



**THE IOWA  
CONSORTIUM**  
FOR SUBSTANCE ABUSE RESEARCH AND EVALUATION

# **OLDER IOWANS ENTERING SUBSTANCE ABUSE TREATMENT FOR THE FIRST TIME: 10 YEAR TRENDS**

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## Summary

The proportion of older lowans is growing and so too is the percent of older lowans entering substance abuse treatment for the first time. Reviewing 10 years of admissions, increases in older first time admissions may be accelerating. The older first time admission tends to be male and white with over 80% reporting alcohol only as a problem. The percent of alcohol mentions is declining slightly over the last 10 years. There are slight increases in marijuana, cocaine, methamphetamine mentions, although except for marijuana, these drugs remain infrequent among the older client. There was no evidence of an increase in prescription drug abuse and few clients were introduced to their problem substance later in life. Older clients have a shorter length of stay and substantially more successful completions than younger clients. However, older clients' abstinence rates 6 months after treatment were either no different or less successful compared to younger clients.

### Suggestions:

- Increase alcohol abuse prevention efforts among older lowans
- Closely monitor percentage of older clients entering treatment over the next several years, since program planning and increased medical care requirements may be a concern
- Monitor cocaine and methamphetamine use in this population and promote screening, referral, and secondary prevention programs
- Increase alcohol abuse prevention efforts among older lowans
- Continue to monitor prescription drug admissions to treatment
- Assess the magnitude of prescription drug abuse in the private practice setting
- If prescription abuse is frequently treated outside of normal treatment centers settings, assess outcomes of clients/patients
- Consider extending length of stays for older adults
- Provide post treatment support using recovery coaches or other peer recovery services for older adults
- Regularly screen older adults for depression at the end of the treatment stay

## Older Iowans Entering Substance Abuse Treatment for the First Time: 10 year trends

The proportion of older Iowans is growing. According to U.S. Census interim projections, while 14.9% of Iowans were 65 or older in 2000, by 2030, the percent is projected to be 22.4%.<sup>1</sup> The Iowa Department of Aging estimates over 444,500 Iowans were 65 years or older in 2008 with that number growing nearly 1.5 times to more than 663,000 in 2030.<sup>2</sup> Iowa's increasingly older population will affect the makeup of people needing substance abuse treatment within the state. Substance abuse problems are usually associated with younger people, however, one earlier study in Iowa estimated that nearly 15% of elderly Iowans regularly drank more than the daily recommended amounts of alcohol.<sup>3</sup>

The aging of the population occurring in Iowa is also happening nationally. A recent projection estimates that more than 5.5 million older adults will need substance abuse treatment in the US by the year 2020.<sup>4</sup> The pattern of abused substances is also expected to change. A number of reports have suggested that the proportion of cases with illicit drug use problems will increase, particularly among those aged 55 and older.<sup>5</sup> Thus, substance abuse problems, thought to be an issue connected with younger adults, is becoming a much larger concern for older Iowans.

The following analyses review first time admissions to substance abuse treatment in Iowa from 2000 to 2009. The data were first admissions combined from Iowa's Substance Abuse Reporting System (SARS), Iowa Service Management and Reporting Tool (I-SMART), and the Outcomes Management System (OMS). Among all ages in 2000, clients aged 55 and older accounted for only 2.9% of admissions. In 2009, that percent had increased to 4.9%. The following analyses compare older Iowans (age 55 and older) to other adults (aged 30 to 54). We excluded young clients from the analyses to equalize such things as employment history and exposure to alcohol and illicit drugs. There were 48,257 first time admissions aged 30 or more with 3,990 clients aged 55 or more. Each year had over 4,300 such admissions. Figure 1 shows the percent of older Iowans entering treatment over the 10-year period.

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<sup>1</sup> U.S. Census Bureau. State Interim Population Projections by Age and Sex: 2004 – 2030. Table 3: Interim Projections: Ranking of States by Projected Percent of Population Age 65 and Older: 2000, 2010, and 2030. Accessed May 7, 2010 <http://www.census.gov/population/www/projections/projectionsagesex.html>

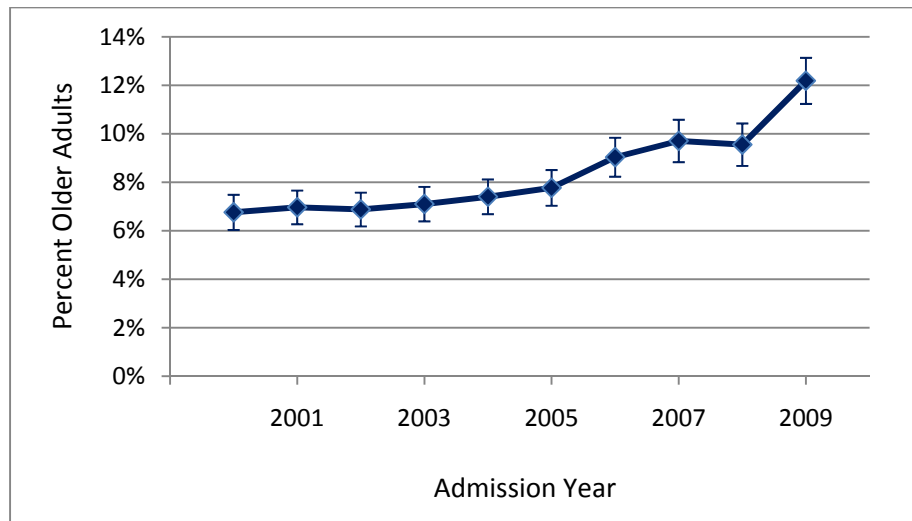
<sup>2</sup> Iowa Department of Aging. Older Iowans: 2010. State Data Center and Iowa Department of Aging.

<sup>3</sup> Schultz SK, Arndt S, Lutz GM, et al: Alcohol use among older persons in a rural state. *American Journal of Geriatric Psychiatry* 2002; 10:750-753.

<sup>4</sup> Han B, Gfroerer JC, Colliver JD, et al: Substance use disorder among older adults in the United States in 2020. *Addiction* 2009; 104:88-96

<sup>5</sup> Arndt S, Clayton R, Schultz SK: Trends in Substance Abuse Treatment 1998-2008: Increasing Older Adult First-time Admissions for Illicit Drugs. *American Journal of Geriatric Psychiatry*, manuscript under review.

Figure 1: Percent of older (aged 55 or older) first time admissions to treatment among all adults 30 or older (2000 – 2009).



Increases in older first time admissions may be accelerating. The average age in the older group is 61 years compared to an average age of 40 years for the younger group. While most first time clients in the older group were in their late 50s (52.5%), 36.8% were in their 60s and 10.7% were 70 or older.

### Demographic differences between older and younger adult clients

Table 1: Demographic differences between the older and younger clients.

	Older (Aged ≥ 55) n = 3,990	Younger (Aged 30 – 54) n = 44,267
<b>Sex:</b>		
Male	77.5%	69.1%
<b>Race</b>		
White	94.0%	91.6%
Black	5.1	6.9
<b>Ethnicity</b>		
Hispanic//Latino	2.8%	5.3%
<b>Education</b>		
< High School	18.9%	19.8%
High School	45.2	49.4
Some College	19.3	22.6
College	9.5	5.8
Post Graduate	7.0	2.5
<b>Relationship Status</b>		
Single	10.7%	26.7%
Married/Cohabiting	46.0	40.5
Separated/Divorced	32.9	31.6
Widowed	10.4	1.2

Note: All demographic variables are statistically significant at  $p < 0.0001$ .

The older group includes more males than the younger group and slightly more white non-Hispanic clients. The older group tends to have more advanced educational degrees than the younger group. The older group has nearly twice as many clients with college degrees or post graduate work as does the younger group, 16.5% versus 8.3%. Of course, the cutoff age of 30 for the younger adults might exclude some clients still working on their higher degrees. The older group has slightly more married or cohabitating and fewer single clients than the younger group and approximately 1 in 10 older clients are widowed. Older clients are more likely to be living alone (36.7%) compared to younger adults (21.4%, not shown in Table). Over a third (36%) of the older group were military veterans, about 3 times as many as in the younger adult group, 12.5% veterans.

Employment status differed substantially between the older and younger groups. While over half of the younger adult clients were employed full time (50.2%), only a third of the older clients were so employed (33.4%). Over half of the older adults were not in the labor force (50.3%) compared to only 21.7% of the younger adult clients. Over a half of those older clients not in the labor force were retired (55.2%) even at their relatively young age (mean age = 61 years). The older group was less frequently not in the labor force because of a disability compared to the younger group, 26.2% versus 32.8%, respectively. The older clients also were less often out of the labor force because of incarceration (2% versus 13.2%) and less often "unemployed and not looking", 14.4% versus 41.0%.

Criminal justice involvement was less likely among the older than the younger group. While 44.2% of the older group reported at least one drug or alcohol related arrest within the last 12 months, 56.0% of the younger adult group reported such an arrest. This finding was significant regarding all types of crime (e.g., operating a motor vehicle while intoxicated) and when referencing any arrests within the last 30 days.

A treatment referral from a health care provider was more likely in the older group than the younger adult group: 17.0% of the older group listed a health care provider as the referral source for the first-time admission. Only 8.1% of the younger group listed a health care provider. The most frequent referral source (26.7%) for the older group was an Operating While Intoxicated charge.

### **Substance use profile**

Older adults reported first using their primary problem substance at a slightly later age than did the younger adults. The median age for initiation to the primary substance was 17 years for the younger group and 18 for the older group. The first use of any mentioned substance, primary, secondary, or tertiary showed the same pattern. While statistically significant,<sup>6</sup> the difference in ages was small.

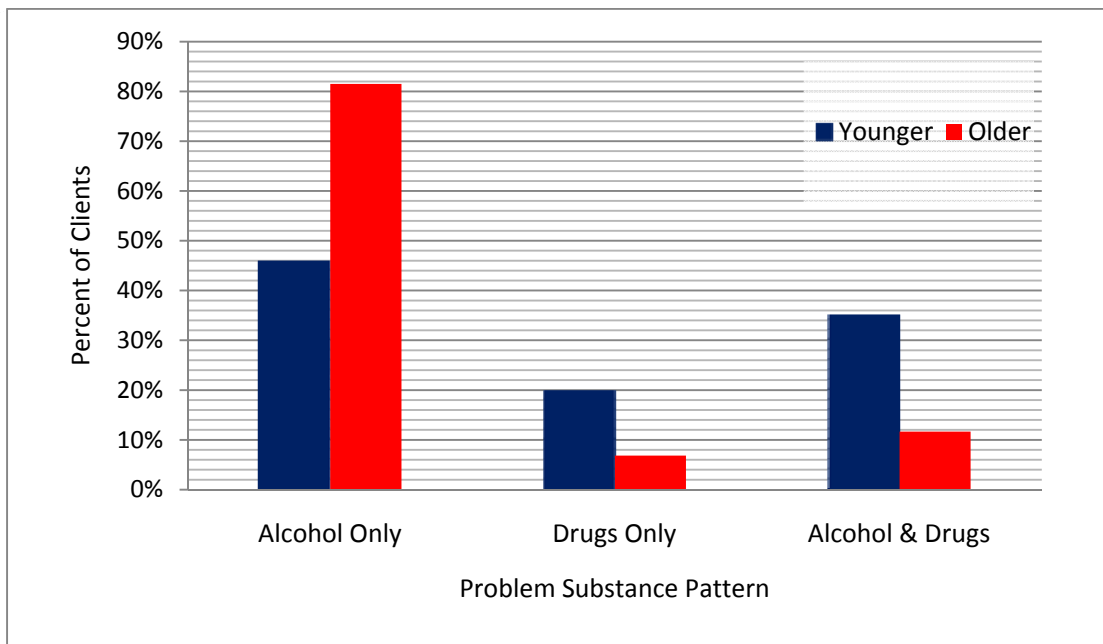
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<sup>6</sup> Mann-Whitney  $z = 14.61$ ,  $p < 0.001$

Few older clients were initiated to substances past the age of 54. Only 55 of the clients, 1.4%, reported first using a mentioned substance after that age. So, most clients older or younger, were introduced much earlier in their lives and very few developed problems related to medications or drugs that they began taking when they were older.

Figure 2 shows the pattern of alcohol versus illicit drug problem use for the younger and older adult clients.

Figure 2: Problem substance use pattern (drugs and alcohol) for older (aged 55 or older) and younger (aged 30 – 54) first time admissions over 10 years.



Older clients tend to have problems with alcohol only. Only 18.5% of the older group mentioned any problem illicit drugs. Among the young group, 54.5% mentioned an illicit drug as a problem. There are far fewer instances of drugs only and polysubstance abuse among the older clients compared to the younger ones.

There is, however, evidence that the pattern of substance use for older clients is changing. The following analyses only include problem substances that are mentioned at least 1% of the time. Those less than 1% are not considered further and include: non-prescription Methadone, PCP, hallucinogens, amphetamines, other stimulants, tranquilizers, barbiturates, other sedatives/hypnotics, inhalants, over the counter medications, steroids, ecstasy, oxycontin, and other prescribed analgesics. Information about some of these classes of drugs will appear at the end of the report, since some sources have suggested these pose particular problems for older people.

## Substance use profiles over a decade

Figure 3: Alcohol mentions in first time older and younger adult admissions

Alcohol is the most often mentioned substance for older and younger first time admissions. Alcohol mentions among older clients are showing a very slow decline over the 10 years, from 96.5% (2000) to 92.8% (2009). This suggests a concomitant slightly increasing problem drug involvement over time.

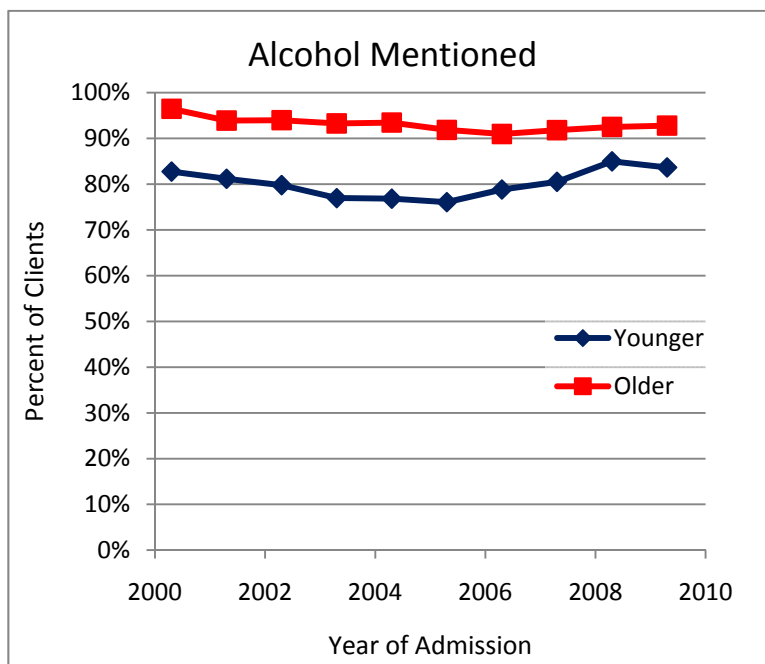


Figure 4: Marijuana mentions in first time older and younger adult admissions

In contrast to the younger group, there is a marked increase in the percent of older clients mentioning marijuana. In 2000, only 5.1% of the older clients mentioned marijuana but this nearly tripled to 15.1% in 2009. The percent of times marijuana was mentioned as a problem substance has remained steady for the younger group over the 10 years.

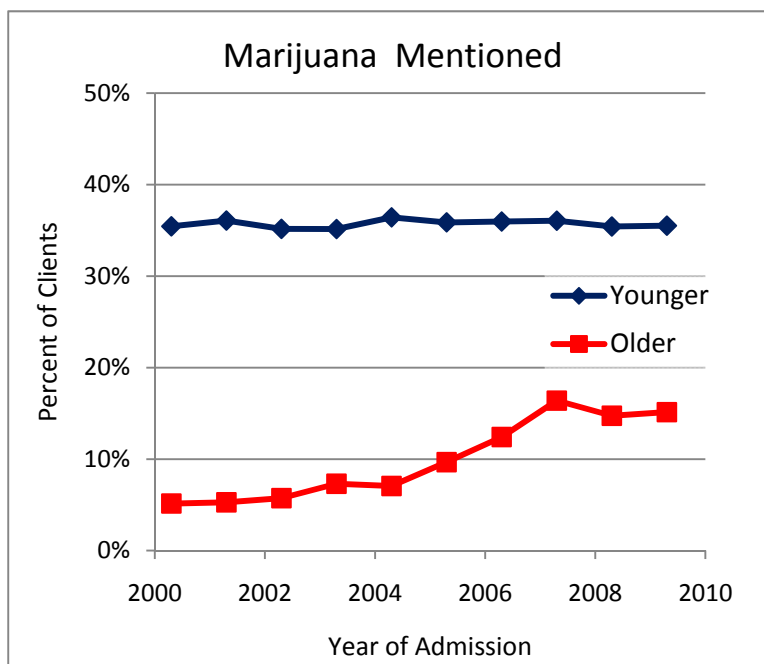




Figure 5: Cocaine/crack mentions in first time older and younger adult admissions

Although older clients do not mention cocaine often, the proportion steadily increased over the 10 years. In 2000, only 2.9% of the older clients mentioned cocaine. In 2009, 4.7 % did so. Cocaine in the younger group is showing an overall reduction over the 10 years, despite some individual years showing an increase. Thus, cocaine may be a growing issue for older clients and this trend should be monitored.

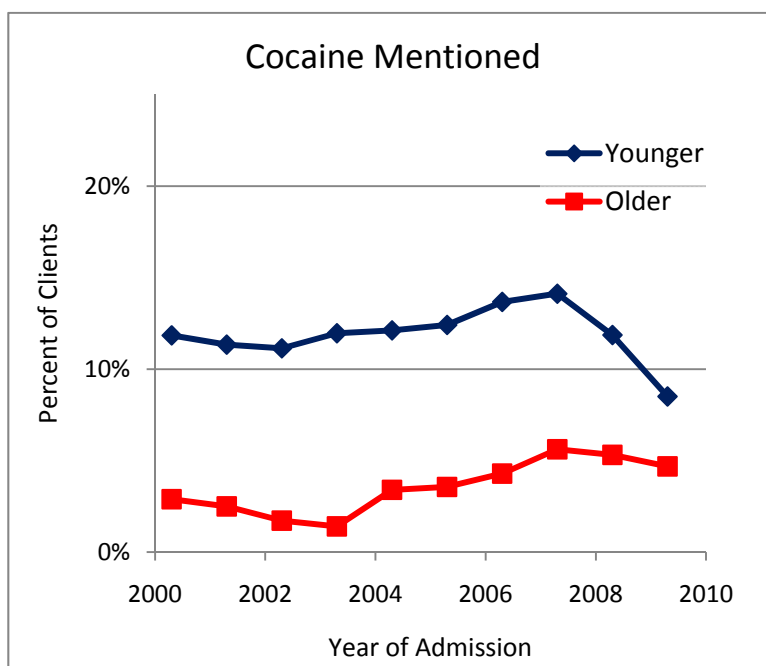
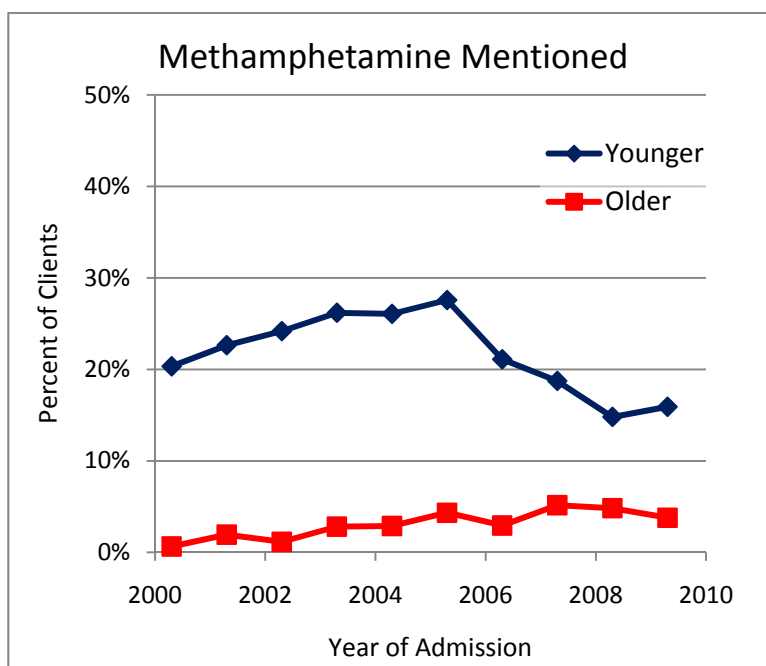


Figure 6: Methamphetamine mentions in first time older and younger adult admissions

Like the other drugs so far, methamphetamine mentions seem to be decreasing among the younger adults but slightly increasing among the older group. In 2000, methamphetamine was mentioned by less than 1% of the older adult first time admissions. In 2009, 3.8% of the older clients mentioned it.



The final four drug classes are far less frequently mentioned, but they were present in greater than 1% of the older clients.

Figure 6: Opiates and other synthetic analgesic mentions in first time older and younger adult admissions

While mentions of opiates as a problem substance have been increasing among younger adults, there is no statistically significant increase for older clients (Odds-ratio = 1.04, confidence interval: 0.97 - 1.11).

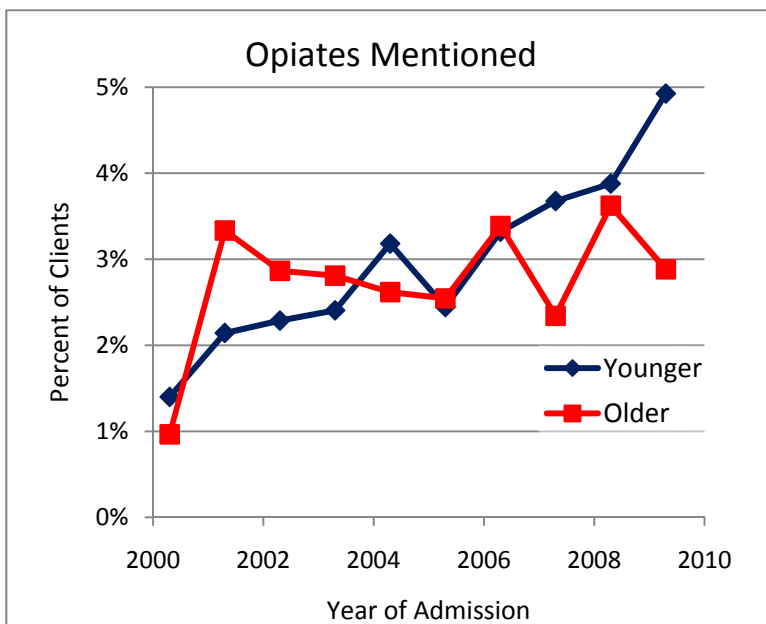
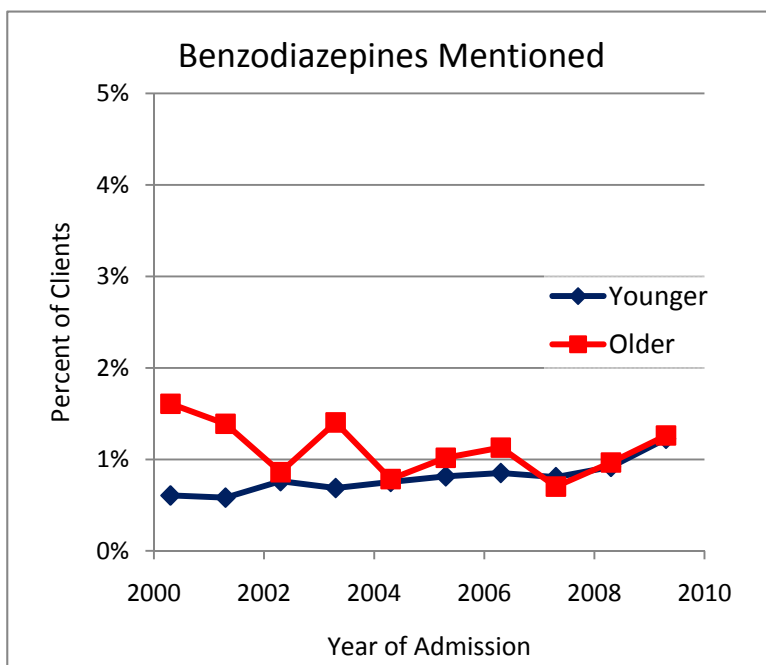


Figure 6: Opiates and other synthetic analgesic mentions in first time older and younger adult admissions

Over the last 10 years, there are no significant trends, up or down, within the younger or older groups for the frequency of mentions with benzodiazepines.



Heroin and other drugs were both mentioned by more than 1% of the older group in at least one year. There has been a general decline in the percent of other drugs mentioned and since 2006 account for less than 0.3% of clients in both older and younger groups. There were also no statistically significant changes or differences in heroin mentions. Heroin mentions range from 1.4% (older group in 2007) to 0% (older group 2001, 2003, and 2004).

### **Prescription drug abuse in the older group**

Of note is that the categories reflecting prescription drugs, opioids and other synthetics or oxycodone (i.e., oxycontin), in particular, benzodiazepines, tranquilizers, sedatives, and other prescription analgesics, do not appear to be substantial issues for the older clients given these treatment data. For example, there have been only two mentions of oxycodone among the older adults within the entire 10-year duration. Other more commonly abused substances, benzodiazepines and opiates, are relatively infrequently mentioned and show no evidence of increases over the period. Thus, these data offer no evidence that prescription drug abuse treatment admissions are increasing among the older clients.

### **Treatment completion, length of stay, wait-time, and abstinence for older clients**

Wait time to enter treatment was significantly,<sup>7</sup> although only slightly, shorter for the older clients. The mean number of days for older clients was 5.6 days and for younger adult clients was 6.9 days. The median number of days for both groups was 1 day. Most clients, older or younger, appear to get into treatment quickly.

Length of stay was substantially shorter for older clients, median = 40 days, compared to younger adult clients, median = 48 days.<sup>8</sup> Despite the shorter lengths of stay, older clients were substantially more likely (76.8%) to successfully complete treatment goals than younger adult clients (67.5%).<sup>9</sup>

Post treatment outcome information is available for some clients using data from the Outcomes Management System.<sup>10</sup> Follow-up interviewers contact clients 6 months after treatment discharge, so not all clients admitted towards the end of this period may have been due for an interview. However, a total of 874 interviews have been done on clients aged 30 years and older.

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<sup>7</sup> Mann-Whitney  $z = 6.61$ ,  $p < 0.001$

<sup>8</sup> Mann-Whitney  $z = 8.01$ ,  $p < 0.001$

<sup>9</sup>  $\chi^2 = 122.4$ ,  $df = 1$ ,  $p < 0.001$

<sup>10</sup> Koch, N., Clayton, R., & Arndt, S. (2009). Iowa outcomes monitoring system: Year 11 Report. (Iowa Department of Public Health contract #5889NA01). Iowa City, IA: Iowa Consortium for Substance Abuse Research and Evaluation Iowa Department of Public Health. Available at: <http://iconsortium.subst-abuse.uiowa.edu/downloads/IDPH/OMS%20Year%2011%20Final%20Report%202009.pdf>

While older clients had an increased chance of a successful discharge, they did not have an increased chance of maintaining abstinence after treatment as indicated in their 6-month post discharge follow-up. Slightly over half (54.2%) of the clients in the younger group reported 6-month abstinence, but only 44.9% of the older group reported 6-month abstinence. This difference was not statistically significant.<sup>11</sup>

A number of follow up analyses on the outcome data adjusting for length of stay and other relevant variables gave similar results with one exception. When only including clients with a successful completion of treatment, older clients (38.2%) were significantly<sup>12</sup> less likely to remain abstinent compared to younger adults (56.7%). Of those whose primary substance was alcohol, older clients who were not abstinent showed no significant reduction in frequency of use. However, only 12% of the nonabstinent clients still drank daily.

## Conclusions

Larger numbers of clients entering substance abuse treatment are older and this trend may be accelerating. The most likely problem substance for older lowans is alcohol. There has been a slight decrease in alcohol as a problem substance over the 10 years but it is still an issue for more than 9 out of 10 older clients. Some illicit drugs are appearing with increasing frequency. Marijuana mentions at first time treatment admission are becoming more regular. Cocaine and, to a lesser extent, methamphetamine may also be increasing although their use is fairly uncommon among older clients.

### Suggestions:

- Increase alcohol abuse prevention efforts among older lowans
- Closely monitor percentage of older clients entering treatment over the next several years, since program planning and increased medical care requirements may be a concern
- Monitor cocaine and methamphetamine use in this population and promote screening, referral, and secondary prevention programs
- Increase alcohol abuse prevention efforts among older lowans

There was no evidence of large or increasing treatment admissions for prescription drugs. Also, few older clients are introduced to their problem substance later in life. Initial use of their problem drug appears to occur much earlier. One possible explanation for a lack of increasing prescription drug problems is simply that this is not a problem appearing at public treatment agencies. Issues with a patient's prescription drug use, if and when they occur, may be handled at the level of the prescribing physician. Of course, we would not know the prevalence or outcomes of such cases. Thus, we do not know if this is a "hidden problem" or a nonexistent one.

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<sup>11</sup>  $\chi^2 = 1.28$ , df = 1, p = 0.26

<sup>12</sup>  $\chi^2 = 4.41$ , df = 1, p = 0.04

Suggestions:

- Continue to monitor prescription drug admissions to treatment
- Assess the magnitude of prescription drug abuse in the private practice setting
- If prescription abuse is frequently treated outside of normal treatment centers settings, assess outcomes of clients/patients

Older clients' treatment outcomes presented a somewhat complicated picture. Older clients seemed to complete treatment successfully more often and in less time than younger clients did. However, older clients' abstinence rates 6 months after treatment were either no different or less successful compared to younger clients. While older people seem to do well with the treatment experience, more, different, or enhanced support may be necessary after treatment discharge.

Suggestions:

- Consider extending length of stays for older adults
- Provide post treatment support using recovery coaches or other peer recovery services for older adults
- Regularly screen older adults for depression at the end of the treatment stay