**Medications**

*Prescription medications and dietary supplements*

Americans who watch an average amount of television may be exposed to over 30 hours of drug advertisements each year.¹ In light of such exposure, it is useful to examine medication use in the general population. MIDUS provides an opportunity to examine this question in a national sample of adults ranging in age from early adulthood to later life. Below we sketch what has been learned about use of prescription medications as well as use of alternative supplements. We find that patterns of usage are linked with many factors, such as one’s gender, age, educational level, health status, and well-being.

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**FIGURE 1**

PERCENTAGE OF ADULTS ON ANY PRESCRIPTION MEDICATIONS

<table>
<thead>
<tr>
<th>Age</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 32-44</td>
<td>49%</td>
</tr>
<tr>
<td>Age 45-54</td>
<td>60%</td>
</tr>
<tr>
<td>Age 55-64</td>
<td>74%</td>
</tr>
<tr>
<td>Age 65-74</td>
<td>82%</td>
</tr>
<tr>
<td>Age 75-84</td>
<td>88%</td>
</tr>
</tbody>
</table>

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**Prescription medication usage** is quite high among MIDUS respondents, with nearly 68% indicating that they currently take at least one prescription medication and 24% reporting that they currently take three or more medications. Some respondents indicate they currently take as many as 12 medications. However, the prevalence of taking such medications varies substantially by a person’s age and whether they are male or female.

- As age increases, adults are more likely to take at least one prescription medication (see Figure 1), with 49% of young adults (aged 32-44) taking prescription medications compared to 88% of older adults (aged 75-84).
- With increasing age, adults are especially more likely to take prescription medications for hypertension, cholesterol, heart conditions, and arthritis.
- Women are more likely than men to use prescription medications when they are younger or middle aged (aged 32-64), while there is little difference between women and men at older ages (65-84).
Gender differences in types of medications

Men are more likely than women to take prescription medications for high cholesterol at all ages, as well as for diabetes (except for young adults) and for heart conditions (particularly among older adults).

Women, conversely, are more likely to take medications for nerves/anxiety/depression, arthritis, headaches, and pain at all ages, as well as hypertension (except in early adulthood).

Who takes four or more medications?

Younger adults take fewer prescription medications than older adults. Among a subsample of 744 respondents who participated in detailed medical assessments, analyses obtained on all medications that respondents were currently taking. This revealed that, on average, adults aged 32-44 take approximately 1.4 medications, those aged 55-64 take 2.9, and those aged 75-84 take 4.1. Additionally, 32% of this subsample reports taking four or more prescription medications, and 3% report taking at least 10 different medications.

Women are more likely than men to be taking four or more prescription medications until about age 75 (see Figure 2). This is especially prominent among middle-aged adults (aged 55-64), where 38% of women are taking at least four medications in comparison to 26% of men. By the age of 75, there is no longer a difference between women and men. Between the ages of 75 and 84, there is an almost 50:50 split of men and women are taking four or more prescription medications.

More education means fewer medications

Adults with more education are less likely to take any prescription medications. This is especially prominent for diabetes, heart condition, arthritis, and pain medications (see Figure 3). For example, 15% of adults with a bachelor’s degree or more are taking a prescription medication for pain in comparison to 40% of those with less than a high school education. There are also gender differences for some medications. While women and men with a four-year college degree or more are equally likely to use meds for hypertension and arthritis, women with less than a college degree are more likely to use these medications.

Additionally, adults and women with less than a high school education are equally likely to use medications for diabetes and high cholesterol. Men with a high school education or more are more likely to use these same meds.

Links between prescription medications and activities

Adults who report more difficulty with basic activities, such as dressing, or walking one block, as well as more strenuous activities such as carrying groceries, climbing several flights of stairs, or walking several blocks, take more prescription meds (see Figure 4). Furthermore, among adults reporting high difficulty with basic activities, there was a link to the prevalence of using specific medications (see Figure 5). While 15% of overweight or normal adults take hypertension medications, 25% of overweight and 55% of obese adults take medications for hypertension. Overweight and obese adults are also more likely to take medications for high cholesterol (36%) than adults who are normal weight (14%). Obesity has a strong link to diabetes medications, as 18% of obese adults take medications for diabetes, in comparison to only 3% of adults who are normal weight.

Lower BMI means fewer medications

Body mass index (BMI) is a reliable indicator of total body fat, as well as whether an individual is overweight or at risk for developing chronic conditions like type 2 diabetes. While there is a link between BMI and the prevalence of taking specific medications, for example, 13% of adults reporting high BMI more likely take medications for arthritis and 17% for pain, with women in comparison to 21% and 28%, respectively, of adults reporting low BMI. For example, 75% of adults with high BMI are on hypertension medications, while 25% of adults with low BMI take these medications. These patterns are also evident for personal growth and positive relationships with other people.

Higher well-being means fewer medications

Adults who report high physical life are less likely to take any prescription medications (63%) than adults who report low physical life (73%). This is apparent for personal growth as well. However, adults are equally likely to take medications if they report high or low positive relationships with other people.

The data suggest that there is a link between the number of medications people take and their BMI, physical health, and well-being. This highlights the importance of managing medication use and promoting healthy behaviors to improve overall health and well-being.
More education means fewer medications

Adults with more education are less likely to take any prescription medications. This is especially prominent for diabetes, heart condition, arthritis, and pain medications (see Figure 3). For example, 15% of adults with a bachelor’s degree or more are taking a prescription medication for pain in comparison to 40% of those with less than a high school education. There are also gender differences for some medications. While women and men with a four-year college degree or more are equally likely to use meds for hypertension and arthritis, women with less than a college degree are more likely to use these medications.

Additionally, while women and men with less than a high school education are equally likely to use medications for diabetes and high cholesterol, men with a high school education or more are more likely to use these same meds.

Links between prescription medications and other activities

Adults who report more difficulty with walking, dressing, or walking one block, as well as more strenuous activities such as carrying groceries, climbing several flights of stairs, or walking several blocks, take more prescription meds (see Figure 4). Furthermore, among adults reporting high difficulty with basic activities, there is also a link to the prevalence of using specific medications (see Figure 5). While 15% of overweight or normal adults take hypertension medications, 25% of overweight and 35% of obese adults take medications for hypertension. Overweight and obese adults are also more likely to take medications for high cholesterol (36%) than adults who are normal weight (14%). Obesity has a strong link to diabetes medications as well, with 18% of obese adults take medications for diabetes, in comparison to only 3% of adults who are normal weight.

Lower BMI means fewer medications

Body mass index (BMI) is a reliable indicator of total body fat, and adults who are underweight or normal take an average of 1.2 prescription medications, in comparison to 1.5 for overweight and 2.1 for obese adults. Furthermore, 12% of obese adults take at least five medications, in comparison to only 3% of adults who are normal weight.

There are also links to the prevalence of using specific medications (see Figure 5). While 15% of overweight or normal adults take hypertension medications, 25% of overweight and 35% of obese adults take medications for hypertension. Overweight and obese adults are also more likely to take medications for high cholesterol (36%) than adults who are normal weight (14%). Obesity has a strong link to diabetes medications as well, with 18% of obese adults take medications for diabetes, in comparison to only 3% of adults who are normal weight.

Higher well-being means fewer medications

Adults who report high life purpose in life are less likely to take any prescription medications (63%) than adults who report low purpose in life (73%). This is apparent for personal growth as well. However, adults are equally likely to take medications if they report high or low positive relationships with other people.

There are also links to the prevalence of using specific medications. For example, 13% of adults reporting high life purpose take medications for arthritis and 17% for pain, in comparison to 21% and 28%, respectively, of adults reporting low life purpose (see Figure 6). In addition, 12% of adults with high life purpose are on overdoses of pain medications, while 25% of adults with low life purpose take these medications. These patterns are also evident for personal growth and positive relations with other people.

Gender differences in types of medications

Men are more likely than women to take prescription medications for high cholesterol at all ages, as well as for diabetes (except for young adults) and for heart conditions (particularly among older adults).

Women, conversely, are more likely to take medications for nerves/anxiety/ depression, arthritis, headaches, and pain at all ages, as well as hypertension (except in early adulthood).

Who takes four or more medications?

Younger adults take fewer prescription medications than older adults. Among a subsample of 744 respondents who participated in detailed medical assessments, we compared the medications obtained on all medications that respondents were currently taking. This revealed that, on average, adults aged 32-44 take approximately 1.4 medications, those aged 55-64 take 2.9, and those aged 75 and take 4.1. Additionally, 32% of this subsample reports taking four or more prescription medications, and 3% report taking at least 10 different medications.

Women are more likely than men to be taking four or more prescription medications until about age 75 (see Figure 2). This is especially prominent among middle-aged adults (aged 55- 64), where 38% of women are taking at least four medications in comparison to 26% of men. By the age of 75, there is no longer a difference between women and men. Between the ages of 75 and 84, there is also a link between men and women taking four or more prescription medications.

WHAT PRESCRIPTION MEDICATIONS? All MIDUS respondents were asked about prescription medications they were taking for specific conditions: hypertension, diabetes, lung problems, high cholesterol, a heart condition, alzheimers, arthritis, headaches, birth control, headaches, nerves/ anxiety/depression, and pain. Unless otherwise indicated, all reports of prescription medication usage in this brochure are for the same respondents from MIDUS. A smaller number of MIDUS respondents came to health clinics and provided detailed information, including reports of all medications they were taking.

FIGURE 2 PERCENTAGE TAKING FOUR OR MORE PRESCRIPTION MEDICATIONS BY AGE

FIGURE 3 TYPES OF PRESCRIPTION MEDICATION USED BY EDUCATION LEVEL

FIGURE 4 NUMBER OF PRESCRIPTION MEDICATIONS USED BY DIFFICULTY WITH ACTIVITIES

FIGURE 5 TYPES OF PRESCRIPTION MEDICATION USED BY BODY MASS INDEX

FIGURE 6 TYPES OF PRESCRIPTION MEDICATION USED BY PURPOSE IN LIFE
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Who takes four or more medications?

Younger adults take fewer prescription medications than older adults. Among a subsample of 744 respondents who participated in detailed medical assessments, 14% of younger adults (aged 18-34) obtained on average four or more prescriptions, compared to 6% of older adults (aged 65+).

More education means fewer medications

Adults with more education are less likely to take any prescription medications. This is especially prominent for diabetes, heart condition, arthritis, and pain meds (see Figure 3). For example, 15% of adults with a bachelor’s degree or more are taking a prescription medication for pain in comparison to 40% of those with less than a high school education. There are also gender differences for some medications. While women and men with a four-year college degree or more are equally likely to use meds for hypertension and arthritis, women with less than a college degree are more likely to use these medications.

Additionally, women and women with less than a high school education are equally likely to use medications for diabetes and high cholesterol, men with a high school education or more are more likely to use these same meds.

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Additionally, women and women with less than a high school education are equally likely to use medications for diabetes and high cholesterol, men with a high school education or more are more likely to use these same meds.

Links between prescription medications and activities

Adults who report more difficulty with basic activities like bathing, dressing, or walking one block, as well as more strenuous activities such as carrying groceries, climbing several flights of stairs, or walking several blocks, take more prescription meds (see Figure 4). Furthermore, among adults reporting high difficulty with basic activities there is a significant increase in prescription medications, in comparison to 2% of adults reporting low difficulty.

Lower BMI means fewer medications

Body mass index (BMI) is a reliable indicator of total body fat, for adults who are underweight or normal take an average of 1.2 prescription medications, in comparison to 1.5 for overweight and 2.1 for obese adults. Furthermore, 12% of obese adults take at least five medications, in comparison to only 3% of adults who are normal weight.

There are also links to the prevalence of using specific medications (see Figure 5). While 15% of underweight or normal adults take hypertension medications, 25% of overweight and 35% of obese adults take medications for hypertension. Overweight and obese adults are also more likely to take medications for high cholesterol (36%) than adults who are normal weight (14%). Obesity has a strong link to diabetes medications, as 18% of obese adults take medications for diabetes, in comparison to only 3% of adults who are normal weight.

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Adults who report high life purpose in life are less likely to take any prescription medications (63%) than adults who report low purpose in life (73%). This is apparent for personal growth as well. However, adults are equally likely to take medications if they report high or low positive relationships with other people.

There are also links to the prevalence of using specific medications. For example, 13% of adults reporting high life purpose take medications for arthritis and 17% for pain, in comparison to 21% and 28%, respectively, of adults reporting low life purpose (see Figure 6). In addition, 12% of adults with high life purpose are on cardiovascular/depression meds, while 25% of adults with low life purpose take these medications. These patterns are also evident for personal growth and positive relations with other people.
Focus on depression

Certain factors increase the likelihood of taking medications for nerves, anxiety, or depression, such as:

- Being a woman, especially during middle age (ages 45-64) or if education levels are lower.
- Lower income.
- Being unmarried, especially if the reason is separation or divorce.
- Having low well-being or a low sense of control.

MEDICUS contains questions that measure whether an individual is suffering from depression or an anxiety disorder. Among adults who meet the criteria for these conditions, over half are on medication (see Figure 7). Among those who do not meet the criteria, 10% are taking medication. It is possible that these individuals previously had depression or anxiety and their medications have helped alleviate the symptoms. However, the findings also draw attention to the fact that many (5%) who are taking such medications still meet the criteria for depression or anxiety, while another substantial group (47%) report symptoms for these psychological problems but are not taking medications to treat them.

WHAT VITAMINS AND SUPPLEMENTS?

Among MEDUS respondents, 70% of women and 56% of men take vitamins or minerals. Women are especially more likely to be taking calcium (44%) than men (13%), and are also more likely to be taking a multi-vitamin (37%) than men (49%). As age increases, adults are more likely to use vitamins or minerals, although usage levels off around age 65.

Some adults (27%) take supplements either with prescription medications or as alternatives, and the overall use of supplements increases until age 55, where it levels off. The prevalence of specific supplements is quite low, with the most frequently used including glucosamine/chondroitin (12%) and fish oil (10%). There is also an increase in the use of glucosamine/chondroitin until age 55. While only 4% of adults aged 32-44 are using this supplement, usage increases to 17% among those aged 55-64 and then levels off.

MIDUS respondents were asked about certain vitamins, minerals, and supplements they were taking. The information presented here was asked in reference to the following: multivitamins, vitamin C, iron, and calcium. Respondents were also asked about the following supplements: St. John’s Wort, ginkgo biloba, Echinacea, garlic, feverfew, ephedra/mu huang, glucosamine/chondroitin, fish oil, saw palmetto, and flaxseed.

Vitamins, minerals, and supplements

- Who does not take any medications, vitamins, or supplements?
  - Younger adults (aged 32-54)
  - Four year degree earners
  - Individuals with greater income
  - Those currently working for pay
  - Adults who report less lifetime and daily discrimination
  - Adults who report fewer stressful life events
  - Adults who report better physical health, more control over their health, and that they put less thought and effort into their health
  - Adults who have a lower body mass index and fewer chronic conditions (among the full sample, 22% report no chronic conditions, whereas 46% of adults not taking any medications, vitamins/minerals, or supplements report no chronic conditions).

Who does not take any medications, vitamins, or supplements? A number of MIDUS respondents combine medication use with vitamins and minerals, and others include supplements with their regimen, as well. While 20% of adults use prescription medications, 28% combine medicine and vitamins/minerals, and an additional 17% take both of these as well as additional supplements (see Figure 8). Only 13% of adults do not take any medications, vitamins/ minerals, or supplements. Individuals in this group are more likely to be:

- Younger adults (aged 32-54)
- Four year degree earners
- Individuals with greater income
- Those currently working for pay
- Adults who report less lifetime and daily discrimination
- Adults who report fewer stressful life events
- Adults who report better physical health, more control over their health, and that they put less thought and effort into their health
- Adults who have a lower body mass index and fewer chronic conditions (among the full sample, 22% report no chronic conditions, whereas 46% of adults not taking any medications, vitamins/minerals, or supplements report no chronic conditions).

Prescription medications and dietary supplements

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Prescription medication usage is quite high among MIDUS respondents, with nearly 68% taking at least one prescription medication and 24% reporting that they currently take three or more medications. Conversely, this indicates that they currently take as many as 12 medications. However, the prevalence of taking such medications varies substantially by a person’s age and whether they are male or female.

- As age increases, adults are more likely to take at least one prescription medication (see Figure 1), with 49% of young adults (aged 32-44) taking prescription medications compared to 88% of older adults (aged 75-84).
- With increasing age, adults are especially more likely to take prescription medications for hypertension, cholesterol, heart conditions, and arthritis.
- Women are more likely than men to use prescription medications when they are younger or middle aged (aged 32-64), while there is little difference between women and men at older ages (65-84).

Prescription medications and dietary supplements