

CURRICULUM VITAE

Brian A. Primack, MD, PhD, MS, EdM

Dean, College of Education and Health Professions
Henry G. Hotz Endowed Chair
Professor of Public Health and Medicine, with tenure

University of Arkansas
Fayetteville, AR

APPOINTMENTS AND POSITIONS

Summary of Major Accomplishments in Primary Leadership Positions

Dean, College of Education and Health Professions, University of Arkansas

- Leads highly diverse unit consisting of over 4000 undergraduate students, 1300 graduate students, 180 faculty members, and 300 staff members
- College includes 22 research and service units (e.g., Departments, Centers, and Institutes) and offers 48 degrees and 12 certificates
- Major areas of research, education, and service include K-12 instruction; higher education and educational leadership; educational technology; special education and English for speakers of other languages; education reform and policy; community health promotion; recreation, sports management, and athletic training; exercise science and kinesiology; public health; occupational therapy; the Eleanor Mann School of Nursing; adult and lifelong learning; statistics and research methodology; communication disorders; counselor education; and human resources & workforce development
- In line with the mission of a land-grant institution, significantly increased community engagement and outreach
- Developed and implemented 10-year strategic plan based on input from multiple constituencies, including administration, faculty, staff, students, alumni, and community members
- Oversaw major structural reorganization, including the development of four new departments
- Oversaw selection of four signature areas that cut across all elements of the college and involve education, research, and community outreach: (1) social and emotional learning, (2) improving the lives of people with disabilities and their caregivers, (3) reimagining school health, and (4) improving rural education
- Developed unique fellowship program aimed at increasing mutually beneficial interaction between the University and the lowest income areas of Arkansas
- Improved research infrastructure aiming to support and empower students and faculty engaged in research; specific improvements have been related to availability of pilot grant funds, new staff members focusing on research, development of communication pathways to increase transdisciplinary research, and development of a formal research mentoring plan
- Substantially increased educational and research collaborations between the College of Education and Health Professions and other key University units, including the Fulbright College of Arts and Sciences, the Walton College of Business, and the College of Engineering

Dean, Honors College, University of Pittsburgh

- Took responsibility for the academic, social, and emotional well-being and development of about 2000 high-achieving college students
- Interfaced with about 100 faculty members in various fields from across the entire University of Pittsburgh—including Arts & Sciences, Public Health, Engineering, Medicine, Law, Business, Nursing, and Computing and Information—who either served as Honors College faculty fellows and/or taught dedicated honors courses
- Forged new relationships within these units to improve communication, new courses, and other collaborative activities
- Substantially increased the quality and variety of Honors College courses available, focusing on development of a balanced portfolio of offerings in the arts and humanities, social sciences, and natural sciences
- Developed 5 new weekly programs to engage students, including sessions focused on (1) interaction with alumni, (2) community outreach, and (3) facilitation of applications to major awards such as the Rhodes, Marshall, Truman, Churchill, and Fulbright Scholarships
- Reformed what had been a fragmented advising system into a more nimble, holistic structure that leveraged longitudinal mentorship by PhD- and MFA-level scholars and has resulted in a substantial increase in successful applications
- Managed a multi-million dollar annual budget such that each year resulted in a surplus, helping grow our endowment
- Worked closely with Institutional Advancement and alumni to nurture and secure multiple new donations and imminent prospects totaling over \$6 million
- Served on multiple high-level committees, including the Council of Deans, the Provost's Advisory Council on Undergraduate Programs, the Enrollment Management Committee, and the Year of the Healthy University Steering Committee, tasked with enhancing overall student wellness
- Revamped the recruitment system for the Chancellor's Scholars—those individuals who received the highest financial packages available at the University—resulting in an increase from 21% to 53% matriculation among those offered the scholarship
- Worked closely with the Office of Admissions and Financial Aid to improve the admissions process, which had previously relied solely on standardized testing cutoffs, to develop an improved, reliable, and multimodal system considering not only academic achievement but also intellectual curiosity and impactful work for the public good
- Improved offerings around Research Fellowships and Internships to (1) increase the diversity of offerings, (2) forge more substantial relationships with community organizations in order to get students meaningful, practical experiences, (3) increase infrastructure available to students wishing to publish their findings, and (4) diversify the scholarly fields represented
- Improved housing processes and procedures to include (1) more valuable extracurricular

offerings, and (2) an additional staff member to improve support and safety

- Handled multiple challenging situations including campus crises, terminations, issues around promotion and tenure, staff and faculty friction, conflicts among Board of Visitors and Board of Trustees members, and contentious situations across the University
- Hired the first African-American, Latina, and Transgender individuals in the history of the Honors College
- Altered the makeup of Honors College Faculty Fellows to increase the proportion of women (54% from 36%) and non-White individuals (24% from 6%) so as to better reflect the University and community population
- Developed a new Faculty Fellows program aimed at increasing faculty engagement, development of interdisciplinary courses, and facilitation of other collaborations

Assistant Vice Chancellor for Research on Health and Society & Director of the Center for Research on Media, Technology, and Health, University of Pittsburgh Schools of the Health Sciences (Public Health, Nursing, Medicine, Dentistry, Rehabilitation, and Pharmacy)

- Attended monthly Executive Committee meetings led by the Senior Vice Chancellor for Health Sciences alongside the Deans of each of the Health Sciences Schools and other Assistant Vice Chancellors
- In the context of those meetings, participated in discussions around allocation of hundreds of millions of dollars in research and clinical funds
- Forged interdisciplinary programs across Health Sciences schools, such as health literacy programming involving the Schools of Medicine, Nursing, and Pharmacy
- Worked closely with the Assistant Vice Chancellor for Diversity and Inclusion to improve recruitment and retention of individuals from backgrounds underrepresented in the Health Sciences
- Developed the Program for Research on Media, Technology, and Health and transformed it into the Center for Research on Media, Technology, and Health (MTH), which is now situated across all schools of the Health Sciences and is considered by many to be the leading unit of its kind internationally
- Grew MTH to involve over 30 affiliated faculty and staff members via interdisciplinary projects across fields such as Public Health, Nursing, Medicine, Linguistics, Biomedical Informatics, Pediatrics, Psychiatry, and Social Work
- Received over 30 research grants totalling over \$10 million in research funding from federal, Foundation, and state sources
- Brought substantial positive press and promotion to the University; for example, in 2017 alone, there were 1044 news articles about MTH research reaching about 56,800,000 individuals, and in 2016 there were 1596 news articles that reached about 69,100,000 individuals (estimates provided by University Media Services)
- Involved dozens of undergraduate, graduate, and medical students in research, earning

many of these students authorship on peer-reviewed publications, awards, and other accolades

- Formed strong relationships with area schools and other community entities around collaborative research projects, including Carrick High School, Langley High School, Schenley High School, McKeesport High School, Westinghouse High School, the Boys and Girls Club of Pittsburgh, the Salvation Army, and the Turtle Creek Mental Health Association
- In 2017, authored the highest impact article published in the entire University of Pittsburgh system; it was deemed by the *American Journal of Preventive Medicine* to be their #1 manuscript of the year
- In the past decade, MTH research has been cited over 5000 times in the health, educational, and social science literature

Academic Appointments

- 2019–present Dean, College of Education and Health Professions, University of Arkansas, Fayetteville, AR
- 2019–present Henry G. Hotz Endowed Chair, University of Arkansas, Fayetteville, AR
- 2019–present Professor of Public Health (with tenure), College of Education and Health Professions, University of Arkansas, Fayetteville, AR
- 2019–present Professor of Medicine (secondary appointment), University of Arkansas for Medical Sciences, Little Rock, AR
- 2019–present Director Emeritus, Center for Research on Media, Technology, and Health, Schools of the Health Sciences (Medicine, Public Health, Nursing, Pharmacy, Dentistry, and Rehabilitation), University of Pittsburgh, Pittsburgh, PA
- 2017–2019 Dean, Honors College, University of Pittsburgh, Pittsburgh, PA
- 2017–2019 Bernice L. and Morton S. Lerner Endowed Chair, University of Pittsburgh, Pittsburgh, PA
- 2016–2019 Professor of Medicine (with tenure), Division of General Internal Medicine, Department of Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 2016–2019 Professor of Pediatrics (secondary appointment), Division of Adolescent Medicine, Department of Pediatrics, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 2016–2019 Professor of Clinical and Translational Science (tertiary appointment), School of Medicine, University of Pittsburgh, Pittsburgh, PA

- 2014–2019 Director, Center for Research on Media, Technology, and Health, Schools of the Health Sciences (Medicine, Public Health, Nursing, Pharmacy, Dentistry, and Rehabilitation), University of Pittsburgh, Pittsburgh, PA
- 2009–2019 Affiliated Faculty Member, Section of Health Disparities and International Health, Division of General Internal Medicine, Department of Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 2007–2019 Affiliated Faculty Member, Institute for Clinical Research Education, University of Pittsburgh, Pittsburgh, PA
- 2016–2017 Leo H. Crip Endowed Chair in Patient Care, Department of Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 2014–2017 Assistant Vice Chancellor for Research on Health and Society, Schools of the Health Sciences (Medicine, Public Health, Nursing, Pharmacy, Dentistry, and Rehabilitation), University of Pittsburgh, Pittsburgh, PA
- 2014–2016 Associate Professor of Clinical and Translational Science (tertiary appointment), Department of Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 2011–2016 Associate Professor of Medicine, Division of General Internal Medicine, Department of Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 2011–2016 Associate Professor of Pediatrics (secondary appointment), Division of Adolescent Medicine, Department of Pediatrics, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 2010–2014 Director, Program for Research on Media and Health, Division of General Internal Medicine, Department of Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 2008–2013 Affiliated Faculty Member, RAND–University of Pittsburgh Health Institute, Pittsburgh, PA
- 2007–2013 Core Faculty Member, Center for Research on Health Care, University of Pittsburgh, Pittsburgh, PA
- 2007–2012 Affiliated Faculty Member, Center for Health Equity Research and Promotion, VA Pittsburgh Healthcare System, Pittsburgh, PA
- 2007–2011 Assistant Professor of Pediatrics (secondary appointment), Division of Adolescent Medicine, Department of Pediatrics, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 2005–2011 Assistant Professor of Medicine, Division of General Internal Medicine, Department of Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA

- 2002–2005 Assistant Professor of Family Medicine, Department of Family Medicine, School of Medicine, University of Pittsburgh, Pittsburgh, PA
- 1993–1995 Instructor of Mathematics, Department of Mathematics, University of Maryland, College Park, MD
- 1992–1993 Teacher, American International School of Niamey, Niger, West Africa

Nonacademic Appointments

- 2013–2016 Physician, General Internal Medicine, Montefiore Hospital, Pittsburgh, PA
- 2007–2013 Physician, Student Health Service, Carnegie Mellon University, Pittsburgh, PA
- 2004–2007 Physician, Student Health Service, University of Pittsburgh, Pittsburgh, PA
- 2002–2004 Physician, Matilda Theiss Health Center (federally-qualified health center), Pittsburgh, PA
- 2000 Dean of Students, Exploration Summer Program, Wellesley, MA
- 1995–1996 Resident Director, Emory University, Atlanta, GA
- 1993–1995 Head of House, Exploration Summer Program, Wellesley, MA
- 1990–1992 Instructor and Counselor, Exploration Summer Program, Wellesley, MA
- 1990–1991 Freshman Counselor, Yale University, New Haven, CT
- 1988 Mathematician, National Security Agency, Fort Meade, MD

CERTIFICATION AND LICENSURE

- 2003–2023 Board Certification, American Board of Family Medicine (successfully renewed on first attempt in 2013)
- 2000–present Medical License, Commonwealth of PA (MD-074459L)

MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

- 2017–present National Collegiate Honors Council
- 2007–present Society of Behavioral Medicine
- 2005–present Society for Adolescent Health and Medicine
- 2003–present National Association for Media Literacy Education
- 2003–present American Public Health Association

2002–2005	Society for Public Health Education
2002–2004	Society of Teachers of Family Medicine
1999–2005	American Academy of Family Physicians

HONORS AND AWARDS

- 2019 Delta Omega Honor Society Thesis/Dissertation Award (to my mentee). Hoffman BL, Felter EM, Chu K, Shensa A, Hermann C, Wolynn T, Williams D, **Primack BA**. It's not all about autism: The emerging landscape of anti-vaccination sentiment on Facebook. *Vaccine*. 2019;37(16):2216-2223.
- 2019 Elected to the American Society for Clinical Investigation (ASCI), representing fewer than 1% of physician-scientists in the United States. Only one of 7 individuals ever elected to ASCI in the state of Arkansas.
- 2018 *American Journal of Preventive Medicine* award for single most impactful paper of 2017, for **Primack BA**, Shensa A, Sidani JE, Whaite EO, Lin L, Rosen D, Colditz JB, Radovic A, Miller E. Social media use and perceived social isolation among young adults in the U.S. *American Journal of Preventive Medicine*. 2017;53(1):1-8. PMID: 28279545.
- 2018 Altmetric Top 100 award. Original research manuscript published in *American Journal of Preventive Medicine* was #73 in terms of publicity for all published research in 2017, which included over 2.2 million articles.
- 2017 Plenary Student Research Award (to my mentee). Shenouda M, **Primack BA***, Conti T, Wilson A. Systematic Qualitative Assessment of Health Needs and Barriers in a Low-Income Community. 26th International Conference on Healthcare & Life-Science Research (ICHLSR). Dubai, United Arab Emirates. December 23, 2017.
- 2017 Featured in NIH Director's Blog for groundbreaking research on the intersection of media, technology, and health.
- 2016 Executive Leadership Fellow, Society of Behavioral Medicine.
- 2016 Outstanding Research Award. Awarded for **Primack BA**, Shensa A, Sidani JE, Hoffman BL, Soneji S, James AE, Sargent JD, Fine MJ. Initiation of Cigarette Smoking after E-cigarette Use: A Nationally-Representative Study. Oral Presentation. 37th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine. Washington, DC. March 30, 2016.

- 2016 Outstanding Student Research Award (to my mentee). Awarded for Corbin B, Colditz JB, Raithel A, Switzer GE, Sidani JE, Klatt P, **Primack BA**. The SMARxT Media Literacy Program: A Pilot Study to Improve Evidence-Based Prescribing among Medical Residents. Oral Presentation. 37th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine. Washington, DC. April 1, 2016.
- 2016 Distinguished Alumnus of the Year. Institute for Clinical Research Education, University of Pittsburgh.
- 2014 Outstanding Medical Student Research Mentor, University of Pittsburgh School of Medicine.
- 2013 Outstanding Medical Student Research Mentor, University of Pittsburgh School of Medicine (received two years in a row).
- 2012 Best Student Research and Travel Award (to my mentee). Awarded for Carroll MV, Shensa A, **Primack BA**. A comparison of internet videos related to cigarette and hookah tobacco smoking. Society for Adolescent Health and Medicine Annual Meeting. New Orleans, LA. March 15, 2012.
- 2011 Best Student Research Award (to my mentee). Awarded for Nuzzo E, Rice KR, Sargent JD, **Primack BA**. Alcohol brand appearances in U.S. popular music. Society for Behavioral Medicine Annual Meeting 2011. Washington, DC. April 30, 2011.
- 2010 Best Poster Award, Association for Clinical Research Training and Society for Clinical and Translational Science. Awarded for **Primack BA**, Dilmore TC, Switzer GE, Bryce CL, Seltzer DL, Li J, Landsittel D, Kapoor WN, Rubio DM. Burnout among early career clinical investigators. Joint Annual Meeting of the Association for Clinical Research Training and Society for Clinical and Translational Science, Washington, DC. April 2010.
- 2010 Top Early Career Researcher Award, Society of Behavioral Medicine (given to one individual annually).
- 2010 Research Scholar Award, University of Pittsburgh Cancer Institute, Pittsburgh, PA.
- 2009 Physician Faculty Scholar Award, Robert Wood Johnson Foundation.
- 2006 New Investigator Award for "Excellence in Research Unique to the Development and Health Care Needs of Adolescents," Society for Adolescent Health and Medicine (given to one individual annually).
- 2006 Bronze Telly Award (National Video Production Award), Health and Wellness Category.
- 2005 Innovation in Education Award, University of Pittsburgh.
- 2003 Program Award in Cancer Control, American Cancer Society.
- 2002 Outstanding Teaching Resident Award, UPMC St. Margaret Hospital, Pittsburgh, PA.
- 1999 Graduated *summa cum laude* and was first in the Class of 1999 with a 4.0/4.0 GPA, Emory University School of Medicine.

- 1998 Elected to Alpha Omega Alpha (medical honor society representing top 3% of class).
- 1997 Stanley Foundation Fellowship (grant for summer research in psychiatry).
- 1997 Award for Service to the Community, Anne Elizabeth and Harper Gaston Service Award, Atlanta, GA (\$10,000 cash award).
- 1995 Robert W. Woodruff Fellowship in Medicine (full four-year scholarship and stipend to medical school, given to 4 individuals from a pool of over 5000 applications received).
- 1992 Niger National Champion, Individual Category, International French Mathematics Competition of 1992, *Fédération Française des Jeux Mathématiques*, Paris, France.
- 1991 Commencement Day Speaker, Class of 1991, Yale University.
- 1991 Graduated *magna cum laude*, Yale University.
- 1991 Graduated with distinction in the English major, Yale University.
- 1991 Fellow's Prize for "Academic Achievement Above and Beyond the Call of Duty," Saybrook College of Yale University.
- 1987 Valedictorian (first in a class of over 400), Montgomery Blair High School, Silver Spring, MD.

PUBLICATIONS

Peer-Reviewed Manuscript Authorship Breakdown

- First author: 48/127 (38%)
- Mentoring/supervising author: 57/127 (45%)
- Other author: 22/127 (17%)

Refereed Articles of Original Research (*Indicates mentoring or supervisory author)

127. Visweswaran S, Colditz JB, O'Halloran P, Han N, Taneja SB, Welling J, Chu K, Sidani JE, **Primack BA**. Machine learning classifiers for Twitter surveillance of vaping. *Journal of Medical Internet Research*. In press, 2020.
126. Colditz JB, Tulikangas M, Sidani JE, Dodson ZM, Woods MS, James AE, **Primack BA***. Vape shop proliferation and non-compliance in Pennsylvania: a pre- and post-tax analysis. *Tobacco Use Insights*. In press, 2020.
125. Rzewnicki D, Shensa A, Levenson J, **Primack BA**, Sidani JE. Associations between positive and negative social media experiences and sleep disturbance among young adults. *Sleep Health*. In press, 2020.
124. Hoffman BL, Cafferty LA, Jain P, Shensa A, Rosenthal EL, **Primack BA**, Sidani JE. Patient-centered Communication Behaviors on Primetime Television. *Journal of Health Communication*. In press, 2020.
123. Hoffman BL, Cafferty LA, Shensa, A, Jain P, Rosenthal EL, **Primack, BA***, Sidani JE. Physician-patient communication behaviors in the most popular prime time television shows. *Journal of Health Communication*. In press, 2020.

122. Visweswaran S, Colditz JB, O'Halloran P, Taneja SB, Han N-R, Welling J, Chu K-H, Sidani JE, **Primack BA***. Machine learning for Twitter surveillance of vaping. *Journal of Medical Internet Research*. In press, 2020.
121. Chu KH, Colditz JB, Sidani JE, Zimmer M, **Primack BA***. Reevaluating standards of human subjects protection for sensitive health data in social media networks. *Social Networks*. In press, 2020.
120. Escobar-Viera CG, Shensa A, Hamm M, Sidani JE, Melcher EM, Rzewnicki DI, Egan JE, **Primack BA***. 'I don't feel like the odd one': Utilizing content analysis to compare social media experiences of sexual minority and non-minority U.S. young adults. *American Journal of Health Promotion*. In press, 2020.
119. Shensa A, Sidani JE, Escobar-Viera CG, Switzer GE, **Primack BA**, Choukas-Bradley S. Emotional support from social media and face-to-face relationships: Associations with depression risk among young adults. *Journal of Affective Disorders*. 2020;1;260:38-44. PMID: 31493637.
118. Shiffman S, Scholl SM, Mao J, Ferguson SG, Hedeker D, **Primack BA**, Tindle HA. Using nicotine gum to assist non-daily smokers in quitting: a randomized clinical trial. *Nicotine & Tobacco Research*. In press, 2019. PMID: 31125988
117. Chu K, Colditz JB, Malik M, Yates T, **Primack BA***. Identifying key target audiences for public health campaigns: leveraging machine learning in the case of hookah tobacco smoking. *JMIR*. 2019; 21(7). PMID: 31287063. PMCID: PMC6643764.
116. Sidani JE, Colditz JB, Barrert EL, Chu K, James AE, **Primack BA***. JUUL on Twitter: analyzing tweets about use of a new nicotine delivery system. *Journal of School Health*. 2020;90(2):135-142. PMID: 31828791.
115. Hoffman BL, Felter EM, Chu K, Shensa A, Hermann C, Wolynn T, Williams D, **Primack BA***. It's not all about autism: the emerging landscape of anti-vaccination sentiment on Facebook. *Vaccine*. 2019;37(16):2216-2223. PMID: 30905530.
114. Chu K, Escobar-Viera CG, Matheny S, Davis EM, **Primack BA***. Tobacco cessation mobile app intervention (Just Kwit! study): protocol for a pilot randomized controlled pragmatic trial. *Trials*. 2019;20:147. PMID: 30808389. PMCID: PMC6390617.
113. Chu K, Colditz JB, **Primack BA**, Shensa A, Allem JP, Miller E, Unger JB, Cruz TB. JUUL: spreading online and offline. *Journal of Adolescent Health*. 2018;63(5):582-586. PMID: 30348280. PMCID: PMC6201306.
112. **Primack BA**, Karim SA, Shensa A, Bowman B, Knight J, Sidani JE. Positive and negative social media experiences and social isolation. *American Journal of Health Promotion*. 2019;33(6):859-868. PMID: 30661371.
111. Corbin BD, Colditz JB, Switzer GE, Sidani JE, Klatt PM, Schaffer T, **Primack BA***. The SMARxT media literacy program: improving evidence-based prescribing among medical students. *Journal of Media Literacy Education*. 2018;10(3):1-18.
110. Escobar-Viera CD, Whitfield DL, Wessel CB, Shensa A, Sidani JE, Brown Jr AL, Chandler CJ, Hoffman BL, Marshal MP, **Primack BA***. For better or for worse? a systematic review of the evidence on social media use and depression among lesbian, gay, and bisexual minorities. *JMIR Mental Health*. 2018;5(3):e10496. PMID: 30037786. PMCID: PMC6079300.

109. Taleb ZB, Laestadius LI, Asfar T, **Primack BA**, Maziak W. #Hookahlife: The rise of waterpipe promotion on Instagram. *Health Education & Behavior*. 2019;46(1):106-113. PMID: 29952224.
108. Escobar-Viera CG, Shensa A, Bowman ND, Sidani JE, Knight J, James AE, **Primack BA***. Passive and active social media use and depressive symptoms among U.S. young adults. *Cyberpsychology, Behavior, and Social Networking*. 2018;21(7):437-443. PMID: 29995530.
107. **Primack BA**, Bisbey M, Shensa A, Bowman B, Karim SA, Knight J, Sidani JE. The association between valence of social media experiences and depression. *Depression and Anxiety*. 2018;35(8):784-794. PMID: 29877002.
106. Sidani JE, Shensa A, Yabes J, Fertman C, **Primack BA***. Waterpipe tobacco use in college and non-college young adults in the USA. *Family Practice*. 2019;36(2):103-109. PMID: 29741621. PMCID: PMC6425466.
105. Colditz JB, Chu K, Emery S, Welling J, Larkin CR, James AE, **Primack BA***. Toward real-time inveillance of Twitter health messages: Practical considerations for data collection, management, and human coding. *American Journal of Public Health*. 2018;108(8): 1009-1014. PMID: 2992764. PMCID: PMC6050832.
104. Hoffman BL, Tulikangas MC, James AE, Shensa A, Colditz JB, Sidani JE, **Primack BA***. Pennsylvania policymakers' knowledge, attitudes, and likelihood for action regarding waterpipe tobacco smoking & electronic nicotine delivery systems. *Tobacco Prevention & Cessation*. 2018;4.
103. **Primack BA**, Shensa A, Sidani JE, Tulikangas MC, Roberts MS, Colditz JB, James AE, Fine MJ. Comparison of toxicant load from waterpipe and cigarette tobacco smoking among young adults in the United States. *Tobacco Control*. 2018:1-7. PMID: 29773707.
102. Shensa A, Sidani JE, Escobar-Viera CG, Chu K, Bowman ND, Knight JM, **Primack BA***. Real-life closeness of social media contacts and depressive symptoms among university students. *Journal of American College Health*. 2018:1-8. PMID: 29452042.
101. Soneji S, Sung H-Y, **Primack BA**, Pierce JJ, Sargent JD. Quantifying population-level health benefits and harms of e-cigarette use. *PLOS ONE*. 2018;13(3):e0193328 PMID: 29538396. PMCID: PMC5851558.
100. Shensa A, Sidani JE, Dew MA, Escobar-Viera CG, **Primack BA***. Social media use and depression and anxiety symptoms: a cluster analysis. *American Journal of Health Behavior*. 2018;42(2):116-128. PMID: 29458520. PMCID: PMC5904786.
99. Colditz JB, Chu K, Switzer GE, Pelechris K, **Primack BA***. Online data to contextualize waterpipe tobacco smoking establishments surrounding large US universities. *Health Informatics Journal*. 2018:1-11. PMID: 29402174.
98. Hoffman BL, Rosenthal EL, Colditz JB, McGarry R, **Primack BA***. Use of Twitter to assess viewer reactions to the medical drama Code Black. *Journal of Health Communication*. 2018;23(3):244-253. PMID: 29452057. PMCID: PMC5904786.
97. **Primack BA**, Shensa A, Sidani JE, Soneji S, Hoffman BL, Sargent JD, James AE, Hoffman R, Fine MJ. Initiation of traditional cigarette smoking after electronic cigarette use among tobacco-naïve U.S. young adults. *American Journal of Medicine*. 2018;131(4):443.e1-443.e9. PMID: 29242110.

96. Whaite E, Shensa A, Sidani JE, Colditz JB, Rosen D, **Primack BA***. Social media use, personality characteristics, and social isolation among young adults in the United States. *Personality and Individual Differences*. 2018;124:45-50.
95. Chakraborty P, Colditz JB, Silvestre AJ, Friedman MR, Bogen KW, **Primack BA***. Using Twitter to characterize public sentiment toward HPV vaccination. *Cogent Medicine*. 2017;4(1).
94. Rosen DA, McCall J, **Primack BA***. A telehealth protocol prevents readmission among a high-risk cohort of patients with congestive heart failure. *The American Journal of Medicine*. 2017;130(11):1326-1330. PMID: 28756266.
93. Levenson J, Shensa A, Sidani JE, Colditz JB, **Primack BA***. Social media use before bed and sleep disturbance among young adults in the United States: a nationally-representative study. *SLEEP*. 2017;40(9):1-7. PMID: 28934521.
92. Shensa A, Escobar-Viera, CG, Sidani JE, Bowman ND, Marshal MP, **Primack BA***. Problematic social media use and depressive symptoms among U.S. young adults: a nationally-representative study. *Social Science & Medicine*. 2017;182:150-157. PMID: 28446367. PMCID: PMC5476225.
91. Soneji S, Barrington-Trimis JL, Leventhal AM, Unger JB, Gibson LA, Wills TA, Yang J, Andrews JA, Hornick RC, **Primack BA**, Dang R, Sargent JD. Association between initial use of e-cigarettes and subsequent cigarette smoking among adolescents and young adults: a systematic review and meta-analysis. *JAMA Pediatrics*. 2017;171(8):788-797. PMID: 28654986. PMCID: PMC5656237.
90. **Primack BA**, Colditz JB, Rosen E, Giles LM, Jackson K, Kraemer KL. Portrayal of alcohol brands favored by underage youth on YouTube. *Journal of Studies on Alcohol and Drugs*. 2017;78(5):654-664. PMID: 28930052.
89. Colditz JB, Welling J, Smith NA, James AE, **Primack BA***. World Vaping Day: contextualizing vaping culture in online social media. *Journal of Mixed Methods Research*. 2017:1-20.
88. Hoffman BL, Hoffman RM, Wessel C, Shensa A, Woods MS, **Primack BA***. The use of fictional medical television in medical education: a systematic review. *Advances in Health Sciences Education*. 2018;23(1):201-216. PMID: 28083814.
87. Sidani JE, Shensa A, Naidu MR, Yabes J, **Primack BA***. Initiation, progression, and sustained waterpipe use: a nationally-representative longitudinal study of U.S. young adults. *Cancer Epidemiology, Biomarkers, and Prevention*. 2017;26(5):748-755 PMID: 28082346. PMCID: PMC5413431.
86. Hoffman BL, Shensa A, Wessel C, Hoffman RM, **Primack BA***. Exposure to fictional medical television and health: A systematic review. *Health Education Research*. 2017;32(2):107-123. PMID:28334962.
85. **Primack BA**, Shensa A, Escobar-Viera CG, Barrett EL, Sidani JE, Colditz JB, James AE. Use of multiple social media platforms and symptoms of depression and anxiety: a nationally-representative study among U.S. young adults. *Computers in Human Behavior*. 2017;69:1-9.
84. **Primack BA**, Shensa A, Sidani JE, Whaite EO, Lin L, Rosen D, Colditz JB, Radovic A, Miller E. Social media use and perceived social isolation among young adults in the U.S. *American Journal of Preventive Medicine*. 2017;53(1):1-8. PMID: 28279545. PMCID: PMC5722463

83. Jones JR, Colditz JB, Shensa A, Sidani JE, Lin L, Terry MA, **Primack BA***. Associations between internet-based professional social networking and emotional distress. *Cyberpsychology, Behavior, and Social Networking*. 2016;19(10):601-8. PMID: 27732077. PMCID: PMC5067824.
82. Maziak W, Taleb ZB, Jawad M, Afifi R, Nakkash R, Akl E, Ward KD, Salloum RG, Barnett TE, **Primack BA**, Sherman S, Cobb CO, Sutfin EL, Eissenberg T. Consensus statement on assessment of waterpipe smoking in epidemiological studies. *Tobacco Control*. 2016;0:1-6. PMID: 27165995. PMCID: PMC5104675.
81. Sidani JE, Shensa A, Hoffman B, Hanmer J, **Primack BA***. Association between social media use and eating concerns among U.S. young adults. *Journal of the Academy of Nutrition and Dietetics*. 2016;116(9):1465-72. PMID: 27161027. PMCID: PMC5003636.
80. Brook JS, Zhang C, Rubenstone E, **Primack BA**, Brook DW. Trajectories of substance use as predictors of antisocial personality disorder, major depressive episode, and generalized anxiety disorder. *Addictive Behaviors*. 2016;62:114-21. PMID: 27344118. PMCID: PMC4955839.
79. Levenson JC, Shensa A, Sidani JE, Colditz JB, **Primack BA***. Social media use and sleep disturbance among young adults. *Preventive Medicine*. 2016;85:36-41. PMID: 26791323. PMCID: PMC4857587.
78. Lin LY, Sidani JE, Shensa A, Radovic A, Miller E, Colditz JB, Hoffman BL, Giles LM, **Primack BA***. Association between social media use and depression among U.S. young adults. *Depression and Anxiety*. 2016;33(4):323-31. PMID: 26783723. PMCID: PMC4853817.
77. Shensa A, Sidani JE, Lin L, Bowman ND, **Primack BA***. Social media use and perceived emotional support among U.S. young adults. *Journal of Community Health*. 2016;41(3):541-9. PMID: 26613936. PMCID: PMC4842323.
76. Sidani JE, Shensa A, Shiffman S, Switzer GE, **Primack BA***. Behavioral associations with waterpipe tobacco smoking dependence among U.S. young adults. *Addiction*. 2016;111(2):351-9. PMID: 26417942. PMCID: PMC4715762.
75. **Primack BA**, Carroll MV, Weiss PM, Shihadeh AL, Shensa A, Farley ST, Fine MJ, Eissenberg T, Nayak S. Systematic review and meta-analysis of inhaled toxicants from waterpipe and cigarette smoking. *Public Health Reports*. 2016;131(1):76-85. PMID: 26843673. PMCID: PMC4716475.
74. Shensa A, Phelps-Tschang JS, Miller E, **Primack BA***. A randomized crossover study of Web-based media literacy to prevent smoking. *Health Education Research*. 2016;31(1):48-59. PMID: 26675176. PMCID: PMC4883031.
73. Colditz JB, Ton J, James AE, **Primack BA***. Toward effective water pipe tobacco control policy in the United States: synthesis of federal, state, and local policy texts. *American Journal of Health Promotion*. PMID: 26730559. PMCID: PMC4935627.
72. **Primack BA**, Freedman-Doan P, Sidani JE, Rosen D, Shensa A, James AE, Wallace J. Sustained waterpipe tobacco smoking and trends over time. *American Journal of Preventive Medicine*. 2015;49(6):859-67. PMID: 26385163. PMCID: PMC4780332.
71. **Primack BA**, Soneji S, Stoolmiller M, Fine MJ, Sargent JD. Progression to traditional cigarette smoking after electronic cigarette use among U.S. adolescents and young adults. *JAMA Pediatrics*. 2015;169(9):1-7. PMID:26348249. PMCID: PMC4800740.

70. **Primack BA**, Carroll MV, Shensa A, Davis W, Levine MD. Sex differences in hookah-related images posted on Tumblr. *Journal of Health Communication*. 2016;21(3):366-75. PMID: 26890733. PMCID: PMC779493.
69. **Primack BA**, Colditz JB, Pang K, Jackson KM. Portrayal of alcohol intoxication on YouTube. *Alcoholism: Clinical and Experimental Research*. 2015;39(3):496-503. PMID: 25703135. PMCID: PMC4510943.
68. Phelps-Tschang J, Miller E, Rice K, **Primack BA***. Web-based media literacy to prevent tobacco use among high school students. *Journal of Media Literacy Education*. 2015;7(3):29-40.
67. Soneji S, Sargent JD, Tansky SE, **Primack BA***. Associations between initial waterpipe tobacco smoking and snus and subsequent cigarette smoking: results from a longitudinal study of U.S. adolescents and young adults. *JAMA Pediatrics*. 2015;169(2):129-36. PMID: 25485959. PMCID: PMC4388043.
66. Sidani JE, Shensa A, **Primack BA***. Waterpipe steam stones: familiarity with and use among U.S. young adults. *Nicotine & Tobacco Research*. 2015;17(1):114-8. PMID: 25145376. PMCID: PMC4318932.
65. Rubio DM, Robinson GF, Gilliam VA, **Primack BA**, Switzer GE, Seltzer DL, Kapoor WN. Characterization of investigators' approach to translational research: a qualitative study. *Clinical and Translational Science*. 2014;7(6):441-6. PMID: 25066780. PMCID: PMC4268360.
64. Carroll MV, Chang J, Sidani JE, Barnett TE, Soule E, Balbach E, **Primack BA***. Reigniting tobacco ritual: waterpipe tobacco smoking establishment culture in the United States. *Nicotine & Tobacco Research*. 2014;16(12):1549-58. PMID: 24972889. PMCID: PMC4296182.
63. **Primack BA**, McClure A, Li Z, Sargent JD. Receptivity to and recall of alcohol brand appearances in US popular music and alcohol-related behaviors. *Alcoholism: Clinical and Experimental Research*. 2014;38(6):1737-44. PMID: 24716496. PMCID: PMC4047148.
62. **Primack BA**, Khabour OF, Alzoubi KH, Switzer GE, Shensa A, Carroll MV, Azab M, Eissenberg T. The LWDS-10J: reliability and validity of the Lebanon Waterpipe Dependence Scale among university students in Jordan. *Nicotine & Tobacco Research*. 2014;16(7):915-22. PMID: 24571810. PMCID: PMC4133566.
61. Sidani JE, Shensa A, Barnett TE, Cook RL, **Primack BA***. Knowledge, attitudes, and normative beliefs as predictors of hookah tobacco smoking initiation: a longitudinal study of University students. *Nicotine & Tobacco Research*. 2014;16(6):647-54. PMID: 24323574. PMCID: PMC4015087.
60. Robinson GF, Switzer GE, Cohen ED, **Primack BA**, Kapoor WN, Seltzer DL, Bakken LL, Rubio DM. Shortening the Work Preference Inventory for use with physician scientists: WPI 10. *Clinical and Translational Science*. 2014;7(4):324-8. PMID: 24405561. PMCID: PMC4090299.
59. **Primack BA**, Mah J, Shensa A, Rosen D, Yonas MA, Fine MJ. Associations between race, ethnicity, religion, and waterpipe tobacco smoking. *Journal of Ethnicity in Substance Abuse*. 2014;13(1):58-71. PMID: 24564560. PMCID: PMC3998664.
58. **Primack BA**, Colditz JB, Cohen E, Switzer GE, Robinson G, Seltzer DL, Rubio DM, Kapoor WN. Measurement of social capital among clinical research trainees. *Clinical and Translational Science*. 2014;7(1):33-7. PMID: 24118964. PMCID: PMC3944911.

57. Alzoubi KH, Khabour OF, Azab M, Shqair DM, Shihadeh A, **Primack BA**, Eissenberg T. Carbon monoxide exposure and puff topography are associated with the Lebanese Waterpipe Dependence Scale score. *Nicotine & Tobacco Research*. 2013;15(10):1782-6. PMID: 23616231. PMCID: PMC3842104.
56. Robinson GF, Switzer GE, Cohen ED, **Primack BA**, Kapoor WN, Seltzer DL, Bakken LL, Rubio DM. A shortened version of the Clinical Research Appraisal Inventory: CRAI-12. *Academic Medicine*. 2013;88(9):1340-5. PMID: 23886999. PMCID: PMC3758379.
55. Sidani JE, Shensa A, **Primack BA***. Substance use and living arrangement among fraternity and sorority members at U.S. colleges and universities. *Journal of Community Health*. 2012;38(2), 238-245. PMID: 22903805. PMCID: PMC3594445.
54. **Primack BA**, Hendricks KM, Longacre MR, Adachi-Mejia AM, Weiss JE, Titus LJ, Beach ML, Dalton MA. Parental efficacy and child behavior in a community sample of children with and without attention-deficit hyperactivity disorder (ADHD). *Attention Deficit and Hyperactivity Disorders*. 2012;4(4):189-97. PMID: 22886756. PMCID: PMC3562484.
53. Barnett TE, Shensa A, Kim KH, Cook RL, Nuzzo E, **Primack BA***. The predictive utility of attitudes toward hookah tobacco smoking on current use and use among a sample of college students. *American Journal of Health Behavior*. 2013;37(4):433-439. PMID: 23985224. PMCID: PMC3761412.
52. **Primack BA**, Shensa A, Kim KH, Carroll MV, Hoban MT, Leino EV, Eissenberg T, Dachille KH, Fine MJ. Waterpipe smoking among U.S. university students. *Nicotine & Tobacco Research*. 2013;15(1);29-35. PMID: 22641433. PMCID: PMC3524056.
51. Nuzzo E, Shensa A, Kim KH, Fine MJ, Barnett TE, Cook R, **Primack BA***. Associations between hookah tobacco smoking knowledge and hookah smoking behavior among U.S. college students. *Health Education Research*. 2013;28(1);92-100. PMID:22987864. PMCID: PMC3549589.
50. **Primack BA**, Douglas E, Land SR, Miller E, Fine MJ. Comparison of media literacy and usual education to prevent tobacco use: a cluster randomized trial. *Journal of School Health*. 2014;84(2):106-115. PMID: 25099425. PMCID: PMC4126196.
49. **Primack BA**, Land SR, Fan J, Kim KH, Rosen DA. Associations of mental health problems with waterpipe tobacco and cigarette smoking among college students. *Substance Use and Misuse*. 2013;48(3):211-219. PMID: 23302059. PMCID: PMC3582711.
48. **Primack BA**, Hopkins M, Hallett C, Carroll MV, Zeller M, Dachille K, Donohue JM. U.S. health policy related to hookah tobacco smoking. *American Journal of Public Health*. 2012;102(9):e47-51. PMID: 22827447. PMCID: PMC3482044.
47. Khabour OF, Alzoubi KH, Eissenberg T, Mehrotra P, Azab M, Carroll MV, Afifi RA, **Primack BA***. Waterpipe tobacco and cigarette smoking among university students in Jordan. *International Journal of Tuberculosis and Lung Disease*. 2012;16(7):986-92. PMID: 22525279. NIHMSID: 387888.
46. Shadel WG, Martino S, Setodji C, Haviland A, **Primack BA**, Scharf D. Motives for smoking in movies affect future smoking risk in middle school students: an experimental investigation. *Drug and Alcohol Dependence*. 2012;123(1-3);66-71. PMID: 22074766. PMCID: PMC3288217.

45. Carroll MV, Shensa A, **Primack BA***. A comparison of cigarette and hookah-related videos on YouTube. *Tobacco Control*. 2013;22(5):319-323. PMID: 22363069. PMCID: PMC3655091.
44. **Primack BA**, Roberts T, Fine MJ, Dillman Carpentier FR, Rice KR, Barnato AE. ER vs. ED: a comparison of televised and real-life emergency medicine. *Journal of Emergency Medicine*. 2012;43(6):1160-6. PMID: 22766407. PMCID: PMC3391574.
43. **Primack BA**, Carroll MV, McNamara M, Klem ML, King B, Rich MO, Chan CW, Nayak S. Role of video games in improving health-related outcomes: a systematic review. *American Journal of Preventive Medicine*. 2012;42(6):630-8. PMID: 22608382. PMCID: PMC3391574.
42. **Primack BA**, Kim KH, Shensa A, Sidani JE, Barnett TE, Switzer GE. Tobacco, marijuana, and alcohol use in university students: a cluster analysis. *Journal of American College Health*. 2012;60(5):374-86. PMID: 22686360. PMCID: PMC3401532.
41. Salgado MV, Perez-Stable EJ, **Primack BA**, Kaplan CP, Mejia RM, Gregorich SE, Alderete E. Association of media literacy with cigarette smoking among youth in Jujuy, Argentina. *Nicotine & Tobacco Research*. 2012;14(5):516-21. PMID: 22193569. PMCID: PMC3337534.
40. **Primack BA**, Rice KR, Shensa A, Carroll MV, DePenna EJ, Nakkash R, Barnett T. U.S. hookah tobacco smoking establishments advertised on the Internet. *American Journal of Preventive Medicine*. 2012;42(2):150-6. PMID: 22261211. PMCID: PMC3391575.
39. **Primack BA**, Nuzzo E, Rice K, Sargent J. Alcohol brand references in U.S. popular music. *Addiction*. 2012;107(3):557-66. PMID: 22011113. PMCID: PMC3273659.
38. **Primack BA**, Longacre MR, Beach M, Adachi-Mejia AM, Dalton MA. Association of established smoking among adolescents with timing of exposure to smoking depicted in movies. *Journal of the National Cancer Institute*. 2012;104(7):1571-6. PMID: 22423010. PMCID: PMC3317882.
37. Rubio DM, **Primack BA**, Switzer GE, Bryce CL, Seltzer DL, Kapoor WN. A comprehensive career-success model for physician-scientists. *Academic Medicine*. 2011;86(12):1571-6. PMID: 22030759. PMCID: PMC3228877.
36. Hu X, **Primack BA***, Barnett TE, Cook RL. College students and use of K2: an emerging drug of abuse in young persons. *Substance Abuse Treatment, Prevention, and Policy*. 2011;6:16. PMID: 21745369. PMCID: PMC3142218.
35. Lee JS, **Primack BA***, Mor MK, Stone RA, Obrosky DS, Yealy DM, Fine MJ. Processes of care and outcomes for community-acquired pneumonia. *American Journal of Medicine*. 2011;124(12):1175.e9-17. PMID: 22000624. PMCID: PMC3578284.
34. **Primack BA**, Silk JS, DeLozier CR, Shadel WS, Dillman Carpentier F, Dahl RE, Switzer GE. Using ecological momentary assessment to determine media use by individuals with and without major depressive disorder. *Archives of Pediatric and Adolescent Medicine*. 2011;165(4):360-5. PMID: 21464384. PMCID: PMC3074228.
33. Longacre M, **Primack BA***, Owens PM, Gibson L, Beauregard S, Dalton MA. Public directory data sources do not accurately characterize the community food environment in two predominantly rural states. *Journal of the American Dietetic Association*. 2011;111:577-82. PMID: 21443992. PMCID: PMC3119892.
32. Bier MC, Spring SJ, Shields D, Zwarun L, Sherblom S, **Primack BA**, Pulley C, Rucker B. School-based smoking prevention with media literacy: a pilot study. *Journal of Media Literacy Education*. 2011;2(3):185-98.

31. Shadel WG, Martino S, Haviland A, Setodji C, **Primack BA**. Smoking motives in movies are important for understanding adolescent smoking: a preliminary investigation. *Nicotine and Tobacco Research*. 2010;12(8):850-4. PMID: 20576800. PMCID: PMC2917740.
30. **Primack BA**, Dilmore TC, Switzer GE, Bryce CL, Seltzer DL, Li JJ, Landsittel DP, Kapoor WN, Rubio DM. Burnout among early-career research trainees. *Clinical and Translational Science*. 2010;3(4):186-8. PMID: 20718821. PMCID: PMC2925292.
29. Dilmore TC, Rubio DM, Cohen E, Seltzer DL, Switzer GE, Bryce CL, **Primack BA**, Fine MJ, Kapoor WN. Psychometric properties of the mentor role instrument when used in an academic medicine setting. *Clinical and Translational Science*. 2010;3(3):104-8. PMID: 20590679. PMCID: PMC3042890.
28. Gold MA, Sheftel AV, Chiapetta L, Young AJ, Zuckoff A, Clemente CC, **Primack BA***. Associations between religiosity and sexual and contraceptive behaviors. *Journal of Pediatric and Adolescent Gynecology*. 2010;23:290-97. PMID: 20493738. PMCID: PMC2933332.
27. Snyder ME, Zillich AJ, **Primack BA**, Rice K, McGivney MA, Pringle JL, Smith RB. Exploring successful community pharmacist-physician collaborative working relationships using mixed methods. *Research in Social and Administrative Pharmacy*. 2010;6(4):307-23. PMID: 2111388. PMCID: PMC3004536.
26. **Primack BA**, Wickett DJ, Kraemer KL, Zickmund S. Teaching health literacy using popular television programming: a qualitative pilot study. *American Journal of Health Education*. 2010;41(3):147-54. PMID: 23998135. PMCID: PMC3757562.
25. Azab M, Khabour OF, Alkaraki AK, Eissenberg T, Alzoubi KH, **Primack BA***. Water pipe tobacco smoking among university students in Jordan. *Nicotine and Tobacco Research*. 2010;12(6):606-12. PMID: 20418383. PMCID: PMC2878728.
24. Simon MA, **Primack BA**, Teuteberg J, Kormos RL, Bermudez C, Toyoda Y, Shah H, Gorcsan J 3rd, McNamara DM. Left ventricular remodeling and myocardial recovery on mechanical circulatory support. *Journal of Cardiac Failure*. 2010;16(2):99-105. PMID: 20142020. PMCID: PMC2819986.
23. **Primack BA**, Douglas EL, Kraemer KL. Exposure to cannabis in popular music and cannabis use among adolescents. *Addiction*. 2010;105(3):515-23. PMID: 20039860. PMCID: PMC2881613.
22. **Primack BA**, Fertman CI, Rice KR, Adachi-Mejia AM, Fine MJ. Waterpipe and cigarette smoking among college athletes in the United States. *Journal of Adolescent Health*. 2010;46(1):45-51. PMID: 20123257. PMCID: PMC3001225.
21. Sherman EJ, **Primack BA***. What works to prevent adolescent smoking? A systematic review of the National Cancer Institute's Research-Tested Intervention Programs. *Journal of School Health*. 2009;79(9):391-9. PMID: 19691713. PMCID: PMC3004538.
20. Fertman CI, **Primack BA***. Elementary student self-efficacy scale development and validation focused on student learning, peer relations, and resisting drug use. *Journal of Drug Education*. 2009;39(1):23-38. PMID: 19886160. PMCID: PMC3008354.
19. Arke ET, **Primack BA***. Quantifying media literacy: development, reliability, and validity of a new measure. *Educational Media International*. 2009;46(1):53-65. PMID: 21572920. PMCID: PMC3092308.

18. Rubin AG, Gold MA, **Primack BA***. Associations between depressive symptoms and sexual risk behavior in a diverse sample of female adolescents. *Journal of Pediatric and Adolescent Gynecology*. 2009;22(5):306-12. PMID: 19592279. PMCID: PMC3004526.
17. **Primack BA**, Douglas EL, Fine MJ, Dalton MA. Exposure to sexual lyrics and sexual experience among urban adolescents. *American Journal of Preventive Medicine*. 2009;36(4):317-23. PMID: 19285196. PMCID: PMC3008595.
16. **Primack BA**, Sidani J, Carroll MV, Fine MJ. Associations between smoking and media literacy in college students. *Journal of Health Communication*. 2009;14(6):541-55. PMID:19731126. PMCID: PMC3008588.
15. **Primack BA**, Fine D, Yang CK, Wickett D, Zickmund S. Adolescents' impressions of antismoking media literacy education: qualitative results from a randomized controlled trial. *Health Education Research*. 2009;24(4):608-21. PMID: 19052155. PMCID: PMC2706492.
14. Adachi-Mejia AM, **Primack BA***, Beach ML, Titus-Ernstoff L, Longacre MR, Weiss JE, Dalton MA. Influence of movie smoking exposure and team sports participation on established smoking. *Archives of Pediatric and Adolescent Medicine*. 2009;163(7):638-43. PMID: 19581547. PMCID: PMC3006430.
13. **Primack BA**, Walsh M, Bryce C, Eissenberg T. Water-pipe tobacco smoking among middle and high school students in Arizona. *Pediatrics*. 2009;123(2):e282-8. PMID: 19171581. PMCID: PMC3013632.
12. **Primack BA**, Swanier B, Georgiopoulos AM, Land SR, Fine MJ. Association between media use in adolescence and depression in young adulthood: a longitudinal study. *Archives of General Psychiatry*. 2009;66(2):181-8. PMID: 19188540. PMCID: PMC3004674.
11. **Primack BA**, Kraemer KL, Fine MJ, Dalton MA. Media exposure and marijuana and alcohol use among adolescents. *Substance Use and Misuse*. 2009;44(5):722-39. PMID: 19306219. PMCID: PMC3008330.
10. **Primack BA**, Hobbs R. Association of various components of media literacy and adolescent smoking. *American Journal of Health Behavior*. 2009;33(2):192-201. PMID: 18844513. PMCID: PMC3001227.
9. **Primack BA**, Sidani J, Agarwal AA, Shadel WG, Donny EC, Eissenberg TE. Prevalence of and associations with waterpipe tobacco smoking among U.S. university students. *Annals of Behavioral Medicine*. 2008;36(1):81-6. PMID: 18719977. PMCID: PMC3004534.
8. **Primack BA**, Gold MA, Schwarz EB, Dalton MA. Degrading and non-degrading sex in popular music: a content analysis. *Public Health Reports*. 2008;123(5):593-600. PMID: 18828414. PMCID: PMC2496932.
7. **Primack BA**, Land SR, Fine MJ. Adolescent smoking and volume of exposure to various forms of media. *Public Health*. 2008;122(4):379-89. PMID: 18206196. PMCID: PMC3001229.
6. **Primack BA**, Dalton MA, Carroll MV, Agarwal AA, Fine MJ. Content analysis of tobacco, alcohol, and other drugs in popular music. *Archives of Pediatric and Adolescent Medicine*. 2008;162(2):169-75. PMID: 18250243. PMCID: PMC3004676.
5. **Primack BA**, Bost JE, Land SR, Fine MJ. Volume of tobacco advertising in African American markets: systematic review and meta-analysis. *Public Health Reports*. 2007;122(5):607-15. PMID: 17877308. PMCID: PMC1936959.

4. **Primack BA**, Bui T, Fertman CI. Social marketing meets health literacy: innovative improvement of health care providers' comfort with patient interaction. *Patient Education and Counseling*. 2007;68(1):3-9. PMID: 17418522. PMCID: PMC3013365.
3. **Primack BA**, Switzer GE, Dalton MA. Improving measurement of normative beliefs involving smoking among adolescents. *Archives of Pediatric and Adolescent Medicine*. 2007;161(5):434-9. PMID: 17485617. PMCID: PMC3008629.
2. **Primack BA**, Gold MA, Land SR, Fine MJ. Association of cigarette smoking and media literacy about smoking among adolescents. *Journal of Adolescent Health*. 2006;39(4):465-72. PMID: 16982379. PMCID: PMC3008629.
1. **Primack BA**, Gold MA, Switzer GE, Hobbs R, Land SR, Fine MJ. Development and validation of a smoking media literacy scale for adolescents. *Archives of Pediatric and Adolescent Medicine*. 2006;160(4):369-74. PMID: 16585481. PMCID: PMC3001232.

Submitted Manuscripts Currently Under Peer Review (*Indicates mentoring or supervisory author)

1. Sidani JE, Shensa A, Escobar-Viera CG, **Primack BA***. Parental social media comparison and association with depression. [Revise and Resubmit Requested]
2. Chu K, Escobar-Viera CG, Matheny SJ, Wessel C, Schulze AE, Davis EM, **Primack BA***. Mobile health apps for tobacco cessation: a systematic review. [Submitted]
3. Chu K, Colditz JB, Sidani JE, Zimmer M, **Primack BA***. Re-evaluating standards of human subjects protection for sensitive health data in social media networks. [Submitted]
4. Sidani JE, Shensa A, Wade K, **Primack BA***. Individual social media platforms and eating and body image concerns: a nationally-representative study of U.S. young adults. [Submitted]
5. Colditz JB, Tulikangas MC, Sidani JE, Dodson ZM, Woods MS, James AE, **Primack BA***. Vape shop proliferation and non-compliance related to Pennsylvania tax policy. [Submitted]
6. Chu K, Shensa A, Colditz JB, Sidani JE, Hoffman B, Sinclair DR, **Primack BA***. Integrating social dynamics into modeling cigarette and e-cigarette use. [Submitted]
7. Sidani JE, Colditz JB, Barrett EL, Shensa A, Chu K, James AE, **Primack BA***. I wake up and hit the JUUL: analyzing Twitter for JUUL nicotine effects and addiction. [Revise and Resubmit Submitted]
8. Primack ML, Primack BA*. Trajectories to and from electronic nicotine delivery systems and traditional cigarettes. [Revise and Resubmit Requested]

Additional Publications, including Reviews, Commentaries, Invited Published Papers, Monographs, Books, and Book Chapters (*Indicates mentoring or lead supervisory author)

23. **Primack BA**, Shensa A, Sidani JE, Bowman N, Knight J, Karim SA, Bisbey M, Colditz JB, Woods MS, Escobar-Viera CG. Toward a paradigm for reducing risk for mental health conditions associated with social media use: encouraging "REAL" communication [Invited book chapter]. *Families and Technology*. 2018:155-176.

22. Colditz JB, Woods MS, **Primack BA***. Adolescents seeking online health information: topics, approaches, and challenges [invited book chapter]. *Technology and Adolescent Health*. 2018.
21. **Primack BA**, Woods MS, Kupersmidt J, Bier M, Austin EW. Tobacco use and media literacy [invited book chapter]. *The International Encyclopedia of Media Literacy*. 2018.
20. **Primack BA**, Escobar-Viera CG. Social media as it interfaces with mental illness in transitional age youth [invited review article]. *Child & Adolescent Psychiatric Clinics of North America*. 2017;26(2):217-233. PMID: 28314452.
19. **Primack BA**. Effects of nicotine patch vs. varenicline vs. combination replacement therapy on smoking cessation at 26 weeks: a randomized controlled trial [invited commentary]. *Annals of Internal Medicine*. 2016;164(10):JC54.
18. **Primack BA**, Mahaniah KJ. Anemia: In South-Paul JE, Matheny SC, Lewis EL, eds. *Current Medical Diagnosis and Treatment in Family Medicine*. 4th ed. New York, NY: McGraw-Hill; 2015:332-344.
17. James AE, Gellad W, **Primack BA**. Implications of new insurance coverage for access to care, cost-sharing, and reimbursement. [editorial]. *JAMA*. 2014;311(3):241-2. PMID: 24337312.
16. **Primack BA**, Mahaniah KJ. Anemia. In: South-Paul JE, Matheny SC, Lewis EL, eds. *Current Medical Diagnosis and Treatment in Family Medicine*. 3rd ed. New York, NY: McGraw-Hill; 2011:337-350.
15. **Primack BA**. Video games: play or “playlike activity”? [invited commentary]. *American Journal of Preventive Medicine*. 2009;37(4):379-80. PMID: 19765513.
14. **Primack BA**. Review: nicotine replacement therapy as assisted “reduction-to-stop” reduces smoking and sustains abstinence in smokers [invited commentary]. *Evidence-Based Medicine*. 2009;14(5):144. PMID: 19794019.
13. **Primack BA**, Mahaniah KJ. Anemia. In: South-Paul JE, Matheny SC, Lewis EL, eds. *Current Medical Diagnosis and Treatment in Family Medicine*. 2nd ed. New York, NY: McGraw-Hill; 2007:329-42.
12. **Primack BA**. Review: some evidence shows that self-help books based on cognitive behaviour therapy can relieve depression in some patients [invited commentary]. *Evidence-Based Medicine*. 2006;11(1):8. PMID: 17213050.
11. **Primack BA**. Review: some therapies for treating the irritable bowel syndrome may be effective for symptom improvement [invited commentary]. *American College of Physicians Journal Club*. 2005;142(3):78. PMID: 15862077.
10. **Primack BA**, Zimmerman RK. Influenza and other vaccinations important for women [invited article]. *The Female Patient, Obstetrics/Gynecology Edition*. 2004;29(10):34-40.
9. **Primack BA**. Counseling patients on mass media and health [review]. *American Family Physician*. 2004;69(11):2545-6, 2548, 2553-4. PMID: 15202692.

8. **Primack BA**, Zimmerman RK. Update on vaccinations for women [invited article; cover article]. *The Female Patient, Primary Care Edition*. 2004;29(1):12-8.
7. **Primack BA**. Alcohol advertising and youth. Policy statement for the AAFP. Leawood, KS: AAFP; June 2004.
6. **Primack BA**. Mass media and violence. Policy statement for the American Academy of Family Physicians (AAFP). Leawood, KS: AAFP; June 2004.
5. **Primack BA**, Mahaniah KJ. Anemia. In: South-Paul JE, Matheny SC, Lewis EL, eds. *Current Medical Diagnosis and Treatment in Family Medicine*. New York, NY: McGraw-Hill; 2004:369-82.
4. **Primack BA**, Mahaniah KJ. Anemia. Leawood, KS: *American Academy of Family Physicians*; 2004.
3. **Primack BA**, Pincus HA. Review: complex organisational and educational interventions appear to be effective for managing depression in primary care [invited commentary]. *Evidence-Based Medicine*. 2003;8(6):191.
2. **Primack BA**. The WHO-5 Wellbeing Index performed the best in screening for depression in primary care [invited commentary]. *Evidence-Based Medicine*. 2003;139(2):48. PMID: 12954040.
1. **Primack BA**. Applied pressure reduced perceived pain at the intramuscular injection site [invited commentary]. *Evidence-Based Medicine*. 2003;8(2):61.

Published Abstracts / Presentations (*Indicates mentoring or lead supervisory author)

109. Shensa A, Hoffman BL, Escobar-Viera CG, Melcher EM, Sidani JE, Myers SP, **Primack BA**, Burke JG. Social media experiences among depressed and non-depressed young adults. Poster Presentation. 41st Society of Behavioral Medicine Annual Meeting. San Francisco, CA, April 1-4, 2020.
108. Hoffman BL, Colditz JB, Sidani JE, Davis EM, Taneja SB, James AE, **Primack BA**, Morris A, Brink L, Lynch M, Rose JJ, Chu KH. Correlation Of Twitter Data To Reported Cases Of E-cigarette Or Vaping Product Use-associated Lung Injury (EVALI). Poster Presentation. 2020 American Thoracic Society International Conference. May 17, 2020.
107. Hoffman BL, Felter EM, Chu KH, Hermann C, Wolynn T, Burke JG, Colditz JB, Wolynn R, **Primack BA**. Vaccine Misinformation on Social Media: Historical Contexts, Lessons Learned, and Paths Forward. Symposium Presentation, Vaccine Hesitancy and Social Media: Looking Toward a Public Health Agenda. 41st Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine. San Francisco, CA. April 3, 2020.
106. Hoffman BL, Burke JG, Wolynn R, **Primack BA**, Liebschutz JM, Sidani JE, Miller E, Jacobson SL. Assessing the Mental Health Impact of 13 Reasons Why: A Narrative Literature Review. Oral Presentation. 41st Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine. San Francisco, CA. April 2, 2020.
105. Hoffman BL, Cafferty LA, Shensa A, Jain P, Rosenthal EL, **Primack BA**, Sidani JE. Patient-centered communication behaviors on primetime television. Poster Presentation. Society of Behavioral Medicine. Washington, DC. March 6-9, 2019.

104. Sidani JE, Colditz JB, Barrett E, Chu K, James AE, **Primack BA***. I wake up and hit the JUUL: analyzing Twitter for JUUL nicotine effects and addiction. Poster Presentation. Society of Behavioral Medicine. Washington, DC. March 6-9, 2019.
103. **Primack BA**, Shensa A, Melcher EM, Sidani JE, Escobar-Viera CG. The perceived value of social media to self and others: associations with depression. Poster Presentation. Society of Behavioral Medicine. Washington, DC. March 6-9, 2019.
102. Shensa A, Sidani JE, Escobar-Viera CG, Hoffman BL, **Primack BA***. Talking about stressful situations in-person and on social media: the differential associations with depression. Poster Presentation. Society of Behavioral Medicine. Washington, DC. March 6-9, 2019.
101. Hoffman BL, Shensa A, Sidani JE, Williams D, Escobar-Viera CG, **Primack BA***. “Their page is still up”: the self-reported influence of social media on coping with the loss of a loved one. Poster Presentation. Society of Behavioral Medicine. Washington, DC. March 6-9, 2019.
100. Escobar-Viera CG, Sidani JE, Shensa A, Hamm M, Melcher EM, Rzewnicki DI, **Primack BA***. I don’t feel like the odd one’: experiences of sexual minorities and non-minorities on social media. Oral Presentation. Society of Behavioral Medicine. Washington, DC. March 6-9, 2019.
99. Sidani JE, Shensa A, Escobar-Viera CG, **Primack BA***. Parental social media comparisons and associations with depressive symptoms. Oral Presentation. Society of Behavioral Medicine. Washington, DC. March 6-9, 2019.
98. Hoffman BL, Felter E, Chu K, Shensa A, Williams D, Himmel R, Wolynn R, Hermann C, Wolynn T, **Primack BA***. The emerging landscape of anti-vaccination sentiment on Facebook. Poster Presentation. Society of Adolescent Health and Medicine. Washington, DC. March 6-9, 2019.
97. Shensa A, Sidani JE, Escobar-Viera CG, **Primack BA***. Emotional support from social media and in-person relationships: associations with depressive symptoms among young adults. Poster Symposia. Society of Adolescent Health and Medicine. Washington, DC. March 6-9, 2019.
96. Sidani JE, Colditz JB, Chu K, Barrett EL, **Primack BA***. “Why do people pee in the JUUL room?”: analyzing messages about JUUL use on Twitter. Poster Presentation. Society of Adolescent Health and Medicine. Washington, DC. March 6-9, 2019.
95. Chu K, Colditz JB, **Primack BA**, Shensa A, Allem JP, Miller E, Matheny S, Barrett EL, Unger J, Cruz T. JUULing on Instagram. Poster Presentation. Society of Adolescent Health and Medicine. Washington, DC. March 6-9, 2019.
94. Bisbey MA, Shensa A, **Primack BA***. The association between type of social media use and depression among US young adults. Poster Presentation. Association of Medicine and Psychiatry. Chicago, IL. October 12-13, 2018.
93. Shenouda M, **Primack BA**, Conti T, Wilson A. Systematic qualitative assessment of health needs and barriers in a low-income community. 26th International Conference on Healthcare & Life-Science Research (ICHLSR). Dubai, United Arab Emirates. December 23, 2017.
92. Colditz JB, Tulikangas M, Dodson Z, Williams C, Williams D, **Primack BA***. Regional prevalence of ENDS retailers in Pennsylvania using open data from the Yelp platform. Oral Presentation. American Public Health Association Annual Meeting. Atlanta, GA. November 5–8, 2017.

91. Whaite E, Shensa A, Sidani JE, Colditz JB, Rosen D, **Primack BA***. Social media use, personality characteristics, and social isolation among young adults in the United States. Roundtable Presentation. American Public Health Association Annual Meeting. Atlanta, GA. November 5–8, 2017.
90. Sidani JE, Shensa A, Wade K, **Primack BA***. Individual social media platforms and eating and body image concerns: a nationally-representative study of U.S. young adults. Poster Presentation. American Public Health Association Annual Meeting. Atlanta, GA. November 5–8, 2017.
89. Shensa A, Sidani JE, Escobar-Viera CG, Chu K, Bowman ND, Knight JM, **Primack BA***. Real-life closeness of social media contacts and depressive symptoms among university students. Poster Presentation. American Public Health Association Annual Meeting. Atlanta, GA. November 5–8, 2017.
88. **Primack BA**, Karim S, Shensa A, Bowman ND, Knight JM, Sidani JE. Positive and negative social media experiences and social isolation. Roundtable Presentation. American Public Health Association Annual Meeting. Atlanta, GA. November 5–8, 2017.
87. **Primack BA**, Shensa A, Sidani JE, Tulikangas M, Roberts M, Colditz JB, Mor M, James AE, Fine M. Comparison of toxicant load from waterpipe and cigarette tobacco smoking among young adults in the United States. Poster Presentation. American Public Health Association Annual Meeting. Atlanta, GA. November 5–8, 2017.
86. **Primack BA**, Bisbey M, Shensa A, Bowman ND, Karim S, Knight JM, Sidani JE. The association between valence of social media experiences and depression among U.S. young adults. Poster Presentation. American Public Health Association Annual Meeting. Atlanta, GA. November 5–8, 2017.
85. Levenson J, Shensa A, Sidani JE, Colditz JB, **Primack BA***. Social media use before bed and sleep disturbance among young adults in the United States: a nationally-representative study. Poster Presentation. American Public Health Association Annual Meeting. Atlanta, GA. November 5–8, 2017.
84. Chu K, Colditz JB, Malik M, **Primack BA***. Detecting opinion change about waterpipe tobacco smoking on Twitter. Oral Presentation. American Public Health Association Annual Meeting. Atlanta, GA. November 5–8, 2017.
83. Colditz JB, Chakraborty P, Silvestre A, Friedman MR, Bogen K, **Primack BA***. Observation of public sentiment toward Human Papillomavirus vaccination on Twitter. Poster Presentation. American Public Health Association Annual Meeting. Atlanta, GA. November 5–8, 2017.
82. Knight J, Bowman N, Banks J, **Primack BA**, Colditz JB, Shensa A. What's on my mind: using social media to discuss stressful situations. Poster Presentation. Association of Internet Reserachers Conference. Tartu, Estonia. October 18-21, 2017.
81. Rubio DM, Norman M, Nouraie SM, Zimmer S, **Primack BA**, Davis E, South-Paul J. Professional Mentoring Skills Enhancing Diversity (PROMISED). Poster Presentation. Translational Science 2017. Washington DC. April, 2017.
80. Escobar-Viera CG, Shensa A, Bowman ND, Knight J, James AE, **Primack BA***. Passive and active social media use and depressive symptoms among young adults. Poster Presentation. Society of Behavioral Medicine Annual Meeting. San Diego, CA. March 29, 2017.

79. Jacobs Z, Kennedy A, **Primack BA**, Bui T. E-mentoring via text message: a model for maintaining professional relationships and providing mentorship from across the sea. Poster Presentation. Society of Behavioral Medicine Annual Meeting. San Diego, CA. March 29, 2017.
78. Hoffman BL, Tulikangas MC, Shensa A, James AE, Colditz JB, **Primack BA***. Pennsylvania policymakers' attitudes & knowledge regarding waterpipe tobacco smoking & electronic nicotine delivery systems. Poster Presentation. Society of Behavioral Medicine Annual Meeting. San Diego, CA. March 29, 2017.
77. Shensa A, Sidani JE, Bowman N, **Primack BA***. Social media addiction as a contributing factor to the association between social media use and depression among US young adults. Poster Presentation. Society of Behavioral Medicine Annual Meeting. Washington, DC. April 1, 2016.
76. Colditz JB, Giles LM, **Primack BA***. Prevalence of waterpipe tobacco smoking establishments near large universities: utility of public data from the Yelp platform. Poster Presentation. Society of Behavioral Medicine Annual Meeting. Washington, DC. March 30, 2016.
75. Hoffman BL, James AE, Tulikangas M, **Primack BA***. Electronic nicotine delivery systems: the state of state politics. Poster Presentation. Society of Behavioral Medicine Annual Meeting. Washington, DC. April 1, 2016.
74. Hoffman BL, Colditz JB, McGarry R, **Primack BA***. Use of Twitter to assess viewer reactions to the medical drama Code Black. Poster Presentation. Society of Behavioral Medicine Annual Meeting. Washington, DC. April 2, 2016.
73. Sidani JE, Shensa A, Naidu M, Shiffman S, **Primack BA***. Initiation of waterpipe tobacco smoking: a nationally-representative longitudinal study of U.S. young adults. Oral Presentation. Society of Behavioral Medicine Annual Meeting. Washington, DC. March 31, 2016.
72. Corbin B, Colditz JB, Raithe A, Switzer GE, Sidani JE, Klatt P, **Primack BA***. The SMARxT Media Literacy Program: a pilot study to improve evidence-based prescribing among medical residents. Paper Presentation. Society of Behavioral Medicine Annual Meeting. Washington, DC. April 1, 2016. [Winner of best student research award]
71. **Primack BA**, Shensa A, Sidani JE, Hoffman BL, Soneji S, James AE, Sargent JD, Fine MJ. Initiation of cigarette smoking after e-cigarette use: a nationally-representative study. Oral Presentation. Society of Behavioral Medicine Annual Meeting. Washington, DC. March 30, 2016. [Winner of best research award]
70. Rosen D, McCall J, **Primack BA***. Adherence to a telehealth protocol designed to prevent readmission for patients with congestive heart failure. Poster Presentation. Society of Behavioral Medicine Annual Meeting. Washington, DC. March 30, 2016.
69. **Primack BA**, Giles LE, Colditz JB, Kraemer KL, Jackson KM. Alcohol brands represented on YouTube. Poster Presentation. Society of Behavioral Medicine Annual Meeting. Washington, DC. March 30, 2016.
68. Levenson J, Shensa A, Sidani JE, Colditz JB, **Primack BA***. Social media use and sleep disturbance among young adults. Poster Presentation. Society of Behavioral Medicine Annual Meeting. Washington, DC. March 30, 2016.
67. Colditz JB, Naidu M, Smith NA, Welling J, **Primack BA***. Use of Twitter to assess sentiment toward waterpipe tobacco smoking. Oral Presentation. Society of Behavioral Medicine Annual Meeting. Washington, DC. March 30, 2016.

66. Colditz JB, Shensa A, Jones JR, Lin L, Pilkonis PA, Rollman BL, **Primack BA***. Social media use and anxiety as measured by the PROMIS anxiety short form. Oral Presentation. Inaugural PROMIS (Patient-Reported Outcomes Measurement Information System) Health Organization Conference. Philadelphia, PA. May 15, 2015.
65. **Primack BA**, Colditz JB, Shensa A, Rosen D, Harris J, Brent D. Is higher social media use associated with reduced social isolation? Poster Presentation. Inaugural PROMIS (Patient-Reported Outcomes Measurement Information System) Health Organization Conference. Philadelphia, PA. May 15, 2015.
64. Hoffman BL, Shensa A, Wessel C, Hoffman R, **Primack BA***. Exposure to fictional medical television and patients' health: a systematic review. Poster Presentation. Society of General Internal Medicine Annual Meeting. Toronto, ON, Canada. April 24, 2015.
63. Hoffman BL, Shensa A, Wessel C, Hoffman R, **Primack BA***. the use of fictional medical television in medical education: a systematic review. Poster Presentation. Society of General Internal Medicine Annual Meeting. Toronto, ON, Canada. April 23, 2015.
62. **Primack BA**, Soneji S, Stoolmiller M, Fine MJ, Sargent JD. Initiation of cigarette smoking after electronic cigarette use: a national study of young adults. Poster Presentation. Society of General Internal Medicine Annual Meeting. Toronto, ON, Canada. April 24, 2015.
61. Shensa A, Sidani JE, Colditz JB, Abebe KZ, Xu J, Lin L, **Primack BA***. Associations between social media use and perceived emotional support among a nationally-representative cohort of young adults. Poster Presentation. Society of General Internal Medicine Annual Meeting. Toronto, ON, Canada. April 24, 2015.
60. Sidani JE, Shiffman S, Shensa A, Switzer GE, **Primack BA***. Waterpipe tobacco smoking dependence among US young adults. Poster Presentation. 38th Society of General Internal Medicine Annual Meeting. Toronto, ON, Canada. April 23, 2015.
59. **Primack BA**, Shensa A, Sidani JE, Colditz JB, Brook J, Eissenberg T, Fine MJ. Waterpipe tobacco smoking among US young adults both in and not in school: a nationally-representative study. Poster Presentation. Society of General Internal Medicine Annual Meeting. Toronto, ON, Canada. April 24, 2015.
58. Lin L, Sidani JE, Shensa A, Hoffman BL, Radakovic A, Miller E, **Primack BA***. Associations between social media use and depressive symptoms among US young adults. Oral Presentation. Society of General Internal Medicine Annual Meeting. Toronto, ON, Canada. April 24, 2015.
57. Colditz JB, Pang K, James AE, Stanley C, Brook J, **Primack BA***. "World Vape Day" 2014: lessons from the Twittersphere. Oral Presentation. 38th Society of General Internal Medicine Annual Meeting. Toronto, ON, Canada. April 25, 2015.
56. **Primack BA**, Carroll MV, Weiss PM, Shihadeh AL, Shensa A, Farley ST, Fine MJ, Eissenberg T, Nayak S. Systematic review and meta-analysis of inhaled toxicants from waterpipe and cigarette smoking. Oral Presentation. Society of General Internal Medicine Annual Meeting. Toronto, ON, Canada. April 24, 2015.
55. Sidani JE, Shensa A, Baffour M, Hoffman BL, Hanmer J, **Primack BA***. Associations between social media use and eating disorder risk among US young adults. Oral Presentation. Society of General Internal Medicine Annual Meeting. Toronto, ON, Canada. April 24, 2015.

54. Yu M, **Primack BA***, Pitner RO, Olate R. Tobacco advertising and marketing, and adolescent tobacco use. Poster Presentation. Society for Social Work and Research Annual Meeting. San Antonio, TX. January 17, 2014.
53. Phelps JT, **Primack BA***. AD IT UP: innovative smoking prevention with inner city youth. Poster Presentation. American Academy of Child and Adolescent Psychiatry Annual Meeting. Orlando, FL. October 25, 2013.
52. Klatt P, Schaffer T, Wilson S, **Primack BA***. SMARxT: a novel media literacy curriculum for family medicine trainees. Oral Presentation. Society for Teachers of Family Medicine Annual Meeting. Baltimore, MD. May 3, 2013.
51. Sidani JE, Shensa A, **Primack BA***. Waterpipe smoking among fraternity and sorority members attending US colleges and universities. Poster Presentation. Society for Adolescent Health and Medicine Annual Meeting. New Orleans, LA. March 15, 2012.
50. Carroll MV, Shensa A, **Primack BA***. A comparison of internet videos related to cigarette and hookah tobacco smoking. Poster Presentation. Society for Adolescent Health and Medicine Annual Meeting. New Orleans, LA. March 15, 2012.
49. **Primack BA**, Kim KH, Shensa AS, Sidani JE, Barnett TE, Switzer GE. Tobacco, marijuana, and alcohol use in university students: a cluster analysis. Poster Presentation. Society for Adolescent Health and Medicine Annual Meeting. New Orleans, LA. March 16, 2012.
48. **Primack BA**, Hopkins M, Hallett C, Carroll MV, Zeller M, Dachille K, Kim KH, Fine MJ, Donohue JM. US health policy related to hookah tobacco smoking. Oral Presentation. Society for Adolescent Health and Medicine Annual Meeting. New Orleans, LA. March 17, 2012.
47. **Primack BA**, Longacre MR, Beach ML, Adachi-Mejia AM, Titus-Ernstoff L, Dalton MA. Established smoking among adolescents and its association with early and late exposure to smoking depicted in movies. Oral Presentation. Society for Adolescent Health and Medicine Annual Meeting. New Orleans, LA. March 17, 2012.
46. Georgiopoulos AM, **Primack BA***. Association between media use and adolescent depression. Poster Presentation. American Academy of Child and Adolescent Psychiatry Annual Meeting. Toronto, ON, Canada. October 18, 2011.
45. Tschang J, **Primack BA***. Humans still matter: blended e-learning for integration of human facilitation into computer-based media literacy programming. Poster Presentation. National Association of Media Literacy Education Annual Meeting. Philadelphia, PA. July 24, 2011.
44. **Primack BA**, Rice KR, Tschang J. AD IT UP: innovative Web-based media literacy to prevent tobacco use. Oral Presentation. National Association of Media Literacy Education Biannual Meeting. Philadelphia, PA. July 24, 2011.
43. **Primack BA**, Pringle JL. SMARxT: media literacy to improve evidence-based prescribing among family medicine trainees. Oral Presentation. National Association of Media Literacy Education Biannual Meeting. Philadelphia, PA. July 24, 2011.
42. Bergsma L, Austin EA, Chen Y, Glik D, **Primack BA**, Kupersmidt J. Media literacy education to promote health: research and promising K-12 and community applications. Member of Keynote Panel. National Association of Media Literacy Education Biannual Meeting. Philadelphia, PA. July 24, 2011.

41. Hu X, **Primack BA***, Barnett TE, Cook RL. College students and use of K2/Spice: an emerging drug of abuse in young persons. Poster Presentation. Congress of Epidemiology Annual Meeting. Montreal, QC, Canada. June 23, 2011.
40. Smith HA, **Primack BA***, Marshal M, Shensa A. Sex and sexual orientation variations in cigarette, hookah, cigar, and smokeless tobacco use within a population-based study of college students in the U.S. Poster Presentation. National Service Research Award Annual Meeting. Bethesda, MD. May 25, 2011.
39. Salgado MV, Pérez-Stable EJ, **Primack BA**, Kaplan CP, Mejia R, Gregorich SE, Alderete E. Association of media literacy with cigarette smoking among indigenous youth in Argentina. Oral Presentation. Society for General Internal Medicine Annual Meeting. Phoenix, AZ. May 5, 2011.
38. Rice KR, DePenna EJ, Dinella HM, Land SR, **Primack BA***. Hookah tobacco smoking establishment Web sites in the US. Oral Presentation. Society for Behavioral Medicine Annual Meeting. Washington, DC. April 30, 2011.
37. Nuzzo E, Rice KR, Sargent JD, **Primack BA***. Alcohol brand appearances in U.S. popular music. Oral Presentation. Society for Behavioral Medicine Annual Meeting. Washington, DC. April 30, 2011. [Winner of Best Student Research Award.]
36. **Primack BA**, Roberts T, Fine MJ, Carpentier FRD, Rice KR, Barnato AE. ER vs. ED: a comparison of televised and real-life emergency medicine. Poster Presentation. Society for Behavioral Medicine Annual Meeting. Washington, DC. April 28, 2011.
35. **Primack BA**, Silk JS, DeLozier CR, Shadel WG, Carpentier FRD, Dahl RE, Switzer GE. Investigating associations between media use and depression using ecological momentary assessment. Poster Presentation. Society for Behavioral Medicine Annual Meeting. Washington, DC. April 27, 2011.
34. **Primack BA**, Douglas EL, Rice KR, Fine MJ. School-based media literacy to prevent adolescent smoking. Poster Presentation. Society for Prevention Research Annual Meeting. Denver, CO. June 3, 2010.
33. **Primack BA**, Hoban M, Leino EV, Rice KR, Land SR, Eissenberg T, Fine MJ. Hookah tobacco smoking in a large national sample of US university students. Poster Presentation. Society for Prevention Research Annual Meeting. Denver, CO. June 2, 2010.
32. **Primack BA**, Dilmore TC, Switzer GE, Bryce CL, Seltzer DL, Li J, Landsittel D, Kapoor WN, Rubio DM. Burnout among early career clinical investigators. Poster Presentation. Joint Annual Meeting of the Association for Clinical Research Training and Society for Clinical and Translational Science. Washington, DC. April 6, 2010. [Winner of Best Poster Award.]
31. Land SR, Cooper KL, Lee J, Moss D, **Primack BA***. A social network analysis of cigarette and hookah tobacco smoking among college students. Society for Research on Nicotine and Tobacco Annual Meeting. Baltimore, MD. February 26, 2010.
30. Martino SC, **Primack BA**, Haviland A, Shadel WG. Development and initial validation of a movie smoking media literacy scale. Poster Presentation. Society for Research on Nicotine and Tobacco Annual Meeting. Baltimore, MD. February 26, 2010.
29. Shadel WG, Martino SC, Haviland A, **Primack BA**. The reasons that actors smoking in movies matter to adolescents: a preliminary investigation. Poster Presentation. Society for Research on Nicotine and Tobacco Annual Meeting. Baltimore, MD. February 26, 2010.

28. Cobb C, **Primack BA**, Eissenberg TE. Tracking waterpipe tobacco smoking on a U.S. college campus. Poster Presentation. Society for Research on Nicotine and Tobacco Annual Meeting. Dublin, Ireland. April 29, 2009.
27. **Primack BA**. Exposure to marijuana in popular music and marijuana smoking among adolescents. Poster Presentation. Society of Behavioral Medicine Annual Meeting. Montreal, QC, Canada. April 25, 2009.
26. **Primack BA**. Waterpipe tobacco smoking among college students: a first look at national data. Poster Presentation. Annual Meeting of the Society of Behavioral Medicine. Montreal, QC, Canada. April 25, 2009.
25. **Primack BA**, Carroll M, McNamara M, Klem M, King B, Rich MO, Nayak S. Systematic review: can video games improve health? Oral Presentation. Society of Behavioral Medicine Annual Meeting. Montreal, QC, Canada. April 24, 2009.
24. Rich MO, Bickham D, **Primack BA**. Take back the remote control: media literacy for adolescent health. Oral Presentation. Society for Adolescent Health and Medicine Annual Meeting. Los Angeles, CA. March 25, 2009.
23. Somma MA, Culley CM, Hall DL, **Primack BA**, Meyer SM. Integrating a student-directed public health outreach project into experiential learning. American Association of Colleges of Pharmacy Annual Meeting. Chicago, IL. July 22, 2008.
22. Chan CW, **Primack BA***. Video games to improve health: a systematic review. Poster Presentation. Society for Teachers of Family Medicine Annual Meeting. Baltimore, MD. May 1, 2008.
21. **Primack BA**, Douglas E, Wickett DJ, Fine MJ. Exposure to degrading sex in popular music and sexual experience among adolescents. Oral Presentation. Society of General Internal Medicine Annual Meeting. Pittsburgh, PA. April 10, 2008.
20. **Primack BA**, Sidani J, Agarwal AA, Shadel WS, Donny EC, Eissenberg TE. Prevalence of and associations with waterpipe tobacco smoking among U.S. university students. Poster Presentation. Society for Adolescent Health and Medicine Annual Meeting. Greensboro, NC. March 27, 2008.
19. **Primack BA**, Kraemer KL, Fine MJ, Dalton MA. Association between media exposure and marijuana and alcohol use in adolescents. Plenary Oral Presentation. Society for Adolescent Health and Medicine Annual Meeting. Greensboro, NC. March 27, 2008.
18. **Primack BA**, Swanier B, Georgiopoulos AM, Land SR, Fine MJ. Adolescent media use and young adult depression: a longitudinal study. Plenary Oral Presentation. Society for Adolescent Health and Medicine Annual Meeting. Greensboro, NC. March 27, 2008.
17. **Primack BA**, Dalton MA, Carroll MV, Agarwal AA, Fine MJ. Content analysis of references to substance abuse in popular music. Oral Presentation. American Public Health Association Annual Meeting. Washington, DC. November 7, 2007.
16. **Primack BA**, Hobbs R. Which specific components of media literacy are most strongly associated with adolescent smoking? Oral Presentation. American Public Health Association Annual Meeting. Washington, DC. November 6, 2007.

15. **Primack BA**, Gold MA, Schwarz EB, Dalton MA. Music preference and sexual experience among adolescents. Oral Presentation. American Public Health Association Annual Meeting. Washington, DC. November 5, 2007.
14. **Primack BA**. Antismoking media literacy: preliminary results from a randomized controlled trial. Oral Presentation. National Association of Media Literacy Education Biannual Meeting. St. Louis, MO. June 24, 2007.
13. **Primack BA**. Measurement of smoking behaviors and beliefs. Plenary Oral Presentation. National Association of Media Literacy Education Biannual Meeting. St. Louis, MO. June 23, 2007.
12. Sheftel AV, Chiapetta L, **Primack BA**, Gold MA. Association between religiosity and sexual behaviors. Oral Presentation. North American Society for Pediatric and Adolescent Gynecology Annual Meeting. Atlanta, GA. April 20, 2007. [Winner of the Laufer Award for Best Oral Presentation.]
11. **Primack BA**. The relationship between media literacy and adolescent smoking. Oral Presentation. World Conference on Tobacco and Health. Washington, DC. July 14, 2006.
10. **Primack BA**, Gold MA, Land SR, Fine MJ. Associations between media literacy and adolescent smoking. Plenary Oral Presentation. Society for Adolescent Medicine Annual Meeting. Boston, MA. March 23, 2006. [Winner of the New Investigator Award for Excellence in Research Unique to the Development and Health Care Needs of Adolescents.]
9. **Primack BA**. Association of adolescent smoking and specific types of media exposure. Poster Presentation. Society for Research on Nicotine and Tobacco Annual Meeting. Orlando, FL. February 18, 2006.
8. **Primack BA**, Gold MA, Switzer GE, Hobbs R, Land SR, Fine MJ. Development and validation of a smoking media literacy scale. Poster Presentation. Society for Research on Nicotine and Tobacco Annual Meeting. Orlando, FL. February 17, 2006.
7. **Primack BA**. Ad It Up: innovative smoking media literacy education. Oral Presentation. National Association of Media Literacy Education Biannual Meeting. San Francisco, CA. June 26, 2005.
6. **Primack BA**, Steinkamp K, Land SR. Developing school-based media education programs aimed at reducing youth tobacco use. Poster Presentation. American Public Health Association Annual Meeting. Washington, DC. November 9, 2004.
5. **Primack BA**, Land SR, Fine MJ. Tobacco-related mass communications aimed at African Americans. Oral Presentation. American Public Health Association Annual Meeting. Washington, DC. November 8, 2004.
4. **Primack BA**. Feasibility of media literacy to prevent adolescent smoking. Poster Presentation. Society for Public Health Education Annual Meeting. Washington, DC. November 6, 2004.
3. **Primack BA**. Can family physicians buffer the impact of media messages on the health of their patients? Oral Presentation. World Congress of Family Physicians. Orlando, FL. October 15, 2004.
2. **Primack BA**. A family physician–led school-based media education program to reduce adolescent smoking. Oral Presentation. World Congress of Family Physicians. Orlando, FL. October 14, 2004.

1. **Primack BA.** Remote control: media literacy and health education. Oral Presentation. Annual Patient Education Conference of the Society of Teachers of Family Medicine and American Association of Family Physicians. Fort Lauderdale, FL. November 22, 2002.

Other Publications

5. Soneji S, **Primack BA**, Pierce JJ, Sung HY, Sargent JD. Assessment of the impact of vaporized nicotine product initiation in the United States [letter]. *Nicotine & Tobacco Research*. 2017;19(2):264-265. PMID: 27613932. PMCID: PMC5234363.
4. Soneji S, Sargent JD, **Primack BA**, Unger J, Pierce JP. Assessing the potential harm of e-cigarette use based on the best available scientific evidence [letter]. *Epidemiology*. In press, 2018.
3. Sidani JE, Shensa A, Shiffman S, Switzer GE, **Primack BA***. Public health implications of waterpipe tobacco use in the U.S. warrant initial steps toward assessing dependence [letter]. *Addiction*. 2016;111:937-8.
2. **Primack BA**, Walsh M, Bryce C, Eissenberg TE. Highlighting the potential dangers of waterpipe tobacco smoking to the public health [letter]. *Pediatrics*. 2009;123:e282.
1. **Primack BA**, Aronson JD, Agarwal AA. An old custom, a new threat to tobacco control [letter]. *American Journal of Public Health*. 2006;96(8):1339. PMID: 16809578; PMCID: PMC1522102.

PROFESSIONAL ACTIVITIES: TEACHING

2020	Course co-Developer and Lecturer, “Pandemic” (HNRC 300VH), Honors Forum focusing on the global COVID-19 pandemic. The goal of this forum is to situate COVID-19 within a broader narrative of the history of pandemics and provide context on the global health crisis.
2009–2019	Lecturer, Physician Assistant Board Review for Chatham University, two 3-hour lectures on pulmonology and endocrinology once each year.
2004–2019	Lecturer, “Clinical Experiences 1 and 2” (MED 5138 and MED 5233), two 1-hour lectures on health literacy and optimizing patient-physician communication each year for 150 first-year medical students.
2003–2019	Public Health School Lecturer, “Theories of Health Behavior” (BCHS 2511 and BCHS 2520), two lecture sessions per year to 25 Master of Public Health candidates per session.

- 2015–2017 Course co-Developer and lecturer, “Professional Mentoring Skills Enhancing Diversity (PROMISED).” PROMISED is a leadership training program that also includes skills on career coaching. It is tailored toward future leaders who are members of underrepresented minority groups.
- 2015–2017 Lecturer, “Developing Leadership Skills for a Career in Clinical and Translational Science” (CLRES 2077). Three 2-hour lectures on budget planning, working with personal strengths and weaknesses, and setting a culture for success on the research team.
- 2008–2016 Lecturer, “Medical Writing and Presentation Skills” (MEDEDU 2140). One 1-hour lecture on medical writing twice each year.
- 2008–2012 Lecturer, “Profession of Pharmacy 4” (PHARM 5211), one 2-hour lecture on the effects of mass media on health for 100 fourth-year pharmacy students once a year.
- 2008–2012 Lecturer, “Foundations of Nursing Practice” (NUR 0800), one 2-hour lecture on the effects of mass media on health for 120 first-year nursing students once a year.
- 2007–2015 Lecturer, Combined Ambulatory Medicine and Pediatrics Clerkship (MED 5328), two 1-hour lectures on nicotine addiction for 20 third-year medical students 8 times a year.
- 2007–2013 Adolescent Health and Internal Medicine Preceptor, Student Health Center, Carnegie Mellon University, 4-8 hours of precepting and clinical teaching for one third-year medical student and one second-year internal medicine resident each week for 48 weeks a year.
- 2006 Problem-Based Learning Facilitator, “Introduction to Psychiatry” (MED 5133), two 3-hour meetings with 10 first-year medical students.
- 2005 Course developer and director, “Medicine: From Molecules to Mass Media” (MED 2111), a 3-credit course, given 3 hours per week for 16 weeks, to 8 undergraduate students in the University of Pittsburgh Honors College.
- 2004 Instructor and small-group facilitator, “Medical Interviewing” (MED 5122), seven 3-hour sessions given to 8 first-year medical students.
- 2004 Course developer and director, “Health: From Cells to Communities” (MED 2110), 3-credit course, given 3 hours per week for 16 weeks, to 16 undergraduate students in the University of Pittsburgh Honors College.
- 2003–2004 Lecturer, Family Medicine Clerkship, a 1-hour lecture on evidence-based prevention for 20 third-year medical students each month for 8 months a year.
- 2002–2004 Family Medicine Preceptor, Matilda Theiss Health Center, 6 hours of precepting and clinical teaching for 1 second-year medical student each week for 48 weeks a year.

- 2002–2003 Family Medicine Preceptor, Shadyside Family Health Center, 3 hours of precepting and clinical teaching for 15 students (third- and fourth-year medical students and first-, second-, and third-year residents) each week for 48 weeks a year.
- 1993–1995 Mathematics Instructor, University of Maryland. Each semester, taught 4 sections of remedial mathematics (MATH001 and MATH002) with 30-40 students in each section. Taught for 4 semesters.
- 1990–2000 Instructor, Head of House, and Dean of Students, Exploration Intermediate Summer Program at Wellesley College. Taught for seven summers during this period of time. Taught courses of my own design in the following areas: African Art and Culture; Mathematics and Art; Making and Breaking Codes; and Comedy Writing.

PROFESSIONAL ACTIVITIES: MENTORING AND ADVISING

Undergraduate Students

- 2017–2019 Research advisor, Eleanna Melcher. Advised as U3-U4 student. Accomplishments while under supervision: (1) Triple major in German, Psychology, and Neuroscience. (2) On authorship team for manuscript in preparation.
- 2017–2019 Research advisor, Mira Shenouda. Advised as U3-U4 student. Accomplishments while under supervision: (1) First-author oral presentation accepted to international conference in Dubai, UAE. (2) Acceptance to medical school.
- 2017–2019 Research advisor, Charis Williams. Advised as a U1-U3 student. Accomplishments while under supervision: (1) Successful completion of project entitled “Prevalence and characteristics of electronic nicotine delivery systems (ENDS) retailers in Pennsylvania using primary data from the Yelp platform.” (2) Author on an oral presentation at the 2017 American Public Health Association Annual Meeting.
- 2016–2019 Research advisor, Daria Williams. Advised as a U1-U4 student. Accomplishments while under supervision: (1) Successful completion of project entitled “Validation of a unique social media tool to assess tobacco retail outlets” (with Erica Barrett). (2) Author on an oral presentation at the 2017 American Public Health Association Annual Meeting.
- 2016–2019 Research advisor, Erica Barrett. Advised as a U1-U4 student. Accomplishments while under supervision: (1) Successful completion of project entitled “Validation of a unique social media tool to assess tobacco retail outlets” (with Daria Williams). (2) Author on a manuscript published in *Computers in Human Behavior*.

- 2017–2018 Research advisor, Kirsten Wade. Advised as a U1 student. Accomplishments while under supervision: (1) Successful completion of project entitled “Individual social media platforms and eating concerns: A nationally-representative study of U.S. young adults.”
- 2017–2018 Research advisor, Tabitha Yates. Advised as a U1 student. Accomplishments while under supervision: (1) Successful completion of a project entitled “Understanding public sentiment about waterpipe tobacco smoking to inform public health research.” (2) Author on a manuscript currently under review.
- 2016–2018 Research advisor, Chandler Larkin. Advised as an undergraduate student. Accomplishments while under supervision: (1) Successful completion of a project entitled “Leveraging Twitter data and machine learning to improve drug use surveillance.” (2) Received BASc in applied science and mathematics. (3) Author on a manuscript published in the *American Journal of Public Health*.
- 2015–2017 Research advisor, Maharsi Naidu. Advised as a U2-U4 student. Accomplishments while under supervision: (1) Successful completion of projects including “Use of Twitter to assess sentiment toward waterpipe tobacco smoking” and “Initiation of waterpipe tobacco smoking: A nationally-representative longitudinal study of U.S. young adults.” (2) Author on national meeting abstracts for both projects. (3) Author on a manuscript published in *Cancer Epidemiology, Biomarkers, and Prevention*.
- 2015–2016 Research advisor, Gabrielle Scherer. Advised as a U1 student. Accomplishments while under supervision: (1) Successful completion of a project entitled “Waterpipe tobacco smoking messages on Twitter” (with Paige Haring).
- 2015–2016 Research advisor, Paige Haring. Advised as a U1 student. Accomplishments while under supervision: (1) Successful completion of a project entitled “Waterpipe tobacco smoking messages on Twitter” (with Gabrielle Scherer).
- 2014–2016 Research advisor, Christine Stanley. Advised as a U2-U4 student. Accomplishments while under supervision: (1) Author on presentation at the Society of General Internal Medicine. (2) Author on manuscript published in the *Journal of Mixed Methods Research*.
- 2013–2014 Research advisor, Nancy Adkins. Advised as a U1 student. Accomplishments while under supervision: (1) Successful completion of a project entitled “Systematic analysis of alcohol-related content on YouTube.”
- 2013–2014 Research advisor, Sarah Whyler. Advised as a U1 student. Accomplishments while under supervision: (1) Successful completion of a project entitled “Assessment of US hookah tobacco smoking establishments.”

- 2012–2015 Research advisor, Kevin Pang. Advised as a U2-U4 student. Accomplishments while under supervision: (1) Successful completion of a project entitled “Systematic analysis of alcohol-related content in Internet-based traditional and social media.” (2) Author on manuscript published in *Alcoholism: Clinical and Experimental Research*. (3) Author on presentation at Society of General Internal Medicine Annual Meeting.
- 2006–2013 Advisor, Mary Carroll. Advised as a U2-U4 student in Anthropology and Linguistics and while taking prerequisites for nursing school. Accomplishments while under supervision: (1) Received BA in linguistics and anthropology. (2) Admitted to first-choice nursing program. (3) Author on manuscripts published in the *Archives of Pediatric and Adolescent Medicine*, *Journal of Health Communication*, *American Journal of Public Health*, and *American Journal of Preventive Medicine*. (4) First author publications in *Tobacco Control* and *Nicotine Tobacco Research*. (5) Served as Peace Corps Volunteer in Health Education, Turkmenistan. (6) Received Society of Adolescent Health and Medicine Student Travel Award for 2012 annual conference in New Orleans, LA. (7) Received Nurse Corps Scholarship to Nursing School 2013-2015 (free tuition and stipend). (8) Worked as a public health nurse at clinic serving low-income and international patients.
- 2010–2013 Research advisor, Steven Farley. Advised as a U1-U4 student in Biology and Sociology. Accomplishments while under supervision: (1) Received BS in biology and psychology. (2) Successful completion of a research project on qualitative analysis of social media content. (3) Author on manuscript published in *Public Health Reports*.
- 2008–2009 Honors thesis advisor, Elyse (Sherman) Harrington. Advised as a U4 student in Sociology. Accomplishments while under supervision: (1) Received BA in honors Sociology. (2) Successful completion of a graduate-level honors thesis. (2) First author on a manuscript published in the *Journal of School Health*; the article has been cited more than 45 times since publication in 2009. (3) Received first choice graduate program in public policy at George Washington University.
- 2005–2008 Advisor, Natasha Hoyte. Advised as a U2-U4 student in biology and chemistry. Accomplishments while under supervision: (1) Received BS. (2) Awarded the Vira Heinz Scholarship to study in Tanzania for the summer of 2007. (3) Admitted to first-choice MPH program at George Washington University and then trained as a nurse practitioner.

2005–2008 Advisor, Aaron Agarwal. Advised as a U2-U4 student in Psychology. Accomplishments while under supervision: (1) Received BA. (2) Author of a letter published in the *American Journal of Public Health*. (3) Author of manuscripts published in the *Archives of Pediatric and Adolescent Medicine* and the *Annals of Behavioral Medicine*. (4) Admitted to graduate program in accounting and finance at the George Washington University.

Graduate Students

2019–present Research mentor, Renae Merrill MS. Currently pursuing a PhD in Public Policy at the University of Arkansas. Currently conducting PhD dissertation research on social media and mental health.

2014–present Research mentor, Beth Hoffman, BSc. Advised since the MS1 year. Accomplishments while under supervision: (1) First-author manuscripts in *Health Education Research*, *Advances in Health Sciences Education*, *Journal of Health Communication*, *Tobacco Prevention & Cessation*, and *Vaccine*. (2) First-author abstracts presented at multiple national meetings including those of the Society of General Internal Medicine and the Society of Behavioral Medicine. (3) Successfully defended her MPH thesis on social networks and vaccination practices. (4) 2019 Delta Omega Honor Society Thesis/Dissertation Award. (5) Admitted to the PhD program in Public Health.

2013–present Research mentor, Jason Colditz, MEd. Advised as a project coordinator at the University of Pittsburgh and a PhD candidate. Accomplishments while under supervision: (1) Over 25 peer-reviewed publications. (2) First-author manuscripts published in *American Journal of Health Promotion*, *Journal of Mixed Methods Research*, *Health Informatics Journal*, and *American Journal of Public Health*. (3) Admitted to PhD program in Clinical and Translational Science on first attempt. (4) Began dissertation on leveraging machine learning and natural language processing to improve surveillance of substance use.

2012–present Research mentor, Ariel Shensa, MA. Advised as a statistician at the University of Pittsburgh and a PhD candidate. Accomplishments while under supervision: (1) First author manuscripts published in *Health Education Research* and *Journal of Community Health*. (2) More than 40 total peer-reviewed publications. (3) More than 25 published abstracts. (4) Admitted to PhD program in Clinical and Translational Science on first attempt. (5) Began dissertation on complex associations between social media use and mental health outcomes.

- 2017 Master's thesis reader, Jessica Cheng, BS. Advised as MPH student. Accomplishments while under supervision: (1) Thesis entitled "Tobacco dependence: An ethnicity by smoker type interaction."
- 2015–2016 Research mentor and thesis committee member, Amanda Shaginaw, BS. Advised as MPH student in Epidemiology. Accomplishments while under supervision: (1) Thesis entitled "Associations between cyberbullying and depression."
- 2015–2017 Research mentor and thesis committee member, Amber Chaudhry, BS. Advised as MPH student in Behavioral and Community Health Sciences. Accomplishments while under supervision: (1) Successfully defended thesis entitled "College student perceptions of diversification of tobacco products."
- 2015–2016 Research mentor and thesis committee member, Mara Leff, BA. Advised as MPH student in Health Policy and Management. Accomplishments while under supervision: (1) Successfully defended thesis entitled "The Emergence of a Social Marketing Campaign Framework to Increase Hand Washing Among Rural Women in Telangana, India."
- 2014–2015 Research mentor and thesis committee member, Priam Chakraborty, BS. Advised as MPH student in Infectious Diseases and Microbiology. Accomplishments while under supervision: (1) Successfully defended thesis entitled "Assessment of Attitudes toward Human Papillomavirus Vaccine on Social Media." (2) Successfully developed thesis into first author manuscript published in *Cogent Medicine*.
- 2014–2017 Research mentor and thesis committee member, Jacquelynn Jones, BS. Advised as MPH student in Behavioral Science and Health Education. Accomplishments while under supervision: (1) Successfully defended thesis entitled "Occupational Social Media and Mental Health." (2) First-author manuscript published in *Cyberpsychology, Behavior, and Social Networking*.
- 2014–2015 Research mentor and thesis committee member, Ravi Choudhuri, BS, BA. Advised as MPH student in Health Policy and Management. Accomplishments while under supervision: (1) Successfully defended thesis entitled "Assessment of Electronic Cigarette Policy from the Perspective of Policy Makers."
- 2010–2012 Research mentor, Xingdi Hu, PhD. Advised as PhD student. Accomplishments while under supervision: (1) First-author publication in *Substance Abuse Treatment, Prevention and Policy* entitled "College Students and Use of K2: An Emerging Drug of Abuse in Young Persons." According to Google Scholar, this publication has been cited more than 160 times since 2011.

2009–2011 Faculty advisor and thesis committee member, Mari Vandenberg, BS.
Accomplishments while under supervision: (1) Received MHA (Master of Health Administration) from the Graduate School of Public Health at the University of Pittsburgh. (2) Successfully defended thesis entitled “Media Strategies and Their Impact on Health Care Reform Efforts.”

Medical Students

2016–2019 Scholarly project mentor, Sabrina Karim, BA. Advised as a medical student since the MS2 year. Accomplishments while under supervision: (1) Completed scholarly project entitled “Negative and Positive Experiences on Social Media and Perceived Social Isolation.” (2) Author on related manuscript published in the *American Journal of Health Promotion*. (3) Author on additional manuscript published in *Depression and Anxiety*.

2016–2019 Scholarly project mentor, Meghan Bisbey, BS. Advised as a medical student since the MS2 year. Accomplishments while under supervision: (1) Completed scholarly project entitled “Social Media Affect and Mental Health Outcomes.” (2) First author presentation at the annual meeting of the Association of Medicine and Psychiatry. (3) Author on peer-reviewed manuscript published in *Depression and Anxiety*.

2015–2017 Scholarly project mentor, Erin Whaite, BS. Advised as a medical student since the MS1 year. Accomplishments while under supervision: (1) Scholarly project entitled “Social media audience and mental health outcomes” approved. (2) Author on manuscript published at *American Journal of Preventive Medicine*. (3) First-author manuscript published in *Personality and Individual Differences*.

2014–2017 Scholarly project mentor, Bethany Corbin, BS. Advised since the MS2 year. Accomplishments while under supervision: (1) Scholarly project entitled “Media literacy education to improve evidence-based prescribing” approved. (2) Received commendation for her first-author abstract at the 2016 Society for Behavioral Medicine Annual Meeting. (3) First author on manuscript published at *Journal of Media literacy Education*.

2014–2016 Research mentor, Laura Lin, BA. Advised since the MS2 year. Accomplishments while under supervision: (1) Successful completion of year-long T32 Fellowship Program in Mental Health Research. (2) Successful completion of project entitled, “Social Media Use and Mental Health Outcomes in Young Adults.” (3) First-author manuscript published in *Depression and Anxiety*. (4) First author abstract accepted as oral presentation to 2015 Society of General Internal Medicine meeting in Toronto, ON. (5) Received first-choice residency program in combined family medicine and psychiatry.

- 2014–2016 Research mentor, Simon Yohannes, BS. Advised since the MS1 year.
Accomplishments while under supervision: (1) Successful completion of Schweitzer Foundation project mentoring African-American youth around health and wellness issues, leadership, and scientific literacy.
- 2014–2015 Research mentor, Mercy Baffour, BS. Advised during the MS2 year.
Accomplishments while under supervision: (1) Scholarly project proposal approved for “Social Media Use and Disordered Eating.”
- 2013–2015 Research mentor, Jamil Alhassan, BS. Advised since the MS1 year. Accomplishments while under supervision: (1) Successfully completed research project entitled “Translating effective anti-smoking programming into inner city environments.” (2) Received and completed prestigious Schweitzer Fellowship.
- 2011–2014 Scholarly project mentor, Carly Schram, BS. Advised since the MS1 year.
Accomplishments while under supervision: (1) Successfully completed project entitled “Improving evidence-based prescribing among medical residents.”
- 2011–2014 Scholarly project mentor, Jennifer Mah, BS. Advised since the MS1 year.
Accomplishments while under supervision: (1) Successfully completed project entitled “Associations between knowledge and behavior regarding hookah tobacco smoking.” (2) Author on manuscript published in *Journal of Ethnicity and Substance Abuse*.
- 2010–2014 Scholarly project mentor, Jane Tschang, BS, MA. Advised since the MS1 year.
Accomplishments while under supervision: (1) Successfully completed scholarly project entitled “Media literacy and tobacco use among urban youth in Pittsburgh.” (2) First author on oral presentation delivered at National Media Education Conference in Philadelphia, PA, July, 2011. (3) First-author manuscript submitted to peer-reviewed journal. (4) Received first-choice residency in pediatric psychiatry.
- 2009–2013 Scholarly project mentor, Erin Nuzzo, BS. Advised since the MS1 year.
Accomplishments while under supervision: (1) Received Outstanding Student Presentation Award at 2011 Society of Behavioral Medicine Meeting. (2) First author on oral presentation accepted to the Annual Meeting of the *Society of Behavioral Medicine*. (3) Author on a manuscript published in *Addiction*. (4) First author on manuscript published in *Health Education Research* in 2013. (5) Received first choice residency placement at Beth Israel Hospital / Harvard University.
- 2008–2012 Scholarly project mentor, Jonathan Lee, BS. Advised since the MS1 year.
Accomplishments while under supervision: (1) Successfully completed project entitled “Association between Recommended Processes of Care and Pneumonia Outcomes.” (2) Presented associated abstract to national meeting of the Society for General Internal Medicine. (3) First-author publication published in *American Journal of Medicine*. (4) Elected as Chief Resident in 2013.

- 2007–2011 Scholarly project mentor, Traci Roberts, BS, MS. Advised since the MS1 year. Accomplishments while under supervision: (1) Successfully completed a project entitled “Representation of Emergency Department Visits in Mass Media.” (2) Author on manuscript accepted to the *Journal of Emergency Medicine*.
- 2007–2011 Scholarly project mentor, Enrico Castillo, BA. Advised as an MS -MS4 student. Accomplishments while under supervision: (1) Successfully completed a project entitled “Development of a Cancer Screening Brochure for Asian Females.” (2) Received first choice residency placement at Columbia University.
- 2007–2010 Research mentor, Alison G. Rubin, BA. Advised as an MS2-MS4 student. Accomplishments while under supervision: (1) Received Best Poster Award at the 2007 Annual Meeting of the Society of Pediatric and Adolescent Gynecology. (2) First author of a manuscript published in the *Journal of Pediatric and Adolescent Gynecology*. (3) Received first choice pediatrics residency.
- 2008–2009 Research mentor, Christopher Yang, BA. Advised as an MS1-MS2 student. Accomplishments while under supervision: (1) Successful completion of Western Pennsylvania Health Preceptorship. (2) Completed research project on qualitative coding and analysis. (3) Author of an article published in *Health Education Research*.
- 2007–2008 Research mentor, Brandi Swanier, BA. Advised as an MS3-MS4 student. Accomplishments while under supervision: (1) Received MD. (2) Author of a manuscript published in the *Archives of General Psychiatry*. (3) Received first-choice residency program at Brown University.
- 2004–2008 Faculty advisor, Kristen Scopaz, BS. Advised as an MS1-M4 student. Accomplishments while under supervision: (1) Received MD. (2) Received first-choice residency at the University of Pittsburgh. (3) Completed Sports Medicine fellowship in 2012.
- 2004–2008 Faculty advisor, Shail Mehta, BS. Advised as an MS1-M4 student. Accomplishments while under supervision: (1) Received MD. (2) Received first-choice residency in internal medicine and pediatrics at the University of Michigan.
- 2004–2008 Faculty advisor, Jennifer Basarab, BA. Advised as an MS1-M4 student. Accomplishments while under supervision: (1) Received MD. (2) Received first-choice residency at the University of Pennsylvania.

Postdoctoral Fellows and Faculty Members

- 2020-present Research mentor, Page Dobbs, PhD. Recruited to faculty position in Public Health at the University of Arkansas from the University of Oklahoma and the Stephenson Cancer Center. Currently has 11 publications with 6 first-author.
- 2019-present Research mentor, Allison Boykin, PhD. Faculty member in Educational Statistics and Research Methodology. Currently has 15 publications with 10 first-author.
- 2016–present Research mentor, Kar-Hai Chu, PhD. Recruited to faculty position at the University of Pittsburgh from University of Southern California. Has more than 20 publications with 11 first-author. Received KL2 career development award. Accomplishments while under supervision: (1) Received K07 from the National Cancer Institute for over \$500,000 to improve substance use surveillance, prevention, and treatment. (2) First author on manuscript published in *Journal of Adolescent Health*. (3) Author on 3 other published manuscripts.
- 2016–present Research mentor, César G. Escobar-Viera, MD, PhD. Recruited as post-doctoral fellow from Stanford University. Has 13 publications with 4 first-author. Accomplishments while under supervision: (1) Received K99-R00 on first submission studying unique aspects of the social media and online milieu that may be relevant to the delivery and maintenance of mental health care. (2) First author publications in *Cyberpsychology, Behavior, and Social Networking* and *JMIR Mental Health*. (3) Author on several other published manuscripts.
- 2011–present Research mentor, Jaime Sidani, PhD. Advised as a research associate at the University of Pittsburgh. Accomplishments while under supervision: (1) Multiple first author publications, including *Nicotine & Tobacco Research; Journal of Community Health; Addiction; Journal of the Academy of Nutrition and Dietetics; Cancer Epidemiology, Biomarkers, and Prevention; and Family Practice*. (2) Author on more than 35 peer-reviewed publications. (3) More than 20 peer-reviewed presentations.
- 2016–2018 Research mentor, Zan Dodson, PhD. Post-doctoral fellow in the public health dynamics laboratory. Accomplishments while under supervision: (1) Author on oral presentation at American Public Health Association Annual Meeting.
- 2014–2017 Research mentor, Daniel Rosen, PhD. Advised as a mid-career faculty member in Social Work at the University of Pittsburgh. Accomplishments while under supervision: (1) Multiple joint publications including “Associations of mental health problems with waterpipe tobacco and cigarette smoking among college students,” “Associations between race, ethnicity, religion, and waterpipe tobacco smoking,” “Sustained waterpipe tobacco smoking and trends over time,” and “Adherence to a telehealth protocol to prevent readmission among a high-risk cohort of patients with congestive heart failure.” (2) Promoted to full professor with tenure.

- 2012–2014 Research mentor, Mansoo Yu, PhD. Advised as a mid-career faculty member at the University of Missouri. Accomplishments while under supervision: (1) First-author publications in peer reviewed journals. (2) Successful submission of an R21 research grant to the National Cancer Institute. (3) First-author presentation presented at 18th annual conference of Society for Social Work and Research (SSWR). (4) Awarded promotion to associate professor and tenure.
- 2011–2013 Research mentor, Tracey Barnett, PhD. Advised as a junior faculty member at the University of Florida. Accomplishments while under supervision: (1) First author on manuscript published in and *American Journal of Health Behavior*.
- 2007–2012 Research mentor, Anna Adachi-Mejia, PhD. Advised as a junior faculty member at Dartmouth University. Accomplishments while under supervision: (1) First author of a manuscript published in *Archives of Pediatric and Adolescent Medicine*.
- 2006–2012 Research mentor, Jennifer Middleton, MD. Advised as a Family Medicine fellow and faculty member. Accomplishments while under supervision: (1) Received the Top Paper Award at the 2006 Annual Meeting of the Northeast Society for Teachers of Family Medicine. (2) Received a Green Award Research Scholarship. (3) Received a career development award from the American Academy of Family Physicians Foundation.
- 2008–2010 Research mentor, Margie Snyder, PharmD. Advised as a fellow. Accomplishments while under supervision: (1) Published dissertation in *Research on Social and Administrative Pharmacy*. (2) Received faculty position offer from first-choice institution.

PROFESSIONAL ACTIVITIES: PATIENT CARE

- 2013–2016 Staff physician, Montefiore Hospital General Internal Medicine Urgent Care, Pittsburgh, PA. Schedule: 2 half-days per week. Panel size: about 11,000, ages 16 to geriatric.
- 2007–2013 Staff physician, Student Health Service, Carnegie Mellon University, Pittsburgh, PA. Schedule: 1-3 days half-days per week. Panel size: about 4,000 patients, primarily college and graduate students.
- 2004–2007 Staff physician, Student Health Service, University of Pittsburgh. Schedule: 2-3 days half-days per week. Panel size: about 12,000 patients, primarily college and graduate students.

- 2002–2004 Staff physician, Matilda Theiss Health Center, University of Pittsburgh Medical Center. Schedule: 5-6 half-day sessions per week from 2002-2004. Panel size: about 800 patients, ages newborn to geriatric.
- 1999–2002 Resident Physician, University of Pittsburgh Medical Center. Rotations and experiences included family medicine, pediatrics, ophthalmology, ear, nose, and throat, orthopedics, intensive care unit, night float, obstetrics (delivered over 50 babies), and inpatient wards.

PROFESSIONAL ACTIVITIES: RESEARCH

Current Grant Support

Years	Grant Title	Role and % Effort	Source and Dollar Amount
2018–2023	R01-CA225773: Leveraging Twitter to Understand Tobacco Use	Principal Investigator, 20%	National Cancer Institute R01, Direct: \$1,710,917; Indirect: \$842,391
2017–2020	171R32SM-2018: Optimizing Mental Health in the Age of Social Media	Principal Investigator, 5%	Fine Foundation Direct: \$300,000; Indirect: \$0
2018-2023	K99-MD012813: Social Media Use and Depression Outcomes among U.S. Lesbian, Gay, and Bisexual Individuals	Primary Mentor (PI C. Escobar-Viera)	National Institute of Minority Health & Health Disparities K99-R00, Direct: \$1,004,900; Indirect: \$428,934
2018–2022	K07-CA222338: Leveraging Mobile Applications to Maximize Tobacco Cessation	Primary Mentor (PI K. Chu)	National Cancer Institute K07, Direct: \$541,964; Indirect: \$42,566.
2017–2021	Data Storage Leveraging Twitter as an Epidemiologic Tool to Understand Health Behaviors	Principal Investigator, 2.5%	Extreme Science and Engineering Discovery Environment (National Science Foundation) Direct: \$7,140; Indirect: \$0

Previous Grant Support

Years	Grant Title	Role and % Effort	Source and Dollar Amount
2016–2019	R01-HL130388: Improving the Ability of Younger Unrelated Hematopoietic Stem Cell Donors	Co-Investigator, 5% (PI G. Switzer)	National Institute of Heart, Lung, and Blood R01, Direct: \$815,588; Indirect: \$418,722
2013–2019	R01-DA034629: Cessation in Non-Daily Smokers: An RCT of NRT with Ecological Momentary Assessment	Principal Investigator (MPI with H. Tindle), 5%	National Institute on Drug Abuse R01, Direct: \$2,029,819; Indirect: \$1,026,867
2018–2019	Development of Two New Media Literacy Programs to Prevent Tobacco Use	Co-Investigator, 2.5%	Tennessee Department of Health, Direct: \$98,135; Indirect: \$11,577
2010–2018	R01-CA140150: Waterpipe Tobacco Smoking among Adolescents and Young Adults in the United States	Principal Investigator, 35%	National Cancer Institute R01, Direct: \$1,727,259; Indirect: \$824,018
2014–2017	R01-CA140150-S1: Exploring sex differences in Waterpipe Tobacco Smoking	Principal Investigator, 5%	NIH Office of Women’s Health R01 Supplement, Direct: \$64,918; Indirect: \$35,055
2014–2017	R21-HS022927: Sponsored Health Information Technology and Evidence-Based Prescribing among Medical Residents	Principal Investigator, 20%	Agency for Health Quality Research R21, \$194,805; Indirect: \$105,195
2014–2018	R21-CA185767: Improving U.S. Health Policy Regarding Water-pipe Tobacco Smoking	Principal Investigator, 20%	National Cancer Institute R21, \$239,250; Indirect: \$129,195
2015–2018	U54-GM119023-S1: Professional Skill Development for Mentors	Co-Investigator, 15% (PI D. Burgess)	National Research Mentoring Award (NRMN), Direct: \$1,490,740; Indirect: \$119,259
2017–2018	Using Social Media as a Drug Surveillance and Intervention Tool	Principal Investigator, 10%	Pennsylvania Department of Health, Direct: \$27,855; Indirect: \$0

2014–2016	R01-AA021347: Alcohol Marketing and Underage Drinking	Co-investigator, 5% (PI J. Sargent)	National Institute of Alcohol Abuse and Alcoholism R01, Direct: \$1,471,139; Indirect: \$803,046
2013–2015	Alcohol-Related Messages in Social Media	Principal Investigator, 5%	ABMRF Alcohol Research Foundation, Direct: \$86,957; Indirect: \$13,043
2013–2014	Waterpipe Tobacco Smoking Among Women: Data Synthesis from Social Media and Implications for Interventions, 3/1/2013 to 8/30/2014	Principal Investigator, 5%	University of Pittsburgh Cancer Institute; Direct: \$25,000; Indirect: \$0
2012–2014	Investigating Hookah Tobacco Smoking Policy, 1/1/2012 to 6/30/2014	Principal Investigator, 5%	University of Pittsburgh Health Policy Institute; Direct: \$19,834; Indirect: \$0
2012–2013	R01: Waterpipe Tobacco Smoke: Toxicant Exposure and Effects, 2/1/12 to 1/31/13	Co-Investigator, 10% (PI T. Eissenberg)	National Cancer Institute, Direct: \$422,765; Indirect: \$117,215
2011–2012	Media Literacy to Improve Evidence-Based Prescribing Among Family Medicine Trainees, 9/1/11 to 12/31/12	Principal investigator, 25%	The Consumer and Prescriber Grant Program, Direct: \$177,160; Indirect: \$0
2009–2012	R03: Waterpipe Tobacco Smoking: Trends, Toxicity, and Capacity Building in Jordan, 9/1/2009 to 6/30/2012	Co-Investigator, 5% (PI T. Eissenberg)	National Cancer Institute, Direct: \$96,804; Indirect: \$17,237
2009–2011	Investigating Associations between Media Use, Depression, and Anxiety, Using Ecological Momentary Assessment (EMA), 8/1/09 to 7/31/11	Co-principal investigator, 10%	RAND–University of Pittsburgh Health Institute (RUPHI), Direct: \$25,000; Indirect: \$0
2009–2011	Waterpipe Tobacco Smoking among Students at the University of Florida, 7/1/09 to 6/30/11	Principal investigator, 5%	University Center for Social and Urban Research, University of Pittsburgh, \$10,000; Indirect: \$0
2009–2011	K07-S: Supplement to Media Literacy to Prevent Adolescent Smoking, 9/1/09 to 8/31/11	Principal Investigator, 10%	National Cancer Institute, Direct: \$100,000; Indirect: \$8000

2006–2011	K07: Media Literacy to Prevent Adolescent Smoking, 9/1/06 to 8/31/11	Principal investigator, 75%	National Cancer Institute, Direct: \$609,375; Indirect: \$48,750
2008–2011	Computer-Based Health and Medical Education in Needy Area High Schools, 7/1/08 to 6/30/11	Principal investigator, 10%	Maurice Falk Foundation, Direct: \$92,592; Indirect: \$7408.
2008–2011	The Effect of a Targeted Video Intervention on Beliefs regarding Hypertension, 4/1/08 to 3/31/11	Co-investigator and research mentor, 5% (PI J. Middleton)	American Academy of Family Physicians Foundation, Direct: \$30,000; Indirect: \$2400
2006–2009	School-Based Media Literacy to Reduce Adolescent Smoking, 7/1/06 to 12/31/09	Principal investigator, 25%	Physician Faculty Scholar Award from the Robert Wood Johnson Foundation, Direct: \$300,000; Indirect: \$0
2005–2006	Improving Medical Students' Cultural Competency through Developing Community Patient Education Materials, 1/1/05 to 6/30/06	Principal investigator, 3%	Provost's Innovation in Education Award, University of Pittsburgh, Direct: \$13,435; Indirect: \$0
2004–2007	Ad It Up: Integration of Video Production into Smoking Prevention Media Literacy Programs, 4/1/04 to 3/31/07	Principal investigator, 10%	Maurice Falk Foundation, Direct: \$65,765; Indirect: \$5261
2004–2005	Health, Media Exposure, and Media Literacy, 11/1/04 to 10/31/05	Principal investigator, 10%	Tobacco-Free Allegheny, Direct: \$20,264; Indirect: \$1621
2003–2004	Media Literacy for Health Education and Disease Prevention: Pilot Project, 2/1/03 to 1/31/04	Principal investigator, 10%	Maurice Falk Foundation, Direct: \$26,365; Indirect: \$2109

PROFESSIONAL ACTIVITIES: INVITED LECTURES AND SEMINARS

State and National Presentations

- 2020 "Navigating the Digital Era: Social Media and Mental Health." PsychU National Webinar Series. May 19, 2020.
- 2018 "Media Messages and Health: Challenges and Opportunities for the 21st Century." Kelley School of Business Keynote Presentation. Indianapolis, IN. October 12, 2018.

- 2018 "How Social Are Social Media?" Winter Academy Keynote Speaker. Naples, FL. February 16, 2018.
- 2018 "Social Media and Mental Health in 2018." Los Angeles Alumni Event Keynote Speaker. Los Angeles, CA. January 30, 2018.
- 2017 "E-cigarettes: Facts and Myths." Continuing Medical Education Live Conference Presentation at the Pennsylvania Osteopathic Medical Association District VIII Winter Seminar. Farmington, PA. January 26, 2017.
- 2015 "Ethical Implications of 21st Century Media and Technology on Health," featured speaker for Consortium Ethics Program Conference. LaRoche College. Pittsburgh, PA. December 15, 2015.
- 2015 "Electronic Cigarette Use: Lifesaving Remedy or Public Health Nightmare?" Center for Addiction and Substance Abuse. Columbia University. New York, NY. July 2, 2015.
- 2015 "Implications of the New Media Environment for Health Education," Indiana University of Pennsylvania Health Professions Grand Rounds. Indiana, PA. May 15, 2015.
- 2015 "Alternative Nicotine Products: What Policy Makers Need to Know," seminar given at Pennsylvania Department of Health. Harrisburg, PA. March 23, 2015.
- 2014 "Substance Use and Social Media," plenary speaker and conference developer, Drug-Free Pennsylvania Media Literacy Conference. State College, PA. October 17, 2014.
- 2014 "Substance Use and Social Media," plenary speaker and conference developer, Drug-Free Pennsylvania Media Literacy Conference. Pittsburgh, PA. October 10, 2014.
- 2014 "Leveraging the Power of Video Gaming to Improve Health," mainstage speaker, TEDMED 2014. San Francisco, CA. September 11, 2014.
- 2013 "Substance Use Prevention in the Media Age: State College," plenary speaker and conference developer, Drug-Free Pennsylvania Media Literacy Conference. State College, PA. October 21, 2013.
- 2013 "Substance Use Prevention in the Media Age: Pittsburgh," plenary speaker and conference developer, Drug-Free Pennsylvania Media Literacy Conference. Pittsburgh, PA. October 15, 2013.
- 2013 "Media Literacy to Prevent Substance Abuse," plenary speaker, Commonwealth Prevention Alliance 23rd Annual Prevention Conference: Leading the Challenge. State College, PA. June 13, 2013.
- 2013 "How Do Mass Media Messages Influence Substance Use?" Health Policy Research Institute Seminar Series. University of California. Irvine, CA. August 22, 2013.
- 2013 "Strength in Synergy: Our Best Hope for Reducing Morbidity, Mortality, and Economic Costs from Tobacco Use." National Cancer Institute. Rockville, MD. May 9, 2013.
- 2013 "Waterpipe (Hookah) Tobacco Smoking: Ancient History or New Epidemic?" Grand Rounds, University of North Carolina School of Journalism and Mass Communication. Chapel Hill, NC. April 11, 2013.
- 2012 "Media Literacy, Social Media, and Substance Use: Pittsburgh." Plenary speaker and conference developer, Drug-Free Pennsylvania Media Literacy Conference. Pittsburgh, PA. November 13, 2012.

- 2012 “Media Literacy, Social Media, and Substance Use: State College.” Plenary speaker and conference developer, Drug-Free Pennsylvania Media Literacy Conference. State College, PA. November 6, 2012.
- 2012 “Waterpipe Tobacco Smoking: What Do We Know in 2012?” Featured speaker at National Cancer Institute. April 9, 2012.
- 2011 “Media Literacy to Prevent Substance Use: State College.” Plenary speaker and conference developer, Drug-Free Pennsylvania Media Literacy Conference. State College, Pennsylvania, May 10–11, 2011.
- 2011 “Media Literacy to Prevent Substance Use: Pittsburgh.” Plenary speaker and conference developer, Drug-Free Pennsylvania Media Literacy Conference. Pittsburgh, PA. May 3–4, 2011.
- 2011 “From Big Macs to Big Pharma: Media and Health in 2011.” Featured Speaker. University of Pittsburgh Winter Academy. Naples, FL. January 28, 2011.
- 2010 “Media Literacy to Prevent Substance Use.” Plenary speaker and conference developer, Drug-Free Pennsylvania Media Literacy Conference. Harrisburg, PA. March 25–26, 2010.
- 2010 “Mass Media Messages and Adolescent Substance Abuse in 2010.” Featured presentation, National Center on Substance Abuse. Columbia University. New York, NY. March 18, 2010.
- 2010 “An Update on Mass Media and the Health of Adolescents,” Adolescent Medicine Grand Rounds. Columbia University. New York, NY. March 17, 2010.
- 2009 “Waterpipe Tobacco Smoking: 16th Century Practice, 21st Century Public Health Threat.” Grand Rounds, Department of Pediatrics, University of Rochester School of Medicine. Rochester, NY. November 17, 2009.
- 2009 “Media Literacy: Can It Improve Our Relationships with Our Patients?” Seminar Speaker, Department of Pediatrics, Dartmouth University School of Medicine. Hanover, NH. August 12, 2009.
- 2009 “Hookah Smoking in the Middle East, New Hampshire, and Beyond.” Cancer Control Seminar, Dartmouth University School of Medicine. Hanover, NH. August 11, 2009.
- 2009 “Hookah Smoking: The Next Strain in the Global Tobacco Epidemic.” Featured Speaker, Prevention Connections National Tobacco Control Conference. Alexandria, VA. April 30, 2009.
- 2009 “Media Literacy to Prevent Substance Use.” Plenary speaker and conference developer, Drug-Free Pennsylvania Media Literacy Conference. Harrisburg, PA. April 2–3, 2009.
- 2009 “Ancient Practice Gets New Life: Hookah.” Office of Smoking and Health Media Network Webcast, Centers for Disease Control and Prevention (CDC). Atlanta, GA. March 19, 2009.
- 2009 “Can Media Literacy Prevent Substance Use?” National Leadership Forum, Community Anti-Drug Coalitions of America. Washington, DC. February 9, 2009.
- 2008 “Media Literacy to Prevent Substance Use.” Plenary speaker and conference developer. Drug-Free Pennsylvania Media Literacy Conference. Harrisburg, PA. June 19–20, 2008.
- 2008 “Keeping Children Safe in a Multimedia World.” Plenary presentation, Annual Conference of the Center for Safe Schools. Harrisburg, PA. May 7, 2008.

- 2006 “Innovative Youth Smoking Prevention.” Invited Seminar, Pennsylvania Department of Health. Harrisburg, PA. May 23, 2006.
- 2003 “Social Marketing: The Tobacco Story.” Teleconference presentation, U.S. EPA Chesapeake Bay Program. Washington, DC. September 15, 2003.

Local and Regional Presentations

- 2019 Presentation, Northwest Arkansas Educational Cooperative
- 2019 Presentation, University of Arkansas Medical School Northwest
- 2019 “New strategies to improve/elevate UA’s research center/institute operation.” Lightning talk at the Vice Chancellor for Research and Innovation’s Fall Retreat. Springdale, AR. August 8, 2019.
- 2019 “The Mentoring Quilt.” Institute for Clinical Research Education Commencement Keynote Speaker. Pittsburgh, PA. May 21, 2019.
- 2018 “The Three Other Directions.” Honors Convocation Keynote Speaker. Pittsburgh, PA. February 23, 2018.
- 2016 “My Paper Is Published, Now What?” University of Pittsburgh Medical Scientist MD/PhD Training Program Featured Speaker. Pittsburgh, PA. October 26, 2016.
- 2016 “Mass Media and Public Health in 2016.” State of Pennsylvania Health Career Scholars Academy (formerly Pennsylvania Governor’s School for Health Care). Pittsburgh, PA. July 30, 2016.
- 2016 “Optimizing Health in a New Media Environment.” 1787 Society Keynote Speaker. Pittsburgh, PA. May 13, 2016.
- 2016 “Social Media Use and Mental Health Outcomes.” Health Services Research Seminar Series. Pittsburgh, PA. February 25, 2016.
- 2016 “Update on Teen Tobacco and Nicotine Use.” University of Pittsburgh Cardiovascular Outcomes Research Retreat. Pittsburgh, PA. January 6, 2016.
- 2015 “Electronic Cigarette Use: Lifesaving Remedy or Public Health Nightmare?” University of Pittsburgh Center for Research on Healthcare Seminar. Pittsburgh, PA. May 1, 2015.
- 2015 “Update on Hookah Smoking.” Tobacco, Nicotine, Biomarkers, and Cancer Retreat Speaker. University of Pittsburgh Cancer Institute. Pittsburgh, PA. March 26, 2015.
- 2014 “Destruction or Salvation? The Current State of Video Games and Health.” Grand Rounds Speaker. Department of Medicine, University of Pittsburgh School of Medicine. Pittsburgh, PA. November 11, 2014.
- 2014 “Leveraging Twitter to Follow Substance Use.” Department of Biomedical Informatics Seminar Series. University of Pittsburgh. Pittsburgh, PA. November 7, 2014.

- 2014 "Video Games: The Good, the Bad, and the Future." Grand Rounds Speaker. Graduate School of Public Health, University of Pittsburgh. Pittsburgh, PA. August 27, 2014.
- 2014 "The Influence of Social Media on Health Behavior." ARCS Foundation Featured Speaker. Pittsburgh, PA. February 12, 2014.
- 2014 "The latest perfect storm: Hookah tobacco smoking in the US." Medical Grand Rounds, UPMC Shadyside Hospital. Pittsburgh, PA. February 6, 2014.
- 2013 "Tobacco Marketing and Health Disparities." Social Determinants of Health Working Group at the University of Pittsburgh Medical School. Pittsburgh, PA. November 21, 2013.
- 2013 "Mass Media and Public Health in 2013." State of Pennsylvania Health Career Scholars Academy (formerly Pennsylvania Governor's School for Health Care), Pittsburgh, PA. July 10, 2013.
- 2013 "Making the most out of the relationship with your mentor." Invited participant in panel of mentoring awardees for discussion around effective medical student mentoring. Pittsburgh, PA. June 4, 2013.
- 2013 "Improving Evidence-Based Prescribing Among Resident Physicians." University of Pittsburgh American Medical Student Association (AMSA) Featured Speaker. May 16, 2013.
- 2013 "College in High School Argument Forum." Special guest commentator for high school debating competition around the resolution "Exposure to popular culture enhances adolescent development." North Allegheny High School. Pittsburgh, PA. April 25, 2013.
- 2013 "Tragedies and Opportunities: Video Games and Health." Featured guest on WQED (public television) program. Pittsburgh, PA. January 15, 2013.
- 2012 "Video Games: The Bad, the Ugly, and the Good?" UPMC South Side Lunch and Learn Featured Speaker. Pittsburgh, PA. November 28, 2012.
- 2012 "Media Messages and the Health of Girls." Featured guest on WQED (public television) program. Pittsburgh, PA. November 8, 2012.
- 2012 "A Tale of Two Pop Songs." Division of Adolescent Medicine Research Symposium, Pittsburgh, PA. October 25, 2012.
- 2012 "How Do Media Messages Impact Public Health?" State of Pennsylvania Health Career Scholars Academy (formerly Pennsylvania Governor's School for Health Care), Pittsburgh, PA. July 12, 2012.
- 2012 "Add Qualitative Research to Your Portfolio." UPMC Shadyside Family Medicine Residency Program Research Day Presentation. June 5, 2012.
- 2012 "The Social Network: How Does It Influence Your Health?" Ellis School. May 23, 2012.
- 2012 "What Are You Smoking in There?" UPMC Saint Margaret Hospital Grand Rounds. March 1, 2012.

- 2012 "More of the Same: The History of Tobacco Marketing." American Cancer Society Board Meeting. January 24, 2012.
- 2011 "How Mass Media Messages Influence Minority Health." My Brother's Keeper Annual Retreat presentation. June 14, 2011.
- 2011 "Driver Distractions." UPMC Saint Margaret Family Practice Residency Program 38th Refresher Course in Family Medicine. Pittsburgh, PA. June 9, 2011.
- 2011 "Secrets of Signs All Around You." Central Valley School District featured student presentation. May 16, 2011.
- 2011 "Mass Media and U.S. Health in 2011." Southeast Asia Youth Summit. University of Pittsburgh. Pittsburgh, PA. May 5, 2011.
- 2010 "The Influence of Media on Minority Health: An Overview." Student National Medical Association Annual Conference Retreat. November 13, 2010.
- 2010 "From Big Macs to Big Pharma: Media and Health in 2010." UPMC Shadyside Hospital Grand Rounds. Pittsburgh, PA. November 4, 2010.
- 2010 "Staying Pharm Free as a Physician." Invited Speaker for University of Pittsburgh School of Medicine Students. Pittsburgh, PA. October 27, 2010.
- 2010 "How Do Media Messages Influence Health Disparities?" University of Pittsburgh Office of Minority Health Featured Speaker. Pittsburgh, PA. October 14, 2010.
- 2010 "Mass Media Messages and Your Patients' Health." UPMC Saint Margaret Hospital Grand Rounds. Pittsburgh, PA. September 13, 2010.
- 2010 "Media Messages and Maternal-Child Health," State of Pennsylvania Health Career Scholars Academy (formerly Pennsylvania Governor's School for Health Care). Pittsburgh, PA. July 1, 2010.
- 2010 "Hookah Tobacco Smoking: From the Distant Past, or in Our Immediate Future?" University of Pittsburgh Cancer Institute Annual Retreat. Pittsburgh, PA. June 18, 2010.
- 2010 "Does Anything Affect Health More Than Media?" University of Pittsburgh Mind-Body Center Seminar Speaker. Pittsburgh, PA. June 10, 2010.
- 2010 "Protecting Your Teen During Prom Season," Televised Live Interview, KDKA-TV. Pittsburgh, PA. May 11, 2010.
- 2010 "An update on Mass Media and the Health of Adolescents," South Asian Health Summit, Magee Women's Hospital. Pittsburgh, PA. April 27, 2010.
- 2009 "Assessing the Association of Mass Media Exposure and Adolescent Mental Health Concerns, Using Ecological Momentary Assessment," Center for Research on Health Care Research Seminar. Pittsburgh, PA. October 29, 2009.

- 2009 "How Does the Mass Media Affect Your Pathway to Health?" keynote presentation, Pathways to Health Conference. Carnegie Mellon University. Pittsburgh, PA. June 4, 2009.
- 2009 "Waterpipe Tobacco Smoking: A First Look at National Data," Center for Research on Health Care Seminar Series. Pittsburgh, PA. February 3, 2009.
- 2009 "Nutrition and the Media: Lobbying for Policy Change," kickoff keynote speaker, American Cancer Society Daffodil Days. Pittsburgh, PA. January 14, 2009.
- 2009 "Health Disparities and Tobacco Advertising," Center for Research on Health Care Seminar Series. Pittsburgh, PA. January 13, 2009.
- 2008 "Navigating Nutrition in a Media-Driven World," American Cancer Society Speakers' Bureau Engagement. Pittsburgh, PA. November 13, 2008.
- 2008 "Hookah Smoking: Past, Present, and Future," Meeting of the Board of Directors, American Cancer Society. Pittsburgh, PA. September 23, 2008.
- 2008 "Using Social Marketing to Improve Relationships with Our Patients," School of Pharmacy, University of Pittsburgh. Pittsburgh, PA. February 20, 2008.
- 2008 "Popular Music and Health: Why Are We Concerned?" School of Music, University of Pittsburgh. Pittsburgh, PA. February 20, 2008.
- 2008 "Health Literacy and Nursing Care," School of Nursing, University of Pittsburgh. Pittsburgh, PA. February 7, 2008.
- 2008 "Diagnosis and Treatment of Depression in Primary Care," Student Health Services, Carnegie Mellon University. Pittsburgh, PA. December 5, 2008.
- 2007 "Substance Use and Sex in Popular Music," Internal Medicine Grand Rounds. Pittsburgh, PA. September 28, 2007.
- 2007 "How to 'Ad It Up' for Yourself: The Media and Health," Pennsylvania Governor's School for Health Care. Pittsburgh, PA. July 2, 2007.
- 2007 "The Media and Your Patients' Health," Mon Valley Hospital. Monongahela, PA. May 10, 2007.
- 2007 "Smoking Prevention," Smoking Research Summit, Graduate School of Public Health, University of Pittsburgh. Pittsburgh, PA. April 20, 2007.
- 2007 "Health Literacy and Social Marketing," Grand Rounds, UPMC Northwest. Franklin, PA. April 19, 2007.
- 2007 "Using Social Marketing to Teach Health Literacy to Medical Students," Monthly Medical Education Seminar, UPMC Shadyside. Pittsburgh, PA. April 18, 2007.
- 2007 "Media Literacy and Risk of Smoking," Center for Risk Perception, Carnegie Mellon University. Pittsburgh, PA. February 28, 2007.

- 2007 "Favorite Musical Genre and Sexual Experience among Adolescents," Division of Adolescent Medicine, Department of Pediatrics, Children's Hospital of Pittsburgh. Pittsburgh, PA. February 15, 2007.
- 2007 "Choice of Musical Genre and Sexual Experience: Is There a Link?" Reproductive Health Research Seminar. Pittsburgh, PA. January 19, 2007.
- 2007 "Media Literacy and Patient Care," Pittsburgh Registered Nurse Club. Pittsburgh, PA. November 21, 2007.
- 2007 "Health Literacy Meets Social Marketing: Innovative Improvement of Medical Students' Comfort with Patient Care," Teaching Excellence Fair, University of Pittsburgh. Pittsburgh, PA. November 8, 2007.
- 2006 "The Association between Media Literacy and Adolescent Smoking," Center for Research on Health Care. Pittsburgh, PA. September 19, 2006.
- 2006 "Media and the Health of the United States," Pennsylvania Governor's School for Health Care. Pittsburgh, PA. July 6, 2006.
- 2006 "Tobacco Advertising and Racial Disparities," Annual Minority Health Tobacco Institute, Center for Minority Health. Pittsburgh, PA. June 25, 2006.
- 2006 "Making Medical Headlines," Mini Medical School, University of Pittsburgh. Pittsburgh, PA. April 18, 2006.
- 2006 "Social Marketing Meets Health Literacy," Institute for Doctor-Patient Communication Seminar Series, University of Pittsburgh. Pittsburgh, PA. February 24, 2006.
- 2006 "Mass Media, Marketing, and Medicine," Grand Rounds, UPMC St. Margaret. Pittsburgh, PA. January 19, 2006.
- 2005 "Smoking Norms: The Way of the People," plenary presentation, Tobacco-Free Allegheny Annual Conference. Pittsburgh, PA. November 10, 2005.
- 2005 "Mass Media Messages: Who's Selling Whom?" featured presentation, Project Prevention Annual Substance Abuse Youth Leadership Conference. Pittsburgh, PA. November 8, 2005.
- 2005 "Mass Media and the Health of the Population," Pennsylvania Governor's School. Pittsburgh, PA. July 16, 2005.
- 2005 "Getting Back Remote Control: Mass Media Messages and Your Patients' Health," 42nd Annual Family Medicine Refresher Course, UPMC St. Margaret. Pittsburgh, PA. June 11, 2005.
- 2005 "Mass Media and Spirituality," Jewish Healthcare Foundation. Pittsburgh, PA. February 15, 2005.
- 2005 "Media Literacy: Entertainment Technology Meets Social Conscience," Entertainment Technology Center, Carnegie Mellon University. Pittsburgh, PA. February 9, 2005.

- 2005 "Media Literacy and You," Parent-Teacher Community Council Meeting, Carrick High School. Carrick, PA. February 8, 2005.
- 2004 "Media Violence," WVIA-TV (PBS affiliate) "Ask the Expert" format show filmed and broadcast live. Scranton, PA. September 1, 2004.
- 2004 "Youth Nonsmoking Ordinances and Smoking Outcomes," Whitehall City Council Meeting about the Public Youth Smoking Ordinance. Whitehall, PA. September 1, 2004.
- 2004 "Tobacco-Related Mass Communications Aimed at African Americans," Center for Minority Health, Graduate School of Public Health, University of Pittsburgh. Pittsburgh, PA. July 21, 2004.
- 2004 "Remote Control," Providing Athletic Youth Both Academic and Career Success (PAYBACS) Program for At-Risk Athletic Youth. Pittsburgh, PA. July 9, 2004.
- 2004 "Getting Back Remote Control: Mass Media Messages and Your Patients' Health," 41st Annual Family Medicine Refresher Course, UPMC St. Margaret. Pittsburgh, PA. June 17, 2004.
- 2004 "The Effect of the Mass Media on Youth," Point Park University Speaker Series. Pittsburgh, PA. May 23, 2004.
- 2004 "Media Literacy for Prevention of Adolescent Smoking," Division of Adolescent Medicine, Department of Pediatrics, Children's Hospital of Pittsburgh. Pittsburgh, PA. April 1, 2004.
- 2004 "Media Literacy as a Tool for Prevention of Smoking Initiation," Center for Health Equity Research and Promotion. Pittsburgh, PA. March 16, 2004.
- 2004 "Media Literacy for Prevention," Beaver County Community College Prevention Conference. Beaver, PA. March 16, 2004.
- 2004 "Mass Media and Health," Social Psychology Course, Duquesne University. Pittsburgh, PA. February 16, 2004.
- 2003 "Media Literacy: A Solution for Health Disparities?" Board of Directors, Maurice Falk Foundation. Pittsburgh, PA. December 2, 2003.
- 2003 "Innovative Smoking Prevention with Media Literacy," Center for Research on Health Care. Pittsburgh, PA. November 4, 2003.
- 2003 "Media Literacy and Smoking Prevention in Adolescents," Division of Adolescent Medicine, Department of Pediatrics, Children's Hospital of Pittsburgh. Pittsburgh, PA. October 2, 2003.
- 2003 "Health and Your TV," University of Pittsburgh Honors Program Lecture Series. Pittsburgh, PA. September 26, 2003.
- 2003 "Using the Language of Mass Media for Health Promotion," UPMC Patient-Provider Communication Workgroup. Pittsburgh, PA. August 27, 2003.

- 2003 “Media Literacy and Technology,” Entertainment Technology Center, Carnegie Mellon University. Pittsburgh, PA. February 14, 2003.
- 2003 “Teach the Truth,” Beaver County Youth Leadership Institute. Beaver, PA. January 30, 2003.
- 2003 “Media Literacy for Adolescents,” Division of Adolescent Medicine, Department of Pediatrics, Children’s Hospital of Pittsburgh. Pittsburgh, PA. January 16, 2003.
- 2002 “How to Smoke Out the Ads,” American Cancer Society’s Second Annual Youth Tobacco Leadership Institute. Pittsburgh, PA. November 20, 2002.
- 2002 “Cross Cultural Psychiatry,” Shadyside Hospital. Pittsburgh, PA. October 1, 2002.

SELECTED PUBLICITY, PRESS, AND MEDIA APPEARANCES

- Northwest Arkansas Democrat Gazette. *Covid in the Classroom*. May 31, 2020.
- Medium. *The Debate Over Screens and Health is More Contentious Than Ever*. May 1, 2020.
- KUAF Ozarks at Large. *The Spread of Information During the Spread of a Virus*. April 30, 2020.
- The Washington Post. *Anti-vaxxers trolled a doctor’s office. Here’s what scientists learned from the attack*. March 21, 2019.
- Mashable. *Why anti-vaxxer mobs go after pro-vaccine doctors online — and what to do about it*. March 21, 2019.
- Newsweek. *Anti-vaxxers are anti-vaxxers for one of these four reasons*. March 21, 2019.
- CBS Sunday Morning with Jane Pauley. *Feeling lonely? You’re not alone*. February 10, 2019.
- National Cancer Institute. *Featured grantee: Brian A. Primack, M.D., Ph.D.* January 16, 2019.
- New York Times. *Late to launch: The post-collegiate struggle*. December 4, 2018.
- WESA News Radio (Pittsburgh NPR affiliate). *Three Rhodes scholarship recipients have ties to Pennsylvania*. November 19, 2018.
- Time. *There’s worrying new research about kids’ screen time and their mental health*. October 29, 2018.
- The Economist. *Loneliness is a serious public-health problem*. September 1, 2018.
- USA Today. *Teens hooked by vaping: FDA weighing a ban on flavored e-cigarette liquids*. August 13, 2018.
- NPR All Things Considered. *#Blessed: Is everyone happier than you on social media?* August 6, 2018.
- CNBC. *Facebook and Instagram roll out new features to help us realize when we’re wasting itme on the apps*. August 1, 2016.
- Fox News. *Can we talk? I’m a millennial and I’m struggling with the poisonous side of social media*. July 16, 2018.
- Washington Post Live. *Mental health and well-being in America*. June 13, 2018.
- The Guardian. *The connection compulsion*. June 3, 2018.

Pittsburgh Post-Gazette. *Study: Young Americans inhale more smoke from hookah than cigarettes.* May 21, 2018.

Time. *You asked: Should I ditch my smartphone?* May 16, 2018.

Philadelphia Inquirer. *Philadelphians are lonely, and young people feel it the most, says study.* May 7, 2018.

Today Show. *Loneliness can be hazardous to your health, experts warn.* April 23, 2018.

The Guardian. *YouTube shooting suspect built online persona as she scorned real world.* April 4, 2018.

NPR Connecticut. *Does social media cause social isolation?* March 15, 2018.

WPSD. *Vaping: gateway to cigarettes?* March 4, 2018.

How Stuff Works. *Are people getting lonelier? Experts are divided.* February 6, 2018.

Canadian Broadcast Company Radio One. *Shedding light on teenage loneliness and social media.* January 21, 2018.

BBC. *The vital time you shouldn't be on social media.* January 11, 2018.

The Mice Times of Asia. *Apple investors are sounding the alarm.* January 9, 2018.

CNBC. *Parents need to take responsibility for tech addiction: Apple shareholders.* January 8, 2018.

The Guardian. *When Facebook asks if social media is bad for us, it's time to listen.* December 19, 2017.

Huffington Post. *This is the healthiest way to browse Instagram.* December 8, 2017.

ABC Australia. *Depression, anxiety and social media.* December 3, 2017.

HuffPost Tunisia. *5 undesirable effects of social media on youth.* November 11, 2017.

TCN (Vietnamese news source). *Research shows that increased web surfing will increase the risk of social isolation.* October 30, 2017.

Durango Herald. *Offline October: Student-led social media blackout tells teens 'Don't post a story, live one.'* October 27, 2017.

Time Magazine. *We need to talk about kids and smartphones.* October 10, 2017.

London Free Press. *Cornies: Coming face-to-face with the digital tsunami.* September 29, 2017.

Tribune-Review. *YouTube videos glorify alcohol use, study finds.* September 25, 2017.

US News and World Report. *Booze often glorified on youtube videos.* September 21, 2017.

BMJ. *YouTube videos promote positive images of alcohol, finds study.* September 21, 2017.

Men's Health. *Your FOMO's all in your head—but it could be hurting your health.* September 19, 2017.

Success Magazine. *What I learned about relationships from 30 days without texting.* August 29, 2017.

US News and World Report. *TV binge-watching may leave you like 'The Walking Dead.'* August 17, 2017.

Times of Malta. *Alone in the social media universe.* August 7, 2017.

New Pittsburgh Courier. *What are e-cigarettes and why is their use being regulated.* August 2, 2017.

News Ghana. *Researchers link social media addiction to depression.* July 25, 2017.

Pittsburgh Post-Gazette. *Pokemon Go, the app that turned a video game into a movement, has its first birthday.* July 7, 2017.

Women's Health. *Feeding on fear.* June 29, 2017.

Reuters. *Vaping teens more likely to take up regular cigarettes.* June 26, 2017.

NIH Director's Blog. *Is social media making us lonelier?* March 14, 2017.

W Radio News Station (11 million listeners). *Social media use and social isolation.* March 7, 2017.

BBC News. *US psychologists claim social media increases loneliness.* March 6, 2017.

NPR Shots. *Feeling lonely? Too much time on social media may be why.* March 6, 2017.

Australian national TV. *Social media use and social isolation.* March 6, 2017.

Canadian Broadcasting Corporation (CBC) series of 12 radio interviews with major Canadian markets. *Social media use and social isolation.* March 6, 2017.

Forbes. *5 ways social media makes millennials feel insecure.* February 21, 2017.

Yahoo! News. *Use of multiple social media may increase risk of depression.* December 20, 2016.

KDKA Radio Interview. *Social media and depression.* December 19, 2016.

Cosmopolitan Magazine. *Here's how to keep social media from sucking the happiness from your soul.* November 4, 2016.

Pittsburgh Tribune-Review. *Instagram takes steps to identify troubling posts, answer users' cries for help.* October 31, 2016.

Pittsburgh Post-Gazette. *Pediatricians urge new guidelines for screen time.* October 21, 2016.

ABC RN Australia Radio. *Hooked on social media.* October 16, 2016.

International Baccalaureate World. *Is social media harming students?* September 16, 2016.

The Academic Minute. *Social media and depression.* May 18, 2016.

Medical News Today. *Greater social media use tied to higher risk of eating and body image concerns in young adults.* May 13, 2016.

MSN Health & Fitness. *Greater use of social media linked with a greater risk of eating disorders.* May 12, 2016.

Yahoo! News. *Science: Social media is bad for your bod.* May 12, 2016.

UK Daily Mail. *Is Facebook damaging your confidence? Young adults who spend more time on social media struggle with their body image.* May 11, 2016.

Pittsburgh Tribune-Review. *More work for mom: Technology, social media present new challenges.* May 7, 2016.

Pittsburgh Tribune-Review. *FDA brings e-cigarettes under federal authority.* May 5, 2016.

Globo TV (Brazilian national television, with a viewership of over 20 million). *Usuarios compulsivos de redes sociais tem mais chance de entrar em depressao.* April 7, 2016.

Toronto Star. *Limiting social media use may be a good place to start: Teitel.* April 5, 2016.

US News and World Report. *Could lots of time spent on social media be tied to depression?*. March 24, 2016.

The Independent. *Heavy social media users 'trapped in endless cycle of depression'*. March 24, 2016.

The Times of India. *Heavy social media users 'trapped in endless cycle of depression'*. March 24, 2016.

Teen Vogue Magazine. *5 signs your social media habits are making you miserable*. March 24, 2016.

UK Daily Mail. *Facebook and Twitter could lead to a mental health timebomb: Experts warn social media leaves addicts 'trapped in an endless cycle of depression.'* March 24, 2016.

Cosmopolitan Magazine. *Why social media is making you miserable*. March 23, 2016.

Huffington Post. *Tweeting not sleeping? What is your social media/sleep balance?*. February 2, 2016.

WESA News Radio (Pittsburgh NPR affiliate). *Put the phone down, study finds link between social media and poor sleep*. February 2, 2016.

NBC News. *Not enough zzzzs? Social media use could be messing with your sleep*. January 26, 2016

Shape Magazine. *Social media use is scewing up our sleep patters*. January 26, 2016.

Huffington Post. *Just 1 hookah session has 25 times the tar of a cigarette*. January 13, 2016.

Yahoo! News. *Hookah tobacco smoke contains more toxins than cigarette smoke*. January 13, 2016.

Men's Fitness Magazine. *Hookah packs 25 times the tar of a single cigarette*. January 12, 2016.

UK Daily Mail. *One hookah tobacco smoking session 'delivers 25 times the tar of a single cigarette.'* January 12, 2016.

WESA News Radio (Pittsburgh NPR affiliate). *Smoke, tar inhalation still worry docs as hookah habits rise*. January 12, 2016.

KQV News Radio (Pittsburgh ABC affiliate). *Comparing hookah to cigarette smoking*. January 11, 2016.

Reuters Health. *3D video games may be good for your memory*. December 19, 2015.

DNA India (major Indian news source). *E-cigarettes may lead to teen smoking: New study*. September 9, 2015.

Neue Zürcher Zeitung (major Swiss news source). *E-zigaretten bei jugendlichen*. September 12, 2015.

Esquire Magazine. *E-cigarettes may be a gateway to Marlboros*. September 9, 2015.

Pittsburgh Tribune-Review. *Doctors, industry insiders locked in vape debate over youth use*. September 19, 2015.

Washington Post. *Study: Trends using e-cigs much more likely to start smoking cigarettes*. September 8, 2015.

TIME Magazine. *E-cigarettes are a gateway to tobacco, study says*. September 8, 2015.

WESA News Radio (Pittsburgh NPR affiliate). *Young vapers more likely to take up smoking, study says*. September 8, 2015.

WTAE-TV (Pittsburgh CNN and ABC affiliate). *Put down those devices: Summer electronics ban lets*

kids unplug, get outside. July 31, 2015.

NPR's "Here and Now with Robin Young." *Study: YouTube videos portray drunkenness in positive light.* March 13, 2015.

The Washington Post. *YouTube depictions of drunkenness are light on consequences.* February 20, 2015.

Pittsburgh Post-Gazette. *Popularity of hookah bars raises health concerns.* June 8, 2014.

USA Today. *Hitting the hookah: Will the trend rage on, despite recent health warnings?* June 5, 2014.

The Times of India. *How to keep youngsters away from hookah smoking.* May 22, 2014.

Pittsburgh Post-Gazette. *Barbershop conversations turn to clients' health care minorities face health outcome disparities, chronic conditions – and more expensive care.* April 27, 2014.

KPCC News Radio (Los Angeles NPR affiliate). *Study: Teen binge drinking linked to liquor brand mentions in pop songs.* April 24, 2014.

Tech Times. *What are your kids listening to? Pop music influences adolescents to drink alcohol, says study.* April 13, 2014.

French Tribune. *Link between teen binge drinking and precise identification of alcohol brands in pop music.* April 12, 2014.

Huffington Post. *Knowing alcohol brand references in songs linked with teen alcohol consumption.* April 11, 2014.

The Atlantic. *Study: Music is just advertisement for alcohol brands.* April 10, 2014.

WBZ News Radio (Boston CBS affiliate). *Study: Teens who like songs with alcohol references more likely to binge drink.* April 10, 2014.

ABC News Radio Online. *Popular music inundated with references to alcohol.* April 10, 2014.

The Times of India. *Songs with alcohol references driving teens to binge drinking.* April 9, 2014.

Jagran Post (major Indian news source). *Music with alcohol references driving teens to binge drinking.* April 9, 2014.

US News and World Report. *Booze brands in pop lyrics may spur teen drinking, study says.* April 8, 2014.

Reuters US and India. *Media literacy promising for anti-smoking education.* January 15, 2014.

WESA News Radio (Pittsburgh based NPR affiliate) 30-minute interview. *A New Approach to Preventing Teen Smoking.* January 15, 2014.

CNN Health. *1 in 3 college students has smoked hookah.* June 10, 2012.

Pittsburgh Tribune-Review. *Newsmaker: Dr. Brian Primack* June 8, 2012.

US News and World Report. *Watching movie stars light up may spur kids to smoke.* March 14, 2012.

Toronto Star. *Study finds rappers promote name-brand alcohol to young fans.* October 20, 2011.

MSNBC interview on alcohol use and teens. *Letting kids drink under parent's watch backfires.* April 29, 2011.

WUKY (Kentucky NPR affiliate). *Studying the link between teens, music, and depression.* April 27,

2011.

- The Register (major United Kingdom news source). *Teens who listen to music a lot are at high risk of depression*. April 5, 2011.
- Hindustan Times (major Indian news source). *Reading prevents depression in teens*. April 5, 2011.
- Pittsburgh Post-Gazette. *Link seen between teen depression, listening to music*. April 5, 2011.
- US News and World Report. *Could pop music be linked to depression?* April 4, 2011.
- Pittsburgh Post-Gazette. *Dateline Pittsburgh: 5/12/2010*. May 12, 2010.
- KDKA-TV (Pittsburgh CBS affiliate). *Protecting Your Teen During Prom Season*. May 11, 2010.
- Pittsburgh Tribune-Review. *Newsmaker: Dr. Brian A. Primack*. April 21, 2010.
- Men's Fitness. *Avoid "Gamer Rage"*. January 7, 2010.
- Pittsburgh Tribune-Review. *Drug-using teens fond of related songs*. December 24, 2009.
- New York Daily News. *Teens who listen to 'stoner music' with lyrics about marijuana use, more likely to smoke pot: study*. December 23, 2009.
- MSNBC. *Study finds link between music and marijuana*. December 22, 2009.
- Pittsburgh Tribune-Review. *Pennsylvania smoking cessation programs at risk in propose budget*. September 25, 2009.
- British Broadcasting Corporation (BBC) interview. *Playing video games makes you fat and depressed*. August 25, 2009.
- Europa Press Madrid. *Study links video games and sedentary lifestyle introversion*. August 18, 2009.
- MSNBC. *Survey: Average gamer is 35, fat, and depressed*. August 18, 2009.
- UK Telegraph. *Average age of adult computer game addicts is 35, US study shows*. August 18, 2009.
- US News and World Report. *Video gamers older than you think*. August 18, 2009.
- Nature. *The Black Box*. June 11, 2009.
- BBC Brazil. *Music stimulated sexual lives of young people, says study*. May 12, 2009.
- NPR Scotland. *Explicit lyrics cause today's teenagers to start having sex earlier*. February 28, 2009.
- US News and World Report. *'Degrading' lyrics linked to teen sex*. February 27, 2009.
- Canadian Broadcasting Corporation (CBC) radio interview. *High exposure to lyrics that describe degrading sex is associated with high levels of sexual behavior in teens*. February 27, 2009.
- Modern Ghana. *Music linked to teen sex habits*. February 26, 2009.
- NPR Germany. *Music linked to teen sex habits*. February 26, 2009.
- NPR Colombia. *There is a link between song content and sexual activity of youths*. February 25, 2009.
- Most emailed story on Yahoo.com. *'Degrading' lyrics linked to teen sex*. February 24, 2009.
- BBC News. *Music linked to teen sex habits*. February 24, 2009.
- The Independent. *Degrading lyrics linked to earlier teenage sex*. February 24, 2009.
- Voice of America. *Teens' TV habits linked to depression*. February 17, 2009.

New York Times. *Behavior: TV time linked to depression in future*. February 10, 2009.

NPR national interview. *Recent study links television viewing to higher rates of depression*. February 10, 2009.

La Stampa (major Italian news source). *More TV today, more depression tomorrow*. February 5, 2009.

CBS News Korea. *TV-computer-video games, called teens depression*. February 5, 2009.

Sydney Morning Herald, Australia. *TV, video games increase depression risk*. February 4, 2009.

Reuters UK. *More teen TV time linked to depression: study*. February 4, 2009.

Los Angeles Times. *Study links TV and depression*. February 4, 2009.

US News and World Report. *Television and adolescent depression*. February 3, 2009.

ABC News. *Teen TV time tied to adult depression*. February 3, 2009.

Agence France-Presse (major French news source). *A child playing a video game hosted by too much screen time spent exposes adolescents with depression*. February 3, 2009.

US News and World Report. *Teen TV time tied to adult depression*. February 2, 2009.

El Mundo Spain. *Switch off the TV for your child*. February 2, 2009.

Pittsburgh Post-Gazette. *Copyright code developed to guide teachers*. December 9, 2008.

KDKA (Pittsburgh CBS affiliate). *More than 40% of college students at a large university have smoked tobacco from a waterpipe or hookah*. September 5, 2008.

Pittsburgh Tribune-Review. *Study finds hookah smoking popular among college crowd*. September 4, 2008.

Pittsburgh Post-Gazette. *Students hooked on hookahs*. September 4, 2008.

New York Times. *A flavoring seen as a means of marketing to blacks*. May 13, 2008.

WNYC (New York City NPR affiliate). *Over 30% of the most popular tunes in 2005 mentioned substance abuse*. February 11, 2008.

Washington Post. *Pop lyric faves: Drugs and alcohol*. February 12, 2008.

Sydney Morning Herald. *Hitting the high notes*. February 10, 2008.

US News and World Report. *Drugs and alcohol and your kids' music*. February 5, 2008.

CBS News. *Music lyrics offer earful about drugs*. February 5, 2008.

New York Times. *Alcohol and drugs abound in pop? Who knew?* February 6, 2008.

Reuters News. *Third of hit songs said to mention alcohol and drug use*. November 9, 2007.

US News and World Report. *One-third of popular songs refer to substance abuse*. November 8, 2007.

ABC News. *Drug-drenched lyrics no music to parents' ears*. November 7, 2007.

CBS News. *Study: Pop music heavy on drugs, booze*. November 7, 2007.

New York Times. *Insights: Racial disparity affirmed in tobacco advertising*. August 28, 2007.

NPR National. *Blacks seduced by smoking ads?* August 22, 2007.

Philadelphia Inquirer. *African American smokers face barrage of tobacco ads*. August 24, 2007.

Pittsburgh Post-Gazette. *Pitt study says black Americans exposed to more tobacco advertising*. August 21, 2007.

WQED-TV (Pittsburgh PBS affiliate). *Ad It Up*. February 4, 2007.

WVIA-TV (Scranton PBS affiliate). *Panel discussion on the effects of media on violence*. With Renee Hobbs, PhD, and Faith Rogow, PhD. September 1, 2004.

PROFESSIONAL ACTIVITIES: CURRENT RESEARCH INTERESTS

- Assessing both positive and negative influences of technology and media exposures on health outcomes
- Developing interventions to leverage technology and media exposures to improve health and education
- Clinical, translational, health services, and outcomes research
- Cancer control and prevention
- Epidemiology, sociology, and policy around alternative tobacco and nicotine products such as waterpipes and electronic cigarettes
- Undergraduate and graduate education
- Adolescent, college, and young adult health and wellness
- Reducing and eliminating health disparities
- Health communication
- Assessment of innovation in health sciences education for students, postdoctoral trainees, and junior, mid-career, and senior faculty

PROFESSIONAL ACTIVITIES: SERVICE

National Service

- 2006–present Ad hoc reviewer for multiple journals including the following (selected titles only, in alphabetical order): *American Journal of Preventive Medicine, American Journal of Public Health, Annals of Behavioral Medicine, Annals of Internal Medicine, Archives of Pediatric and Adolescent Medicine, Drug and Alcohol Dependence, Health Education Research, Journal of Adolescent Health, Medical Education, New England Journal of Medicine, Nicotine & Tobacco Research, Pediatrics, and Tobacco Control*
- 2015–2016 Acting Chair, Study Section, “Community Influences in Health Behavior,” Center for Scientific Review, NIH (lead study section reviews when usual chair is in conflict or otherwise unable)
- 2015 Referee, Division of Behavioral and Social Science and Education, National Academy of Sciences, Engineering, and Medicine
- 2012–2016 Standing Member, Study Section, “Community Influences in Health Behavior,” Center for Scientific Review, NIH
- 2012 Member, Study Section, “NIH Intramural Center for Tobacco Regulatory Science (ICTRS)”
- 2011 Member, Study Section, “Small Grants for Behavioral Research in Cancer Control (R03),” National Cancer Institute, NIH
- 2010 Member, Study Section, “State and Community Tobacco Control Policy and Media Research (U01),” National Cancer Institute, NIH
- 2009–2010 Member, Committee to Integrate Media Literacy Evaluation into the U.S. Educational System, Council for Chief State School Officers
- 2009 Member, Study Section, “Small Grants for Behavioral Research in Cancer Control (R03),” National Cancer Institute, NIH
- 2008 Member, Study Section, “Centers of Excellence in Cancer Communication Research II (P50),” National Cancer Institute, NIH
- 2008–2012 Member (founding member), Editorial Board, *Journal of Media Literacy Education*
- 2007 Member, Study Section, “International Tobacco and Health Research and Capacity Building Program (R01),” National Cancer Institute, National Institutes of Health (NIH)
- 2007–2010 Member (founding member), Editorial Board, *Journal of Health and Mass Communication*

University Service

- 2020-present Co-Chair, University of Arkansas COVID-19 Serosurveillance Task Force
- 2020-present Member, COVID-19 Response Committee
- 2019–present Member, CAPC
- 2017–2019 Member, Undergraduate Education Task Force (Consists of only Deans and Vice Chancellors), University of Pittsburgh
- 2017–2019 Member, Special Committee for Honors Convocation, Commencement Speakers, and Honorary Degree Recipients, University of Pittsburgh
- 2017–2019 Member, Council of Deans, University of Pittsburgh (Consists of Deans of major administrative units, such as Arts and Sciences, Engineering, Medicine, Education, Social Work, Public and International Affairs, Law, Pharmacy, Dentistry, Rehabilitation, and Business)
- 2017–2019 Co-Chair, Emma W. Locke Memorial Award Selection Committee, University of Pittsburgh
- 2017–2019 Member, Provost’s Advisory Committee on Undergraduate Programs, University of Pittsburgh
- 2017–2019 Member, Enrollment Management Committee, University of Pittsburgh
- 2016–2019 Member, Steering Committee, PhD program in Clinical and Translational Science, University of Pittsburgh
- 2014–2019 Director, Center for Research on Media, Technology, and Health, University of Pittsburgh
- 2008–2019 Member, Biobehavioral Research Program, University of Pittsburgh Cancer Institute
- 2017–2018 Member, Steering Committee, Year of the Healthy U, University of Pittsburgh
- 2014–2017 Assistant Vice Chancellor for Research on Health and Society, University of Pittsburgh
- 2009–2017 Member, University of Pittsburgh School of Medicine Admissions Interviewing Committee
- 2007–2016 Member, Committee for Research on Education and Careers, Department of Medicine
- 2007–2012 Member, Steering Committee, Project to Reduce Exposure and Smoking of Tobacco (RESET), University of Pittsburgh
- 2005–2006 Member, Committee on Health Promotion, University of Pittsburgh
- 2003–2005 Member, Clerkship Committee, Department of Family Medicine
- 2003–2005 Member, Committee on Medical Education, Department of Family Medicine

2002–2004 Member, Patient-Physician Communication Group, School of Medicine

Community Service

2019-present Member, University of Arkansas Medical School Northwest Advisory Board, Fayetteville, AR

2013–2019 Volunteer, The Outreach Program for Soccer (TOP Soccer), program teaching soccer to children and young adults with severe disabilities, Pittsburgh, PA

2002–2019 Volunteer musician, Weinberg Terrace and Weinberg Village Nursing Homes, Pittsburgh, PA

2014–2016 Volunteer Soccer Coach, Dynamo Travel Soccer League, Pittsburgh, PA

2012–2014 Immediate Past President, Board of Directors, American Cancer Society of Western Pennsylvania, Pittsburgh, PA

2010–2012 President, Board of Directors, American Cancer Society of Western Pennsylvania, Pittsburgh, PA

2008–2010 Vice president, Board of Directors, American Cancer Society of Western Pennsylvania, Pittsburgh, PA

2005–2014 Member, Board of Directors, American Cancer Society of Western Pennsylvania, Pittsburgh, PA

2002–2014 Volunteer, American Cancer Society, Pittsburgh, PA

1996 Volunteer teacher and aide, Bright Beginnings Head Start Program, Washington, DC

1996 Volunteer counselor, Georgia Highlands Mental Health Center, Dalton, GA

1994–1995 Emergency room volunteer and volunteer coordinator, Washington Hospital Center, Washington, DC

1993 Volunteer counselor, Harvard Crisis Hotline, Cambridge, MA

SKILLS

Acting	Professional community theater roles have included Romeo in <i>Romeo and Juliet</i> , Joseph in <i>Joseph and the Amazing Technicolor Dreamcoat</i> , and the Lord Chancellor (lead comic baritone) in the Gilbert & Sullivan operetta <i>Iolanthe</i> .
Improvisation	Ten years of experience in professional comedy and improvisation troupes in Washington, DC and Pittsburgh, PA. Experience teaching comedy improvisation to adolescents in formal and informal settings.
Music	Intermediate acoustic guitar, piano, and harmonica performance. Intermediate music theory and composition.
Languages	Fair Spanish and French.
Computer Programming	Advanced skills with STATA statistical programming. Moderate skills with HTML. Basic skills with CSS and JavaScript.
Computer Software	Advanced skills with Microsoft Word, PowerPoint, and Excel. Moderate skills with Microsoft Publisher, Adobe Creative Suite, Audacity Audio Editor, Movie Maker, Mendeley, EndNote, and Dragon Naturally Speaking.