rural adolescents' access to mental healthcare. Healthcare providers include pharmacists, physicians, and mental healthcare providers (MHPs). 2) To identify rural high schoolers' barriers and potential solutions towards access to mental healthcare. METHODS/ STUDY POPULATION: Fifteen HCPs will be recruited via email listserv and the snowball method. Perceived barriers of rural adolescents, personal barriers, current practices to address mental health in adolescents, and preferred solutions will be discussed. Twenty student and parent dyads will be recruited using fliers in school systems and will be interviewed individually outside of class time on school grounds or over the phone. Barriers to care and preferred solutions will be discussed. All interviews will be semi-structured, recorded, conducted in person or over the phone, and last for 30 minutes to an hour. Compensation will be \$25 for students and parents each, \$50 for pharmacists and mental health providers and \$100 for physicians. Thematic qualitative data analysis will be performed using Atlas.ti software. RESULTS/ANTICIPATED RESULTS: Data collection is ongoing. Anticipated results for barriers include absence of mental healthcare providers in rural areas, inability to access mental healthcare providers further away, stigma towards mental healthcare, and lack of knowledge of mental health conditions and treatment. Anticipated results for potential solutions may include promoting mobile applications to assist with telehealth and self-care. Other solutions may be collaboration among rural healthcare providers for adolescents with mental health conditions. Preferred solutions may also include pharmacists disseminating knowledge to rural adolescents and their parents or referrals to mental healthcare providers. DISCUSSION/SIGNIFICANCE OF IMPACT: This project will identify barriers and solutions to access to mental healthcare among rural adolescents. These solutions can then be applied towards the creation of programs that address salient issues within rural communities with a greater chance of uptake and use so that rates of depression and suicide will decrease. CONFLICT OF INTEREST DESCRIPTION: Funding through UAB TL1 award.

## 4129

## Understanding Treatment Preferences for Hodgkin Lymphoma (HL) among Physicians, Patients and Caregivers

Anita J Kumar<sup>1</sup>, Rachel Murphy-Banks<sup>2</sup>, John B Wong<sup>2</sup>, and Susan K Parsons<sup>2</sup>

<sup>1</sup>Tufts University; <sup>2</sup>Tufts Medical Center

OBJECTIVES/GOALS: Although their 5-year survival >90%, young patients with HL face tradeoffs between near-term disease control and risk of treatment-related adverse effects decades later, so we seek to understand what patients and clinicians value in HL treatment decisions. METHODS/STUDY POPULATION: Leveraging our access to large cohorts of physicians, HL patients/survivors, and caregivers, we will use adaptive choice-based conjoint analysis (ACBC) to elicit treatment preferences when offered scenarios that incorporate tradeoffs, e.g., would a patient rather live 20 years with 10% risk of second malignancy or live 40 years with 30% of second malignancy. To reduce survey fatigue, prior choice responses limit subsequent scenarios. Through ACBC, we will identify variations in preferences and the importance of disease outcomes, treatment characteristics, and late effects for HL by respondent type. RESULTS/ ANTICIPATED RESULTS: The goal is a final sample of 200 physicians and 200 patients/caregivers. We will collect demographics from physicians (age, type of physician, years practicing, type of practice, gender, and geography) and patients/caregivers (age at diagnosis, time since treatment, race, gender, smoker, education). We will ask questions about values of disease outcomes, late effects (second cancers, cardiac disease, chronic fatigue and neuropathy), and treatment characteristics (uncertainty of late effects, salvageability). Results will include utilities about participants views on disease-control and late effects. We anticipate participants to value disease control over late effects. DISCUSSION/SIGNIFICANCE OF IMPACT: Our study will elicit how physicians and patients/caregivers value treatment tradeoffs for HL. In an era of multiple treatment choices with varying short- and long-term benefits and harms, identifying values and preferences become critical for patient-centered treatment decisions.

## 4317

## Using Failure Modes and Effects Analysis to Guide Adaptation of an Evidence-Based Parenting Program for Mothers with Substance Use Disorders

Elizabeth Peacock-Chambers<sup>1</sup>, Peter Friedmann<sup>2</sup>, Nancy Byatt<sup>3</sup>, Nancy Suchman<sup>4</sup>, and Emily Feinberg<sup>5</sup> <sup>1</sup>Tufts University; <sup>2</sup>UMMS-Baystate; <sup>3</sup>UMMS; <sup>4</sup>Yale School of

Medicine; <sup>5</sup>Boston Medical Center

OBJECTIVES/GOALS: To identify possible failures that could occur in the delivery of an evidence-based parenting program for mothers with substance use disorders (SUD) through existing home-visiting services, and to develop solutions to the most significant failures. METHODS/STUDY POPULATION: Using failure modes and effects analysis (FMEA) methodology, we conducted two 2-hour advisory panel discussions with 15 people from a variety of disciplines and life experiences related to SUDs. The intervention delivery process included five steps: (1) Recruitment, (2) Screening, (3) Matching, (4) Enrollment in person, and (5) Intervention delivery. Participants collectively determined possible failures, causes, and consequences. Participants then agreed on three scores (Likert Scale 0-10) for the likelihood of occurrence, detection, and severity of the failure, with 10 being the highest likelihood, difficulty detecting, or severity. A risk priority number (RPN) was calculated as the product of the 3 scores (maximum RPN = 1,000). The group then identified possible solutions for failures with higher RPNs. RESULTS/ANTICIPATED RESULTS: For each step in the process we identified the following number of failure nodes and RPN scores: (1) recruitment: 13 failures; RPN = 800, (2) screening: 102 failures; RPN = 10, (3) matching: 4 failures: RPN = 490, (4) enrollment: 6 failures; RPN = 80, (5) delivery: 11 failures; RPN = 80. The most critical failures related to recruitment and were perceived as being caused by potential development of mistrust in the community. Participants strongly encouraged the use of "strengths-based language," clear referral plans for mothers that did not qualify, and inclusion of mothers that did not have custody of their children. These findings resulted in changes to the screening script, enrollment procedures, and inclusion criterial for the program. DISCUSSION/ SIGNIFICANCE OF IMPACT: FMEA methodology was particularly effective in identifying possible failures for the integration of an