

# CBHSQ DATA REVIEW

CENTER FOR BEHAVIORAL HEALTH STATISTICS AND QUALITY

MARCH 2011

## Abstract

**Objective.** This report presents estimates of the prevalence rates of co-occurring chronic physical conditions and past year alcohol, drug, or mental health (ADM) problems among persons aged 18 to 64 in the United States. Demographic characteristics and health care utilization by age and ADM status were also assessed for persons aged 18 to 64 with selected chronic physical conditions.

**Methods.** Data were analyzed from 128,578 respondents aged 18 to 64 who participated in the 2005, 2006, and 2007 National Surveys on Drug Use and Health (NSDUHs). Three categories of past year ADM status were studied: (1) had neither substance use disorder (SUD) nor serious psychological distress (SPD), (2) had SUD with or without SPD, and (3) had SPD only (without SUD). The analysis was stratified by age groups (persons aged 18 to 25, persons aged 26 to 44, and persons aged 45 to 64) and focused on the most prevalent chronic physical health condition in each age group (asthma among 18 to 25 year olds and hypertension among those aged 26 to 44 and 45 to 64).

**Results.** Approximately 37.5 million (20.3 percent) community-dwelling persons aged 18 to 64 in the United States had a past year ADM problem. Among persons aged 18 to 25 with asthma, 23.6 percent had SUD, and 14.7 percent had SPD only. Among persons aged 26 to 44 with hypertension, 12.5 percent had SUD, and 13.1 percent had SPD only. Among persons aged 45 to 64 with hypertension, 5.6 percent had SUD, and 9.7 percent had SPD only. Among persons aged 18 to 25 with past year SUD, one sixth had asthma. Among persons aged 45 to 64 with past year SPD only, more than one third had hypertension. Adults with co-occurring physical conditions and ADM problems were generally more likely than adults with physical health conditions but no ADM problems to have family incomes below 100 percent of the Federal Poverty Level (FPL), be unemployed, have no health insurance coverage, be hospitalized, visit an emergency room, or receive mental health services in the past year.

**Conclusions.** The results suggest a greater need for (1) screening for and treating ADM problems among persons with chronic physical conditions; (2) screening for and treating physical conditions among persons with ADM problems; (3) promoting programs that integrate mental health and substance abuse screening, intervention, and treatment with primary care; and (4) conducting research that investigates the mechanisms underlying the observed associations between co-occurring chronic physical conditions and ADM problems.

## Co-occurrence of Selected Chronic Physical Conditions and Alcohol, Drug, or Mental Health Problems and Health Care Utilization among Persons Aged 18 to 64 in the United States

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### Introduction

The co-occurrence of chronic physical conditions and alcohol, drug, or mental health (ADM) problems is an important public health concern. Prior studies have found that adults who have a chronic physical condition are more likely to have a mental health and/or substance use disorder than those who do not,<sup>1-8</sup> and that persons who have an ADM problem are more likely to develop a physical condition than those who do not.<sup>9,10</sup>

Having a co-occurring ADM problem may exacerbate physical conditions.<sup>5,11-17</sup> Among persons with chronic physical conditions, those with a co-occurring mental health problem experience more severe physical symptoms,<sup>5,11,12</sup> lower physical functioning,<sup>13,14</sup> lower health-related quality of life,<sup>15</sup> and poorer physical health outcomes<sup>16,17</sup> than those without. Moreover, persons with both a chronic

physical condition and a co-occurring ADM problem exhibit poorer treatment adherence<sup>18-22</sup> and higher levels of health care utilization than those with a chronic physical condition only.<sup>9,23-25</sup>

Little is known, however, about the prevalence of co-occurring physical health conditions and ADM problems among the general population in the United States. Furthermore, the demographic characteristics and health care utilization among persons with co-occurring physical health conditions and ADM problems are unknown. To address these gaps in knowledge, this report presents estimates of the prevalence rates of the four most common chronic physical conditions by age and past year ADM status among adults aged 18 to 64 in the United States. The report also presents the prevalence rates of past year ADM problems among persons with each of the top four chronic physical conditions by age. In addition, the demographic characteristics and health care utilization are examined for adults with the most prevalent chronic physical condition in each of three age groups (persons aged 18 to 25, persons aged 26 to 44, and persons aged 45 to 64) by past year ADM status. The goals of this report are to provide information that will help policymakers, health care professionals, and the general public better understand the co-occurrence of chronic physical conditions and ADM problems in the United States and to help policymakers and health care professionals plan resources and develop screening and treatment strategies to address the complex needs of this population.

## Methods

### Data Sources

For this report, data were analyzed from 128,578 adults aged 18 to 64 who participated in the 2005, 2006, and 2007 National Surveys on Drug Use and Health (NSDUHs), which are nationally representative surveys of the civilian, noninstitutionalized population of the United States. NSDUH is a face-to-face survey conducted at each sampled person's place of residence, and each interview takes approximately 1 hour to complete. The survey uses audio computer-assisted self-interviewing technology, which provides respondents with a confidential way to record their answers. Further description of the data source is available

from the Substance Abuse and Mental Health Services Administration (SAMHSA) Web site.<sup>26</sup>

## Definitions

**Chronic Physical Conditions.** The 2005, 2006, and 2007 NSDUHs included questions about lifetime physical health conditions, such as asthma, bronchitis, cirrhosis, diabetes, heart disease, hepatitis, high blood pressure, HIV/AIDS, lung cancer, pancreatitis, pneumonia, sexually transmitted disease (STD), sinusitis, sleep apnea, stroke, tinnitus, tuberculosis, and ulcer(s). Respondents were shown this list of physical conditions and asked to select all the conditions that a doctor or other medical professional had told them that they had during their lifetime. The chronic physical conditions examined in this report included those that generally cannot be reversed, cured, or fully cured, such as asthma, cirrhosis, diabetes, heart disease, high blood pressure, HIV/AIDS, lung cancer, and stroke. Thus, these reported conditions can be assumed to be present within the past year.

**Serious Psychological Distress (SPD).** SPD is defined as having a score of 13 or higher on the Kessler 6 (K6) scale,<sup>27,28</sup> which measures nonspecific psychological distress during the 1 month in the past 12 months when the respondent was at his/her worst emotionally.

**Substance Use Disorder (SUD).** NSDUH includes a series of questions to assess past year SUD, classifying persons as having dependence or abuse for specific substances based on the criteria specified in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV).<sup>29</sup> Substances include alcohol and illicit drugs (marijuana, cocaine, heroin, hallucinogens, inhalants, and the nonmedical use of prescription drugs).

**Sociodemographic Characteristics and Health Care Utilization.** This report presents analyses by gender (male, female), race/ethnicity (non-Hispanic white, non-Hispanic black, non-Hispanic American Indian or Alaska Native, non-Hispanic Native Hawaiian or other Pacific Islander, non-Hispanic Asian, non-Hispanic two or more races, or Hispanic), family income (less than 100 percent of the U.S. Census Bureau's Federal Poverty Level [FPL], 100 to 199 percent of the FPL, or 200 percent of the FPL or more), employment status (full time, part time, unemployed, or other), and health insurance coverage (private insurance only, Medicaid only, no health insurance

coverage, or other health insurance). We also examined past year hospitalization (yes, no); past year emergency room visit (yes, no); receipt of any mental health service in the past year, including inpatient/outpatient care or using prescription medication for mental health problems (yes, no); and receipt of any substance use treatment in the past year to reduce or stop illicit drug or alcohol use or for medical problems associated with illicit drug or alcohol use (yes, no).

### Analytic Strategy

This report presents prevalence rates of past year ADM status (neither SUD nor SPD, SUD with or without SPD, or SPD only [without SUD]) within the age groups (persons aged 18 to 25, persons aged 26 to 44, and persons aged 45 to 64) and shows estimates of the four most prevalent chronic physical health conditions within the respective age groups. The prevalence rates of the four most prevalent chronic health conditions within the examined age groups by past year ADM status are provided. The report also shows the prevalence rates of past year ADM problems among persons with each of the top four chronic physical health conditions by age. Then for the most prevalent chronic condition in each age group, demographic characteristics and health care utilization of persons with that chronic condition were examined by age and past year ADM status.

Statistical significance tests were done to compare the differences across the three categories of ADM status. Because the prevalence rates of ADM problems and chronic health conditions vary by age, it is important to stratify the analyses by age groups to better examine associations between physical conditions, ADM problems, and health care service utilization at different stages of life.

### Results

#### Prevalence of Chronic Physical Conditions by Age and Past Year ADM Status

Among community-dwelling persons aged 18 to 64 in the United States, approximately 37.5 million (20.3 percent of the population) had a past year ADM problem (10.7 percent had past year SUD with or without SPD, and 9.6 percent had past year SPD only) (Table 1). Among the 37.5 million persons who had either SUD or SPD, 16.0 percent (6.0 million) had hypertension, 14.2 percent (5.3 million) had asthma, 5.4 percent (2.0 million) had diabetes, and 3.6 percent (1.4 million) had heart disease.

Among community-dwelling persons aged 18 to 25 in the United States, approximately 10.8 million (33.1 percent of the population) had a past year ADM problem (21.3 percent had past year SUD with or

**Table 1. Prevalence of Past Year Alcohol, Drug, or Mental Health (ADM) Problems (neither Substance Use Disorder [SUD]\* nor Serious Psychological Distress [SPD]\*\* SUD, SPD only) among Persons Aged 18 to 64 by Age Subgroup: Annual Average Numbers in Thousands (Percentages), 2005 to 2007**

Age Group	Had neither SUD nor SPD in the Past Year	Had Past Year SUD	Had Past Year SPD but No Past Year SUD	Had ADM Problem (Past Year SPD or Past Year SUD)
Aged 18 to 64	147,160 (79.7%)	19,835 (10.7%)	17,663 (9.6%)	37,498 (20.3%)
Aged 18 to 25	21,851 (66.9%)	6,942 (21.3%)	3,859 (11.8%)	10,801 (33.1%)
Aged 26 to 44	61,750 (79.1%)	8,461 (10.8%)	7,838 (10.0%)	16,299 (20.9%)
Aged 45 to 64	63,559 (85.9%)	4,433 (6.0%)	5,966 (8.1%)	10,398 (14.1%)

\* SUD is based on definitions found in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). For details, see the following resource: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

\*\* SPD is defined as having a score of 13 or higher on the Kessler 6 (K6) scale. See Section B.4.4 in Appendix B of the report: Office of Applied Studies. (2009). *Results from the 2007 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 08-4343, NSDUH Series H-34). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Source: 2005 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

without past year SPD, and 11.8 percent had past year SPD only). Among persons aged 26 to 44, approximately 16.3 million (20.9 percent of the population) had a past year ADM problem (10.8 percent had past year SUD with or without past year SPD, and 10.0 percent had past year SPD only). Among persons aged 45 to 64, approximately 10.4 million (14.1 percent of the population) had a past year ADM problem (6.0 percent had past year SUD with or without past year SPD, and 8.1 percent had past year SPD only).

Tables 2 and 3 present the estimated numbers and percentages of persons with chronic physical conditions among adults aged 18 to 64 by age and past year ADM status. Among persons aged 18 to 25, the top four chronic physical conditions were asthma (14.1 percent, or 4.5 million persons), hypertension (3.8 percent, or 1.2 million persons), diabetes (1.1

percent, or 346,000 persons), and heart disease (0.5 percent, or 146,000 persons). Among persons aged 26 to 44, the top four chronic physical conditions were hypertension (10.9 percent, or 8.4 million persons), asthma (10.7 percent, or 8.3 million persons), diabetes (3.3 percent, or 2.6 million persons), and heart disease (1.2 percent, or 926,000 persons). Among persons aged 45 to 64, the top four chronic physical conditions were hypertension (29.8 percent, or 21.9 million persons), diabetes (10.7 percent, or 7.8 million persons), asthma (9.8 percent, or 7.2 million persons), and heart disease (6.7 percent, or 4.9 million persons).

Chronic physical conditions rates within each age group tended to be higher among persons with mental and substance use problems than among persons without the problems. Among persons aged 18 to 25, the prevalence rates of asthma among those

**Table 2. Prevalence of Chronic Physical Conditions\* among Persons Aged 18 to 64, by Past Year Substance Use Disorder (SUD)\*\*/ Serious Psychological Distress (SPD)\*\*\* Status and Age Subgroup: Annual Average Numbers (in Thousands), 2005 to 2007**

Chronic Physical Conditions	Total	Had neither SUD nor SPD	Had Past Year SUD	Had Past Year SPD but No Past Year SUD
Aged 18 to 25				
Asthma	4,526	2,789	1,069	668
Hypertension	1,208	762	258	188
Diabetes	346	219	65	62
Heart Disease	146	85	35	25
Aged 26 to 44				
Hypertension	8,367	6,223	1,046	1,098
Asthma	8,278	6,064	950	1,264
Diabetes	2,571	1,888	197	487
Heart Disease	926	604	126	196
Aged 45 to 64				
Hypertension	21,902	18,542	1,225	2,135
Diabetes	7,840	6,649	235	957
Asthma	7,224	5,643	427	1,154
Heart Disease	4,891	3,922	277	692

\* The conditions shown here are the most prevalent of a number of physical health conditions that cannot be reversed, cured, or cured fully—such as asthma, cirrhosis, diabetes, heart disease, high blood pressure, HIV/AIDS, lung cancer, or stroke—that respondents were told by a doctor or other medical professional that they had during their lifetime.

\*\* SUD is based on definitions found in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. For details, see the following resource: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

\*\*\* SPD is defined as having a score of 13 or higher on the Kessler 6 (K6) scale. See Section B.4.4 in Appendix B of the report: Office of Applied Studies. (2009). *Results from the 2007 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 08-4343, NSDUH Series H-34). Rockville, MD: Substance Abuse and Mental Health Services Administration.

Source: 2005 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

**Table 3. Prevalence of Chronic Physical Conditions\* among Persons Aged 18 to 64, by Past Year Substance Use Disorder (SUD)\*\*/ Serious Psychological Distress (SPD)\*\*\* Status and Age Subgroup: Annual Average Percentages, 2005 to 2007**

Chronic Physical Conditions	Total	Had neither SUD nor SPD	Had Past Year SUD	Had Past Year SPD but No Past Year SUD
Aged 18 to 25				
Asthma	14.1	13.0	15.7	17.5
Hypertension	3.8	3.6	3.8	4.9
Diabetes	1.1	1.0	1.0	1.6
Heart Disease	0.5	0.4	0.5	0.7
Aged 26 to 44				
Hypertension	10.9	10.2	12.6	14.1
Asthma	10.7	10.0	11.4	16.2
Diabetes	3.3	3.1	2.4	6.3
Heart Disease	1.2	1.0	1.5	2.5
Aged 45 to 64				
Hypertension	29.8	29.4	27.9	35.8
Diabetes	10.7	10.5	5.3	16.0
Asthma	9.8	8.9	9.7	19.4
Heart Disease	6.7	6.2	6.3	11.6

\* The conditions shown here are the most prevalent of a number of physical health conditions that cannot be reversed, cured, or cured fully—such as asthma, cirrhosis, diabetes, heart disease, high blood pressure, HIV/AIDS, lung cancer, or stroke—that respondents were told by a doctor or other medical professional that they had during their lifetime.

\*\* SUD is based on definitions found in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). For details, see the following resource: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

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Source: 2005 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

with SPD only and among those with SUD were higher than rates among those without an ADM problem (17.5 and 15.7 vs. 13.0 percent, respectively). Among persons aged 26 to 44, those with SPD only and those with SUD in the past year were more likely to have hypertension than those without a past year ADM problem (14.1 and 12.6 vs. 10.2 percent, respectively). Among persons aged 45 to 64, the prevalence rate of hypertension among those with SPD only was higher than the rate among those with SUD and among those without an ADM problem (35.8 vs. 27.9 percent and 29.4 percent, respectively).

### Prevalence of Past Year ADM Problems among Persons with Chronic Physical Conditions by Age

Table 4 presents the rates of past year SUD and SPD status among persons aged 18 to 64, by age and chronic physical condition. Among persons aged 18 to 25 with asthma, 61.6 percent had neither SUD nor SPD in the past year, 23.6 percent had SUD with or without past year SPD, and 14.7 percent had only SPD in the past year. Among persons aged 26 to 44 with hypertension, 74.4 percent had neither SUD nor SPD in the past year, 12.5 percent had SUD with or without past year SPD, and 13.1 percent had only SPD in the past year. Among persons aged 45 to 64 with hypertension, 84.7 percent had neither SUD nor SPD in the past year, 5.6 percent had SUD with or without past year SPD, and 9.7 percent had SPD only in the past year.



**Table 4. Past Year Alcohol, Drug, or Mental Health (ADM) Problem (neither Substance Use Disorder (SUD)\* nor Serious Psychological Distress (SPD),\*\* SUD, SPD only) among Persons Aged 18 to 64 by Top Four Chronic Physical Conditions\*\*\* and Age: Annual Average Percentages, 2005 to 2007**

Chronic Physical Conditions	Had neither SUD nor SPD	Had Past Year SUD	Had Past Year SPD but No Past Year SUD
Aged 18 to 25			
Asthma	61.6	23.6	14.7
Hypertension	63.1	21.4	15.6
Diabetes	63.3	18.8	17.9
Heart Disease	58.3	24.2	17.4
Aged 26 to 44			
Hypertension	74.4	12.5	13.1
Asthma	73.3	11.5	15.3
Diabetes	73.4	7.6	18.9
Heart Disease	65.2	13.6	21.1
Aged 45 to 64			
Hypertension	84.7	5.6	9.7
Diabetes	84.8	3.0	12.2
Asthma	78.1	5.9	16.0
Heart Disease	80.2	5.7	14.2

\* SUD is based on definitions found in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. For details, see the following resource: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

\*\* SPD is defined as having a score of 13 or higher on the Kessler (K6) scale. See Section B.4.4 in Appendix B of the report: Office of Applied Studies. (2009). *Results from the 2007 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 08-4343, NSDUH Series H-34). Rockville, MD: Substance Abuse and Mental Health Services Administration.

\*\*\* The conditions shown here were the top four most prevalent of a number of lifetime physical health conditions that cannot be reversed, cured, or cured fully—such as asthma, cirrhosis, diabetes, heart diseases, high blood pressure, HIV/AIDS, lung cancer, or stroke—that respondents were told by doctors or other medical professionals that they had during their lifetime.

Source: 2005 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

### Demographic Characteristics and Health Care Utilization among Persons Aged 18 to 25 with Asthma by Past Year ADM Status

Table 5 shows that, among persons aged 18 to 25 with asthma, those with SUD were more likely to be male than female (57.7 vs. 42.3 percent); however, their counterparts with SPD only were more likely to be female than male (68.3 vs. 31.7 percent).

Those without an ADM problem were less likely to be non-Hispanic white and were more likely to be non-Hispanic black than those with SUD and those with SPD only. Adults aged 18 to 25 without

an ADM problem were less likely to have a family income below 100 percent of the FPL than those with SPD only. Persons with an ADM problem were less likely to have health insurance coverage than those without ADM problems. Figure 1 shows that those with co-occurring asthma and SPD only were more likely to have been hospitalized, have visited an emergency room, or have received mental health services in the past year than their counterparts with asthma and SUD and than their counterparts with asthma but without an ADM problem.

**Table 5. Demographic Characteristics among Persons Aged 18 to 25 with Asthma, by Past Year Substance Use Disorder (SUD)\*/  
Serious Psychological Distress (SPD)\*\* Status, Annual Average Percentages: 2005 to 2007**

<b>Demographic Characteristic</b>	<b>Had neither SUD nor SPD</b>	<b>Had Past Year SUD</b>	<b>Had Past Year SPD but No Past Year SUD</b>
<b>Gender</b>			
Male	47.0	57.7	31.7
Female	53.0	42.3	68.3
<b>Race/Ethnicity</b>			
Non-Hispanic White	61.7	68.7	66.0
Non-Hispanic Black	18.6	12.9	15.0
Non-Hispanic American Indian or Alaska Native	0.6	0.8	0.3
Non-Hispanic Native Hawaiian or Other Pacific Islander	0.6	0.6	0.1
Non-Hispanic Asian	3.1	2.7	3.9
Non-Hispanic Two or More Races	1.4	2.2	1.9
Hispanic	14.1	12.0	12.7
<b>Family Income***</b>			
Less than 100%	23.6	24.8	28.7
100% to 199%	21.5	20.9	24.5
200% or More	54.9	54.3	46.9
<b>Employment</b>			
Full Time	45.3	45.7	41.3
Part Time	26.1	25.6	26.6
Unemployed	8.4	11.5	9.0
Other <sup>+</sup>	20.2	17.2	23.1
<b>Health Insurance</b>			
Private Only	57.9	59.1	47.5
Medicaid/CHIP Only <sup>++</sup>	14.8	7.6	14.3
No Coverage	20.2	26.9	30.5
Other <sup>+++</sup>	7.1	6.4	7.7

\* SUD is based on definitions found in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). For details, see the following resource: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

\*\* SPD is defined as having a score of 13 or higher on the Kessler 6 (K6) scale. See Section B.4.4 in Appendix B of the report: Office of Applied Studies. (2009). *Results from the 2007 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 08-4343, NSDUH Series H-34). Rockville, MD: Substance Abuse and Mental Health Services Administration.

\*\*\* Estimates are based on a definition of poverty level that incorporates information on family income, size, and composition and is calculated as a percentage of the U.S. Census Bureau's Federal poverty thresholds. Persons aged 18 to 22 living in college dorms were excluded from this analysis.

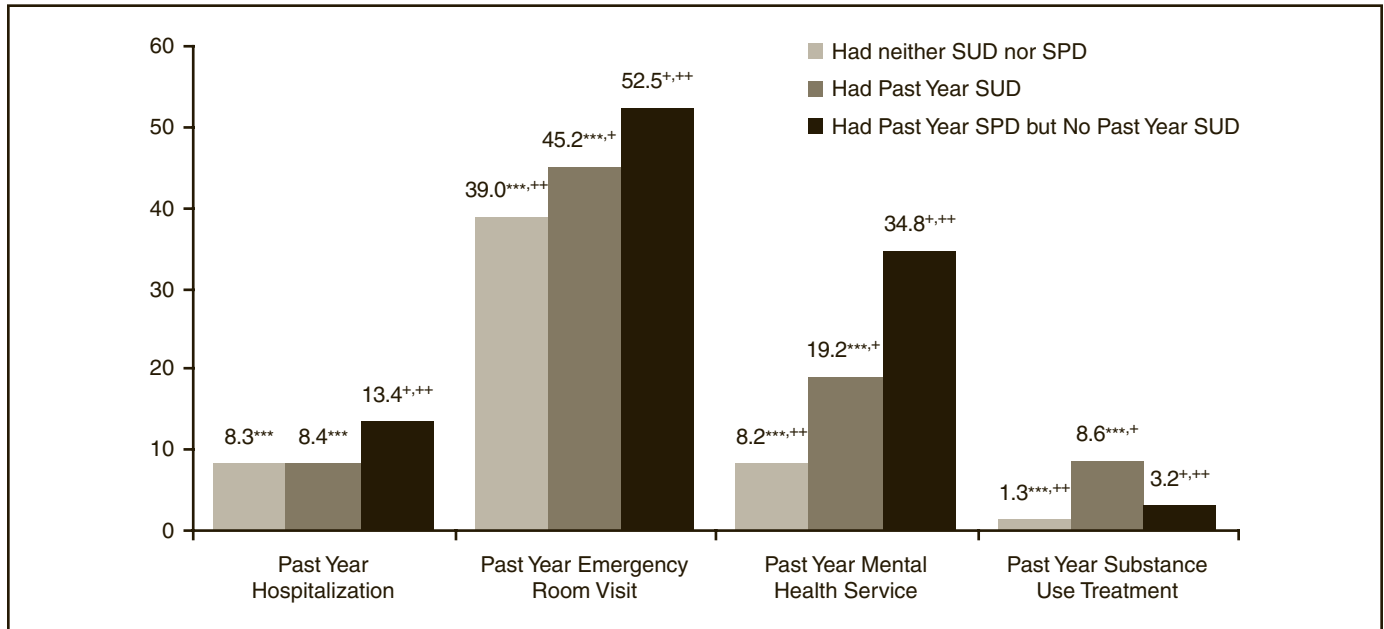
+ The other employment category includes retired persons, disabled persons, homemakers, students, or other persons not in the labor force.

++ CHIP is the Children's Health Insurance Program. Individuals aged 19 or younger are eligible for this plan.

+++ Other health insurance is defined as any insurance other than private only or Medicaid/CHIP only, including having a combination of more than one type of insurance.

Source: 2005 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

**Figure 1. Health Care Utilization among Persons Aged 18 to 25 with Asthma by Past Year Substance Use Disorder (SUD)\*/Serious Psychological Distress (SPD)\*\* Status: Annual Average Percentages, 2005 to 2007**



\* SUD is based on definitions found in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). For details, see the following resource: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

\*\* SPD is defined as having a score of 13 or higher on the Kessler 6 (K6) scale. See Section B.4.4 in Appendix B of the report: Office of Applied Studies. (2009). *Results from the 2007 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 08-4343, NSDUH Series H-34). Rockville, MD: Substance Abuse and Mental Health Services Administration.

\*\*\* Difference between estimate and estimate for persons with SPD only is statistically significant at the .05 level.

+ Difference between estimate and estimate for persons with neither SUD nor SPD is statistically significant at the .05 level.

++ Difference between estimate and estimate for persons with SUD is statistically significant at the .05 level.

Source: 2005 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

### Demographic Characteristics and Health Care Utilization among Persons Aged 26 to 44 with Hypertension by Past Year ADM Status

Table 6 shows that among persons aged 26 to 44 with hypertension, 73.0 percent of those with SUD were male, whereas 61.7 percent of their counterparts with only SPD were female. Those without an ADM problem were less likely to be non-Hispanic white and were more likely to be non-Hispanic black than those with SPD only. Among persons aged 26 to 44 with hypertension, those without an ADM problem were less likely to have a family income below 100 percent of the FPL and were more likely to be employed full time and have health insurance

coverage than their counterparts with past year SPD only. Particularly, adults with co-occurring hypertension and SUD were more likely to be uninsured (23.7 percent) than their counterparts with co-occurring hypertension and SPD only (17.4 percent) and their counterparts with hypertension but without an ADM problem (12.5 percent). Figure 2 shows that those with SPD only were more likely to have been hospitalized, have visited an emergency room, or have received mental health services in the past year than their counterparts with SUD and their counterparts without an ADM problem.



**Table 6. Demographic Characteristics among Persons Aged 26 to 44 with Hypertension, by Past Year Substance Use Disorder (SUD)\*/Serious Psychological Distress (SPD)\*\* Status, Annual Average Percentages: 2005 to 2007**

Demographic Characteristic	Had neither SUD nor SPD	Had Past Year SUD	Had Past Year SPD but No Past Year SUD
<b>Gender</b>			
Male	53.9	73.0	38.3
Female	46.1	27.0	61.7
<b>Race/Ethnicity</b>			
Non-Hispanic White	62.7	67.9	69.7
Non-Hispanic Black	21.4	19.1	13.2
Non-Hispanic American Indian or Alaska Native	0.4	1.3	1.3
Non-Hispanic Native Hawaiian or Other Pacific Islander	0.5	0.4	0.1
Non-Hispanic Asian	4.1	1.7	2.6
Non-Hispanic Two or More Races	1.0	1.3	2.8
Hispanic	9.8	8.3	10.3
<b>Family Income***</b>			
Less than 100%	9.9	14.4	18.7
100% to 199%	18.9	19.7	20.2
200% or More	71.2	65.9	61.1
<b>Employment</b>			
Full Time	75.2	73.2	59.4
Part Time	8.3	9.1	8.7
Unemployed	3.2	4.5	6.1
Other <sup>+</sup>	13.3	13.2	25.9
<b>Health Insurance</b>			
Private Only	72.8	57.2	58.6
Medicaid	6.6	9.0	13.2
No Coverage	12.5	23.7	17.4
Other <sup>++</sup>	8.1	10.1	10.8

\* SUD is based on definitions found in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). For details, see the following resource: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

\*\* SPD is defined as having a score of 13 or higher on the Kessler 6 (K6) scale. See Section B.4.4 in Appendix B of the report: Office of Applied Studies. (2009). *Results from the 2007 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 08-4343, NSDUH Series H-34). Rockville, MD: Substance Abuse and Mental Health Services Administration.

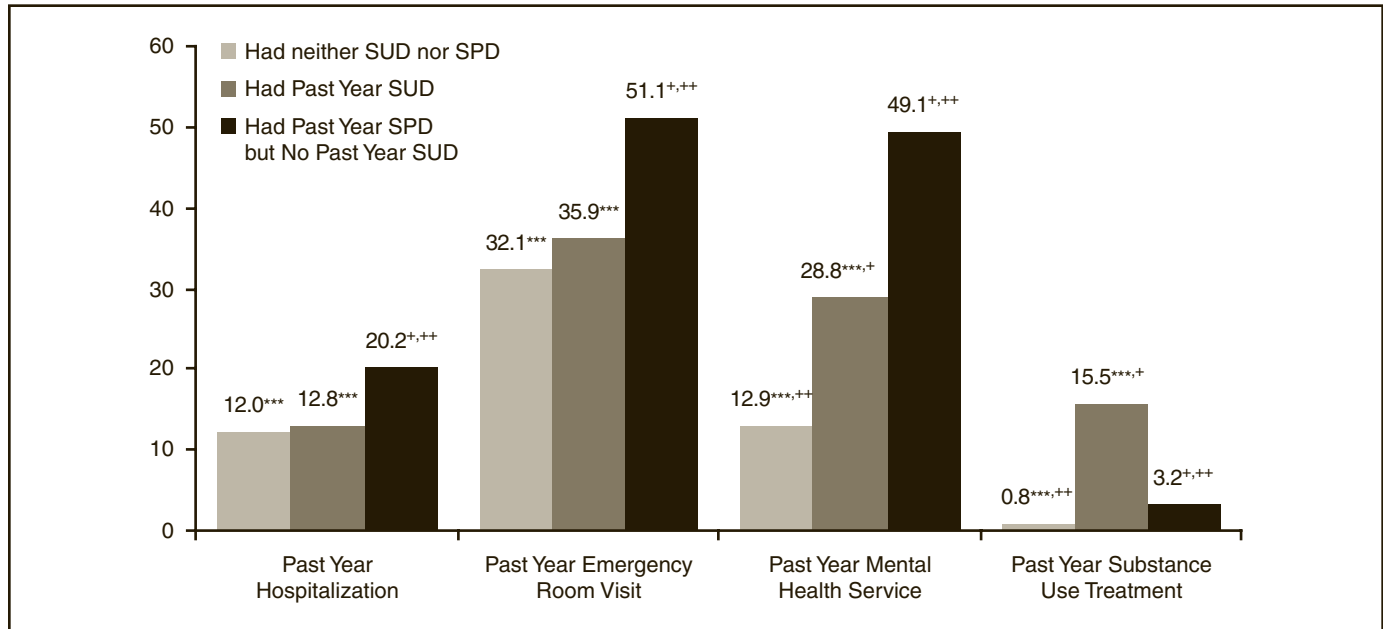
\*\*\* Estimates are based on a definition of poverty level that incorporates information on family income, size, and composition and is calculated as a percentage of the U.S. Census Bureau's Federal poverty thresholds. Persons aged 18 to 22 living in college dorms were excluded from this analysis.

+ The other employment category includes retired persons, disabled persons, homemakers, students, or other persons not in the labor force.

++ Other health insurance is defined as any insurance other than private only or Medicaid only, including having a combination of more than one type of insurance.

Source: 2005 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

**Figure 2. Health Care Utilization among Persons Aged 26 to 44 with Hypertension by Past Year Substance Use Disorder (SUD)\*/ Serious Psychological Distress (SPD)\*\* Status: Annual Average Percentages, 2005 to 2007**



\* SUD is based on definitions found in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)*. For details, see the following resource: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

\*\* SPD is defined as having a score of 13 or higher on the Kessler 6 (K6) scale. See Section B.4.4 in Appendix B of the report: Office of Applied Studies. (2009). *Results from the 2007 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 08-4343, NSDUH Series H-34). Rockville, MD: Substance Abuse and Mental Health Services Administration.

\*\*\* Difference between estimate and estimate for persons with SPD only is statistically significant at the .05 level.

+ Difference between estimate and estimate for persons with neither SUD nor SPD is statistically significant at the .05 level.

++ Difference between estimate and estimate for persons with SUD is statistically significant at the .05 level.

Source: 2005 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

### Demographic Characteristics and Health Care Utilization among Persons Aged 45 to 64 with Hypertension by Past Year ADM Status

Table 7 shows that among persons aged 45 to 64 with hypertension, most with SUD were male (72.0 percent), but most of their counterparts with SPD only were female (69.9 percent). Those without an ADM problem were more likely to be Asian than those with SUD and those with SPD only. Persons aged 45 to 64 with hypertension but without an ADM problem were less likely to have a family income below 100 percent of the FPL than those with SUD and those with SPD only (7.4 vs. 13.2 and 20.7 percent, respectively). Adults with hypertension in this age group without an ADM problem were more likely to have health insurance coverage than those with SPD only. Figure 3 shows that those with SPD only were more likely to have been hospitalized, have visited an emergency room, or have

received mental health services in the past year than those with SUD and those without an ADM problem.

### Discussion

This report presents prevalence rates of co-occurring chronic physical conditions and ADM problems among adults aged 18 to 64 in the United States. Approximately 37.5 million (20.3 percent) community-dwelling persons aged 18 to 64 in the United States had a past year ADM problem (10.7 percent had past year SUD with or without SPD, and 9.6 percent had past year SPD only). Co-occurring chronic physical health conditions and ADM problems are highly prevalent among this population. Among the 37.5 million persons with either SUD or SPD, 16.0 percent (6.0 million) had hypertension, 14.2 percent (5.3 million) had asthma, 5.4 percent (2.0 million) had diabetes, and 3.6 percent (1.4 million) had heart disease.

**Table 7. Demographic Characteristics among Persons Aged 45 to 64 with Hypertension, by Past Year Substance Use Disorder (SUD)\*/Serious Psychological Distress (SPD)\*\* Status, Annual Average Percentages: 2005 to 2007**

<b>Demographic Characteristic</b>	<b>Had neither SUD nor SPD</b>	<b>Had Past Year SUD</b>	<b>Had Past Year SPD but No Past Year SUD</b>
<b>Gender</b>			
Male	48.4	72.0	30.1
Female	51.6	28.0	69.9
<b>Race/Ethnicity</b>			
Non-Hispanic White	74.8	78.5	75.4
Non-Hispanic Black	15.1	11.4	13.9
Non-Hispanic American Indian or Alaska Native	0.3	1.8	0.4
Non-Hispanic Native Hawaiian or Other Pacific Islander	0.4	0.3	0.7
Non-Hispanic Asian	3.0	1.0	0.9
Non-Hispanic Two or More Races	0.9	0.7	1.4
Hispanic	5.5	6.2	7.3
<b>Family Income***</b>			
Less than 100%	7.4	13.2	20.7
100% to 199%	12.3	10.7	16.9
200% or More	80.3	76.2	62.4
<b>Employment</b>			
Full Time	59.7	58.5	42.3
Part Time	10.6	8.7	10.6
Unemployed	2.1	4.8	2.9
Other <sup>+</sup>	27.6	28.1	44.2
<b>Health Insurance</b>			
Private Only	73.2	65.0	47.9
Medicaid	3.1	7.3	10.0
No Coverage	7.7	10.2	12.4
Other <sup>++</sup>	16.1	17.4	29.7

\* SUD is based on definitions found in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). For details, see the following resource: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

\*\* SPD is defined as having a score of 13 or higher on the Kessler 6 (K6) scale. See Section B.4.4 in Appendix B of the report: Office of Applied Studies. (2009). *Results from the 2007 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 08-4343, NSDUH Series H-34). Rockville, MD: Substance Abuse and Mental Health Services Administration.

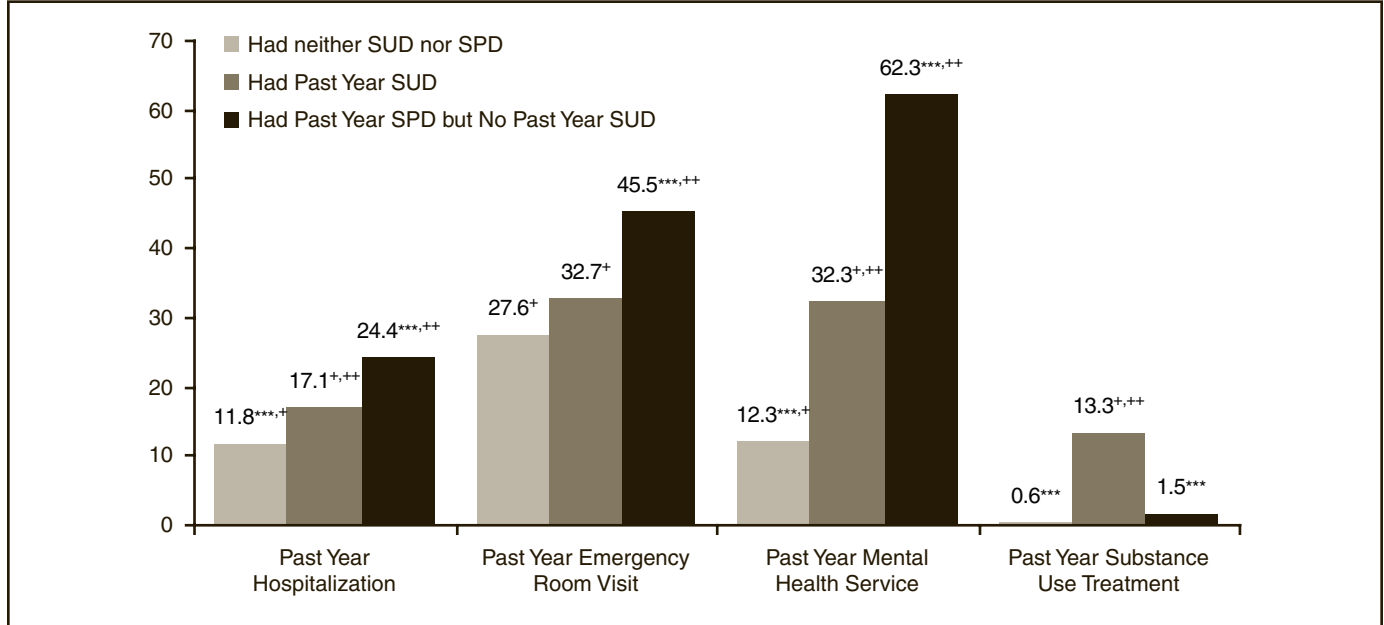
\*\*\* Estimates are based on a definition of poverty level that incorporates information on family income, size, and composition and is calculated as a percentage of the U.S. Census Bureau's Federal poverty thresholds. Persons aged 18 to 22 living in college dorms were excluded from this analysis.

+ The other employment category includes retired persons, disabled persons, homemakers, students, or other persons not in the labor force.

++ Other health insurance is defined as any insurance other than private only or Medicaid only, including having a combination of more than one type of insurance.

Source: 2005 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

**Figure 3. Health Care Utilization among Persons Aged 45 to 64 with Hypertension by Past Year Substance Use Disorder (SUD)\*/ Serious Psychological Distress (SPD)\*\* Status: Annual Average Percentages, 2005 to 2007**



\* SUD is based on definitions found in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). For details, see the following resource: American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

\*\* SPD is defined as having a score of 13 or higher on the Kessler 6 (K6) scale. See Section B.4.4 in Appendix B of the report: Office of Applied Studies. (2009). *Results from the 2007 National Survey on Drug Use and Health: National findings* (HHS Publication No. SMA 08-4343, NSDUH Series H-34). Rockville, MD: Substance Abuse and Mental Health Services Administration.

\*\*\* Difference between estimate and estimate for persons with SUD is statistically significant at the .05 level.

+ Difference between estimate and estimate for persons with SPD only is statistically significant at the .05 level.

++ Difference between estimate and estimate for persons with neither SUD nor SPD is statistically significant at the .05 level.

Source: 2005 to 2007 SAMHSA National Surveys on Drug Use and Health (NSDUHs).

This report also examined demographic characteristics and health care utilization among adults with the most prevalent chronic physical condition by age and past year ADM status. Across all age groups, adults with co-occurring chronic physical conditions and ADM problems are generally more likely to face financial challenges (e.g., have a family income below 100 percent of the FPL and not have full-time employment or health insurance coverage) than their counterparts with the chronic physical conditions but without ADM problems. Furthermore, within each examined age group, adults with the most prevalent chronic physical condition and with SPD only were more likely to have been hospitalized, have had an emergency room visit, or have received mental health services in the past year than their counterparts without an ADM problem.

This analysis has several limitations. First, the classifications of SUD and SPD are not based on clinical

assessments by psychiatrists or psychologists but on responses to standardized questions self-administered in the presence of a survey interviewer, which may result in some misclassifications. Second, the prevalence rates of past year SUD and SPD are likely to be underestimated because respondents may underreport symptoms when responding to survey questions and because persons with serious ADM problems may not participate in the survey. Third, the prevalence rates of chronic physical conditions are likely to be underestimated because persons with no or limited access to health care may have the conditions but may never receive an official diagnosis from a doctor or other medical professional; also, persons with serious physical conditions may not participate in the NSDUH survey. Finally, because of the nature of the cross-sectional data, this report cannot reveal the mechanisms underlying the observed associations between co-occurring chronic physical conditions and ADM problems.

Despite these limitations, this report provides policymakers, health care providers, and the general public with recent data on the prevalence rates of co-occurring chronic physical conditions and ADM problems among adults aged 18 to 64 in the United States. The high co-occurrence of chronic physical conditions and ADM problems is a critical public health concern for the Nation. The results of this report suggest a greater need for (1) screening for and treating ADM problems among persons with chronic physical conditions; (2) screening for and treating chronic physical conditions among persons with ADM problems; (3) promoting programs that integrate mental health and substance abuse screening, intervention, and treatment with primary care; and (4) conducting research that investigates the mechanisms underlying the observed associations between co-occurring chronic physical conditions and ADM problems.

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