

**BIOGRAPHICAL SKETCH**

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NAME: Platt, Jonathan

eRA COMMONS USER NAME (credential, e.g., agency login): jmplatt

POSITION TITLE: Assistant Professor

EDUCATION/TRAINING (*Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.*)

INSTITUTION AND LOCATION	DEGREE (if applicable)	END DATE MM/YYYY	FIELD OF STUDY
University of Wisconsin, Madison, WI	BA	05/2006	Anthropology and Environmental Studies
Columbia University, New York, NY	MPH	05/2013	Epidemiology and Global Health
Columbia University, New York, NY	PHD	10/2019	Epidemiology
Columbia University, New York, NY	NIH training grant	09/2019	Psychiatric Epidemiology Training Program (T32-MH1304343)
Columbia University, New York, NY	Postdoctoral Fellow	07/2021	Postdoctoral Merit Fellow in Epidemiology

**A. Personal Statement**

I am an early-stage academic researcher (tenure-track) at the University of Iowa College of Public Health. My research focuses on the identification of social causes of suicide, psychiatric disorders, and harmful substance use, in order to design effective interventions to reduce group disparities. I have expertise in the use of social and psychiatric epidemiology, the development of social structural measures, causal inference methods, and longitudinal data analysis to identify the health consequences of social inequities across the life course. I also have growing expertise in the use of machine learning methods to identify novel health risk patterns and satisfy causal inference assumptions. I have published >40 articles and book chapters (h-index: 20), in leading public health and psychiatry journals, including *The New England Journal of Medicine*, *JAMA Psychiatry*, *American Journal of Epidemiology*, and *Social Science & Medicine*. I am an active member in the broader public health research community, participating in major conferences in the fields of population science, epidemiologic methods, and psychiatry and serving as an ad-hoc reviewer for numerous journals and as a review editor for the journal *Frontiers in Global Women's Health*. In summary, given my training, experience, and leadership, I am well-prepared to successfully carry out the proposed research project.

My work in the social determinants of suicide, mental health, and substance use disparities is exemplified by five publications listed below:

1. **Platt JM**, Pamplin JR 2nd, Gimbrone C, Rutherford C, Kandula S, Olfson M, Gould MS, Martínez-Alés G, Shaman J, Keyes K. Racial Disparities in Spatial and Temporal Youth Suicide Clusters. *J Am Acad Child Adolesc Psychiatry*. 2022 Jan 11; PubMed ID: 35031449; NIHMSID: NIHMS1770435.
2. **Platt JM**, Bates L, Jager J, McLaughlin KA, Keyes KM. Is the US Gender Gap in Depression Changing Over Time? A Meta-Regression. *Am J Epidemiol*. 2021 Jul 1;190(7):1190-1206. PMID: PMC8484777.
3. **Platt JM**, Bates LM, Jager J, McLaughlin KA, Keyes KM. Changes in the depression gender gap from 1992 to 2014: Cohort effects and mediation by gendered social position. *Soc Sci Med*. 2020 Aug;258:113088. doi:10.1016/j.socscimed.2020.113088 PMID: PMC7377349.

4. **Platt, J. M.**, Keyes, K. M., Kaufman, A. S., & McLaughlin, K. A. (2018). Targeted estimation of the relationship between childhood adversity and fluid intelligence in a US population sample of adolescents. *Am J Epidemiol*. doi:10.1093/aje/kwy006. PMID: PMC6031033.
5. **Platt, J. M.**, Jager, J., Patrick, M. E., Kloska, D., Schulenberg, J., Rutherford, C., & Keyes, K. M. A machine-learning approach to estimate intersectional differences in binge drinking. *In prep*.

## B. Positions, Scientific Appointments and Honors

### Positions and Scientific Appointments

2021 -	Assistant Professor, University of Iowa College of Public Health, Iowa City, IA
2019 - 2021	Post-doctoral Merit Fellow, Columbia University School of Public Health, New York, NY
2014 - 2019	Predocctoral T32 fellow, Columbia University School of Public Health, Department of Epidemiology, New York, NY

### Honors

2019	The William Farr Award for commitment to understanding or addressing the causes of social inequalities in health and for achievement and promise in the field of Epidemiology, Columbia University Department of Epidemiology.
2017	Best SER Abstract Award, Columbia University Department of Epidemiology.
2015	Best SER Abstract Award, Columbia University Department of Epidemiology.

## C. Contribution to Science

1. **Gender differences and social determinants of harmful alcohol use trends.** Gender differences in alcohol use are complex and vary over historical and developmental time. Identifying these differences and why they are occurring is essential to understanding alcohol use etiology to inform public health interventions. As a post-doctoral fellow, my work documented narrowing gender differences in binge drinking, the ways in which changing alcohol policy, attitudes, and social roles (especially among women) underlie consumption dynamics, and how changing patterns portend future increases in alcohol-related harm.
  - a. **Platt JM**, Jager J, Patrick ME, Kloska D, Schulenberg J, Rutherford C, Keyes KM. Forecasting future prevalence and gender differences in binge drinking among young adults through 2040. *Alcoholism: Clinical and Experimental Research*. 2021 Oct;45(10):2069-79.
  - b. McKetta S, Prins SJ, Bates LM, **Platt JM**, Keyes KM. US trends in binge drinking by gender, occupation, prestige, and work structure among adults in the midlife, 2006-2018. *Ann Epidemiol*. 2021 Oct;62:22-29. doi: 10.1016/j.annepidem.2021.06.004. Epub 2021 Jun 20. PMID: PMC8463484.
  - c. Keyes KM, **Platt J**, Rutherford C, Patrick ME, Kloska DD, Schulenberg J, Jager J. Cohort effects on gender differences in alcohol use in the United States: How much is explained by changing attitudes towards women and gendered roles?. *SSM-population health*. 2021 Sep 1;15:100919.
  - d. Prins SJ, McKetta S, **Platt J**, Muntaner C, Keyes KM, Bates LM. Mental illness, drinking, and the social division and structure of labor in the United States: 2003-2015. *Am J Ind Med*. 2019 Feb;62(2):131-144. doi: 10.1002/ajim.22935. Epub 2018 Dec 19. PubMed PMID: 30565724; PubMed Central PMCID: PMC6511991.
2. **Structural measures of social stratification and mental health.** Social stratification is a well-documented determinant of mental health. However, it is often measured as an individual attribute downstream of social structures that generate stratification and influence mental health and group disparities. Focusing on structural determinants of health rather than their consequences will inform more effective health interventions, by targeting the underlying structures as fundamental causes of disease. My work in this area has utilized novel measures of stratification to identify and explain mental health disparities by gender and social class. As a NIH funded pre-doctoral fellow, I implemented a systematic review and meta-regression, identifying a narrowing in the gender depression gap over time. Using

longitudinal analytic methods and multiple data sources, I found that this narrowing was partially due to changing gender structures (measured with national education, employment, and domestic labor rates). In other work focusing on social class disparities, economic exploitation (measured as the percentage of total labor that was unpaid) was found to triple the risk of psychological distress.

- a. **Platt JM**, Bates L, Jager J, McLaughlin KA, Keyes KM. Is the US Gender Gap in Depression Changing Over Time? A Meta-Regression. *Am J Epidemiol.* 2021 Jul 1;190(7):1190-1206. PubMed Central ID: PMC8484777.
- b. **Platt JM**, Bates LM, Jager J, McLaughlin KA, Keyes KM. Changes in the depression gender gap from 1992 to 2014: Cohort effects and mediation by gendered social position. *Soc Sci Med.* 2020 Aug;258:113088. doi:10.1016/j.socscimed.2020.113088 PubMed Central ID: PMC7377349.
- c. **Platt J**, Prins S, Bates L, Keyes K. Unequal depression for equal work? How the wage gap explains gendered disparities in mood disorders. *Soc Sci Med.* 2016 Jan;149:1-8. doi: 10.1016/j.socscimed.2015.11.056. Epub 2015 Dec 8. PubMed PMID: 26689629; PubMed Central PMCID: PMC4801117.
- d. Prins SJ, McKetta S, **Platt J**, Muntaner C, Keyes KM, Bates LM. The Serpent of Their Agonies: Exploitation as Structural Determinant of Mental Illness. *Epidemiology.* 2021 Mar 1;32(2):303-309. doi: 10.1097/EDE.0000000000001304. PubMed PMID: 33252438; PubMed Central PMCID: PMC7872213.

3. **Socio-developmental processes and adolescent mental health.** Adolescence is a critical developmental period for psychiatric risk. In recent years, psychiatric disorders have increased in this age group. Understanding why is critical to identify high-risk groups and inform interventions to reverse trends and promote long-term well-being. Using a large US-population representative sample of adolescents, my research identified early puberty timing as a social and biological risk factor for internalizing and externalizing disorders. Further, we showed that active symptoms of psychiatric disorders may interfere with cognitive functioning. In related work, we found that social media use (measured as daily versus nondaily use) does not pose a meaningful risk for adolescent depressive symptoms. However, the relationship between social media use and mental health is complex and requires more detailed measures of use and attention to population heterogeneity.

- a. Kreski N, **Platt J**, Rutherford C, Olsson M, Odgers C, Schulenberg J, Keyes KM. Social Media Use and Depressive Symptoms Among United States Adolescents. *J Adolesc Health.* 2021 Mar;68(3):572-579. doi: 10.1016/j.jadohealth.2020.07.006. Epub 2020 Aug 11. PMCID: PMC7876159.
- b. **Platt JM**, Colich NL, McLaughlin KA, Gary D, Keyes KM. Transdiagnostic psychiatric disorder risk associated with early age of menarche: A latent modeling approach. *Compr Psychiatry.* 2017 Nov;79:70-79. doi: 10.1016/j.comppsy.2017.06.010. Epub 2017 Jul 6. PMCID: PMC5643227.
- c. Keyes KM, **Platt J**, Kaufman AS, McLaughlin KA. Association of Fluid Intelligence and Psychiatric Disorders in a Population-Representative Sample of US Adolescents. *JAMA Psychiatry.* 2017 Feb 1;74(2):179-188. doi: 10.1001/jamapsychiatry.2016.3723. PMCID: PMC5288266.
- d. **Platt, J. M.**, Keyes, K. M., Kaufman, A. S., & McLaughlin, K. A. (2018). Targeted estimation of the relationship between childhood adversity and fluid intelligence in a US population sample of adolescents. *American journal of epidemiology.* doi:10.1093/aje/kwy006. PMCID: PMC6031033.

4. **The long-term mental health consequences of trauma.** The mental health consequences of trauma are severe and potentially persistent long after the exposure takes place. Understanding the longitudinal course of trauma and identifying key risk and protective factors is key to prevention of chronic post-traumatic morbidity. My work has documented the longitudinal course of post-traumatic risk and found significant risk of disorder, including post-traumatic stress disorder, depression, and schizophrenia, for decades after a traumatic event. A range of traumas, from witnessing to experiencing sexual assault, elevated disorder risk, although certain types of social support appear protective against long-term post-traumatic stress. Further, the impact of traumatic events was more pronounced among women than men, potentially influenced by changes in social support and gendered coping styles. Importantly, much of this research has been done in the Global South with local collaborators. More research is needed in these

contexts to promote primary prevention of mental health problems, given the low availability of clinical services.

- a. **Platt JM**, Pozen J, Ntaganira J, Sezibera V, Neugebauer R. Gender Differences in Traumatic Experiences and Posttraumatic Stress Symptoms After the Rwandan Genocide Against the Tutsi. *J Trauma Stress*. 2021 Aug;34(4):799-807. doi: 10.1002/jts.22693. Epub 2021 Jun 12. PMID: 34118164.
  - b. Mall S, **Platt JM**, Temmingh H, Musenge E, Campbell M, Susser E, Stein DJ. The relationship between childhood trauma and schizophrenia in the Genomics of Schizophrenia in the Xhosa people (SAX) study in South Africa. *Psychol Med*. 2020 Jul;50(9):1570-1577. doi: 10.1017/S0033291719001703. Epub 2019 Aug 7. PMCID: PMC7053504.
  - c. **Platt JM**, Lowe SR, Galea S, Norris FH, Koenen KC. A Longitudinal Study of the Bidirectional Relationship Between Social Support and Posttraumatic Stress Following a Natural Disaster. *J Trauma Stress*. 2016 Jun;29(3):205-13. doi: 10.1002/jts.22092. Epub 2016 May 10. PMCID: PMC5800398.
  - d. Atwoli L, **Platt J**, Williams DR, Stein DJ, Koenen KC. Association between witnessing traumatic events and psychopathology in the South African Stress and Health Study. *Soc Psychiatry Psychiatr Epidemiol*. 2015 Aug;50(8):1235-42. doi: 10.1007/s00127-015-1046-x. Epub 2015 Mar 15. PMCID: PMC4747238.
5. **Racial patterns and disparities in suicide deaths.** Individual deaths by suicide correlate both spatially and temporally, leading to suicide clusters. While suicide deaths have increased markedly among non-Hispanic Black youth in recent years, racial patterning in suicide clusters is unknown. As a Postdoctoral Merit Fellow, I led a project to measure racial differences in the spatiotemporal distribution of youth and young-adult suicide clusters in the US from 2000-2019. We found increasing suicide clusters, a growing urban vs. rural divide, and distinct racial patterns; suicide clusters among Black youth were concentrated in the rural Eastern US, while clusters in rural non-coastal Western states occurred among white youth only. Identifying distinct patterns in suicide deaths highlighted the need to tailor suicide prevention efforts to the local context.
- a. **Platt JM**, Pamplin JR 2nd, Gimbrone C, Rutherford C, Kandula S, Olfson M, Gould MS, Martínez-Alés G, Shaman J, Keyes K. Racial Disparities in Spatial and Temporal Youth Suicide Clusters. *J Am Acad Child Adolesc Psychiatry*. 2022 Jan 11;. doi: 10.1016/j.jaac.2021.12.012. [Epub ahead of print] PubMed PMID: 35031449; NIHMSID:NIHMS1770435.

Complete List of Published Work in My Bibliography:

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