

High-Risk Behaviour: Epidemiology and Prevention Strategies

July 7-14, 2022 | Course No. 0158.1165

Course Instructors: Dr. Vaughan Rees (Harvard University), Prof. Laura Rosen (Tel Aviv University)

Date & Time: July 7-14, 2022 | Thu, S, Thu, 14:00-18:30 / M, Tu, 14:00-19:00

Final Exam: July 15, 2022 | 9:00-11:00

Location: Room 201 | Sackler Faculty of Medicine

Teaching Assistant: Ravi and Ann-Marie

Course Documents: TBA

Pre-requisites & Intended Audience

Introductory courses in Research Methods and Epidemiology recommended.

The course is intended for Master's and PhD level students or above.

Academic Credit & Course Requirements

2 academic credits. No pre-requisites. Participants must pass the final exam with a grade of 60 (D). Noncredit participants are not required to take exam, but are expected to participate in team workshop and presentations.

Grading Criteria

Final Exam: 80%

Intervention plan = 40%

Exam questions = 40%

Class participation: 20%

Texts and Reading Materials

There will be readings that are provided as links on a reading list and on our course website, and some book chapters that should be downloaded by each of you individually from the indicated websites.

The course is based on material outlined in:

O'Connell ME, Boat T & Warner KE (Eds). *Preventing Mental, Emotional, and Behavioural Disorders among Young People: Progress and Possibilities*, 2009. National Academies Press.

The entire volume can be downloaded from the National Academies Press website at no cost.

There is one chapter (Chapter 10) required from the previous Institute of Medicine book on this topic. This also can be downloaded at no cost.

Mrazek PJ & Haggerty RJ (Eds). [Reducing Risks for Mental Disorders](#), 1994. National Academies Press.

Course Description

This course examines behaviours that place an individual at higher risk of injuries and mortality, including substance abuse, violence, and risky sexual behaviours. With a focus on adolescent risk behaviour, the course covers developmental and environmental factors that support these behaviours, as well as the design, implementation, and review of evidence-based preventive interventions. Students are guided in the development of a prevention intervention to reduce a chosen adolescent substance use behaviour problem.

Course Objectives

In this course, we will examine the epidemiology of behaviours that place an individual at higher risk of injuries and mortality from adolescence through adulthood. Emphasis will be placed on (1) developmental and social factors that support these behaviours; (2) understanding the development and implementation of efficacious and

effective preventive interventions including the preventive intervention research cycle; and (3) conceptualizing an intervention to prevent a high-risk behaviour.

We will begin the course by examining why people engage in high-risk behaviours. Contextual factors and social processes are thought to underlie the uptake of behaviour patterns among adolescents and adults. Guided by theories, participants will gain an understanding of how families, peers, neighborhoods, and societal norms shape patterns of high-risk behaviours. Additionally, developmental theories will be discussed, including evidence of neurobiological and psychosocial risk factors at particular developmental stages that may affect the etiology of high-risk behaviours and their continuation across the life course.

At the end of the course, you will have acquired knowledge and skills to:

1. Discuss critically theories of social and developmental factors that influence substance use behaviours of adolescents and adults
2. Understand the stages in the preventive intervention research cycle and be able to apply them to the design of research to prevent high-risk behaviours
3. Critically evaluate evidence presented in the literature on the efficaciousness and effectiveness of a preventive intervention
4. Develop and defend a novel prevention intervention for a substance use problem of your choice

Approach to the course

This course emphasizes acquiring fundamental knowledge on the development and implementation of substance use prevention interventions among adolescent populations. To facilitate this approach, you will work with a small group of students who share an interest in the same high-risk behaviour theme as yourself.

Through this course you will focus on a population on interest, and be able to get more specific about your preventive intervention research plan within the topic (e.g. youth violence among suburban high schools, or intimate partner violence among youth in India). The chapters assigned from the textbook are a possible source of ideas for interventions. You can also get ideas from the following SAMSHA website that contains evaluations of specific preventive interventions: <http://www.nrepp.samhsa.gov/>

Instructor Bios



Dr. Vaughan Rees is Director of the Center for Global Tobacco Control, whose mission is to reduce the global burden of tobacco-related death and disease through training, research, and the translation of science into public health policies and programs. He directs the Tobacco Research Laboratory at the Harvard Chan School, where the design and potential for dependence of tobacco products are assessed. Studies examine the impact of dependence potential on product use and individual risk, to inform policy and other interventions to control tobacco harms. Current research uses conventional and innovative strategies to evaluate new and novel tobacco products. Examples of these products include modified risk tobacco products such as e-cigarettes; reduced ignition propensity cigarettes; hookah (tobacco waterpipe); and novel smokeless tobacco products such as snus. Clinical research methods are used to evaluate the influence of tobacco product design features on consumer responses, and their role in promoting initiation or maintenance of use among targeted populations. Findings have been used to inform tobacco control policy, develop resources for communicating risks of tobacco products, and to enhance understanding of factors that contribute to tobacco dependence.

Prof. Leah (Laura) Rosen was born in the U.S. and immigrated to Israel in 1986. She holds a B.S. in Mathematics from Rutgers University and an M.S. in Biostatistics from the Harvard School of Public Health.

She received her Ph.D. from the School of Public Health at Hebrew University. Before coming to Tel Aviv University, she was the National Coordinator of Healthy Israel 2020, Israel's health targeting initiative. She is a member of the Israel National Council for Smoking Prevention, and a former member of the Israel National Council for Health Promotion and the Public Committee for Reduction of Smoking and its Damages. Prof. Rosen is the Chair of the Department of Health Promotion.

Prof. Rosen's primary career goal is to contribute to public health at the national and global levels by conducting research, advancing public health research methods and evidence-based health policy, as well as by teaching and mentoring students. She focuses on methodological issues of public health and health promotion research, including understanding and improving the evidence base for public health policy, systematic reviews and rigorous evaluation of health promotion interventions. Prof. Rosen's main substantive research interest is tobacco, one of the major public health problems of our time. This includes the epidemiology of tobacco use, exposure, and harm, with a focus on the Israeli context; and development and evaluation of intervention programs and strategies to reduce tobacco use and exposure at the individual, local, and national levels, and contributing to the evidence base for a smoke-free society.

Course Timetable (Course Documents: TBA)

Thursday, July 7 (Day 1)		
14:00-14:45	Course Introduction and Overview; Foundations of prevention science Lecturer: Dr. V. Rees	Required reading: Chapter 3: Defining the Scope of Prevention from <i>Preventing Mental, Emotional, and Behavioural Disorders among Young People: Progress and Possibilities</i> Editors: O'Connell ME, Boat T, Warner KE. National Academies Press. Pages 59-69. Download chapter at http://www.nap.edu/catalog/12480.html (Links to an external site.)
14:45-15:30	Introduction to theoretical models of risky behaviours, including biological underpinnings of adolescent risk behaviour Lecturer: Dr. V. Rees	
15:30-15:45		
16:00-17:30	Epidemiology of substance use in Israel and globally Major epidemiological surveillance systems; sources of data; methodological challenges Lecturers: Prof. L. Rosen, Dr. V. Rees	Required reading: Bar-Or RL, Kor A, Jaljuli I, Lev-Ran S. The Epidemiology of Substance Use Disorders among the Adult Jewish Population in Israel. <i>Eur Addict Res.</i> 2021 Mar 17:1-9. doi: 10.1159/000513776. Additional resources: WHO. ATLAS of Substance Use Disorders Resources for the Prevention and Treatment of Substance Use Disorders (SUD) . 2010. European Monitoring Center for Drugs and Drug Addiction. Israel Country Overview. 2016. Available at: https://www.emcdda.europa.eu/countries/israel/en
17:30-17:45	Break	
17:45-18:30	The Prevention Intervention Research Cycle: Examples from work on substance use interventions; Special interest groups Lecturer: Dr. V. Rees	Required reading: Chapter 10: Designing, Conducting, and Analyzing Programs within the Preventive Intervention Research Cycle from <i>Reducing Risks for Mental Disorders</i> 1994. Available at: http://www.nap.edu/catalog.php?record_id=2139 .
Sunday, July 10 (Day 2)		
14:00-14:45	The Prevention Intervention Research Cycle: Examples from work on substance use interventions; Special interest groups Lecturer: Dr. V. Rees	Required reading: Chapter 10: Designing, Conducting, and Analyzing Programs within the Preventive Intervention Research Cycle from <i>Reducing Risks for Mental Disorders</i> 1994. Available at: http://www.nap.edu/catalog.php?record_id=2139 .

14:45-15:00	Break	
15:00-16:30	Prevention approaches for adolescents: how are young people different and how does this inform prevention priorities and opportunities? Lecturer: Dr. V. Rees	<i>Required reading:</i> Steinberg L. Should the science of adolescent brain development inform public policy? <i>Amer Psychologist</i> 2009; Vol. 64(8): 739-750. <i>Additional resources:</i> Shulman EP, Smith AR, Silva K, Icenogle G, Duell N, Chein J, Steinberg L. The dual systems model: Review, reappraisal, and reaffirmation. <i>Dev Cogn Neurosci</i> . 2016;17:103-17. Steinberg L. Risk taking in adolescence: what changes, and why? <i>Ann N Y Acad Sci</i> 2004;1021:51-8.
16:30-16:45	Break	
16:45-17:30	Identifying special populations: Disparities in substance use-related morbidity, including ethnic/racial minorities, women, youth, sexual minority, prisoner and homeless populations, and the multiply diagnosed. Lecturer: Dr. V. Rees	<i>Required reading:</i> Mereish EH, Bradford JB. Intersecting Identities and Substance Use Problems: Sexual Orientation, Gender, Race, and Lifetime Substance Use Problems. <i>Journal of Studies on Alcohol and Drugs</i> . 2014;75(1):179-188.
17:30-18:30	Special considerations with working with marginalized populations: research and intervention strategies <i>Class Discussion:</i> Working with marginalized populations: what makes an optimal program? Lecturer: Dr. V. Rees	
Monday, July 11 (Day 3)		
14:00-15:30	Life course development and theories of substance use behaviour; major models of dependence, including historical, disease/medical, and social cognitive models. Lecturer: Dr. V. Rees	<i>Required reading:</i> U.S. Surgeon General. (2016). Chapter 2. The neurobiology of substance use, misuse and addiction. In: Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health . Washington, DC: HHS.
15:30-16:00	Break	
16:00-16:45	Clinical interventions for substance use problems: Description and discussion of advantages and disadvantages of substance use interventions modalities. Lecturers: Prof. L. Rosen, Dr. V. Rees	<i>Required reading:</i> Blanco C, Volkow ND. Management of opioid use disorder in the USA: present status and future directions. Lancet . 2019;393(10182):1760-1772.

16:45-17:30	Consideration of issues in treatment effectiveness: setting, access, efficacy and population penetrance. Lecturers: Prof. L. Rosen, Dr. V. Rees	
17:30-18:00	Break	
18:00-19:00	Harm reduction strategies: a critical review. Harm reduction as a policy. Comparison of illicit drug harm reduction compared with tobacco harm reduction principles and strategies. Identification and discussion of strategies for prevention of drug use at community level, with a critical examination of strategies to protect vulnerable populations. Lecturer: Dr. V. Rees	<i>Required reading:</i> Bonny-Noach, H. Harm reduction drug policy in Israel: what has been accomplished and what still needs to be done?. <i>Isr J Health Policy Res.</i> 2019; 8:75. https://doi.org/10.1186/s13584-019-0343-3
Tuesday, July 12 (Day 4)		
14:00-14:30	<i>Class Discussion:</i> Substance use harm reduction services - what works in the real world? What are the obstacles to adoption? How can harm reduction enhance treatment and prevention? Lecturer: Dr. V. Rees	
14:30-14:45	Break	
14:45-16:15	Community-based substance use interventions for adolescents: Addressing the needs of key populations <i>Class Discussion:</i> Development and implementation of substance use prevention strategies among high school and college students Lecturer: Dr. V. Rees	<i>Required reading:</i> Hawkins JD, Catalano RF, Arthur MW, et al. Testing Communities That Care: the rationale, design and behavioural baseline equivalence of the community youth development study. <i>Prev Sci.</i> Sep 2008;9(3):178-190. <i>Additional resources:</i> Sloboda Z, Stephens RC, Stephens PC, Grey SF, Teasdale B, Hawthorne RD, Williams J, Marquette JF. The adolescent substance abuse prevention study: A randomized field trial of a universal substance abuse prevention program. <i>Drug Alcohol Depend.</i> 2009;102(1-3):1-10. - Communities that Care website: http://www.communitiesthatcare.net/ - Brief video available at: https://www.youtube.com/watch?v=nmMhCx04u1w

16:15-16:30	Break	
16:30-18:00	<p>Tobacco Policy: How evidence-informed tobacco regulations have changed tobacco use and reduced tobacco-related health harms.</p> <p>The WHO Framework Convention on Tobacco Control (FCTC). Contrast international perspectives in substance use policies: social and cultural contexts, and public health benefits</p> <p>Lecturer: Prof. L. Rosen</p>	<p><i>Required reading:</i></p> <p>Lee S, Ling PM, Glantz SA. The vector of the tobacco epidemic: tobacco industry practices in low and middle-income countries. <i>Cancer Causes Control</i>. 2012 Mar;23 Suppl 1:117-29. PubMed PMID: 22370696</p> <p><i>Additional resources:</i></p> <p>Please review the MPOWER website, which makes specific WHO-supported recommendations on tobacco control interventions:</p> <p>http://www.who.int/tobacco/mpower/en/</p>
18:00-19:00	<p>Marijuana policy: Changing regulations on marijuana use & possession laws – what implications do policies of decriminalization and legalization have for public health. Medical marijuana policies: states v. federal. Future trends – normalization of marijuana use, marketing and sale of marijuana products, how tobacco control might inform marijuana policy</p> <p>Lecturer: Dr. V. Rees</p>	<p><i>Required reading:</i></p> <p>Hall W, Weier M. Assessing the public health impacts of legalizing recreational cannabis use in the USA. <i>Clin Pharmacol Ther</i>. 2015 Jun;97(6):607-15.</p>
Thursday, July 14 (Day 5)		
14:00-14:30	<p>Class Discussion: Where is marijuana policy headed in the U.S.? What does an optimal regulatory policy look like? Has any jurisdiction got it right so far? What positive outcomes can we influence with regulatory change? What are the pitfalls?</p> <p>Lecturer: Dr. V. Rees</p>	
14:30-14:45	Break	
14:45-16:15	<p>Discussion of global approaches to substance use problems: examination of innovative prevention policies and evidence of their impact. Outline and discussion of future trends. Contrast international perspectives in substance use policies: social and</p>	<p><i>Required reading:</i></p> <p>Strang J, Babor T, Caulkins J, Fischer B, Foxcroft D, Humphreys K. Drug policy and the public good: evidence for effective interventions. <i>The Lancet</i>. 2012;379(9810):71-83,</p>

	cultural contexts, and public health benefits. <i>Class Discussion:</i> Designing large scale trials in the real world Lecturer: Dr. V. Rees	
16:15-16:30	Break	
16:30-18:00	Final class discussion and exam preparation Lecturers: Prof. L. Rosen, Dr. V. Rees	
18:00-18:30	End-of-course ceremony	
Friday, July 15 (Final Exam)		
09:00-11:00	Room TBA, Sackler Faculty of Medicine (Teaching Assistants will be present)	