health as good or better[7] and the majority of students do not seek health services until they are ill or injured. As the World Health Organization defines it, health is "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity."[10] Using this multidimensional view of health, LiveWellNYU strives to support health and wellness across the continuum from prevention to acute illness management and all other relevant issues in between.

Research indicates that modifiable behavioral risk factors are leading causes of death in the United States.[8] Emerging adulthood, the period between 18 and 25 years of age, can be a pivotal time for establishing lasting health behaviors.[9] LiveWellNYU aims to facilitate the formation of everyday health habits, behaviors, and skills among students of all ages that will contribute to the their overall health and to help them thrive academically and socially.

3. Targeting Efforts to Specific Student Populations

Through analysis of the behaviors and characteristics of NYU's heterogeneous student population, LiveWellNYU will target health efforts for students in New York City and around the world. Segmenting the student population – the process of identifying subgroups based on shared attributes[11] – will allow LiveWellNYU to direct outreach and to provide focused and pertinent health interventions. Methods will be cultivated based on an awareness of the distinct needs and concerns of specific student populations.[12] This approach to targeting health interventions effectively optimizes prevention efforts.[13]

4. Utilizing Innovative Engagement Strategies

Although several barriers to engaging college students in health and wellness initiatives have been documented,[14,15] LiveWellNYU aims to overcome these obstacles with creative and innovative approaches using multiple modalities. Building on the strengths of NYU's dynamic and talented faculty, staff, and students, LiveWellNYU will support a wide variety of activities that reinforce healthy behaviors. By incorporating strategies that are not traditionally associated with health into a unique multimedia approach, LiveWellNYU strives to transform the way that students and stakeholders think about health and wellness. In addition, LiveWellNYU will develop a system to incentivize health and wellness among students, a process which has been found to be effective in increasing preventive health behaviors.[16]

Fig. 3: *Complementing the established Wellness Exchange brand, the LiveWellNYU stamp promotes the everyday things students can do to be healthy. By including the stamp on existing or new University or community programs, events, services, or signage that support the 10 priority wellness areas, the stamp contributes to a seamless, interdisciplinary culture of wellness.*

5. Expanding the Portfolio of Technology Resources

LiveWellNYU will harness the power of technology to offer students multiple, customized, evidence-based modalities to improve their health in an integrated and coordinated system. The latest national data on computer use, Internet penetration, and rapid adoption of social media demonstrate the broad potential reach of technology-based interventions to engage students around preventive health and wellness. Emerging evidence demonstrates the efficacy of Internet and other technology-based interventions to increase health knowledge and even change health behaviors.[17,18,19] The use of social media and other interactive technologies offers several advantageous features that can support students in becoming more active partners in their personal health and wellness. Students can access digital resources at their convenience, without the constraints of structured in-person encounters and in a manner that can feel largely anonymous. In contrast

to other public health interventions intended for large populations, digital resources can be structured to provide highly personalized messages and/or individual feedback based on participants' characteristics and reported behaviors. Technology can be engaging, make use of a vast offering of interactive tools, and still allow for interactivity between students and professional staff – all while remaining relatively low-cost. Web analytics offers a real-time mechanism for professional staff to track the health information students want to learn, which allows for more effective and efficient development and dissemination of relevant information and resources. These benefits will be particularly helpful in addressing the unique challenges that NYU faces as a decentralized, global university in meeting the health and wellness needs of a highly diverse student population located in New York City and throughout the world.

6. Emphasizing Evidence-based Practices

LiveWellNYU places a strong emphasis on assessing the emerging data and research on promising evidence-based practices to shape its prevention strategies. Guiding the development of tactics by research ensures that NYU can adopt the most successful practices to improve student health.

Recommendations and Actions

LiveWellNYU - based on a comprehensive, ecological approach - supports recommendations that address the complex determinants of health in various capacities. Factors that influence health do not operate in isolation; they often intersect or work synergistically. With this in mind, LiveWellNYU establishes recommendations for each priority area which seek to improve health and wellness through three distinct types of interventions:

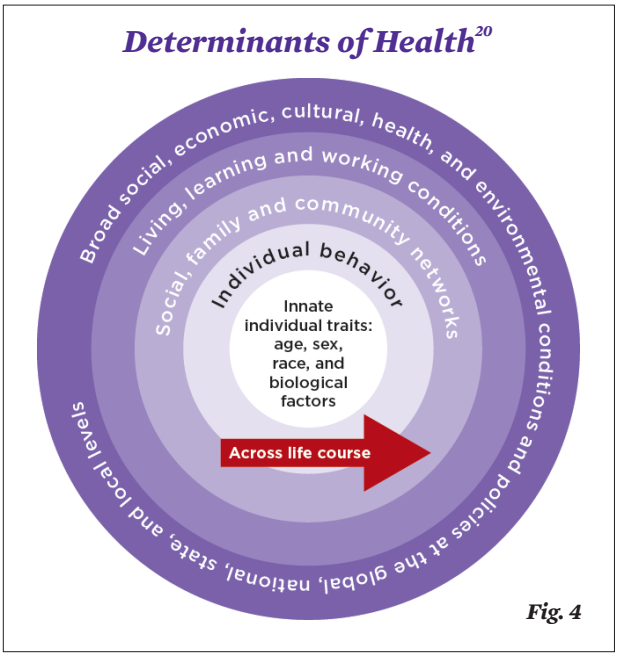

Fig. 4

1. **Prevention, Access and Quality:**
   Advancing evidence-based preventive practices, enriching healthcare services that are of highest quality, and assuring that each NYU student has access to the means to live a healthy life

2. **Health Promotion:**
   Empowering NYU students with the education, tools, and resources to achieve their best possible health and improve the overall health

3. **Policies and Guidelines**:
   Enhancing existing and developing new NYU policies, guidelines, and protocols to facilitate change in the environmental and social conditions that affect student health

Measuring Progress

A thorough system of evaluation, including the use of the American College Health Association – National College Health Assessment instrument – will assess progress from Fall 2012 through Spring 2017. Progress reports will be released periodically during this time. A wide-ranging set of indicators track progress in each of the 10 priority areas and measure the impact of programs and interventions on NYU's leading causes of academic impediment, morbidity, and mortality.

A 2017 target for each indicator has been set based on national public initiatives such as Healthy Campus 2020. For indicators that assess students' behavior, health status or impediments to academic success, a minimum 10% improvement has been set. For indicators that assess the receipt of health information, a 20% improvement has been set. Baselines and targets for the indicators are expressed as rates or percentages. This makes it possible to compare the health status of specific groups of students or track the entire student body's status over time.

For each priority area, a core indicator that is particularly significant, amendable, and easily measurable has been selected. Core indicators will be displayed in **green** throughout the document.

10 Priority Areas

Healthy Campus 2020 establishes national objectives to improve the health of college students. Derived from the Healthy Campus initiative, NYU National College Health Assessment data, and with input from University stakeholders, **LiveWellNYU** has identified 10 priority areas that meet the following criteria: highly prevalent impediments to academic and student success; determinants of future preventable chronic disease; that which is proven amenable to intervention and public action; and can be best addressed through coordinated action by University partnerships.

The 10 priority areas are (in alphabetical order):

1. Alcohol, tobacco, and other drugs
2. Health literacy
3. Interpersonal relationships
4. Mental health/depression
5. Nutrition
6. Physical activity
7. Safe and healthy campus community
8. Sexual health
9. Sleep
10. Stress

The LiveWellNYU advisory committees have established a set of indicators and evidence-informed or theory-based recommendations for each priority area. Using this framework to guide effective change in the University community, LiveWellNYU envisions a healthy, happy, and successful student population.

Alcohol, Tobacco, and Other Drugs

Indicator	Baseline	2017 Target
Alcohol-associated serious negative consequences[a]	17.8%	16.0%
Students who avoid drinking games[b]	41.3%	45.5%
Students taking prescription drugs that were not prescribed[c]	13.0%	11.7%
Students who curently smoke tobacco[d]	18.1%	16.3%

The health and safety consequences related to alcohol, tobacco, and other drug use remain significant concerns on college and university campuses across the country, including NYU. The behaviors of college students place them at high risk for unprotected sex, sexual assault, physical injury, and death resulting from substance use. The rates of heavy episodic (or binge) drinking have remained high and the misuse of additional substances, particularly prescription medications, has risen sharply in the past decade on college campuses, increasing overall risks associated with substance use in this population. Cigarette smoking, with its serious long-term health consequences, is reported at intermittent or at daily rates of nearly 20% among NYU students[49]. Given the serious consequences of substance-using behaviors, NYU must focus on implementing a comprehensive approach to prevention beyond individually focused health education programs to include strategies designed to change the campus and community environment in which students make decisions about alcohol, tobacco, and other drug use.

Key Facts

Alcohol

- The binge drinking rate at NYU is 34%,[49] which is lower than the national average.[50]
- Almost 1 in 4, or 1.8 million, college students meet the medical criteria for substance abuse or dependence, almost triple the proportion in the general population.[2]
- College students aged 18 to 29 were nearly twice as likely as adults 30 years of age or older to meet criteria for current alcohol abuse and more than 4 times as likely to meet criteria for current alcohol dependence.[3,4]
- Studies show students more than double their drinking during study abroad, and those who drank at heavier levels while abroad returned home drinking at significantly elevated levels.[5]
- An estimated 400,000 students between the ages of 18 and 24 had unprotected sex and more than 100,000 students between the ages of 18 and 24 report having been too intoxicated to know if they consented to having sex.[7]
- "Heavy and frequent" drinkers are approximately 5 to 6 times more likely than "non-heavy" drinkers to report that they had missed class and that they had performed poorly on a test or other project because of drinking.[8]
- The phenomenon of perceived social norms – or the belief that "everyone" is drinking and drinking is acceptable – is one of the strongest correlates of drinking among young adults.[9]

Recommendations

1. **Increase student use of alcohol "risk reduction" practices.**

   The use of "protective" behavioral strategies – such as avoiding drinking games, eating before drinking, or counting drinks – has been associated with students drinking less and experiencing fewer alcohol-related negative consequences.[17-19] Several evidence-based interventions or strategies – including brief motivational interviewing,[20] cognitive-behavioral skills training,[21] incorporating trained student peers on intervention teams,[22,23] Internet based interventions,[24-27] and judicial mandated programming[25] – have been shown to increase student knowledge about and use of protective behavioral strategies.

2. **Increase visibility and access to NYU and community-affiliated substance-free social options.**

   Large amounts of unstructured student time and student perceptions of heavy alcohol use can contribute to increased alcohol use and binge drinking.[28] Alcohol-free social programming may be an effective strategy for decreasing alcohol use on days when students attend alcohol-free events rather than alcohol-related events or gatherings[29,30] and is a primary policy goal of the National Institute on Alcohol Abuse and Alcoholism (NIAAA).[1, 28] Substance-free social options may also

contribute to changing the sociocultural environment on campus by demonstrating that the university supports alcohol-free activities and limiting access to alcohol during events. In addition, students who attend are exposed to peers who are more likely to value alcohol-free entertainment, which may affect their beliefs about drinking norms on campus.[31]

3. Promote consistent and interdependent enforcement of alcohol policies.

Heavy drinking rates among college students are higher than those of their non-college peers.[32] Characteristics of the college environment contribute to this phenomenon,[33] but aggressive and consistent policy enforcement has been associated with reductions in student drinking rates over time.[34] NYU currently has in place a comprehensive set of evidence-based policies; for example, responsible beverage service in social and commercial settings; enforcement at University-based events that have been associated with excessive drinking; personal liability; and disciplinary actions associated with policy violations.[35] As a large and decentralized university, it is necessary to regularly examine and if necessary adjust current alcohol policies and their implementation to ensure consistent application and understanding throughout the NYU global network.

4. Strengthen policies and resources in support of a smoke free campus.

Second-hand smoke has serious consequences;[36] thus, federal, state, and city entities support the establishment of smoke-free zones. For several years, NYU has been striving toward a smoke-free campus.[37] Because many college students are social or intermittent smokers,[38] smoke-free campus policies are particularly effective at reducing cigarette consumption and promoting broad normative changes;[39-42] these policies provide physical barriers to smoking, which may motivate students to attempt to quit or not to start.[43] Additionally, students with access to smoking cessation aides are more likely to use them and more likely to quit smoking.[43]

Key Facts (cont'd)

Misuse of Prescription Drugs

- NYC Department of Health reports a steady increase in ER visits related to prescription misuse.[10]
- Prescription painkillers cause more overdose deaths than cocaine and heroin.[11]
- From 1993 to 2005, the proportion of students who abused prescription painkillers like Percocet, Vicodin and OxyContin, increased 343% to 240,000 students; stimulants like Ritalin and Adderall, 93% to 225,000; tranquilizers like Xanax and Valium, 450 % to 171,000; and sedatives like Nembutal and Seconal, 225% to 101,000.[2]
- From 2002-2009, self-reported, non-medical prescription opioid use increased by 40% among adults in New York City.[10]

Tobacco Use

- Tobacco use is the leading cause of premature and preventable death in the world.[12]
- Each year, an estimated 443,000 people in the U.S. die prematurely from smoking or exposure to secondhand smoke, and another 8.6 million live with a serious illness caused by smoking.[13]
- Coupled with an enormous health toll is the significant economic burden of tobacco use—more than $96 billion a year in medical costs and another $97 billion a year from lost productivity.[13]
- Every day, nearly 4,000 young people try their first cigarette and approximately 1,000 will become daily smokers. More than 80% of adult smokers started before their 18th birthday.[14]
- During their years at college, 11.5% of nonsmokers will become occasional smokers and 14.4% of occasional smokers will become daily smokers.[15]
- The typical nonsmoker's net worth is roughly 50% higher than light smokers and roughly twice the level of heavy smokers.[16]

5. Develop a University-wide strategy to address prescription drug misuse and abuse.

University-wide strategies involving all major stakeholders have been shown to be highly effective, and critical, in reducing binge drinking,[28] suicide,[44] and other high-risk behaviors or outcomes on college campuses.[45] The significant rise in the misuse of prescription drugs nationally[11] and in NYC,[46] makes it imperative for college communities to better understand the trends in prescription drug misuse among college students;[47] implement new policies to reduce inappropriate access to prescription drugs; and develop educational campaigns about appropriate and safe medication use and disposal practices targeting students and stakeholders.[48] NYU should seek to adopt such strategies.

Health Literacy

Indicator	Baseline	2017 Target
Provision of health education by NYU Student Health Center during patient visits[a]	61.7%	67.9%
Students who incurred unexpected charges after receiving medical or mental health services[b]	28.7%	25.8%
Confused by online health information[c]	29.6%	26.6%

Health literacy is "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions".[1] It informs or limits an individual's ability to search for and use health information, adopt healthy behaviors, follow prescribed treatment plans, and act on important public health alerts. Limited health literacy is associated with worse health outcomes and higher costs[2] and in the collegiate population can also lead to impaired student success. Health literacy is not only about individuals' skills; in the United States, health literacy reflects the efforts of health systems and professionals to make health information and services understandable and actionable. Interventions across multiple sectors need to focus on improving individual skills and making health service, education, and information systems more health literate.[2]

Recommendations

1. **Increase students' ability to appropriately utilize health and mental health services, both on and off campus.**

Multiple factors determine how much healthcare people use, the types of healthcare they use, and the timing of that care.[13] With its numerous layers of bureaucracy, procedures, and processes, the U.S. healthcare system can be difficult for many people to understand, to know how to access, or when to utilize its services.[1] Individuals must choose a provider, make decisions about treatment depending upon the severity of illness, and assess the ease and quality of various treatment options.[1] A student's ability or inability to make these decisions and navigate healthcare systems is a reflection of systemic complexity and individual skill level. The consequences include lack of understanding and use of preventive services, poorer compliance rates with treatment modalities, and poorer health status.[1,14]

Key Facts

- Nearly 9 of 10 adults have difficulty using the everyday health information that is routinely available in our healthcare facilities, retail outlets, media, and communities.[1,3,4]
- The average annual healthcare costs of those with low health literacy levels are 4 times greater than that of the general population.[5,6,7]
- Poor health literacy costs the U.S. healthcare system $30-$73 billion annually.[5,6]
- 90 million Americans lack the skills needed to understand and act on health information.[9]
- Individuals with low health literacy are less likely to participate actively in healthcare decision making and more likely to struggle with health management tasks and to face significant challenges navigating the health system.[9]
- Approximately 9 of 10 U.S. adults (88%) cannot calculate an employee's share of health insurance costs using a table based on income and family size.[3]
- Health literacy is a better predictor of one's health status than: age, income, employment, ethnicity, or education level.[10,11]
- In 2006, 3 million Americans reported being seriously harmed or knowing someone who has been seriously harmed by following health advice or information found online.[1]

2. **Strengthen students' understanding of their health-related financial resources and responsibilities.**

The ability to value, comprehend the options of, choose, and implement a personal healthcare financing plan is critically important to an individual's wellbeing.[15] Health insurance is associated with higher utilization of primary and preventive care, lower out-of-pocket medical expenditures and medical debt, and better self-reported physical and mental health.[16] NYU requires all students to maintain adequate health insurance;[17] however, students – like other healthcare consumers in the U.S. – often do not know what type of health plan they are currently enrolled in or how

their healthcare will be affected by the type of plan they have chosen.[18-22] Health insurance information for plan enrollment, use of benefits, coverage, and out-of-pocket costs is complicated and often unfamiliar for even highly literate individuals.[2] Effective education and communication are important factors influencing consumer acceptance of healthcare benefits and program utilization[23,24] and web-based tools can provide health plan members with information, self-service transactions, and decision support.[25, 26]

3. Increase the proportion of students who use electronic personal health management tools.

Since 1999, NYU Student Health Center has used an electronic health record system and currently offers personal health management tools such as secure messaging between patients and providers, online scheduling, and online refills of prescription medication. Increasing the use of electronic personal health management tools, such as a personal health record, is a national priority from Healthy People [2020;22] therefore, NYU will continue to expand its portfolio of tools to promote active, ongoing patient collaboration in care delivery and decision making. Personal health management tools improve the quality, completeness, depth, and accessibility of health information provided by patients; enable facile communication between patients and providers; provide access to health knowledge for patients; and ensure portability of medical records and other personal health information.[27]

4. Increase students' ability to identify reliable health information.

Health information is critically important for empowering individuals to be active participants in personal health actions and decisions.[2] The Internet is the primary source of information for the majority of NYU students,[28-30] yet students can and do obtain health information from a variety of sources including healthcare professionals, magazines, brochures, family, friends, news/media, and peers, among other sources.[29] Students often lack the skills to locate and evaluate effectively the information for credibility and quality, analyze the risks and benefits, and use high quality health information; therefore, they can suffer adverse consequences from using unreliable information.[2,31,32] A tremendous opportunity exists for colleges and universities, including NYU, to provide high-quality health information and to teach students how to select and use credible information.

5. Increase stakeholder engagement in developing communication strategies.

Involving members of the target audience in the design, implementation, and evaluation of communication strategies is one of the most effective methods associated with the success of such interventions.[2,33] Involvement can and should occur during different phases of a project;[34-36] iterative and interactive processes help to improve understanding of the unique needs of the target population, garner necessary buy-in, create content or strategies that are relevant, identify appropriate modalities for dissemination, and assess whether information has been conveyed effectively.[37] From conducting one-time focus groups to actually producing communication products, levels of participation can vary depending on the type of project and available resources.[34,35] Finding the right combination of approaches to involve target populations is necessary to promote and enable action.[36]

6. Strengthen students' ability to engage in appropriate prevention, self-care, and/or self-management measures.

Recent changes in the healthcare system necessitate that healthcare consumers, including college students, be informed and proactive in managing their own health.[2] Individuals with low health literacy participate less in self-care and use preventive healthcare to a lesser extent, which results in the utilization of higher-level care.[38] While the majority of NYU students are healthy,[30] all students should engage in self-care for personal health maintenance and receive recommended preventive healthcare. NYU has the opportunity to build a foundation of self-care models and practices among its students, developing the skills for long-term health maintenance and responsibility.

Interpersonal Relationships

Indicator	Baseline	2017 Target
Traumatic or difficult-to-handle intimate relationships[a]	31.0%	27.9%
Received information on relationship difficulties[b]	24.4%	29.3%

The development and maintenance of healthy interpersonal relationships should be an integral part of every NYU student's experience. Whether building relationships with professors, friends, co-workers, romantic partners, roommates, or nurturing existing relationships at home, NYU students find themselves involved with other people in every facet of their lives. Positive, functional interpersonal relationships have been shown to enhance students' academic motivation, engagement, and achievement.[1] NYU plays a fundamental role in helping students hone their interpersonal communication and interaction skills in order to set the standard for happy, healthy relationships in their future.

Key Facts

- Nearly one-third of NYU students experienced difficulties with relationships, family problems, and/or problems with intimate relationships.[2]
- Interpersonal relationships have a direct influence on a student's academic performance.[1] Relationship problems account for poorer academic performance in 11% of NYU students.[2]
- There is a significant and positive association between relationship quality and adjustment among first-year college students who are in their emerging adulthood years.[3]
- Higher levels of social and communication skills among students are positively associated with self-esteem and satisfaction with college, and negatively associated with loneliness.[4]
- Negative social interactions are found to be significantly associated with symptoms of adverse physical health.[5]
- Fewer and lower-quality social ties have been associated with impaired immune function.[6]
- Family cohesion, or a sense of emotional connection with family members, may directly cultivate qualities of trust, initiative, effectiveness, competence, and fidelity among college students.[7]
- Students' academic and personal adjustment to college may be negatively impacted if they experience excessive guilt, resentment, and anger in their relationships with their parents.[8]
- 92% of college-aged young adults reported being the victim of online aggression (such as threats, insults, or humiliation) within the past year.[9]

Recommendations

1. **Increase the availability, accessibility, and diversity of information on healthy relationships and effective communication skills.**

   NYU students include "relationship difficulties" as one of the top ten health topics about which they would like to receive information. In conjunction with other strategies, having information readily available[10] will effectively help students recognize how healthy relationships contribute to their overall wellbeing and academic success.[1] Because students may fear being judged for openly seeking help from health or counseling centers, ensuring that information is available in many different formats and through multiple venues is ideal for engaging a diverse student population.

2. **Strengthen the institutional culture to better foster positive interpersonal relationship development and interactions.**

   Opportunities offered by staff and faculty for peer interaction and friendship building are critical to easing our students' process of adapting to the university setting.[11] Research supports the assertion that a college environment has the power to impact the values of its students, however subtly, through "its effect on the nature and content of student interaction with faculty and peers".[11] Because of the implicit potential of a university's institutional culture to influence its students, an environment that supports and encourages positive interpersonal interactions can inspire healthy relationships throughout the university.

3. **Expand opportunities for cross-cultural dialogue that encourages the development of positive relationships between and among multiple identity groups.**

   University life at NYU offers countless opportunities to connect with a wide variety of cultural groups, especially among the diverse student population. The necessity of graduating globally competent students is now seen as a priority, and this competency includes the ability to communicate effectively across cultural boundaries with the possession of an "awareness of and adaptability to diverse cultures, perceptions, and approaches."[12] Research emphasizes that stimulating cross-cultural interactions on a campus requires the efforts of all members of the university community – administrators, faculty, staff, and students.[13]

4. **Expand resources that empower students to resolve conflicts or exit unhealthy relationships.**

   Although conflict is inevitable, providing students with comprehensive resources to address disputes and other relationship problems can positively influence their ability to communicate and to deal with conflict effectively.[14] Because interpersonal violence is prevalent among male and female college students, equipping students with the tools to avoid or leave unhealthy relationships is imperative.[15] Students who are prepared "to prevent, manage, or resolve interpersonal conflicts without harming themselves or others"[16] will be able to navigate successfully the entire spectrum of interpersonal relationships.

5. **Empower students to access resources on behalf of a peer in need of support.**

   Research indicates that a higher level of concern for a troubled friend or family member and greater perceived conflict with a faculty or staff member significantly increased students' perceived frequency of stress.[17] Over half of NYU students expressed interest in receiving information about how to help others in distress.[18] Ensuring that NYU students are equipped with the knowledge and resources to assist a peer who is in need of support can enrich their current interpersonal relationships while easing their anxiety.

6. **Increase opportunities for positive social engagement, support, and formation of friendships.**

   Successful engagement with a social group impacts students' academic experience; in fact, those students who are strongly socially connected are more likely to remain in school and report satisfaction with their university.[19] These strong social ties improve health outcomes among those with serious health problems and also have a preventive effect for healthy people.[20]

Mental Health/Depression

Indicator	Baseline	2017 Target
Engagement in mental health treatment among students who have seriously considered suicide[a]	50.1%	55.1%
Depression interfering with ability to function[b]	31.8%	28.7%
Negative impact on academic performance due to anxiety[c]	18.5%	16.7%

Students who suffer from depression or anxiety can experience many adverse effects on their academic and social lives and, consequently, are more likely to drop out of school or achieve lower grade-point averages.[1] NYU's award-winning systems and services to address mental health in the University community include a collaborative approach among NYU primary care, counseling services, and care management; routine screening for depression in all primary care appointments; and the 24-7 Wellness Exchange hotline and crisis response. As the mental health needs of college students increase, both in the number of students seeking services and the severity of the pathology,[2] it is imperative that NYU continue to develop innovative approaches to engage students in necessary treatments.

Key Facts

- Suicide is the third leading cause of death among 15-24 year olds.[3]
- 22.5% of NYU students reported that anxiety had impacted their academic performance in the past 12 months.[4]
- 55% of NYU students reported that emotional or mental difficulties had hurt their academic performance for one or more days in the past month.[5]
- 59% of NYU students demonstrating symptoms of depression reported that problems resulting from these symptoms had made it difficult for them to do their schoolwork, take care of things at home, or get along with other people.[5]
- 17.9% of adults between the ages of 18 and 25 reported experiencing serious psychological distress in 2007.[5]
- 8.9% of adults between the ages of 18 and 25 reported experiencing a major depressive episode within the past year.[7]
- 90% of college or university counseling center directors in the United States report an increase in psychological problems among their students.[7]
- The proportion of students, nationally, with a previous diagnosis of depression increased from 10% to 15% between 2000 and 2005.[8]
- 75% of lifetime mental disorders have first onset by the typical college age range of 18-24.[9]

Recommendations

1. **Develop mental health outreach targeted to specific at-risk student groups to increase utilization of treatment.**

   Students from different backgrounds may experience greater levels of stigma toward mental health issues. For example, studies have shown that Asian international students — compared with American students — experience greater discomfort or shame with counseling, less openness to counseling, and a greater preference for a flexible counseling format.[10] Young adults who perceive public stigma surrounding mental illness are less likely to perceive a need to seek help.[11] This perception of stigma can contribute to underutilization of university mental health services, while concerns regarding language and culture can act as barriers to counseling.[10] New models advocate for a culturally sensitive continuity of care which tailors mental health outreach and services to diverse groups of people.[12] Ensuring that NYU's counseling services are culturally competent to accommodate the needs of a diverse student population is a necessity.

2. **Raise student awareness of the impact of anxiety and depression on their ability to learn, function, and succeed.**

   Depression is a significant predictor of not only GPA but also the likelihood of withdrawing from the university.[1] Untreated depression is associated with a decrease of a 0.49 point, or half a letter grade, in a student's grade point average.[13] In contrast, treatment for depression is correlated with a protective effect of 0.44 points.[13]

Students who report greater psychological distress also tend to view themselves as less capable of succeeding, are more anxious about their class performance,[14] and possess lower self-efficacy and resource management skills.[13] With increased knowledge of the impact of mental health issues on their academic performance and college experience, students may be more likely to seek help or support.

3. **Educate university staff and faculty about the impact of anxiety and depression on learning outcomes, ability to function, and student success.**

   By virtue of their interactions with students, university staff and faculty are uniquely positioned to have a positive impact on their students' mental health. Research has shown that when faculty and students are trained to recognize symptoms of depression, students may increase treatment-seeking behaviors.[15] Studies have emphasized the importance of training faculty and staff to understand the relationship between mental health and learning.[16] Additionally, graduate students who have functional relationships with their advisors are less prone to report emotional or stress-related problems.[17] Creating a university-wide culture and environment that encourages inclusiveness and support to augment campus mental health services has been recommended to improve outcomes for students.[16]

4. **Expand the development and utilization of holistic therapeutic interventions.**

   Evidence-based holistic interventions, such as biofeedback, art therapy, and music therapy have been shown to supplement traditional mental health treatments. Participation in the arts can benefit those with mental health difficulties, particularly increasing feelings of empowerment[18] and coping abilities.[19] Students using biofeedback in combination with relaxation techniques reported significantly lower anxiety and less mental and physical manifestations of stress than did those using relaxation techniques alone.[20] Music, as used by music therapists, has the potential to ameliorate the mental health of those with a variety of psychiatric conditions.[21] The expansion of holistic therapeutic intervention offerings may be particularly effective for students with emotional adjustment problems and serve to augment treatment for students with a mental health diagnosis.

5. **Improve the coordination between NYU Counseling and Wellness Services and treatment providers in the community.**

   Fragmentation of the behavioral health service delivery system is noted as a significant obstacle to the receipt of quality mental health care.[22,23] Monitoring treatment compliance and efficacy among students diagnosed with depression using a multidisciplinary, collaborative approach among NYU primary care and counseling services as well as case management has been shown to ensure that students with mental health needs receive optimal treatment.[24] NYU students in need of long-term counseling are referred from Counseling and Wellness Services to high-quality clinicians in the community. Enhancing partnerships and improving coordination between NYU Counseling and Wellness Services and treatment providers in the community ensures that more students will receive effective and necessary mental health care.

6 **Strengthen connections between NYU Counseling and Wellness Services and student-run mental health interest groups and initiatives.**

   Student-run mental health initiatives, such as advocacy groups or peer-led education and support, are important components of suicide prevention and mental health promotion. Operating in conjunction with treatment, student mental health interest groups contribute to an atmosphere of inclusion and empowerment for mentally ill students.[25] Research suggests that when students become involved with student-run campus mental health awareness and/or advocacy groups, such as Active Minds, their attitudes of stigma toward mental illness decrease.[25] Furthermore, interpersonal contact between those with mental illness and those without is an effective strategy in reducing stigmatizing views of people with mental health issues.[25]

Nutrition

Indicator	Baseline	2017 Target
Consumption of 5 or more servings of fruits and/or vegetables per day[a]	7.1%	7.8%
Received information on nutrition[b]	50.4%	60.5%
Sugar-sweetened beverage consumption[c]	48.0%	43.2%

Despite the significant implications of healthy eating on overall long-term health, many college students engage in poor dietary habits, such as high intake of fast foods and other foods high in fat, low intake of fruits, vegetables, and dairy, and erratic eating behaviors such as meal skipping.[1] A balanced diet can help students increase energy levels, promote a functioning immune system, improve their ability to cope with stress, and increase concentration and performance in school. Healthy eating is influenced by a variety of factors. For students in particular, factors influencing dietary habits include time, availability of healthy options, friends' eating habits, and nutritional knowledge. University stakeholders can support healthy eating by making healthy options affordable, accessible, and desirable while providing information on making healthy food and beverage choices.

Recommendations

1. **Reduce on-campus access to, and availability of, calorie-dense and nutritionally empty foods.**

   Calorie-dense and nutritionally empty foods have low nutrient content but are high in calories, fat, sugar, and/or sodium. Frequent consumption of these types of foods is associated with weight gain and increased risk of certain chronic diseases such as diabetes and cardiovascular disease.[7,13] The availability of less healthy foods is inversely associated with fruit and vegetable consumption and is positively associated with fat intake among students.[9] Research suggests that students rely too heavily on calorie-dense and nutritionally empty foods, mostly because they are fast, easy, and relatively inexpensive.[7] Limiting access to calorie-dense and nutritionally empty foods has been shown to reduce the consumption of these items.[9] The availability of such foods can be restricted by setting standards for the types of food and beverage sold, increasing the cost of unhealthy foods, or changing the locations where unhealthy competitive foods are sold.[9]

2. **Increase on-campus access to water and low-calorie beverages.**

   A major contributor to the obesity epidemic is the sugar consumed in sweetened beverages such as soda, coffee beverages, fruit drinks, sweetened teas and sports drinks.[9,10,13] These beverages provide excess calories and few essential nutrients to a student's overall diet and should only be consumed in moderation.[13] Drinking water has been shown to increase students' hydration and cognitive function,[10] which may lead to more alertness and better academic performance. Effective strategies for increasing consumption of water and low-calorie beverages include: instituting differential pricing structures;[18,26] installing water coolers, fountains, or jets throughout campus;[20,21,22] increasing availability in dining halls[24,26] and vending machines;[26] and implementing point-of-decision prompts.[17,23]

Key Facts

- 24.3% of NYU students are overweight, of which 6.0% are obese.[29]
- During the first 3–4 months of college, students gain an average of 1.5–6.8 lb., with the proportion of overweight or obese students as much as doubling by the end of the first semester.[3]
- The prevalence of obesity among young adults more than doubled in the past 30 years. The most recent National Health and Nutrition Examination Survey (NHANES) data indicate that the prevalence has continued to increase since 1999.[2]
- Soft drink intake is highest among 19-39-year olds compared to other age groups.[4]
- NHANES data illustrate that a majority of young adults (aged 20–29 years) consume <1 serving/day of fruit (males 63%, females 59%) and vegetables, including potatoes (males 19%, females 20%).[5]
- On average, college students eat at fast-food restaurants 1 to 3 times per week.[28]

3. Develop and promote University-wide food guidelines for NYU facilities and sponsored events.

NYU-sponsored dining halls, convenience stores, vending machines, and catering are often the primary sources of readily available food for students. University-wide nutrition guidelines have the potential to positively impact the ability for every individual within the NYU community to make healthy food choices.[12,19] Policies that have been shown to increase consumption of healthier foods include: establishing procurement policies that increase the availability of healthier foods, providing nutritional information or healthier product labeling, creating price differentials between healthy and unhealthy foods, and establishing guidelines for foods served at meetings or events.[18]

4. Implement point-of-decision interventions (such as calorie labeling and marketing and/or placement strategies) to make healthier food and low-calorie beverages more appealing.

Point-of-purchase interventions provide cues to action about the nutritional value of certain food items to guide individuals in making healthier selections.[7,11,16,17,23,27] These types of interventions are effective in a variety of settings and have the potential to influence eating patterns of an entire population.[8,15-17] Examples include: using promotional signage highlighting certain types of food; providing nutrition information to compare healthier and less healthy options; using symbols to indicate nutritious items,[7,11,16,17,23,27] and displaying portion sizes next to the meal choice.[25] Point-of-purchase prompts serve to increase students' awareness of what they are eating and their ability to better plan meals for their individual dietary needs.[7,16,17,24]

Physical Activity

Indicator	Baseline	2017 Target
Met 2007 ACSM/AHA recommendations for aerobic exercises[a]	44.3%	48.7%
Engaged in muscle strenthening activities at least 2 days per week[b]	28.2%	31.0%
Physical activity at light or greater intensity at least 3 days per week[c]	70.3%	77.3%

Physical activity patterns during college are important influences on habitual physical activity during the full span of the adult life and, consequently, have significant implications for short- and long- term health outcomes.[12] Despite the importance of physical activity on overall health, less than half of all NYU students engage in sufficient physical activity to meet the Physical Activity Guidelines for Americans.[1] Research indicates that during the transition to college, exercise[22] and fitness levels[23] usually decrease and are unlikely to improve as students get older.[24] Universities are uniquely positioned to implement a comprehensive strategy for increasing physical activity by addressing individual-level factors – such as time, motivation, or skill – and determinants beyond an individual's control – such as social, economic, environmental factors.

Recommendations

1. **Implement point-of-decision prompts and motivational signage around campus to encourage stairwell use, walking, and other self-powered transportation.**

   Point-of-decision prompts are visual cues used to guide individuals in adopting healthy behaviors. These prompts serve to integrate physical activity into daily living, create a climate where choices to be active are encouraged, and increase awareness about the benefits of physical activity.[7] This strategy is appropriate for diverse populations and settings and has proven effective in eliciting desired active living behaviors.[9] Placing point-of-decision prompts at locations such as elevator banks, stairwells, and NYU trolley stops will help students recognize cues and opportunities for physical activity.[9]

Key Facts

- 24.3% of NYU students are overweight, of which 6.0% are obese.[1]
- Physical inactivity is a primary contributor to one-third of the adult population's being overweight or obese.[26]
- The incidence of obesity in the U.S. college-aged population has increased from 12% in 1991 to 36% in 2004.[21]
- Only 45% of adults get the recommended 30 minutes of physical activity on 5 or more days per week, and adolescents are similarly inactive.[9]
- 81 to 85% of adults continue the same physical activity patterns that they establish during their senior year of college.[12]
- An estimated 40 to 45% of college students engage in fitness activities regularly (≥3 days/week).[30,31]
- Non-exercising adults are more likely to be absent from work for more than 7 days when compared to those exercising at least once per week.[16]
- Students with a GPA of 3.5 or higher are three times more likely to exercise than those with lower grades.[25]

2. **Improve existing on-campus exercise facilities.**

   NYU's Coles Sports Center and Palladium Athletic Facility accommodate 1 million students, faculty, staff, and alumni visits to the facilities each year, supervise over 1,200 students playing on club sports and intramural teams, and enroll more than 8,000 NYU community members in 235+ recreation courses.[27] Recognizing the importance of fitness centers, NYU will continue to improve its existing on-campus exercise facilities to meet the evolving needs of the NYU community.[12] Many factors have been shown to impact fitness center utilization, including effective signage and suitable information about the facilities available on campus, accessibility and variety of exercise equipment, flexible class options and schedules, and aesthetic attributes such as air conditioning, lockers, or media.[10,12] NYU will continue to implement innovative solutions to make its exercise facilities and resources accessible and appealing.

3. Develop and implement tools to support physical fitness.

Tools such as pedometers and interactive technologies have been shown to be effective in helping students reach and maintain their physical activity goals. Devices to support physical activity can be personal items, which reflect individual preferences, allow for self-monitoring, personalized feedback, and incremental goal-setting.[11] Technology-based resources in particular can allow for individually tailored assistance or advice based on factors such as an individual's specific interests, preferences, and readiness for change.[8,9]

4. Improve awareness of and access to non-gym-based physical activity opportunities.

Gym-based exercise may not be the preferred method of physical activity for some students because of location, time, perceived cost, motivation, or student comfort.[19,20] NYU and the surrounding community offer a wealth of resources to accommodate the spectrum of students' needs and preferences. Living an active lifestyle by integrating physical activity into an individual's daily routine can be an effective way to increase personal fitness.[5,6,9] Expanding structured programs for self-powered transportation, building partnerships with local vendors, and using technology-based methods increase the variety of and access to opportunities for physical activity.[5,6,9,17]

5. Expand NYU organized physical activity opportunities such as peer support, classes, and extracurricular clubs.

Building, strengthening, and maintaining social networks are effective strategies for increasing physical activity and improving overall physical fitness.[4] The use of peer support and interactive social groups, such as classes and clubs, can increase engagement in physical activity by giving students the opportunity to be connected to other students and staff members, thereby enabling them to monitor their progress and encouraging them to continue their activities.[5] These opportunities for physical activity can also reduce or eliminate some of the barriers to physical activity, such as safety concerns and lack of motivation.[9]

6. Develop physical activity-focused special events.

Involvement in university life is an important and vital aspect of a student's collegiate career; special events, such as competitions and challenges, can be an effective method for getting students focused on and excited about participating in health-related activities, and for promoting physical activity.[18,32] Creating University-wide events throughout the academic school year will not only engage students individually but can also cultivate social norms and traditions around physical activity.

7. Reduce barriers to safe physical activity.

Nationally, safety concerns are a leading barrier to participating in physical activity.[2,5] Students are more likely to live active lifestyles if they feel safe and comfortable in their surroundings.[6] Educating students about personal safety precautions and providing access to safety equipment may help reduce barriers to exercising outdoors.[6] Such precautions include: being aware of their surroundings; exercising with a partner in a well-lit area or during daytime hours; or learning self-defense techniques.[2]

8. Strengthen the integration of physical activity with the NYU academic curriculum.

Physical activity has been shown to enhance brain function and improve on-task behavior during academic instruction time.[3,13] NYU can integrate physical activity with learning by: scheduling physical activity breaks during instruction time, creating opportunities for students to be active through non-sedentary learning activities, providing institutional recognition for students' co-curricular fitness skills and achievements throughout their tenure at NYU, and increasing for-credit physical activity-based courses.[3,12,14,15] By providing a learning environment in which physical activity is incorporated, NYU has the potential to impact students' short- and long-term physical activity behaviors, and to maximize students' learning during academic activities that are usually sedentary.[12]

9. Encourage community design and development that increase the capacity for walking, bicycling, and other self-powered transportation.

Commuting to work or school by walking, bicycling, or by other physically active transportation can be an excellent way for adults to meet daily exercise recommendations.[2] Alongside New York City's strategies for building a greater capacity for self-powered transportation, such as walking and bicycling, NYU can expand students' abilities to use active modes of transportation.[28,29] Opportunities for such expansion could include opening up previously unused stairwells and increasing availability of bicycle racks.

Safe and Healthy Campus Community

Indicator	Baseline	2017 Target
Flu vaccination[a]	49.6%	80.0%
Received information on violence prevention[b]	21.4%	25.7%
Wearing helmet when bicycling[c]	40.0%	44.0%

NYU includes a complex network of global communities in which social and physical factors combine to influence health. Many health issues — such as violence and unintentional injury, transportation safety, and the risk of communicable disease — affect not only an individual but also the population at large. With its growing position as a global university, it is critical for NYU to focus on risk reduction strategies and proactive approaches for health and safety issues common to all students and staff studying and working at sites throughout the world.

Recommendations

1. **Develop health requirements to reflect emerging global infectious disease patterns.**

   As the world and the University become more interconnected, the emergence of infectious disease, prevalence of disease, and varying healthcare resources in different countries have the potential to impact the health and wellness of NYU students as they pass throughout the Global Network University (GNU). Vaccines uniquely protect both individuals and communities; other measures such as proactive screenings for infectious disease and self-reported health histories are also critical for reducing the risk of potential infectious disease outbreaks throughout the NYU community. The University's health requirements ensure a basic level of prevention and protection for the NYU global network.

2. **Increase preventive measures that minimize the transmission of cold and flu.**

   Viral infections, such as colds and influenza, are common among college and university students, with an estimated influenza incidence of approximately 9% to 20%; flu-like illness is associated with increased healthcare use, substantial decline in health status, and impaired academic performance.[14] Thorough hand-washing and the maintenance of hygiene have been clearly linked to reductions in the transmission of viruses which cause colds and flu within homes and communities.[13] In addition, annual influenza vaccination is the most effective way of preventing influenza and its consequences, including lower rates of healthcare use and impaired academic performance among college students.[14] Despite the

Key Facts

Transportation Safety

- Intentional and unintentional injuries are the two leading causes of death for 15-24 year olds in New York City.[1]
- Between 1996 and 2003, a total of 3,462 NYC bicyclists were seriously injured in crashes with motor vehicles.[2]
- 97% of the bicyclists who died in crashes in NYC from 1996 and 2005 were not wearing a helmet. Most fatal crashes (74%) involved a head injury.[2]
- More than half of the NYU students who ride bicycles or in-line skate do not wear helmets.[10]
- Pedestrian injury is one of the top ten leading causes of hospitalization due to injury for 15-24 year olds in New York City.[3]
- Pedestrians accounted for 52% of traffic fatalities in NYC from 2005-2009.[4]
- There are 4 times as many pedestrians killed or severely injured per mile of street in Manhattan as in the other four boroughs.[4]
- Between 1990 and 2003, there were 315 accidental deaths on the New York City subway system.[5]

proven benefit of influenza vaccination, the immunization rate for NYU students has been consistently below the Healthy People 2020 goal of 80%. Disseminating information about and facilitating the use of preventive measures can minimize the number of people affected by cold and flu in the NYU community and lessen the negative impact these illnesses have on personal and academic functioning.

3. **Increase the number of bystanders able and willing to intervene on behalf of a student in crisis.**

Within a university, a bystander could be a student, faculty or staff member who has information about a person in distress or a situation with the potential to become dangerous.[15] Bystander intervention offers "an approach that empowers people who witness abusive behavior or statements to intervene."[16] Interactive educational programs utilizing hands-on training with role play and behavior modeling can be effective in increasing students' perceived ability to step in on behalf of a peer.[17] In addition, such education strengthens students' confidence and intention to intervene.[18] Empowering members of the NYU community with the tools and resources to aid and support their peers is necessary to cultivate a safe and healthy University environment.

4. **Coordinate sexual assault, online harassment and other violence prevention efforts throughout the GNU.**

The U.S. Department of Education strongly recommends that colleges and universities take proactive measures to prevent harassment, discrimination, and violence, as well as ensure that students, faculty, and staff are able to recognize and respond appropriately to these types of behaviors.[19] Additionally, suggestions from the American College Health Association highlight the necessity of a university-wide collaboration to frame a violence prevention strategy.[20] Emphasizing clear protocols and standards across NYU's global network will further refine the efficiency and function of the University's already expansive violence prevention efforts.

5. **Diversify modalities for disseminating violence and injury prevention information.**

A variety of methods for delivering health information are effective in increasing knowledge and changing attitudes related to violence and injury prevention. These include, but are not limited to, theater,[21] bystander training,[17] and social marketing.[22] Utilizing multiple modalities ensures that NYU has a comprehensive approach of communicating violence and injury prevention messages to all members of its diverse body of students. In addition, diversifying modalities allows for a range of formats, each of which might engage a specific segment of the NYU student community.[23]

Key Facts (cont'd)

Violence

- Nationally, more than 1 in 4 college-aged women report experiences that meet the legal definitions of rape or attempted rape.[6]
- Between 1995 and 2002, U.S. college students ages 18–24 were victims of approximately 479,000 crimes of violence annually, including rape/sexual assault, robbery, aggravated assault, and simple assault.[8]
- Approximately 90% of NYU students report feeling safe on campus during the daytime.[9]

Communicable Disease

- 12.3% of college students reported negative impact on individual academic performance as a result of having a cold or the flu.[10]
- Immunization can decrease the chances of getting influenza by 70-90% in healthy adults when there is an optimal match between the available vaccine and circulating influenza strains.[11]
- An annual average of 41,400 deaths have been attributed to influenza using mortality data between 1979 and 2001.[12]
- Nearly 100% of NYU students have received two MMR immunizations.
- Many NYU students do not receive all of the CDC recommended vaccinations, including less than 40% receiving an annual influenza vaccination.[9]

6. **Increase personal responsibility for transportation safety (for example, bicycling, walking, rollerblading, or skateboarding).**

   Research demonstrates that using a cell phone while walking puts pedestrians at greater risk of traffic-related injury and crime victimization.[26] In addition to reducing awareness of their surroundings,[25] using a cell phone impairs a pedestrian's ability to cross an intersection safely compared to crossing when undistracted.[24] Many injuries sustained while traversing the city can be prevented if individuals take appropriate actions to ensure their safety. There is evidence to suggest that a multi-pronged social marketing approach including peer agents, distribution of educational literature, access to free or reduced cost-protective gear, and a signed commitment by the student can be successful in changing student behavior related to transportation safety.[22] When used concomitantly, such efforts can support students' accountability for their own safety, whether they travel by bicycles, rollerblades, subway, or on foot.

7. **Improve infrastructure to support safe walking, bicycling, and other self-powered transportation.**

   In conjunction with citywide efforts to increase safety for pedestrians and cyclists,[4,27] NYU strives to improve opportunities for self-powered transportation by its students. Environmental factors recognized for their support of transportation-related physical activity include the presence of streetlights, agreeable scenery, and sidewalks.[28] By creating a setting more conducive to safe walking, cycling, or other transportation, NYU encourages students to use active modes of transportation.

Sexual Health

Indicator	Baseline	2017 Target
HIV Testing[a]	40.3%	44.3%
Annual incidence of chlamydia, age 24 and under[b]	101.5 per 10,000	91.4 per 10,000
Always use condoms or other protective barrier during vaginal intercourse[c]	35.3%	38.8%
Always use condoms or other protective barrier during anal intercourse[d]	27.9%	30.7%

The World Health Organization describes sexual health as "a state of physical, mental and social wellbeing in relation to sexuality. It requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence". The majority of NYU students are sexually active, and college is a time when many young people first become sexually active. Students frequently enter college without adequate sexual health knowledge, and, subsequently, they often engage in sexual behaviors that place them at increased risk for unintended health outcomes such as pregnancy, human immunodeficiency virus (HIV), and other sexually transmitted infections (STIs). It is crucial to enhance sexual health resources to improve students' sexual health, increase safer sex behaviors, and reduce STI and HIV transmission.

Recommendations

1. **Expand education and promotion strategies addressing the full spectrum of sexual behaviors, including abstinence, oral sex, and intercourse.**

   Comprehensive sexual education, which emphasizes the benefits of abstinence while also teaching about contraception and disease-prevention methods, has been proven to reduce rates of unintended pregnancy and HIV/STI infection.[7] By increasing the visibility and breadth of its sexual health education and promotion resources and diversifying modalities for engaging students, NYU will be able to reach and connect with more students, increasing their capacity to make knowledgeable decisions and to be engaged in their sexual health.[8]

Key Facts

- 64.7% of NYU students reported engaging in oral, vaginal, or anal intercourse within the last 12 months.[1]
- In 2009, there were 48,100 new HIV cases in the United States, with 19.7% occurring in young people age 15 to 24.[2]
- Although young people ages 15 to 24 represent 25% of the sexually experienced population, this age group accounts for nearly 50% of all new STIs, totaling about 9 million cases in 2008.[3]
- Over 1.2 million cases of chlamydia were reported in 2008, the most since record keeping for the disease began and the highest number of cases for any STI required to be reported by physicians.[3]
- 20 to 24-year-olds are significantly more likely to experience an unintended pregnancy than women aged 19 or younger.[4]
- STI rates are twice as common among 20 to 24-year-olds as 15 to 19-year-olds (7 v. 3%).[5]
- Many young people misperceive their vulnerability to infection, which can affect decisions around sexual behavior.[6]

2. **Expand awareness and understanding of the diverse sexual health needs of the NYU community among NYU Student Health Center clinicians.**

   Values, attitudes, and beliefs; levels of knowledge; and communication patterns about health, sexuality, relationships, contraception, and childbearing vary significantly across cultural and ethnic groups.[9] Ensuring that clinicians have a thorough understanding of the diverse needs of the multifaceted NYU population and the skills to assess and provide culturally competent care is vital in order to best serve each individual student.[10] Culturally sensitive and competent healthcare improves students' engagement in preventive services

and reduces health disparities.[11-12] Brief and intensive interactive counseling approaches directed at a student's personal risk, the situations in which risk occurs, and the use of personalized goal-setting strategies are effective in STI/HIV prevention among diverse populations.[13]

3. Engage social support networks in positively influencing students' sexual health.

Students' social support networks can play an important role in the information they receive and the decisions they make regarding their sexual health.[9] Friends and family can influence the attitudes and sexual health behaviors of students by providing them with ongoing health and prevention messages.[14] Students also develop new relationships as they integrate into college life, expanding their social network density. Involvement in clubs and programs, such as religious or cultural ones, provides students with connections not only to other students but also to advisors and staff. Interactions with friends, peers, parents, clubs, and advisors all make unique contributions and shape students' knowledge base, attitudes, and self-efficacy in their sexual health.

4. Expand access to safer sex supplies.

Safer sex supplies, such as male and female condoms, are effective means for reducing unintended pregnancies, HIV, and other sexually transmitted infections.[15] Many students report wanting to use safer sex supplies; however, barriers include lack of money or fear of judgment when purchasing them.[16] Distribution of free, safer sex supplies on college campuses has been shown to be effectual in "increasing condom use, increasing condom acquisition or condom carrying, and reducing incident STIs."[17]

5. Improve access to HIV/STI testing.

College students are at high risk for contracting sexually transmitted infections, yet there are numerous factors that affect appropriate testing and treatment.[2,3,8] Testing for HIV/STIs is a new experience for many students that can be intimidating.[18,19] Perceived stigma, as well as perceived risk versus actual risk, can also influence HIV/STI testing. Increasing opportunities for testing – through targeted outreach and routine screening, and using safe spaces to engage students – can increase awareness and normalize the act of testing.[19] Offering HIV/STI tests to students as part of regular healthcare decreases stigma increases the number of young adults getting tested, and allows more students to take charge of their sexual health.

Sleep

Indicator	Baseline	2017 Target
Negative impact on academic performance due to sleep difficulties[a]	**16.1%**	**14.5%**
Received information on sleep[b]	26.5%	31.8%
Sleep impacting daytime functioning[c]	16.2%	14.6%

Sleep is a critical factor in NYU students' academic success and general wellbeing. NYU students typically have strenuous schedules replete with class, homework, part-time jobs, extracurricular clubs and activities, in addition to all of the exciting events the surrounding city has to offer. However with these opportunities and responsibilities, students often do not get adequate sleep. Short-term effects of sleep deprivation include decreased cognitive function, memory, performance and alertness. In the long term, sleep deprivation can be associated with obesity, mental and physical health impairments, and attention deficit disorder.[1]

Recommendations

1. Expand efforts to educate students about sleep-promoting habits.

Poor sleep habits, or sleep hygiene, are among the most common reasons for inadequate sleep among college students. Ongoing campaigns and educational programs focused on sleep-promoting behaviors may significantly improve sleep habits and reduce sleep difficulties among students.[10] Examples of evidence-based sleep hygiene measures include maintaining a regular sleep and wake pattern, avoiding caffeine close to bedtime, and exercising daily.[11] Increasingly, Internet-based resources, mobile applications, and tracking devices are being used to combat inadequate sleep and improve students' awareness about sleep hygiene. Studies have shown that these types of technologies can be used to deliver interactive and tailored interventions for students and contribute to overall sleep improvements.[12]

Key Facts

- "Sleep difficulties" ranks third on the list of factors which impact students' academics.[2]
- Fatigue costs the workplace $136 billion per year in lost productivity.[3]
- An estimated 50-70 million U.S. adults have sleep or wakefulness disorder.[4]
- 7 million primary care office visits are due to symptoms of significant fatigue each year in the U.S.[5]
- Almost 20 % of all serious car crash injuries in the general population are associated with driver sleepiness.[4]
- Sleep is involved in the acquisition, maintenance and retrieval of memories, as well as memory consolidation. Consequently, sleep deprivation has been shown to impact both working memory and long-term memory processes.[6,7]
- Sleep deprivation and debt can adversely affect brain and cognitive function, including one's decision-making process and attention.[8]
- Compared to non-sleep deprived individuals, individuals with chronic sleep loss are less productive, have healthcare needs greater than the norm, and have an increased likelihood of injury.[9]

2. Increase access to non-medication-based sleep aids to students who would benefit from their use.

The sleep environment is an important factor that influences adequate sleep; increased stimuli associated with shared living situations and the urban environment can interfere with students' ability to get a good night of sleep. Studies have shown that sleep equipment, such as white noise machines, earplugs, eye masks, and proper pillows can decrease sleep arousal and interruption.[13,14,15] The use of sleep equipment has been shown not only to improve sleep quality but also to increase the amount of REM sleep and nocturnal melatonin levels.[14,15] Raising awareness of and improving access to sleep equipment can benefit the diverse needs of the student population.

3. Develop and implement a harm reduction model to sleep deprivation.

A harm reduction model is founded on principles and strategies designed to minimize the harmful effects of high-risk behaviors, most notably substance use.[16] Sleep deprivation has serious short- and long- term consequences, including a negative impact on students' ability to succeed academically and personally. Very few interventions have demonstrated improved sleep among college students; thus, applying a harm reduction model acknowledges that college students experience irregular sleep patterns and sleep deprivation as they try to balance school, work, extracurricular activities, and family life.[17] Studies have shown that daytime napping can increase motor and mental performance; following a daytime napping session, there are more rapid motor responses, higher levels of short-term memory, positive benefits to psychological states (e.g., cheerful, energetic), and less reported sleepiness[18,19] – all of which can contribute to positive academic performance.[1,17] While naps do not make up for inadequate or poor-quality nighttime sleep, a short nap of 20-30 minutes has been shown to improve mood, alertness, and performance,[4,5] thereby helping students reduce the harmful effects of inadequate sleep.

4. Enhance NYU Student Health Center systems for the identification and treatment of underlying health or mental health issues that may impact sleep or manifest as sleep difficulties.

Many physical and psychological health issues manifest themselves as fatigue or poor sleep.[20,21] Sleep difficulties among college students are commonly caused by poor sleep habits or underlying psychosocial issues, including stress, relationship problems, depression, anxiety, and alcohol use.[20] As a result of NYU's award-winning collaborative care model, NYU Student Health Center clinicians are uniquely positioned to provide educational counseling on sleep hygiene, offer high-quality diagnostic services, or address the more sensitive psychosocial topics in the context of sleep. The NYU Student Health Center will continue to enhance clinical systems to address efficiently and effectively the underlying health or mental health issues that impact sleep.

Stress

Indicator	Baseline	2017 Target
Negative impact on academic performance due to stress[a]	25.3%	22.8%
Experiencing more than average stress[b]	59.9%	53.9%

Stress is an inevitable part of life; it can take a toll on students' physical health, emotional wellbeing, and academic success unless they learn to manage it appropriately. College students experience stress related to changes in lifestyle, increased workload, new responsibilities, and interpersonal relationships.[1] Extreme levels of stress can hinder work effectiveness and lead to poor academic performance and attrition.[2] College students who experienced stressful life events also reported worse health outcomes and reduced quality of life.[3] Introducing successful coping strategies may help students avoid the destructive consequences of excessive stress.

Recommendations

1. Improve the coordination and promotion of stress management resources.

Nearly 2/3 of NYU students have expressed interest in receiving information about stress reduction - more than any other topic area.[5] Although numerous opportunities already exist for students to reduce or manage stress within the University and the surrounding community, many students are not aware and subsequently do not use available resources. Promoting the portfolio of stress reduction opportunities through an organized and interconnected approach will increase the visibility and accessibility to students.

Key Facts

- College students now report being more stressed-out than ever before.[4]
- Stress is the number one reported impediment to academic performance.[6]
- 55% of students, nationally, claimed their biggest stressor to be academic in nature.[7]
- 6 in 10 college students report having felt so stressed they couldn't get their work done on one or more occasions.[8]
- Nationally, 53% of students report having felt so stressed they didn't want to hang out with friends on one or more occasions.[8]
- Many of the emotional and physical symptoms that occur commonly in the college population, such as headaches, fatigue, depression, anxiety, and the inability to cope, can be attributed to or exacerbated by stress.[9]
- Negative physical effects of stress include immune system suppression, which can increase susceptibility to physical illness and psychological conditions such as anxiety and depression.[10]
- Students who engaged in meditation practices demonstrated significantly greater reductions in perceived stress than students who did not.[11]

2. Promote an institutional culture that recognizes stress as a source of academic and social impairment.

The university environment has been defined as "a system of pressures, practices, and policies intended to influence the development of students toward the attainment of important goals of higher education."[9] Thus, a university's institutional culture has the power to guide the attitudes and priorities of its community members. Research indicates that students who suffer from severe stress may become depressed,[12] be hindered academically,[13] and experience adverse physical health.[14] Because the culture of academia can foster a system of high pressure and stress, it is imperative that faculty and staff support an environment which recognizes and mitigates the negative effects of stress in order to reinforce a healthy university culture.

3. **Enhance university-wide infrastructure and availability of physical spaces to support and promote stress reduction.**

   The importance of establishing peaceful, relaxing spaces where students can unwind or engage in stress-relieving practices such as meditation has been documented.[15] Specific factors of the physical environment can play a role in decreasing stress; for example, the configuration of a room, the color of its walls, and the amount of light it receives can either contribute to or minimize stress.[16, 17] Providing areas for relaxation and optimizing features of physical spaces effectively support stress reduction.

4. **Expand and diversify evidence-based therapeutic interventions for prevention and management of stress-related consequences.**

   Evidence suggests that coping strategies differ across diverse identity groups;[18] accordingly, offering multiple types of interventions for stress is necessary to maximize student engagement. While continuing to use effective stress reduction methods such as meditation,[12] writing exercises,[19] biofeedback,[20] and mindfulness,[21] NYU will look to expand options for students. Employing a variety of evidence-based methods ensures that each student can find a stress management or prevention approach that appeals to individual coping styles.

5. **Increase opportunities for academic, social, and financial support.**

   Concerns regarding classes, relationships, and money are among the top stressors experienced by college students,[22] providing the University with an opportunity to address some of the leading impediments to student success. Research demonstrates that both tutorial[23] and social support[24] can act as a buffer for the consequences that stress has on students. Offering resources to assist students with budgeting, managing debt responsibly, and handling the financial aid system can minimize the financial stressors they experience. NYU has consistently demonstrated commitment to supplying students with strong support resources, such as the Academic Resource Center, and will continue to innovate and build on these accomplishments.

6. **Reduce obstacles to the successful navigation of University systems.**

   Navigating a large university system can prove to be intimidating or even stressful to students. In order to improve service quality and lessen the barriers that may complicate students' ability to receive necessary University support, an interdisciplinary taskforce was established in 2009 to address potential obstacles. Additionally, NYU plays a valuable role in empowering students with the tools to manage the university system effectively, helping them to build skills essential to becoming independent adults, such as self-sufficiency and autonomy.

Indicator Technical Notes

About the Data Sources:

American College Health Association - National College Health Assessment (ACHA-NCHA): The ACHA-NCHA is a nationally recognized research survey that collects data about students' health habits, behaviors, and perceptions. NYU conducts this survey via the web every other year. In 2011, 9100 students responded, yielding a 21% response proportion.
www.acha-ncha.org

ACHA-Patient Satisfaction Assessment Service (ACHA-PSAS): ACHA-PSAS gauges patient satisfaction and provides insight into the quality and performance of a college or university health service. NYU conducts this survey on a monthly basis to students who have used NYU Student Health Center services within the past 30 days.

ALCOHOL, TOBACCO, AND OTHER DRUGS

[a] Alcohol-associated serious negative consequences
- **Data Source:** ACHA #16C-16I
- **Survey Question:** Within the last 12 months, have you experienced any of the following as a consequence of your drinking: got in trouble with the police; had sex with someone without giving your consent; had sex with someone without getting their consent; had unprotected sex; physically injured yourself; physically injured another person; seriously considered suicide?
- **Definition:** proportion who responded yes on any consequence (includes "N/A, don't drink" in denominator)

[b] Students who avoid drinking games
- **Data Source:** ACHA #15B
- **Survey Question:** Within the last 12 months, when you "partied"/socialized, how often did you: avoid drinking games?
- **Definition:** proportion who responded "most of the time" or "always" (includes "N/A, don't drink" in denominator)

[c] Student taking prescription drugs that were not prescribed
- **Data Source:** ACHA #18C-18E
- **Survey question:** Within the last 12 months have you taken any of the following prescription drugs that were not prescribed to you: pain killers, sedatives OR stimulants?
- **Definition:** proportion answering yes to pain killers OR sedatives OR stimulants (18C-18E)

[d] Students who currently smoke tobacco
- **Data Source:** ACHA # Q8A1
- **Survey question:** Within the last 30 days, on how many days did you use cigarettes?
- **Definition:** proportion who smoked within last 30 days (any amount)

HEALTH LITERACY

[a] Provision of health education by NYU Student Health Center during patient visits
- **Data Source:** Customer Satisfaction Survey #13
- **Survey Question:** I received information during my visit that I will use to improve my health.
- **Definition:** proportion of students who select "4" or "5 – very much so"

[b] Students who incurred unexpected charges after receiving medical or mental services [a]
- **Data Source:** ACHA – custom question
- **Survey Question:** True or False: In the last 12 months, when I received medical or mental health services (whether at the NYU Student Health Center or elsewhere), the charges I incurred were always what I expected.
- **Definition:** of those who received services, proportion who responded "false" (does not includes N/A in denominator)

[c] Confused by online health information
- **Data Source:** ACHA – custom question
- **Survey Question:** At any point in your last search for health information online did you feel any of the following things? (Select ALL that apply.)
- **Definition:** proportion who endorsed "Confused by the information you found online"

INTERPERSONAL RELATIONSHIPS

[a] Traumatic or difficult to handle intimate relationships
- **Data Source:** ACHA #33E
- **Survey Question:** Within the last 12 months, has any of the following been traumatic or very difficult for you to handle: intimate relationships
- **Definition:** proportion responding yes

[b] Received information on relationship difficulties
- **Data Source:** ACHA #2B2
- **Survey Question:** Have you received information on the following topics from your college or university: "relationship difficulties"?
- **Definition:** Proportion who received relationship difficulties information from college/university

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MENTAL HEALTH

[a] Engagement in mental health treatment among students who have seriously considered suicide
- **Data Source:** ACHA #30J & #31A1-31B7
- **Survey Questions:** Have you ever seriously considered suicide? & Within the last 12 months have you been diagnosed or treated by a professional for any of the following: anorexia; anxiety; ADHA; bipolar disorder; bulimia; depression; insomnia; other sleep disorder; OCD; panic attacks; phobia; schizophrenia; substance abuse or addiction; other addiction; other mental health condition?
- **Definition:** of students who have seriously considered suicide within the last 12 months, proportion who have been treated with medication and/or psychotherapy within the last 12 months

[b] Depression interfering with ability to function
- **Data Source:** ACHA #30F
- **Survey Question:** Have you ever felt so depressed that it was difficult to function?
- **Definition:** proportion responding "in the last 2 weeks" or "in the last 30 days" or "in the last 12 months"

[c] Negative impact on academic performance due to anxiety
- **Data Source:** ACHA #45A3
- **Survey question:** Within the last 12 months, have any of the following affected your academic performance: anxiety
- **Definition:** proportion received lower-grade exam; received lower-grade course; received incomplete/dropped; or significant disruption thesis

NUTRITION

[a] Consumption of 5 or more servings of fruits and/or vegetables per day
- **Data Source:** ACHA #28
  Survey Question: How many servings of fruits and vegetables do you usually have per day?
- **Definition:** proportion eating 5 or more servings per day

[b] Received Information on nutrition
- **Data Source:** ACHA survey #2A8
- **Survey Question:** Have you received information on the following topics from your college or university: nutrition?
- **Definition:** proportion of students who received nutrition information from college/university

[c] Sugar-sweetened beverage consumption
- **Data Source**: ACHA survey custom question (nq76)
- **Survey Question:** How many servings per day do you drink of soda (do not include diet soda or seltzer) or other sweetened drinks like sweetened coffee or tea?
- **Definition:** proportion of students who drink 1 or more sugar-sweetened beverages per day

PHYSICAL ACTIVITY

[a] Met 2007 ACSM/AHA Recommendations for Aerobic Exercises
- **Data Source:** ACHA #29A & 29B
- **Survey Questions:** On how many of the past 7 days did you: Do moderate intensity cardio or aerobic exercise for at least 30 minutes? & On how many of the past 7 days did you: Do vigorous intensity cardio or aerobic exercise for at least 20 minutes?
- **Definition:** proportion of students who engage in moderate-intensity cardio or aerobic exercise for at least 30 minutes on 5 or more days per week, or vigorous-intensity cardio or aerobic exercise for at least 20 minutes on 3 or more days per week. [Physical Activity and Public Health: Updated Recommendations for Adults. From the American College of Sports Medicine and the American Heart Association (2007)]

[b] Engaged in muscle strengthening activities at least 2 days per week
- **Data Source:** ACHA 29C
- **Survey Question:** On how many of the past 7 days did you: Do 8-10 strength training exercises for 8-12 repetitions each?
- **Definition:** proportion of students who engage in strength training exercises 2 or more times per week

[c] Physical activity at light or greater intensity at least 3 days per week
- **Data Source:** 29A-C, ACHA Custom Question
- **Survey Questions: "**In a typical week, how often did you participate in any physical activity or exercise? Examples of physical activity might include: walking 20+ blocks, gardening, dancing, biking, interactive gaming exercise (*i.e*. wii fit), or yoga" & "On how many of the past 7 days did you: Do moderate intensity cardio or aerobic exercise for at least 30 minutes? Do vigorous intensity cardio or aerobic exercise for at least 20 minutes? Do 8-10 strength training exercises for 8-12 repetitions each?
- **Definition:** proportion responding 3 or more days per week

SAFE AND HEALTHY CAMPUS COMMUNITY

[a] flu vaccination
- **Data Source:** ACHA#40C
- **Survey Question:** Have you received the following vaccinations (shots series of shots): influenza (the flu) in the last 12 months (shot or nasal mist)?
- **Definition:** proportion responding "yes"

[b] Received information on violence prevention
- **Data Source:** ACHA #2B9

- **Survey Question:** Have you received information on the following topics from your college or university: violence prevention?
- **Definition:** Provide information to all who report interest in receiving information on violence prevention.

[c] Helmet wearing when bicycling
- **Data Source:** ACHA#4B
- **Survey Question**: Within the last 12 months, how often did you wear a helmet when you rode a bicycle?
- **Definition:** of those who rode bikes, proportion responding "always"

SEXUAL HEALTH

[a] HIV Testing
- **Data Source:** ACHA #39F
- **Survey Question:** Have you ever been tested for HIV infection?
- **Definition**: proportion of students responding yes

[b] Annual incidence of chlamydia, age 24 and under
- **Data Source:** ACHA #41A6
- **Survey Question:** Within the last 12 months, have you been diagnosed or treated by a profession for the following: Chlamydia?
- **Definition:** rate per 10,000 of students 24 and under who endorsed "yes"

[c] Always use condoms or other protective barrier during vaginal intercourse
- **Data Source:** ACHA # 22B
- **Survey Question:** Within the last 30 days, how often did you or your partner(s) use a condom or other protective barrier during vaginal intercourse?
- **Definition:** proportion of students engaging in vaginal intercourse (within the last 30 days) reported "always" using protective barrier

[d] Always use condoms or other protective barrier during anal intercourse
- **Data Source:** ACHA # 22C
- **Survey Question:** Within the last 30 days, how often did you or your partner(s) use a condom or other protective barrier during anal intercourse?
- **Definition:** proportion of students engaging in anal intercourse (within the past 30 days) reported "always" using protective barrier

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SLEEP

[a] Negative impact on academic performance due to sleep difficulties
- **Data Source:** ACHA #45D4
- **Survey Question:** Within the last 12 months, have any of the following affected your academic performance (sleep difficulties)?
- **Definition:** proportion received lower grade exam; received lower grade course; received incomplete/dropped; or significant disruption thesis

[b] Received information on sleep
- **Data Source:** ACHA #2B5
- **Survey Questions:** Have you received information on the following topics from your college or university: sleep?
- **Definition:** proportion who reported having actually received sleep information

[c] Sleep impacting daytime functioning
- **Data Source:** ACHA #43
- **Survey Question:** In the past 7 days, how much of a problem have you had with sleepiness during your daytime activities?
- **Definition:** proportion responding "a big problem" or "a very big problem"

STRESS

[a] Negative impact on academic performance due to stress
- **Data Source:** ACHA #45D5
- **Survey Question:** Within the last 12 months, have any of the following affected your academic performance (stress)?
- **Definition:** Proportion received lower-grade exam; received lower-grade course; received incomplete/dropped; significant disruption thesis

[b] Experiencing more than average stress
- **Data Source:** ACHA #37
- **Survey Question**: Within the last 12 months, how would you rate the overall level of stress you have experienced?
- **Definition**: proportion rating overall stress as more than average stress or tremendous stress

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