IN BRIEF

- Adult Kentuckians who ever smoked cigarettes reported higher rates of substance use, were more likely to meet criteria for a substance use disorder, and have a greater need for alcohol and drug treatment services compared to adult Kentuckians who never smoked.
- Adult Kentuckians who began smoking at earlier ages had increased drug use, higher prevalence of substance use disorders, higher probability for substance abuse treatment need, and a lower likelihood that they have thought about or attempted to quit smoking.
- Adult Kentuckians who ever smoked cigars, pipe tobacco, or used smokeless tobacco also had higher rates of substance use, were more likely to meet criteria for a substance use disorder, and had a greater need for alcohol and drug treatment services.

An estimated 2,055,467 (60.0%) of Kentucky adults have ever smoked all or part of a cigarette. Just under half of all Kentucky adults (47.1%) have smoked at least 100 cigarettes in their lifetime. The Kentucky Needs Assessment Project (KNAP) 2007 Adult Household Survey asked adults ages 18 and older about their use of tobacco, alcohol, and illicit drugs over their lifetime, past 12 months, and past 30 days, as well as other information about substance abuse and dependence. Illicit drugs were defined as the unprescribed use of marijuana, cocaine, other stimulants, oxycodone or Oxycontin, other opiates, sedatives, hallucinogens, club drugs, inhalants, or any other substances used for their psychotropic effects, excluding alcohol and tobacco. Substance abuse and dependence were defined using Diagnostic and Statistical Manual of Mental Disorders Fourth Edition, Text Revised (DSM-IV-TR) criteria. Abuse and dependence should not be interpreted as clinical diagnoses. This report focuses on differences between Kentucky adults ages 18 and older who ever used tobacco products and adult Kentuckians who never used tobacco products. Additional comparisons of adult Kentuckians are made between persons who smoked more or less than 100 cigarettes in their lifetime as well as analyzing differences between persons grouped by age at first cigarette use.

STUDY OVERVIEW

The Kentucky Needs Assessment Project (KNAP) is a series of studies designed to estimate substance use levels and substance abuse treatment need of Kentuckians. Data for this report were taken from the 2007 Adult Household Survey, a telephone survey of 3,312 Kentucky households using random digit dialing. Only respondents in residential households were sampled and included. The findings from this study can only be
generalized to adults residing in Kentucky households, and not to those in institutional, dormitory or group home settings. Another potential source of bias is the understatement or overstatement of actual behaviors. The validity of self-reported data depends on the honesty, memory, and understanding of the respondents. The detailed methodology of this study is described in the full report which can be viewed at http://cdar.uky.edu.

**Cigarette Smoking**

**Gender** – Adult male Kentuckians are more likely to have ever smoked cigarettes and smoked at least 100 cigarettes compared to adult female Kentuckians (Figure 1).

![Figure 1: Lifetime Cigarette Use by Gender](image)

**Race/Ethnicity** – White adult Kentuckians were more likely to have ever smoked cigarettes compared to Black, Hispanic, or other adult Kentuckians. White and other Kentucky adults were more likely to have smoked at least 100 cigarettes in their lifetime (Figure 2).

![Figure 2: Lifetime Cigarette Use by Race/Ethnicity](image)
Age at First Cigarette Use – Of adult Kentuckians who ever smoked a cigarette, three-quarters (76.0%) of males smoked their first cigarette before their 18th birthday compared to 70.9% of females. Table 1 presents the distribution of first cigarette use by age group and gender.

Table 1: Age at First Cigarette Use

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Males</th>
<th>Females</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 and Younger</td>
<td>22.8%</td>
<td>16.9%</td>
<td>20.0%</td>
</tr>
<tr>
<td>13 to 14</td>
<td>19.9%</td>
<td>17.4%</td>
<td>18.7%</td>
</tr>
<tr>
<td>15 to 16</td>
<td>26.1%</td>
<td>29.0%</td>
<td>27.5%</td>
</tr>
<tr>
<td>17 to 18</td>
<td>17.1%</td>
<td>15.3%</td>
<td>16.2%</td>
</tr>
<tr>
<td>19 and Older</td>
<td>14.1%</td>
<td>21.4%</td>
<td>17.6%</td>
</tr>
</tbody>
</table>

Current Daily Smokers – A current daily smoker is defined as anyone who reported smoking cigarettes at least 25 days out of the past 30. Male adult Kentuckians were more likely to be current daily smokers compared to female adult Kentuckians (23.0% and 19.9% respectively). Adult Hispanic Kentuckians were the least likely to be current daily smokers (5.9%) compared to adult Black Kentuckians (19.8%), White adult Kentuckians (21.6%) and other adult Kentuckians (31.9%).

Smoking Cessation – Of adult Kentuckians who smoked at least 100 cigarettes, those who began smoking at earlier ages were less likely to ever think about quitting smoking and were less likely to ever make an attempt to quit smoking (Figure 3).

Figure 3: Smoking Cessation by Age at First Cigarette Use

Pipe, Cigar, and Smokeless Tobacco Use

Lifetime Use – An estimated 674,174 adult Kentuckians (21%) have smoked tobacco with a pipe at least once. An estimated 1,246,678 adult Kentuckians (39%) ever smoked a cigar and an estimated 849,890 adult Kentuckians (26%) ever used smokeless tobacco.
ALCOHOL AND ILLICIT DRUG USE

Alcohol – Adult Kentuckians who ever smoked cigarettes were more likely to have ever drank alcohol compared to adult Kentuckians who never smoked (Figure 4). There were no notable differences in lifetime alcohol use by age at first cigarette use (Figure 5). Adult Kentuckians who ever smoked cigars, pipe tobacco, or used smokeless tobacco were more likely to have ever drank alcohol (Figure 6).

Figure 4: Lifetime Alcohol Use by Cigarette Smoking Levels

Figure 5: Lifetime Alcohol Use by Age at First Cigarette Use
Marijuana – Adult Kentuckians who have smoked cigarettes were more likely to have ever used marijuana compared to adult Kentuckians who never smoked (Figure 7). Adult Kentuckians who smoked their first cigarette at a younger age were also more likely to have ever used marijuana (Figure 8). Adult Kentuckians who ever smoked cigars, pipe tobacco, or used smokeless tobacco were more likely to have ever smoked marijuana (Figure 9).
Other Illicit Drugs – Adult Kentuckians who have smoked cigarettes were more likely to have ever used illicit drugs, excluding marijuana, compared to adult Kentuckians who never smoked (Figure 10). Adult Kentuckians who smoked their first cigarette at a younger age were more likely to have ever used illicit drugs other than marijuana (Figure 11). Adult Kentuckians who ever smoked cigars, pipe tobacco, or used smokeless tobacco were more likely to have ever use illicit drugs, excluding marijuana (Figure 12).
Figure 10: Lifetime Illicit Drug Use (excluding marijuana) by Cigarette Smoking Levels

Figure 11: Lifetime Illicit Drug Use (excluding marijuana) by Age at First Cigarette Use

Figure 12: Percent of Adult Kentuckians Who Ever Used Illicit Drugs (excluding marijuana) by Other Tobacco Use
DSM-IV-TR SUBSTANCE USE DISORDERS

Lifetime Alcohol Abuse and Dependence – Adult Kentuckians who have smoked cigarettes were more likely to meet criteria for alcohol abuse or dependence compared to adult Kentuckians who never smoked (Figure 13). Adult Kentuckians who smoked their first cigarette at younger ages were more likely to meet criteria for alcohol abuse or dependence (Figure 14). Adult Kentuckians who ever smoked cigars, pipe tobacco, or used smokeless tobacco were more likely to meet criteria for alcohol abuse or dependence (Figure 15).

Figure 13: Lifetime Alcohol Abuse or Dependence by Cigarette Smoking Levels

![Figure 13: Lifetime Alcohol Abuse or Dependence by Cigarette Smoking Levels](image)

Figure 14: Lifetime Alcohol Abuse or Dependence by Age at First Cigarette Use

![Figure 14: Lifetime Alcohol Abuse or Dependence by Age at First Cigarette Use](image)
Figure 15: Lifetime Alcohol Abuse or Dependence by Other Tobacco Use

Figure 16: Lifetime Drug Abuse or Dependence by Cigarette Smoking Levels

Lifetime Drug Abuse or Dependence – Adult Kentuckians who have smoked cigarettes were more likely to meet criteria for drug abuse or dependence compared to adult Kentuckians who never smoked (Figure 16). Adult Kentuckians who smoked their first cigarette at younger ages were also more likely to meet criteria for drug abuse or dependence (Figure 17). Adult Kentuckians who ever smoked cigars, pipe tobacco, or used smokeless tobacco were more likely to meet criteria for drug abuse or dependence (Figure 18).

Figure 17: Lifetime Drug Abuse or Dependence by Age of First Cigarette

Figure 18: Lifetime Drug Abuse or Dependence by Tobacco Use

Lifetime Drug Abuse or Dependence by Tobacco Use

- Cigars: 29% Used Tobacco, 8% Never Used
- Pipe Tobacco: 30% Used Tobacco, 12% Never Used
- Smokeless Tobacco: 32% Used Tobacco, 10% Never Used

Lifetime Drug Abuse or Dependence by Cigarette Smoking Levels

- Never Smoked: 2% Abuse, 1% Dependence
- Smoked < 100: 7% Abuse, 3% Dependence
- Smoked 100+: 13% Abuse, 10% Dependence
SELF-REPORTED PHYSICAL AND MENTAL HEALTH

Self-Reported Physical and Emotional Health – Adult Kentuckians who have smoked cigarettes were more likely to self-report fair or poor physical and emotional health compared to adult Kentuckians who never smoked (Figures 19 and 20). Adult Kentuckians who ever smoked cigars, pipe tobacco, or used smokeless tobacco were slightly more likely to self-report fair or poor physical and emotional health compared to adult Kentuckians who never smoked (Figures 21 and 22). The exceptions were that adult Kentuckians who ever used smokeless tobacco were less likely to report fair or poor physical health compared to adult Kentuckians who never used smokeless tobacco; also, those who smoked cigars were not different than those who never smoked cigars on reporting fair or poor physical health.
Figure 19: Self-Reported Fair or Poor Physical Health by Cigarette Smoking Levels

- Never Smoked: 14% Males, 21% Females
- Smoked < 100: 11% Males, 20% Females
- Smoked 100+: 26% Males, 28% Females

Figure 20: Self-Reported Fair or Poor Emotional Health by Cigarette Smoking Levels

- Never Smoked: 10% Males, 11% Females
- Smoked < 100: 8% Males, 15% Females
- Smoked 100+: 17% Males, 21% Females

Figure 21: Self-Reported Fair or Poor Physical Health by Other Tobacco Use

- Cigars: 22% Used, 22% Never Used
- Pipe Tobacco: 27% Used, 20% Never Used
- Smokeless Tobacco: 20% Used, 22% Never Used
TREATMENT NEED

Self-Reported Problem with Alcohol or Drugs – Adult Kentuckians who have smoked cigarettes were more likely to self-report a current problem with alcohol or drugs compared to adult Kentuckians who never smoked (Figure 23). Adult Kentuckians who smoked their first cigarette at younger ages were also more likely to self-report a current problem with alcohol or drugs (Figure 24). Adult Kentuckians who ever smoked cigars, pipe tobacco, or used smokeless tobacco were more likely to self-report a current problem with alcohol or drugs (Figure 25).

Figure 23: Self-Reported Current Problem with Alcohol or Drugs by Cigarette Smoking Levels

Figure 22: Self-Reported Fair or Poor Emotional Health by Other Tobacco Use
Current Substance Abuse Treatment Need — Persons were considered in need of treatment if they self-reported needing but not receiving treatment, met past year DSM-IV-TR alcohol or drug abuse or dependence criteria, were currently pregnant and used illicit drugs or alcohol in the past 30 days, or engaged in risky behaviors in the past year due to drug or alcohol use. Adult Kentuckians who have smoked cigarettes were more likely to need treatment compared to adult Kentuckians who never smoked (Figure 26). Adult Kentuckians who smoked their first cigarette at younger ages were also more likely to need treatment (Figure 27). Adult Kentuckians who ever smoked cigars, pipe tobacco, or used smokeless tobacco were more likely to need treatment (Figure 28).
Figure 26: Current Substance Abuse Treatment Need by Cigarette Smoking Levels

Figure 27: Current Substance Abuse Treatment Need by Age at First Cigarette Use

Figure 28: Current Substance Abuse Treatment Need by Other Tobacco Use

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SUMMARY

Adult Kentuckians who ever smoked cigarettes reported higher rates of substance use, were more likely to meet criteria for a substance use disorder, and have a greater need for alcohol and drug treatment services compared to adult Kentuckians who never smoked. Adult Kentuckians who ever smoked cigarettes were also more likely to self-report fair or poor physical health and mental health compared to adult Kentuckians who never smoked. There was also a relationship between adult Kentuckians who began smoking at earlier ages and increased drug use, higher prevalence of substance use disorders, higher probability for substance abuse treatment need, and a lower likelihood they have thought about or attempted to quit smoking. Adult Kentuckians who ever smoked cigars, pipe tobacco, or used smokeless tobacco also reported higher rates of substance use, were more likely to meet criteria for a substance use disorder, and had a greater need for alcohol and drug treatment services compared to adult Kentuckians who never used these tobacco products. Given that nearly half of adult Kentuckians are estimated to have smoked 100 or more cigarettes in their lifetime, the associations described in this report underscore the need for continued tobacco cessation and prevention efforts.

Acknowledgements

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