Analysis of Health Survey for England (HSE) 2019

Candidate Numbers Here

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Abstract

This report provides an analysis of data related to health, age, socio-economic factors and lifestyle habits in adults (from the age of 16) from the population in England, derived from the Health Survey for England 2019.

Introduction

Question One

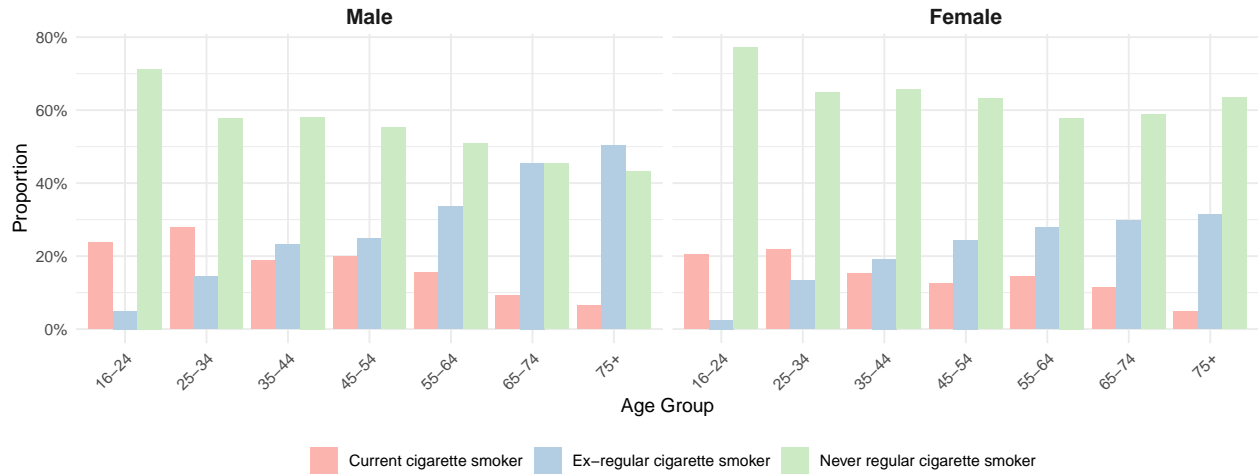We start by investigating the data

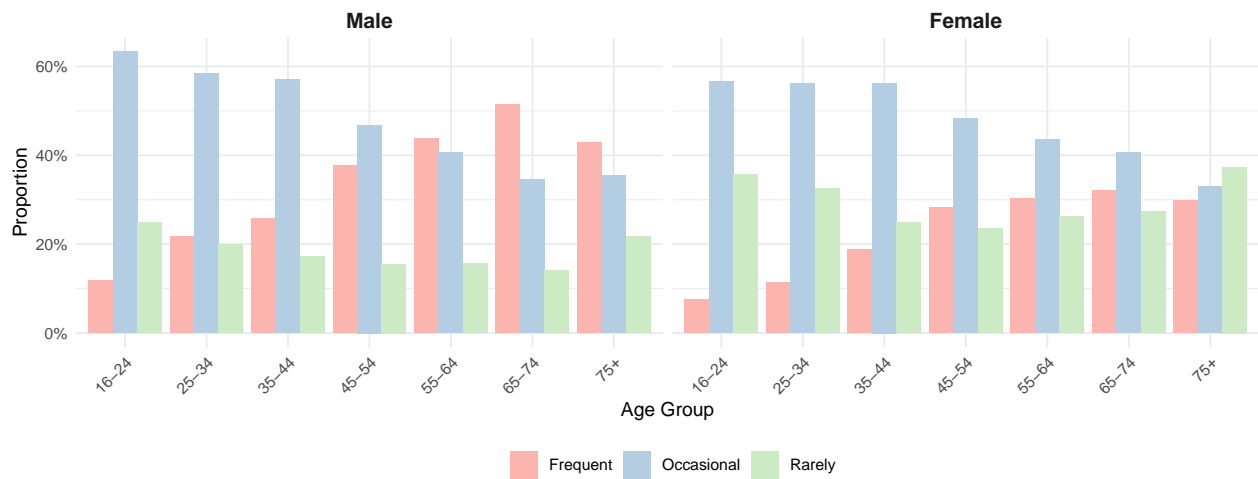Figure 1: Smoking status proportions by age group and gender

Figure 2: Drinking Status Proportions by age group and gender

Assuming a binomial. . .

Table 1: Estimates and 95% Confidence Intervals for % of Population

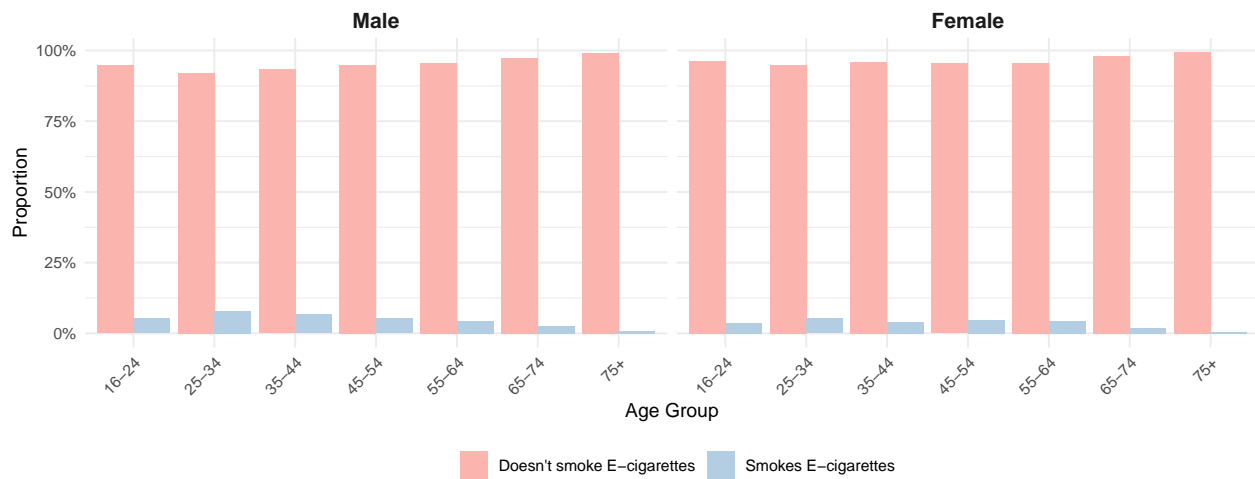| Category	Estimate	C.I.
Drinking	80.3%	(79.5%, 81.2%)
Smoking	16.5%	(15.7%, 17.3%)
Smoking E-cigarettes	4.28%	(3.84%, 4.72%)

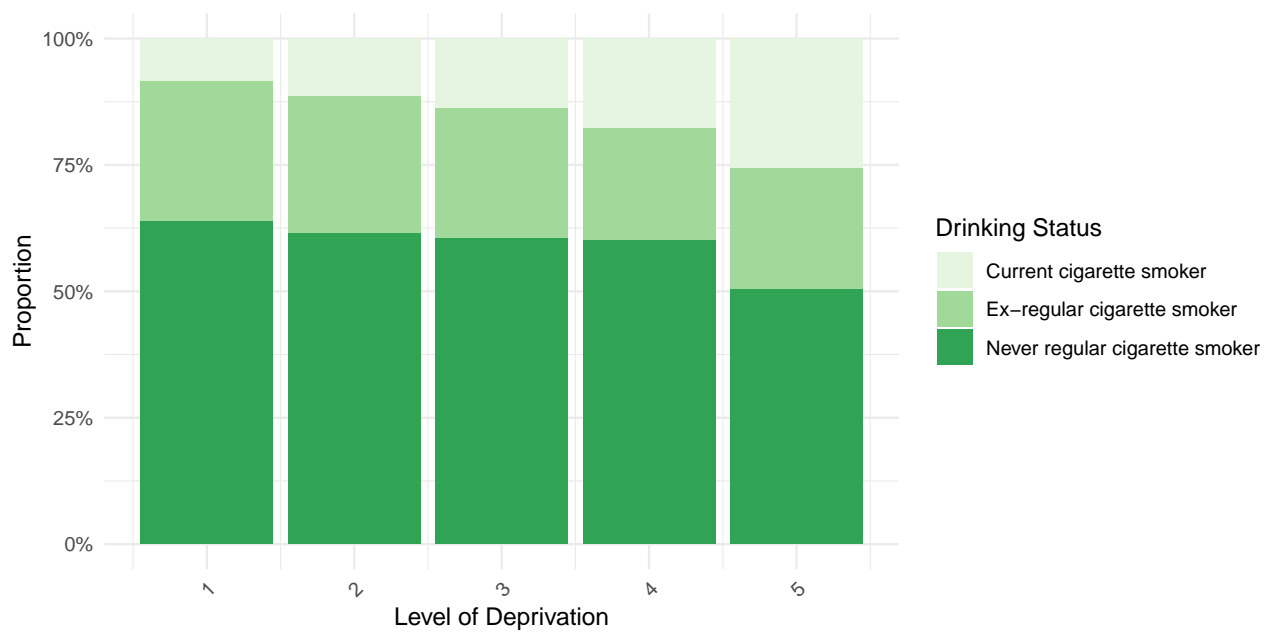Figure 3: E-cigarette Usage Status Proportions by age group and gender

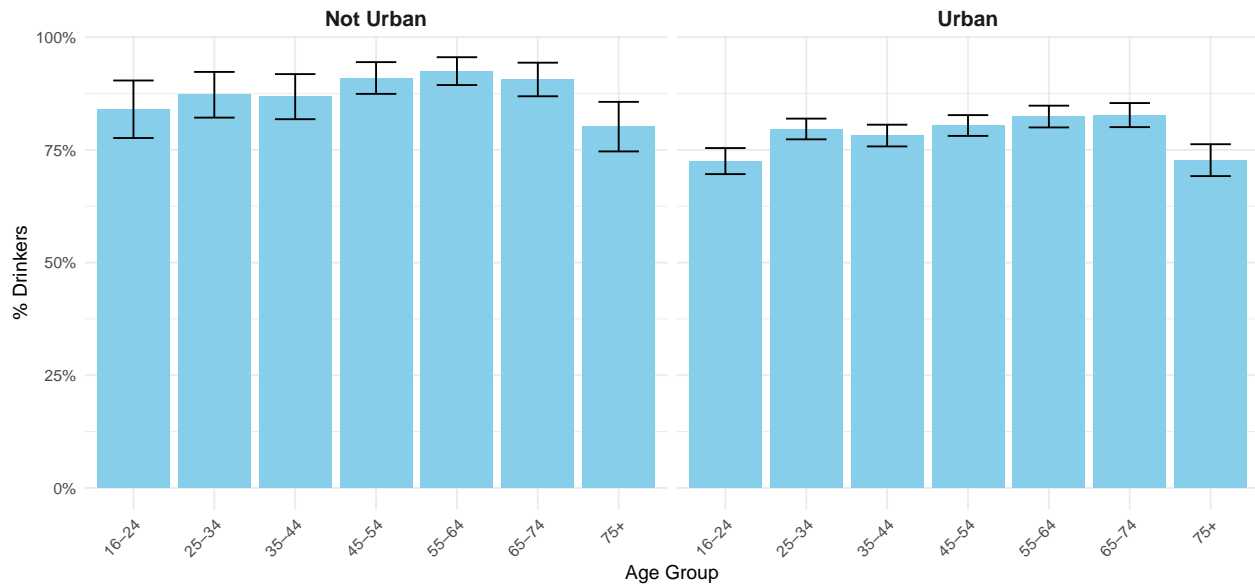Figure 4: Drinking Status Proportions by Level of Deprivation

Figure 5: Estimation of the prevelance of drinkers by city type and age group

Question Two

Explanation of why we split into test/train dataset.

This leaves us with 6563 observations in our training dataset.

Table 2: Missing values in the training dataset

Variable	Missing Values	% Missing
omsysval	3216	49%
dnoft_19	1220	18.6%
BMIVal	1207	18.4%
cigdyal_19	49	0.747%
cigsta3_19	47	0.716%
NDPNow_19	44	0.67%
d7many3_19	43	0.655%
drinkYN_19	42	0.64%
topqual2	36	0.549%
origin2	24	0.366%
marstatD	1	0.0152%