

## Introduction

Patients who continue smoking following cardiac events or surgeries have an increased risk of morbidity and mortality. During hospitalizations, most patients abstain from smoking, but relapse post-hospitalization is high, due to the gap in tobacco cessation interventions available to patients (Cossette, 2012).

**Purpose:** The aim of this study was to collect demographic information and smoking status, of hospitalized cardiovascular patients that had a Cardiac Rehabilitation qualifying diagnosis for the purposes of designing a post-hospitalization tobacco cessation intervention.

## Methods

### Design:

Quality Improvement Study

### Participants:

168 patients admitted to the Cardiology and Cardiothoracic Surgery floors at the University of Vermont Medical Center, with eligible cardiac diagnoses (myocardial infarctions, percutaneous coronary intervention, coronary artery bypass graft, valve replacement, or valve repair) between 7/30-10/1.

### Measures Collected:

- Demographic information (age, sex, location)
- Using the HRSA eligibility look up tool, patient location was classified as rural or nonrural
- Smoking information (smoking status, type and amount)

### Data Analyses:

- Chi-square tests were run for categorical variables
- T-tests were run for continuous variables

## Results

	Total (n=169)	Current (n=23)	Non (n=146)	P-value
Age	69.0	59.3	70.5	p<.001
Rurality (%)	66.9	73.9	65.8	P=.44
Sex (%)	63.9	65.2	63.7	P=.95
Surgical Status (%)	32.5	30.4	32.9	P=.82

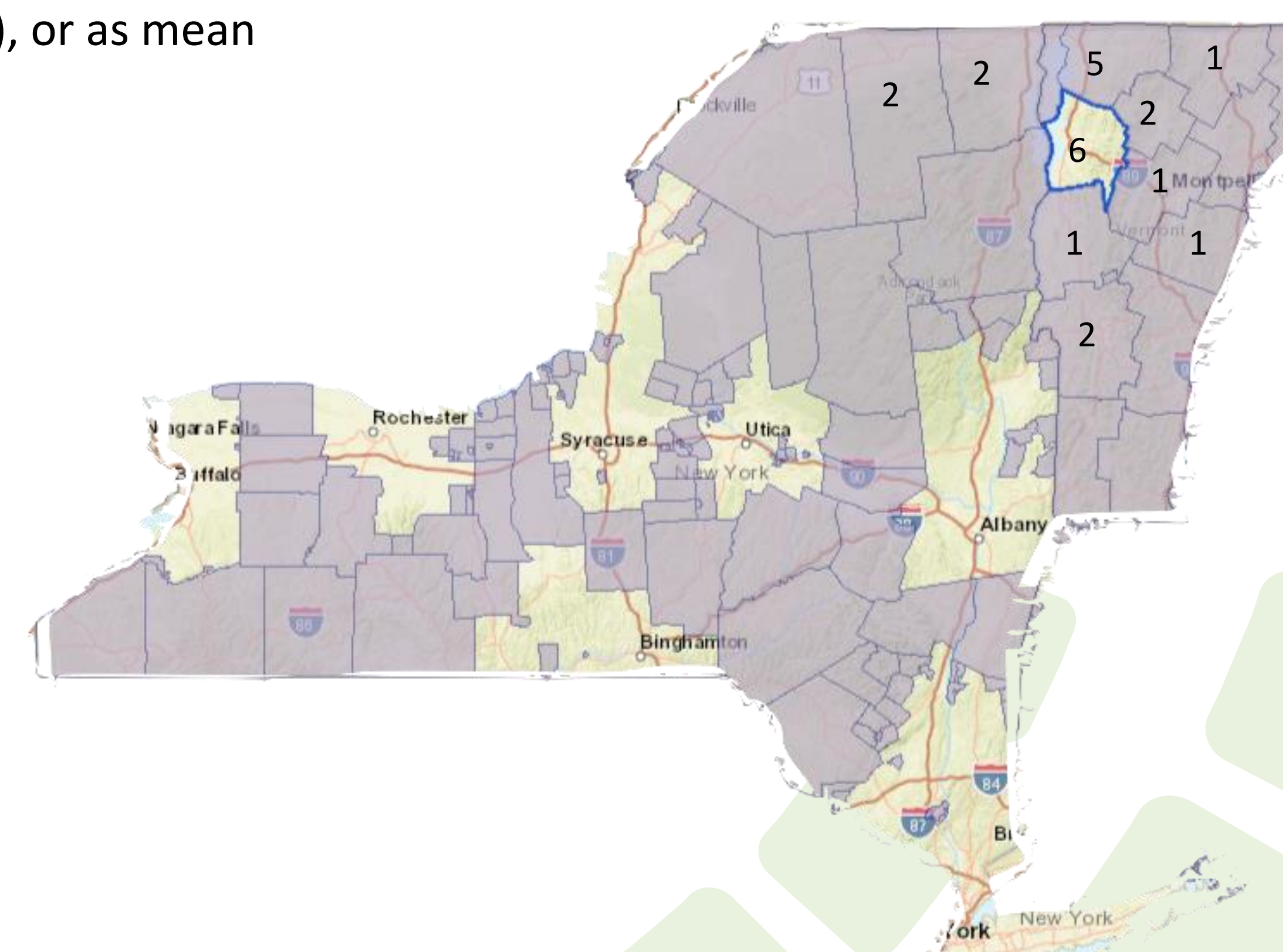
Values are presented as either N(%), or as mean

Of the 90 reported former smokers, 7 had quit within 3 months of hospitalization, making them at elevated risk for relapse.

The recent quitters are more similar demographically to the current smokers than the noncurrent group and reported almost the same amount smoked.

	Current (n=23)	Recently Quit (n=7)	P-value
Age	59.3	63.1	P=.42
Rurality	73.9	85.7	P=.51
Sex	65.2	57.1	P=.70
Surgical Status	30.4	57.1	P=.20
Average packs per day	0.74	0.76	P=.89

Values are presented as either N(%), or as mean



The map displays the counties in both Vermont and New York. The counties highlighted in purple are the HRSA designated rural counties. Outlined in blue is Chittenden County, VT: the only nonrural county located in Vermont. Number denote the county of residence of the current smokers.

## Discussion

Of, 169 eligible patients screened during the designated time period, 23 patients reported current smoking.

The non-current smoking group was comprised of 90 former smokers and 56 never smokers.

On average, current smokers were ten years younger than their nonsmoking counterparts but did not differ on location, sex or surgical status.

Almost three fourths of the current smokers were located in rural areas, as defined by HRSA eligibility.

Patients located in rural areas have higher smoking rates and lower quit rates on average in comparison with patients located in nonrural, or urban, areas (Lum, 2020).

Current smokers are younger and live in rural areas, it is likely a remote intervention would be optimal in providing post hospitalization smoking cessation support to reach as many patients as possible.

## References

- Centers for Disease Control and Prevention (US) (2018, January 18). Smoking is down, but almost 38 million American adults still smoke: *Cigarette smoking remains high among certain groups*
- Lum A, Skelton E, McCarter KL, et al. Smoking cessation interventions for people living in rural and remote areas: a systematic review protocol. *BMJ Open* 2020;**10**:e041011. doi: 10.1136/bmjopen-2020-041011
- Cossette, S., Frasure-Smith, N., Robert, M., Chouinard, M.C., Juneau, M., Guertin, M.C., Cournoyer, A., Mailhot, T., & Kayser, J.W. (2012). A Pilot Randomized Trial of a Smoking Cessation Nursing Intervention in Cardiac Patients after Hospital Discharge. *Canadian Journal of Cardiovascular Nursing*, 22(4), 16–26.