Virginia Tech Mental Health Task Force

Recommendation Report

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Introduction

Colleges and universities provide opportunities for young people to develop both intellectually and personally as they study, socialize, make new friends, and acquire skills that enable achievement of their long-term aspirations. Supporting students and preparing them for post-graduate success requires more than academic instruction. In recent years, universities across the nation, and others across the world, have seen a dramatic increase in student need for mental health services, with the demand growing much faster than enrollments. Conservative estimates of current college students indicate that 20-35% may face mental health challenges of varying severity at some point during their college careers. Moreover, many of these students arrive on campus for the first time already dealing with these challenges. Recent national surveys estimate that approximately 35% of student respondents reported positive for at least one of six common lifetime DSM-IV mental disorders including major depression, mania/hypomania, generalized anxiety disorder, panic disorder, alcohol use disorder, and substance use disorder, while 31% reported positive for at least one of those disorders over the previous 12 month period. University-level research indicates that treatment offered by counseling centers benefits students directly through symptom relief, increased levels of functioning academically and socially, and increased retention and graduation rates. The students who receive treatment benefit the university through higher levels of functioning, increased academic efforts, and greater satisfaction with the university experience. In fact, students who sought counseling were more likely to remain in school and to graduate within five years.[1] Given that mental health treatment leads to increased retention and graduation, the dollars invested in mental health treatment actually lead to greater return on investment for the university.[2]

At Virginia Tech, the demand for mental health services has grown consistently, doubling over the past decade. In the past five years, the number of students receiving services at the Cook Counseling Center (CCC) has increased by 43%, far exceeding the 9.5% growth in enrollment over the same period. The increase in the number of enrolled students, coupled with increased

[1] Flynn, Flynn, & Cornwell (2006)
[2] Eisenberg, Golberstein & Hunt (2009). Mental health and academic success in college. *The B.E. Journal of Economic Analysis & Policy*, 9.

demand for services, has stretched the ability of CCC to provide adequate resources for students. In response, the university has added counseling staff and programs, and students, faculty and staff from across the university have also developed other types of initiatives to support student mental well-being. Nonetheless, the increase in demand requires not only that we continue extant practices, but that we innovate and invest in order to deliver what students need.

In recognition of this challenge and Virginia Tech's commitment to serving the wellness needs of students, Provost Cyril Clarke formed a Virginia Tech Mental Health Task Force in fall 2018. His charge to this group was to help identify factors affecting mental health including social, cultural, and biological impacts that can influence development and treatment of mental health issues; address issues associated with mental health services; anticipate how the university may address existing needs; and proactively plan for future support of mental health programs for our university. The Provost posed five questions to guide the Task Force:

1. What are the social, cultural, and biological factors driving demand for mental health services at Virginia Tech?
2. Are students who need mental health services at Virginia Tech reflective of the larger higher education population?
3. Can the systems and procedures used at Virginia Tech to identify students in need be optimized and, if so, how can this be accomplished?
4. Is Virginia Tech adequately able to support the mental health needs of the student body and, if not, what additional strategies should be considered?
5. What is the role for prevention and education in addition to direct service provision?

In its deliberations, the Task Force examined data from national surveys of mental health concerns (National Survey on Drug Use and Health, National Comorbidity Study-Replication and the Adolescent Supplement), from national studies of mental health concerns among college students (Healthy Minds Study), and from collaborative research among university counseling centers across the United States (Center for Collegiate Mental Health). The Task Force also generated summaries using data specific to Virginia Tech. The Task Force met with student advocates for mental health and with administrators of programs providing services or those impacted by student demand for services on both the Blacksburg and Roanoke campuses. We also solicited personal opinions on both positive and negative aspects of how the university addresses mental health needs from faculty, graduate students, undergraduate students, and staff. These comments are informative in at least two ways: (1) many of these perceptions reinforce the concerns raised throughout this document as a result of our research, and (2) many of these comments reflect varying degrees of misinformation and misunderstanding of available services, reinforcing our strong conclusion that better education around mental health needs and services is essential for all.

This Task Force report is structured to address each of the five questions posed by the Provost. For each, we discuss and integrate relevant research findings, our meetings with student, staff and faculty groups, and our deliberations. An Executive Summary and Task Force recommendations are listed prior to the review of the five questions.

Executive Summary

Colleges and universities across the country are experiencing dramatically increasing student demand for mental health services. This, in part, reflects a follow-on to a wave of upward trends in mental health concerns occurring among high school and even middle school students. Increased need for mental health support may also relate to changes in the sociocultural profile of the college student population; mental health problems are more frequent among those who have experienced prejudice, isolation, financial stress and/or traumatic experiences. Escalating dependence on e-devices and social media therein may be a contributor through social or biological effects. On the positive side, increased utilization of mental health services may also stem from success in efforts to decrease stigma associated with seeking mental health services and with greater awareness among students of benefits of early attention to symptoms of anxiety, depression, and other conditions.

Students at Virginia Tech experience the same conditions and need for services as their national peers, with a more than 40% increase in students seeking services from 2013 to 2017, while enrollments increased slightly less than 10%. Importantly, overall and for all specific matters of distress, rates among VT students are actually *lower* than national averages. This paints a rather dire picture of challenges to meeting the mental health needs of our college students across the nation. Better appreciation of the factors that underlie these increasing rates would help to identify needs, optimize provider systems and procedures for students, and provide guidance for VT and other institutions.

VT has continually added capacity and new mental health services and is on the optimal end of the recommended mental health staff to student ratio. A range of counseling, referral, psychiatric treatment, workshop, and self-care resources are available, although some specific disorders may be underserved (e.g., adult Autism Spectrum Disorder). Expansion of services will need to continue based on projections of mental health concerns in the pre-college age cohort. But even now, while immediate walk-in consultations are available for students in crisis, students report their perception that wait-times for other appointments are too long and compromise quality of care. Additionally, faculty, teaching associates, and academic and resident life advisors feel unprepared to accurately identify students in need and help students find the right type of mental health support. This indicates potential for improvement in referring students to the most suitable type of mental health support, as well as a need to optimize and align services to areas of demand.

As a result of our research, the task force generally supports a range of initiatives and innovations that may help optimize VT's commitment to our mental health landscape: a campus-wide mental wellness campaign; widespread use of mental health self-assessment tools; training for those in front-line contact with students (faculty, teaching associates, academic and resident life advisors); wider implementation of Question, Persuade, Refer (QPR); improved recognition of and pathways for high-risk groups and situations; mental wellness and assessment messaging in courses and electronic platforms; supporting student-led awareness and support efforts on campus; availability of services at student-centric locations and times; on-demand and mobile app services; use of VTCSOM/Carilion affiliated psychiatry resources for more complex diagnoses; increased peer-support models; better communication and integration of other referral and support structures may better align services with demand.

An additional institutional goal is prevention of harm from emerging mental disorders and escalation of existing conditions – both during the collegiate experience and as the graduate goes forward in life. While it is not possible to prevent all diseases that affect mental and physical well-being in a student population, connections between individuals and within communities provide an early warning system of potential trouble. Education to identify signs for concern, to know ways to support mental health, and to access appropriate supports is a necessary part of prevention. Students are often the closest contacts of those in need and are also collectively active in supporting mental health campaigns. However, there is currently no centralized forum for bringing together and empowering efforts that occur outside of direct mental health services. A systematic, culturally inclusive plan would provide improved reach, better programming and positive learning for all.

Through consideration of the literature, data analysis, presentations by a wide constituency of programs on campus committed to mental health, the Mental Health Task Force developed the following recommendations:

1. In the context of the significant (and often severe) mental health challenges faced by college students across the nation, including those at Virginia Tech, initiate the development of a MyOneHealth Awareness Campaign at the institutional level. This campaign will empower all Hokies to become mental health advocates through accurate information and data; training and education; and resource awareness. (in response to Q1 - Q5)

2. Continue and build upon collaborative mental health research efforts both within and beyond the university, encourage new transdisciplinary, translational research on collegiate mental health, and engage in ongoing, organic efforts to evaluate the effectiveness of our own practices. (in response to Q1 - Q5)

3. Maintain the Cook Counseling Center staffing at optimal levels of the counselor to student ratio as recognized by the International Association of Counseling Services (IACS). We envision maintaining our current staffing level as demand and enrollment grows, even with addition of innovative resources. (in response to Q1 - Q2)

4. Cook Counseling Center will interface with primary points of student contact via liaisons within each college to provide consistent opportunities for faculty and staff training and engagement, triage of cases arising in the college environments, and preventative messaging and campaigns specific to each college. (in response to Q3)

5. The Commission on Graduate Studies and Policies and the Commission on Undergraduate Studies and Policies should evaluate and consider changes to academic practices that have a history of adverse effects on student mental health and well-being. The Commissions would also evaluate academic opportunities which promote student mental health and well-being. (in response to Q3 - Q4)

6. Provide a forum for better coordination and connections between student-driven mental health initiatives, paraprofessional support groups, and administrative units. This will

require space and resources to facilitate action and encourage new, creative approaches to mental health transformative practices. (in response to Q3 - Q4)

7. Develop a stronger relationship between Cook Counseling Center, Virginia Tech Carilion School of Medicine, Carilion Clinic and local mental health resources for care delivery and coordination of services to benefit the mission of the institution. (in response to Q4)

8. Hokie Wellness will scale up a mental health education/prevention team to develop and deliver evidence-based approaches to increase self-efficacy and enhance community resilience among faculty, students, and staff. (in response to Q5)

Question 1: What are the social, cultural, and biological factors driving demand for mental health services at Virginia Tech?

Increasing demand for mental health services on a college campus may relate to characteristics of both the student population and the campus environment, such as:

- Higher prevalence of mental health disorders in matriculating students, perhaps due to
  - changes in the composition of the campus population
  - a higher incidence of disorders among entering students
  - increased social isolation of students with greater dependence on electronic forms of communication
- Higher incidence of mental health disorders in the student population, perhaps due to
  - higher prevalence of mental health disorders in the general population
  - new diagnoses of mental health disorders that were not previously considered
  - early onset of mental health disorders in the student population
  - stressors associated with higher education
  - increased stressors due to social media access
  - greater academic success and probability of college entry by students under treatment for mental health disorders
- Better awareness of mental health and the value of counseling among college students
- Decreased stigma in seeking counseling/treatment among college students
- Limited availability of counseling/treatment options outside of those provided on campus

We reviewed a national survey[3] to ascertain whether this growth in mental health demand is symptomatic of concerns in (a) the current enrollment of students at Virginia Tech, and/or (b) students enrolled in higher education more generally, and/or (c) in the broader population in the U.S. Results indicate that current high-school aged cohorts are more likely to endorse increased rates of mental health concerns and to have received a mental health diagnosis prior to entering university, and to have sought treatment from health providers[4]. As these young people enter colleges and universities, they continue to endorse mental health concerns at elevated rates and to seek services on their respective campuses (i.e., increases in depression; see Figure 1).

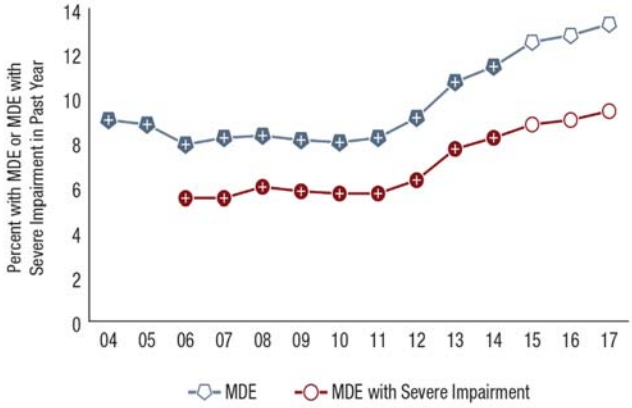

Figure 1. Major Depressive Episode (MDE) and MDE with Severe Impairment in the Past Year among Youths Aged 12 to 17, 2004 – 2017; *from SAMHSA*[2]

[3] The National Survey on Drug Use and Health (NSDUH; https://nsduhweb.rti.org/respweb/homepage.cfm) has been administered to a stratified sample of the population since 1971 and asks specific questions regarding depression, suicidality, mental health treatment and substance use. The NSDUH is sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA) and in 2017, the NSDUH assessed over 70,000 residents of the United States over the age of 12.

[4] Substance Abuse and Mental Health Services Administration. (2018) Key substance use and mental health indicators in the United States: Results from the 2017 National Survey on Drug Use and Health (HHS Publication No. SMA 18-5068, NSDUH Series H-53). Rockville, MD: Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration. Retrieved from https://www.samhsa.gov/data/

As the 12-17 year-olds age, the increase in depression is then noted among 18-25 year-olds (Figure 2). It is clear that depression is on the increase among American youth while it is less clear if this growth is restricted to the young or if the increases in depression will continue as the younger population reaches middle age. As depression rises, there have been concomitant increases in the rates of suicidal thoughts, development of suicidal plans, and the number of suicide attempts among 18- to 25-year-olds.[5]

In addition to depression, other diagnostic categories have grown due to either a quicker recognition from mental health professionals, a potential over-diagnosis from health professionals, and/or parents and students reporting more concerns that may reflect subclinical syndromes. Two examples of increased diagnostic prevalence include attention deficit/hyperactivity disorder (ADHD) and autism spectrum disorder (ASD). From 1997 to 2008, there was a dramatic 289% increase in parent-reported ASD among children 3- to 17-years-old[6]. From 1997-2016, there was a significant increase in parent reported ADHD with 10% diagnosed in 2016 contrasted with 6% in 1997[7].

Importantly, other national surveys have found that the age-of-onset for mental health disorders occurs relatively early in the lifespan, with over 50% of mental health disorders beginning before the age of 14 and with 75% of individuals with mental health concerns showing symptoms before age 24[8]. Accordingly, *students entering university are much more likely to have experienced mental health concerns, received a diagnosis, and sought treatment prior to enrollment while other students may experience the onset of mental health concerns while attending college*. Data from the NSDUH points out that a significant percentage of students receiving services while in high school receive them from the educational institution. Subsequently, parents and students often seek to

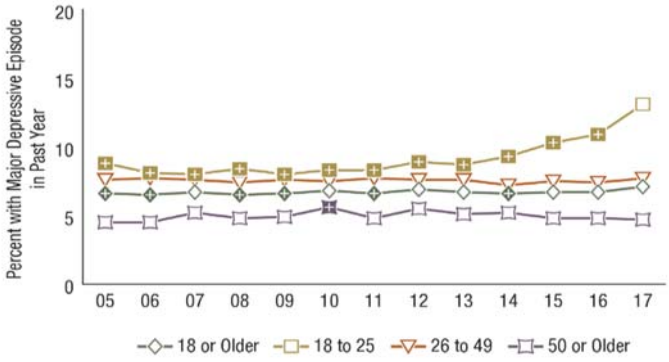

Figure 2. Major Depressive Episode in the Past Year among Adults Aged 18 or Older, by Age Group, 2005-2017; *from SAMHSA*[2]

[5] It is important to note that completed suicides are more often found among older groups of Americans. Stone, D.M., Simon, T.R., Fowler, K.A., et al. Vital Signs: Trends in state suicide rates-United States, 1999-2016 and circumstances contributing to suicide- 27 states. (2018) *MMWR Morb Mortal Wkly Rep*, 67, 617-624. DOI: http://dx.doi.org/10.15585/mmwr.mm6722.a1.

[6] Boyle, C. A., Boulet, S., Schieve, L.A., Cohen, R.A., Blumberg, S.J., Yeargin-Allsopp, M., Visser, S., & Kogan, M.D. (2011) Trends in the prevalence of developmental disabilities in US children, 1997-2008. *Pediatrics*, 127, 1034-1042. doi: 10.1542/peds.2010-2989

[7] Xu, G., Strathearn, L., Liu, B., Yang, B. & Bao, W. (2018) Twenty-year trends in diagnosed attention deficit/hyperactivity disorder among U.S. children and adolescents, 1997-2016. *JAMA Network Open.* doi/10.1001:jamanetworkopen.2018.1471

[8] Kessler, R.C., Chui, W.T., Demler, O. & Walters, E.E. (2005) Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Study-Replication (NCS-R). *Archives of General Psychiatry, 62*, 617-627.

establish similar services prior to enrollment in higher education institutions. In addition to these trends of increased mental health diagnoses among youth, the CCMH[9] also reported from its member campuses that "*over the past five years, counseling center utilization increased by an average of 30-40%, while enrollment increased by only 5%"*[10].

The vulnerability of younger Americans to mental health challenges is well established, and age is clearly a major demographic variable in the onset of mental illness. Nonetheless, there are significant differences among other demographic subgroups that may reveal other social, cultural, and/or biological factors affecting mental health.

Gender differences. The NCS-R[11] and the NCS-A[11] surveys found that the risk of mental health concerns was roughly equal between males and females. However, among women, anxiety and mood disorders predominated while among men, substance abuse and impulse-control were significantly more common.[6] Among adolescents, females report depression at three times the rate of males. At ages 18- to 25-years, men and women have similar rates of suicidal thoughts (including plans and attempts) although males complete suicide at a much higher rate than do females. Other diagnoses also differ between males and females. Adolescent males had three times the rate of ADHD as females[5] and boys were four times more likely to be diagnosed with ASD[4].

In sum, both male and female university students present common and unique mental health needs, with female students receiving a much higher rate of mental health service utilization. This renders the gender balance within the university an important factor in determining the amount and type of counseling services sought.

Sociocultural differences. There are significant sociocultural differences among students regarding possible need for mental health services, stemming from factors underlying psychological need, willingness to seek mental health services, or both. The Healthy Minds Surveys have been administered to over 150,000 college students from 196 colleges; when broken down by among student of color, a recent study reported that Black, Hispanic and Asian students were higher in depression than white students and that students with multiple ethnic categories were higher than white students in depression, suicidal ideation, and non-suicidal self-injury[12]. White and black students were less likely to report functional impairments than were the other ethnicities (i.e., Asian, Hispanic/Latino).

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[9] The Center for Collegiate Mental Health (CCMH; http://ccmh.psu.edu/), housed at Pennsylvania State University, is a practice-research consortium of 125 colleges and universities which all utilize the Titanium Scheduling System. With over 100,000 student participants, CCMH is the largest study ever conducted in student mental health.

[10] Center for Collegiate Mental Health. (2019) *2018 Annual Report* (Publication No. STA 19-180). https://sites.psu.edu/ccmh/files/2019/02/2018-Annual-Report_2.8.19-FINAL-1m23dwi.pdf.

[11] The National Comorbidity Survey (NCS; https://www.hcp.med.harvard.edu/ncs/) began in 1990. In 2001, two new studies were added. The National Comorbidity Study Replication (NCS-R) sampled 10,000 additional people to study trends and add new variables to NCS survey. The National Comorbidity Study Adolescents (NCS-A) sampled 10,000 youth to assess the prevalence and factors associated with mental disorders.

[12] Lipson, S. K., Kern, A., Eisenberg, D., & Breland-Noble, A. M. (2018) Mental health disparities among college students of color. *Journal of Adolescent Health, 63,* 348-356.

The HMS[13] surveys found that LGBTQ+ students were at greater risk for mental health problems compared with heterosexual students. Further, students with financial stress from either past or current circumstances reported increased risk for mental health problems. Students who reported being very religious had a lower risk of mental health problems. Students living on-campus reported lower anxiety compared to students living in off-campus residences. Students who reported being single were at elevated risk for mental health problems than were those who were in a relationship or married[14].

Student Concerns. In conversation with our own Virginia Tech students, additional factors were identified related to this question. Support networks or lack of support networks were identified as a challenge facing many students. This includes lack of physical proximity to previous support networks, both family and peers and the challenge of geographical difference that students struggle to overcome. An example given was the opportunity of the relatively large cohort of "NoVa" students to already have something in common with each other and the difficulty of students from other locations forming relationships with that cohort. On a related note, some students discussed that the rural environment of Blacksburg may play into depression/anxiety due to a feeling of isolation. There are limited social "scenes" and activities for many students as compared to institutions in or near larger cities.

It also became clear that specific cohorts of students seem to experience higher levels of social or environmental stress than others. College of Engineering students were mentioned related to their drive to succeed and the amount of coursework in which they are engaged that seems to lead many to seek counseling. The Corps of Cadets often face different challenges and stressors related to the potential effects of their academic and personal performance on future military records. Moreover, some Cadets look for a "roundabout" way to get mental health treatment to avoid stigmatization and perceived negative impact on military careers. Other Cadets are concerned with how prescribed medications might affect their future military career goals. Lastly, several specific challenges that pertain to graduate students were also noted. According to students, these include isolation in a rural environment, smaller program cohorts, and the general essence of graduate level education/training that is inherently less social. Additionally, the lack of engagement opportunities, lack of preparation for challenging curriculum, academic bullying related to advisor power dynamics, and what was described as "insurmountable hoops" in some department cultures also contribute to graduate-specific challenges.

Perception factors. The existence of possible *stigma* around seeking mental health services was another factor mentioned consistently as a potential barrier to seeking services, although by all accounts, mental health stigmatization is in general decline on college campuses. The HMS[11] asked students to respond to: "I think less of someone who has received mental health treatment" over the past decade and found that the number endorsing this has declined from 11% to 6%[15]. Students also responded to whether "most people" would think less of others seeking services

[13] The Healthy Minds Study (HMS; http://healthymindsnetwork.org/research/hms) is a web-based survey administered annually since 2007 including more than 200,000 undergraduate and graduate students from over 180 colleges and universities. It includes questions on mental health and use of mental health services.

[14] Eisenberg, D., Hunt. J. & Speer, N. (2013) Mental health in American colleges and universities: Variations across student subgroups and across campuses. *Journal of Nervous and Mental Disease, 201*, 60-67.

[15] Lipson, S. K., Lattie, E. G. & Eisenberg, D. (2019) Increased rates of mental health service utilization by US college students: 10-year population level trends (2007-2017). *Psychiatric Services, 70*, 60-63.

and this perceived stigma has declined from 64% to 46%. The CIRP Freshman Survey[16] has found a steady and consistent increase in the number of students who believed they would seek counseling in their first year, rising from 5% in 1999 to 14% in 2015[17]. Thus, as the stigma surrounding mental illness decreases, the pursuit of mental health services increases. However, this may not be consistent for all subpopulations of college students. For example, among students of color, African-American students had the lowest level of personal stigma (6%), followed by multiracial students (10%), LatinX students (12%), Arab students (12%) and Asian students (23%)[10]. Women (7%) had less personal stigma than did males (13%). For population subgroups where stigma still remains relatively elevated, there is a clear need to develop specific paths to encourage students to seek services as needed.

Social media and smartphones. Twenge and her colleagues[18,19] examined a number of national surveys to look at the relationship between social media and smartphone usage and the effects on mental health; they found increased media time usage among adolescents was related to increased reporting of mental health issues (and this association may be greater in females than males). Conversely, adolescents who spent more time in social activities, sports and academic activities were less likely to note mental health concerns. Twenge proposes that increased media usage and social media interactions may have contributed to the increase in depression and the resultant suicidal ideation and planning among adolescents. Several recent studies suggest that biological changes in the brain may accompany long-term heavy usage of electronic communication and games, raising the possibility of long term negative consequences that may be attributable to either the use of e-devices, the lack of interpersonal interaction or a combination.[20,21]

A recent study from the United Kingdom proposed that the following factors mediate the relationship between media use and depression: poor sleep, online harassment, poor self-esteem, and vulnerability to body image disturbance[22]. Among adolescents with increased social media usage (defined as greater than three hours per day), there was an association with depression and this effect was greater for girls than boys. Higher levels of social media use also led to poor sleep which elevated depression scores. Increased usage and exposure to online harassment led to poor body image and poor self-esteem which then increased depression scores.

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[16] The UCLA CIRP Freshman Survey (TFS; https://heri.ucla.edu/cirp-freshman-survey/) has been completed by generations of entering first year students at schools across the country. Since 1975, the Survey has included a question asking freshman about the likelihood that they would seek counseling in the coming year.

[17] Eagen, M.K., Stolzenberg, E.B., Zimmerman, H.B et al. (2017) *The American freshman: national norms fall 2016*. Los Angeles: Higher Education Research Institute, UCLA.

[18] Twenge, J.M. (2017) *iGen*. New York: Atria Books.

[19] Twenge, J.M., Joiner, T.E., Rogers, M.L.,& Martin, G.N. (2018) Increases in depressive symptoms, suicide-related outcome, and suicide rates among U.S. adolescents after 2010 and links to increased new media screen time. *Clinical Psychological Science*, 6, 3-17.

[20] Volkow, N. D., Tomasi, D., Wang, G-J., et al. (2011). Effects of cell phone radiofrequency signal exposure on brain glucose metabolism. *JAMA*, 305, 808-813.

[21] Bavelier, D., Shawn Green, C., Hyun Han, D., Renshaw, P.F., Merzenich, M.M., & Gentile, D. A. (2011). Brains on video games. *Nat Rev Neurosc*i., 12(12): 763–768.

[22] Kelly, Y., Zilanawala, A., Booker, C. & Sacker, A. (2018) Social media use and adolescent mental health: Findings from the UK Millennium Cohort Study. *EClinicalMedicine,* 6, 59-68.

Taken together, it is clear that increased use of social media technology is important in considering potential strategies to improve mental health. However, given that all such studies to date are correlational in nature, future studies are needed to disentangle the specific effects of social media usage per se from other factors with which it co-occurs (e.g., decreased sleep).

Additional factors. Over the past decade, the world recovered from the "Great Recession of 2008" and there has been speculation that economic factors may have led to increased anxiety, worry, and depression. The HMS[11] found that financial need is related to mental health issues among college students[23]. However, it is not clear if the recession was the sole factor affecting students' financial concerns.

A recent survey by the American Psychological Association[24] queried 15-21 year-olds regarding the news that led to stress; their responses included mass shootings, the rise in suicide rates, climate change and global warming, separation and deportation of immigrant and migrant families, and sexual harassment and assault reports. This younger generation was more stressed about these issues than were older adults.

There has been some research[25] suggesting that concerns about the long term consequences of climate change may be responsible for an increase in mental health concerns based on worry for the planet's future or from the negative effects of increases in natural disasters. This is a new area of research and requires much more study.

Finally, the polarization of politics in America has received great media attention. As the nation is riven by political disagreements, youth feel more threatened, anxious and worried; 62% point to the current political climate as a source of stress (APA, 2018). This relationship will require further study as well.

[23] Eisenberg, D., Hunt, J., & Speer, N. (2013). Mental health in American colleges and universities: Variation across student subgroups and across campuses. Journal of Nervous and Mental Disease, 201, 60-67.
[24] American Psychological Association (2018). Stress in America: Generation Z. Stress in America™ Survey.
[25] Hayes, K., Blashki, G., Wiseman, J., Burke, S. & Reifels, L. (2018) Climate change and mental health: risks, impacts and priority actions. *International Journal of Mental Health Systems, 12:28.*

Question 2: Are students who need mental health services at Virginia Tech reflective of the larger higher education population?

In the context of the social, cultural, and biological factors driving demand for mental health services at college campuses nationally, two data sources provide specific information on mental health and demand for services at Virginia Tech. Virginia Tech participated in the HMS[11] for the first time in 2017-2018. From a random sample of 4,000 Virginia Tech students, over 1,000 completed the survey for a return rate of 26% (compared to national average of 23%). Virginia Tech also participates in the Center for Collegiate Mental Health (CCMH)[7] research consortium. Students receiving treatment at Cook Counseling Center (CCC) can be contrasted with a national sample of students receiving counseling services at their respective centers. Five years of data are available for comparison as Virginia code mandates that student mental health records are only maintained for six years after last contact.

The HMS results are from a survey of the broader student body. Based on the past year survey, there is clear evidence that Virginia Tech students are struggling with mental health concerns, with 18% reporting needing mental health counseling in the past year and 17% having taken psychotropic medication in the past year. However, when compared to the national sample, Virginia Tech students as a group do relatively well. On all measures of distress, diagnosis, and suicidality, Virginia Tech students fare better than the national sample. Specifically:

1. Virginia Tech students are *less likely* than the national average to have a lifetime prevalence of a mental health diagnosis (24%, 37%); to have been diagnosed with depression (14%, 25%) or with an anxiety disorder (16%, 27%); to have experienced a traumatic incident (2%, 5%); or to have an eating disorder (2%, 4%).
2. Virginia Tech students have lower levels of reported suicidal ideation (7%) in the past year compared to the national sample (13%).
3. Fewer Virginia Tech students developed a suicidal plan (4%) compared to the national sample (6%).
4. Virginia Tech students were less likely to attempt suicide (1%) in the past year compared to the national sample (2%).
5. Virginia Tech students were equally likely to have been diagnosed with a substance use disorder as the national sample, both at 1%.

In the CCMH *clinical data sample*, the number of students seeking services at CCC increased 43% from 2013-14 to 2017-18, with a university enrollment increase of 9.5% during the same period; both exceeding national averages of 30-40% and 5%. The increased demand for services at Virginia Tech is then based both on (a) increased mental health demand and (b) an enrollment increase over the past five years, and is consistent with many like institutions across the country.

The most common concerns for which students sought counseling at CCC were (1) anxiety, (2) depression, (3) relationship problems, (4) stress, and (5) family issues. Several specific findings emerged from comparison with the national CCMH data:

1. Although Virginia Tech students show an increased prevalence of significant mental health concerns the rate of concerns is lower than in national sample; that is, a smaller *percentage* of Virginia Tech students report mental health concerns than the national comparison group.

2. Virginia Tech students seeking counseling reported that 29% had seriously considered suicide at one point in their lives, compared to 36% of the national sample.
3. Seven percent of Virginia Tech students had attempted suicide at least once, whereas 10% of the national sample endorsed this item.
4. When asked about non-suicidal self-injury, the rate was 22% among Virginia Tech students and 28% in the national sample.
5. A prior experience with significant trauma was found in 30% of Virginia Tech students and 39% of the national sample.
6. Virginia Tech students and the national sample both had similar experience with mental health counseling (55%) and psychiatric medication (34, 36% respectively).

Clearly, students being seen at CCC are facing an increased level of mental health concerns and have appropriately sought counseling and medication treatment. However, in general, Virginia Tech students show a more positive profile than the national averages when it comes to mental health issues. This may be due to a number of related socio-cultural variables that can be examined with a closer look at the data. CCC researchers have sought permission to access the greater CCMH data sets to review potential factors that influence current differences. This is an area that provides an opportunity for additional study at VT that may provide insights into our students' relatively positive performance in this domain from which we may be able to improve upon services provided as well as to inform peer institutions across the nation. In fact, VT has strong research assets in place in the biological, social, psychological, medical and computational domains that could be deployed in innovative transdisciplinary ways.

Question 3: Can the systems and procedures used at Virginia Tech to identify students in need be optimized and, if so, how can this be accomplished?

The current state of systems and procedures used at Virginia Tech to identify students in need of mental health services is both effective *and* in need of optimization given growing demand and the evolving complexity of mental health challenges. Cook Counseling Center (CCC) is a vibrant, active mental health resource for Virginia Tech students. At present, CCC has a multidisciplinary staff of psychologists (16.5), counselors (11.5), social workers (2.3), a marriage and family therapist (1), psychiatrists (1.8), nurse practitioners (2.2), nurses (1.8), support staff (5), and psychology interns (4). All numbers referenced in parenthesis are full time equivalent counts. CCC is currently located at three sites: McComas Hall, East Eggleston Hall, and in Kent Square in downtown Blacksburg. CCC also has therapists located in Jamerson Athletic Center, the Virginia-Maryland College of Veterinary Medicine, the Graduate Life Center, and at the Virginia Tech Carilion School of Medicine and Fralin Biomedical Research Institute. Most often, students self-refer for treatment or are referred by a friend or parent, either upon matriculating to campus or, following enrollment, when they perceive that care is needed. However, a host of other referral sources with direct relationships to CCC include:

1. Resident Advisors/Resident Life On-Call Staff – all resident advisors are trained in QPR (Question – Persuade – Refer), a program designed to teach the warning signs of a suicide crisis and how to respond.
2. Housing and Residence Life Professional Staff
3. Threat Assessment Team
4. Care Team
5. Psychological Services Center - Department of Psychology
6. Women's Center
7. Services for Students with Disabilities (SSD)
8. Dean of Students Office
9. Academic Advisors
10. Faculty Members
11. College Deans/Assistant Deans
12. Virginia Tech Police Department
13. Hokie Wellness
14. Schiffert Health Center

Nonetheless, there are challenges in getting students into mental health services. As discussed earlier, increased student demand is occurring both because of growing enrollment and decreased stigmatization. It is important to note that students who feel they are in crisis can always walk-in immediately for a consultation. Wait times for initial intakes and assessments at the beginning of each semester are typically at one week, but rapidly grow to two or more weeks as the semester progresses. Once a student begins counseling, appointment times grow to two-to-three weeks between visits. On their responses to the HMS, 37% of Virginia Tech students indicated their dissatisfaction with the long delays between appointments at CCC - and only 12% were seen by a Cook counselor. In a survey sample of faculty, advisors, graduate students, and undergraduates from one college, the overwhelming majority of responses mentioned that they felt the wait times were too long at CCC, and that this compromises the quality of services from CCC.

As wait times increase, many students choose to utilize the crisis walk-in option when they are not actually in crisis in order to secure resources sooner. This puts tremendous stress on CCC staff as there are limited available hours during the later weeks of a semester for such follow-up appointments. On any given night, there can be three to four Resident Advisor on-call reports filed which advise a student to walk in the next day. On weekends this number can grow to double digit referrals made just by Housing and Residence Life staff. Clearly, we need strategies that both enable students who need mental health services to receive them while reducing unnecessary use of the crisis walk-in option, and redirecting students to other avenues of support that can improve their well-being.

One improvement would be to consider creative ways to increase accessibility for students. The CCC has online screening tools that students can complete at any time and these tools assess for a range of common concerns including anxiety, depression, trauma, substance abuse, and eating disorders. The Psychological Services Center in the Department of Psychology provides psychological testing for a range of concerns including assessment of ADHD, assessment of adult Autism Spectrum Disorder, and learning difficulties.[26] Educating the campus on the availability of these tools is a relatively simple yet effective way for students to either "self-assess" or professionally assess whether they need CCC services or other possible avenues of support to help them through their difficulties (e.g., Hokie Wellness). Another way to improve accessibility is to expand hours of CCC. Many students operate on a much different schedule than a normal business day so opportunities for students to visit CCC at times that fit their schedules would be advantageous. Placing mental health counselors in the well-being living learning community as an evening crisis intervention strategy may help to mitigate some of the after-hours, on-call challenges and the need for follow up appointments.

Another important improvement will involve workshops provided to faculty and academic advisors on the prevalence of mental health concerns facing our student population and information on how to identify and direct care to those who are struggling. The task force noted that many faculty/advisors want better education and formal training about acute clinical needs of students (in particular, suicide risk). The CCC utilizes a suicide prevention gatekeeper training, Question, Persuade, Refer (QPR) and all paraprofessionals in Housing and Residential Life receive training as do all entering members of the Corps of Cadets. It would be beneficial to offer training and workshops in the colleges (these might include QPR, resources support on and off campus, strategies for promoting well-being in the classroom, etc.). Additional workshops or training for faculty that encourage providing a message of well-being on syllabi and/or spending a few moments of classroom time on the importance of well-being at least once each semester to every class section could be beneficial. Behavior change takes repetition and consistency and we should encourage our faculty to help provide a message about the importance of well-being in the classroom. We specifically spoke to the College of Veterinary Medicine, as we were aware of on-going changes in the past two years that were made to promote better well-being of their students. For example, at their orientation all veterinary students have required QPR training, they are provided team-based learning in small groups focused on nine areas of well-being (including outdoor experiential learning), they complete assessments on their current well-being, and resources are shared for physical and mental health. Additionally, counselors (1 FTE) are embedded in the Vet School to work with students on-site and to consult with faculty/staff

[26] The Psychological Services Center is a fee-based service that can offer assessment on a sliding scale, and often has significantly long wait-lists.

members directly. The Vet School provides a weekly email regarding well-being (during the month of our conversation with them it was a financial literacy message), they have limited classroom hours for their students, and have moved their grading system to *Pass-Fail* across the veterinary curriculum. Evaluation of how these changes may improve the well-being of veterinary students is still being conducted, yet this shows a commitment to integrating well-being into the academic environment of students.

We need to enhance the ability of "front-line" contacts to identify student struggles in a more accurate and timely manner to help students get needed resources as soon as possible since earlier interventions have more positive outcomes. Focused education of this front-line may actually help students to better self-manage prior to needing counseling services. Academic advisors should be a particular focus of mental health education given their high frequency of contact with students, especially when the student begins to require academic intervention. In one recent discussion with all academic advisors in a college, their overwhelming primary concern was that they feel unprepared and insecure in identifying and responding to students in psychological distress. One promising avenue for the advising community is VT's *NAVIGATE* software in which alerts can be issued, referrals can be made, and progress can be tracked for troubled students. Better education and increased communication between resource units could result in two shifts: (1) there may be a *decrease* in demand for CCC services (especially crisis walk-ins) because students' needs will be recognized sooner and more proactive and appropriate resources brought to bear on them (e.g., Hokie Wellness) and (2) there may be a better match and timely delivery of mental health services to those directed to CCC.

We also discussed the importance of a campus-wide mental health awareness campaign that addresses today's challenges and the resources available at Virginia Tech for those in need. This campaign will provide data and information to educate the community, messaging to help build up hope, and awareness of appropriate resources for prevention, intervention, and treatment options. This campaign will reflect a unified approach including the work of student groups and departments to maximize our resources. Having a continuous campaign should help to educate our community on systems and procedures, help identify students in need, and clarify the capacity and role of the CCC.

Another way to optimize systems and procedures at VT is to carefully examine how various academic policies may exacerbate the stress and anxiety that many of our students experience. Students who are at-risk academically may be a strong target audience for outreach by designated academic affairs and student affairs members. Five-to-ten percent of the undergraduate student body go on academic probation or suspension during their years at Virginia Tech. Students who stop attending class and who receive a semester of failing grades are clearly in need of intervention. Standard policies for intervening with these students should be in place across majors and colleges. For example, Policy 91 is identified as an academic stressor for many students and was discussed by our Task Force at various meetings. Although Policy 91 is designed to promote continual progress to degree, the customization of Policy 91 by individual departments has led to situations in which students are asked to leave degree programs because of poor grades and not all students are given adequate guidance as to their next options. This can quickly escalate anxiety and stress for students. To avoid Policy 91 violations, students often seek academic relief, with mixed results. On the one hand, academic relief can provide an opportunity for students with physical and/or emotional barriers to remove failing grades thus

ensuring their continued enrollment. On the other hand, the continual use of academic relief by some students may create a downward spiral that is difficult to overcome by not addressing the academic issues per se, and also not dealing effectively with the mental health sequelae leading up to their decision to seek academic relief. It would benefit the institution to have a uniform policy regarding the purpose and use of academic relief, and a careful review of policy and procedures related to academic relief is needed.

Question 4: Is Virginia Tech adequately able to support the mental health needs of the student body and, if not, what additional strategies should be considered:

In some important ways, Virginia Tech is able to support the mental health needs of the current student body. Based on national comparator data from the Association of University and College Counseling Center Directors (AUCCCD), Cook Counseling Center (CCC) is on par or somewhat better than the national average for staffing levels (see Question 3). The counselor/psychologist ratio of staff/students is approximately 1/1000 which is within standards recommended by the International Association of Counseling Services, an accreditation body for college and university counseling centers. CCC offers individual counseling (average 4-5 sessions, meeting every 2-3 weeks), group counseling (11 different group topics, weekly meetings, continuing treatment allowed, CBT or psycho-educationally focused), a variety of workshops, psychiatric treatment (following referral by counselor), a referral database of off-campus services, emergency services (directly accessible, or by referral from faculty or resident advisors) that link to community resources, outreach services (e.g., peer assistance for learning program, suicide prevention training), and an extensive website with a range of self-care resources, and links to academic supports. However, the question remains whether CCC services are adequate to address mental health (inclusive of substance use disorder) needs of the student population, and if there is a gap between those services (in both amount and type) as currently offered and what is needed?

During 2017-18, CCC saw 4,349 clients in over 25,000 sessions with an average number of 6 visits (the mode is 1 visit). From the HMS report, roughly 18% of VT students have had mental health counseling in the past year; a similar percent have had psychotropic medication in the past year; combined 26% of students have had some mental health intervention in the past year. Given enrollment of 34,760, this means CCC saw 13% of the student body. Despite adding a number of staff members, the wait for an initial intake appointment can be up to three weeks during fall semesters. As mentioned earlier, the primary student complaint centers around average wait times. In the responses to the Healthy Minds Study, 34% of students in the general student body expressed dissatisfaction with long wait times, negatively affecting students' perception of CCC. Similarly, CCC staff members are frustrated by having to balance continuing numbers of intake appointments with on-going treatment. In the CCMH reports (2016, 2017), it is clear that maximum treatment effects for the majority of students seen in counseling centers are found for students who are seen 7-8 times on average and that students who are in great distress may need more treatment sessions. If left in its current state, the wait time for services at CCC will undoubtedly increase, raising the probability of serious adverse events, increasing impaired academic performance, and decreasing retention/successful graduation rates of our students.

The need is clear for Virginia Tech to not simply do more with respect to increasing resources to CCC but to also increase its efficient, effective, and proactive approach to meeting the mental health needs of our students. The national and local trajectory of collegiate mental health treatment needs and utilization are now evident: they are growing, and will require sophisticated and coordinated systems to address education, screening, and a continuum of service level intensities beyond the solid foundation that currently exists at CCC. Unless we act upon this knowledge, the wait time for services at CCC will undoubtedly increase, raising the probability

of serious adverse events, increasing impaired academic performance, and decreasing retention/successful graduation rates of our students.

The Task Force engaged many constituencies in discussions of how to improve our support of mental health needs at Virginia Tech. Several general areas of intervention came to the forefront of these discussions: (1) integrating services at CCC for the more complex/high need/high risk students with VTCSOM, including better transitioning of ongoing care for patients requiring the expertise of staff psychiatrists. This may be accomplished by developing a standing contract/arrangement for coordinated care for students in need of psychiatric hospitalization. Contracting for offsite services in a manner that closely coordinates care with CCC would enhance quality and decrease risk of adverse events. It will be beneficial for Virginia Tech to make use of the new VTCSOM and affiliation with Carilion Clinic with a strong psychiatry service including residents who are already providing contemporary psychiatric services to students at other colleges and universities in the NRV and RV; (2) developing more on-demand access for acute or emergent mental health needs via tele-therapy or telepsychiatry collaborations and mobile app opportunities; (3) expanding capacity for addressing specific areas of support that are currently underserved (e.g., substance use disorders; autism spectrum disorders; attention deficit disorders); (4) examining current individual and group therapy engagements for students with short-term needs to develop appropriate standards using evidence based care; and (6) exploring ways to expand self-serve and peer support models for low-risk students

Question 5: What is the role for prevention and education in addition to direct service provision?

Key components of any successful mental health program are prevention and education. It is understood that a significant number of entering undergraduate and graduate students arrive on campus with a mental health condition, and likely will be utilizing various adaptive coping strategies, counseling services and/or medication. These students represent a baseline of clients for which the university must be prepared to provide access to mental health support services. Additionally, this landscape makes clear that we need an integrated informational and educational approach to the students themselves and to the various faculty and staff with whom they will interact on and off campus. It is clear that in the course of encountering the predictable stresses of college life including academic and social challenges, certain students' conditions will be exacerbated while new challenges will emerge for other students who did not have a diagnosed mental health condition prior to their matriculation. Undergraduates further in their studies and graduate students will experience similar stressors, often with different root triggers but similar outcomes.

Thus, an additional responsibility and challenge for the institution are to identify and implement measures to prevent escalation of symptoms and co-morbidities for students with pre-existing conditions and to prevent onset of conditions in students who were previously free of diagnosed disorders. Part of this process is the identification of students in need of support services at the outset of (and preferably before) each academic year. Another part of this process, however, is the institutionalization of good practices that help to prevent students from needing formal CCC services by encouraging early identification and intervention that promote mental health.

The university's response to these needs can take a variety of forms – many of which have already been successfully put in place at Virginia Tech. These include widely communicated contact and process information about available services (e.g., CCC; Hokie Wellness) through diverse media. These outreach activities are effective and should continue with ongoing (and additional) support while also exploring methods for education through communication specifically targeted at reaching students in the many disparate organizations and communities in which they live, study and socialize (including those in off-campus settings). It is important to scale-up outreach initiatives for faculty and staff so that they may more effectively and confidently identify students in need of attention. This should go beyond simply recognizing students who would benefit from assistance; it is also important to educate faculty and staff about necessary resources/tools to best serve students in need. Faculty and staff need education about appropriate procedures and policies for connecting the student to the necessary professional mental health support services. The university has an opportunity to educate faculty and staff (as well as fellow students) more systematically on the ability to recognize, how to act and how to best interact with a student when confronted with what appears to be a mental health issue, particularly when it may pose a risk to the student and/or others.

There are several strategies that may be considered – one is to educate faculty/staff sufficiently to the equivalent of administering CPR (e.g., QPR) and calling 911 for a physical medical emergency; while another approach requires more in depth and nuanced understanding of mental health disorders with the ability to recognize symptoms including early stages and to channel the student toward necessary interventions.

Prevention is more challenging than education. There are a variety of known potential environmental contributors to mental health disorders among students including separation from familiar environments encompassing family and friends, new academic challenges, finding oneself in a large setting, opportunities for individual lifestyle decision-making that include access to alcohol, substances and sexual freedom. It is not feasible to centrally manage these systematically for most students on a routine basis. However, it is possible to have in place multiple "eyes" to serve as an early warning system of potential trouble. Those resources, such as resident advisors and activities/athletics teammates, are useful but not sufficient. Thus, it is imperative that the university continue to create more and smaller communities for all students that can serve as first lines of recognition, including in classrooms and in off campus living facilities. In this sense, prevention is intimately linked to education.

As mentioned by our students both on the Task Force as well as those we spoke with, students are often influenced by peers or people close to them. For students to reach out to peers for help, there is a required connection needed. And when someone is asked for help, that person needs to know how to handle the situation. Many of our students have no formal training. Developing more formalized training opportunities for our students would help with peer to peer intervention. Being aware of resources is important but students also need to feel like resources are applicable to the situation they are in.

A significant number of students and student organizations have expressed interest in addressing mental health concerns outside of direct services. Currently, there are groups solely focused on mental health, such as Active Minds and Actively Caring for People, and organizations with interest in supporting mental health efforts, even though it may be outside of the group's core mission. Examples of these organizations include the Student Government Association, which has created a mental health committee, and several religious organizations that offer emotional support to members. Despite these organizations offering resources or activities supporting positive mental health, students not directly involved in these organizations may not know about or benefit from the educational activities and work that these groups provide.

While there is a large amount of support for improving mental health education and prevention on campus, there is no centralized forum for bringing together separate organizations and staff working on such tasks. Efforts are often disjointed and awareness of such efforts across campus is lacking. Moreover, students with ideas on improving mental health services often do not know who to contact within the university to discuss implementation. By pooling resources and bringing together students and faculty/staff interested in improving mental health education and prevention, there is opportunity for improved reach, better programming, and positive learning experiences for all. Additionally, the involvement of students in mental health education and prevention services offered by the university may lead to an improved student perception of the university's mental health services offered outside of counseling.