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### Development of an E-cigarette & Tobacco Use Intervention for Adolescents and Young Adults in the Pediatric Hospital

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# Development of an E-cigarette Use Intervention for Adolescents and Young Adults in the Pediatric Hospital

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## Background

- E-cigarettes use by youth is linked with increased risk for nicotine dependence, future substance use disorders (SUDs), addiction, and risk for mental health disorders
  - Youth who lack primary care access often rely on the hospital setting are at particularly high risk
- Hospitalizations may present a valuable opportunity to address e-cigarette use and nicotine dependence among adolescents and young adults (AYAs), however evidence-based interventions in this setting are lacking

## Objective

- To develop and preliminarily evaluate the feasibility and efficacy of a novel intervention to treat e-cigarette use among hospitalized AYA

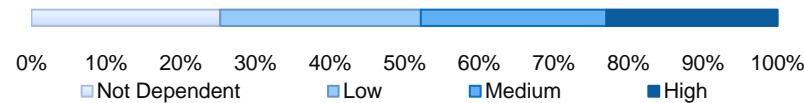
## Methods

- Hospitalized AYAs (14-21 y.o.); report past 30 day e-cigarette use
  - Randomized 2:1 to intervention or control
  - Intervention:** Health education; Motivational interviewing; Quit plan creation; Nicotine replacement therapy (NRT) for those with moderate to severe nicotine dependence; refer to text-message quit program; 4 weekly booster calls
  - Control:** Brief advice; quit resource handout
- Primary outcome:** 30-day self-reported abstinence at 3 month f/u; self-reported confidence and knowledge to quit post intervention; Compared using chi-squared test
- Implementation Outcomes:** Feasibility (intervention completion and duration), acceptability (intervention disruption, helpfulness and satisfaction based on AYA participant response to survey items)

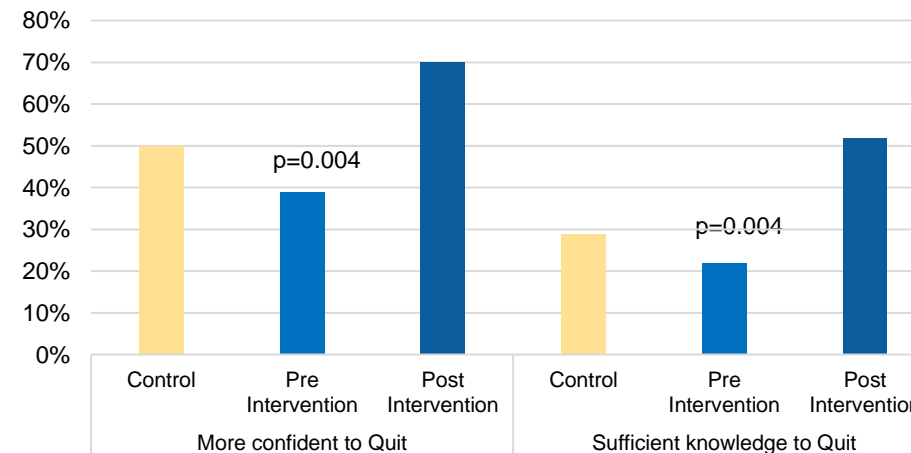
## Results

- Study is ongoing, goal sample size n=144. To date of 334 AYAs eligible and screened, 78 (23%) declined and 68 (20%) enrolled with a median age 16 years; 68% female, 60% non-Hispanic white, 53% public insurance
- E-cigarette Use:** 24% used e-cigarettes only; 76% co-used marijuana, 15% co-used traditional cigarettes

### Nicotine Dependence



- Intervention:** 25 (46%) made a quit plan; 7 (13%) prescribed NRT
- Response rate at 3 month follow up: 58% (22 out of 38)
- Primary Outcome:** Preliminary Efficacy: 39% (7 out of 18) in intervention arm reported past 30-day abstinence at 3 months



## Implementation Outcomes

### Feasibility

100% completed the intervention

Median duration: 35.8 minutes

### Acceptability

67% reported no/minimal disruption to hospital care

98% felt the intervention was mostly/very helpful

89% were somewhat/very satisfied with the intervention

## Conclusions

- In this study of 68 AYAs with current e-cigarette use, nearly half had moderate to severe nicotine dependence and three quarters reported marijuana co-use
- AYAs were willing to participate in a hospital-based intervention and perceived the intervention as helpful and not disruptive
- While the study is still enrolling and is not powered for efficacy, there was a significant increase in confidence and knowledge to quit post intervention compared to controls
- The hospital appears to be a promising venue to increase reach of e-cigarette cessation interventions for AYAs

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