Have you ever taken a course or class on how to manage your diabetes yourself?

- The Healthy People 2010 goal is to increase diabetes class attendance to 60.0%. Only two counties (Harrison and Noble) are meeting this goal.
- Across all ARHI III counties, the rate of residents living with diabetes who have attended a diabetes self-management class is 46.4%.
- In three ARHI III counties – Columbiana, Gallia, and Lawrence – less than 40.0% of the people living with diabetes have attended a diabetes self-management class.
- The rate of diabetes self-management class attendance is as low as 34.3% in Columbiana County and as high as 79.0% in Noble County.

### Diabetes Class Attendance

<table>
<thead>
<tr>
<th>County</th>
<th>Diabetes Class Attendance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belmont</td>
<td>50.1%</td>
</tr>
<tr>
<td>Columbiana</td>
<td>34.3%</td>
</tr>
<tr>
<td>Gallia</td>
<td>36.6%</td>
</tr>
<tr>
<td>Harrison</td>
<td>52.7%</td>
</tr>
<tr>
<td>Jefferson</td>
<td>66.0%</td>
</tr>
<tr>
<td>Lawrence</td>
<td>52.7%</td>
</tr>
<tr>
<td>Monroe</td>
<td>46.2%</td>
</tr>
<tr>
<td>Muskingum</td>
<td>56.7%</td>
</tr>
<tr>
<td>Noble</td>
<td>79.0%</td>
</tr>
</tbody>
</table>

#### Rate of Cost Restrictions

The following three questions were combined to form a single variable representing cost restrictions on diabetes care:

**Does cost keep you from:**
- **a)** seeing the doctor on a regular basis for your diabetes?
- **b)** keep you from regularly taking your prescribed diabetes pills or insulin?
- **c)** keep you from regularly checking your blood sugar with test strips?

- **Among the ARHI III counties, the rate of cost preventing diabetes care was 35.9%.**
- **Healthy People 2010 set a goal to reduce the percent of families experiencing difficulties or delays in obtaining health care to 7.0%. None of the ARHI III counties are meeting this goal.**
- **Within the ARHI III counties, the rate of cost restrictions preventing diabetes care was as low as 14.3% in Noble County and as high as 53.9% in Gallia County.**

#### DATA COMPARISONS

The 2007 Ohio and national Behavioral Risk Factor Surveillance System Survey (BRFSS) were employed for comparison purposes. The BRFSS is an annual telephone survey created by the Centers for Disease Control and Prevention and administered in all fifty states, the District of Columbia, and U.S. Territories. BRFSS data are made available to the public and can be retrieved from http://www.cdc.gov/BRFSS.

Leading health indicators from Healthy People 2010, a nationwide health promotion and disease prevention plan created by the Centers for Disease Control and Prevention, were included as benchmarks whenever a relevant target goal could be applied. Goals and objectives for Healthy People 2010 can be retrieved at http://www.healthypeople.gov.

**DEFINING DIABETES**

A survey respondent was categorized as having diabetes when a “yes” response was given for the following question: “Have you ever been told by a doctor, nurse or other health care professional that you have high blood sugar or that you have diabetes or sugar?”

Female respondents answering in the affirmative were screened to determine if they had only been diagnosed as having diabetes during pregnancy. Females with only gestational diabetes were not included in the diabetes rates reported by the Ohio 2007 BRFSS, the national 2007 BRFSS, or the current ARHI III survey results.

#### PREVALENCE

Have you ever been told by a doctor, nurse or other health care professional that you have problems with high blood sugar or that you have diabetes or sugar?

- **The rate of diabetes across all ARHI III counties is approximately 12.5%, which is higher than the Ohio BRFSS diabetes rate (9.5%) and the national BRFSS diabetes rate (8.6%).**
- **The rate of diabetes in eight of the nine ARHI III counties (Belmont, Columbiana, Gallia, Harrison, Jefferson, Lawrence, Monroe, and Muskingum) is higher than the Ohio BRFSS diabetes rate.**
- **The rate of diabetes in all nine of the ARHI III counties is higher than the national BRFSS diabetes rate.**
- **Across the ARHI III counties, the rate of diabetes was as low as 8.8% in Noble County and as high as 16.0% in Monroe County.**

**DIABETES**

The third Healthcare Needs Assessment Survey (ARHI III) included approximately 3,840 adults from 9 Appalachian counties in Ohio – Belmont, Columbiana, Gallia, Harrison, Jefferson, Lawrence, Monroe, Muskingum, Noble – who responded to a telephone survey assessing the prevalence of certain chronic diseases and relevant risk factors. Whenever possible, ARHI III findings were compared to state and national rates (Ohio and national 2007 BRFSS, respectively), as well as national leading health indicators (Healthy People 2010).

More information about ARHI, the full ARHI III report (including standard errors and confidence intervals), and other short reports can be retrieved at: http://www.voinovichschool.ohio.edu/ARHIReports.aspx

Short reports are available for the following topics: Diabetes, Disease Prevalence, Factors Affecting Health Status, and Health Access.

This research was conducted by the Voinovich School of Leadership and Public Affairs at Ohio University in association with the university’s Appalachian Rural Health Institute and was funded by the U.S. Department of Health and Human Services, Health Resources and Services Administration, Office of Rural Health Policy.
**DIABETES DIAGNOSIS BEFORE 40**

How old were you when you were told that you have diabetes or high blood sugar, or that you have diabetes or sugar?

- Among the ARHI III counties, the rate of diabetes diagnosis before the age of 40 was 49.2%, which is substantially higher than the national rate of diabetes diagnosis before 40 (19.0%).
- Within the ARHI III counties, the rate of diabetes diagnosis before the age of 40 ranged between 27.4% in Harrison County and 60.4% in Noble County.

**BLOOD GLUCOSE TESTING**

About how often do you usually check your blood for glucose or sugar? Include the times when it was checked by a family member or friend, but do not include times when it was checked by a health care professional.

- The Healthy People 2010 goal is to have 60.0% of people living with diabetes performing a self-administered glucose test at least once daily. All nine ARHI III counties are meeting this goal.
- Across all ARHI III counties, the majority (71.9%) of residents living with diabetes check their blood glucose at least once a day.
- The range of daily-glucose test rates among the ARHI III counties was between 65.3% (Lawrence County) and 84.1% in Noble County.

**INSULIN USE**

Do you take insulin shots or use an insulin pump?

- Across all ARHI III counties, 28.4% of individuals living with diabetes take insulin shots or use an insulin pump. The rate of insulin use in ARHI III counties is above the national BRFSS rate of 26.6%.
- Among ARHI III residents living with diabetes, the rates of reported insulin use range between 17.3% in Gallia County and 47.2% in Monroe County.

**DIABETES PILL USE**

Do you regularly take diabetes pills?

- Across all ARHI III counties, more than two-thirds (67.0%) of residents living with diabetes regularly use pills as part of their diabetes treatment regimen. The rate of pill use across all ARHI III counties is lower than the national BRFSS rate of 70.2%.
- Within the ARHI III counties, the rate of pill use is as low as 50.5% in Muskingum County and as high as 94.9% in Noble County.

**ANNUAL DIABETES-RELATED DOCTOR VISIT**

About how many times in the past 12 months have you seen a doctor, nurse, or other health care professional for your diabetes, high blood sugar, or sugar?

- Across all ARHI III counties, most (95.0%) residents living with diabetes see a doctor about their diabetes at least once a year; this rate is higher than the national BRFSS rate (85.2%).
- The rate of annual diabetes-related doctor visits are as low as 88.4% in Monroe County and as high as 100% in Noble County.