# Health Literacy Among People Receiving HIV/AIDS Care in Georgia, 2009-2011

Timothy Lockhart, MPH; Natalie Spears, MPH; Melissa Gousse, MPH; Heather Brightharp, MPH;
David M. Maggio, MPH; Pascale Wortley, MD; Cherie Drenzek, DVM, MPH
Georgia Department of Public Health HIV/AIDS Epi Section

Georgia Department of Public Health

GAMMP MEDICAL MONITORING PROJECT

## Background

Health literacy is the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions. Health literacy skills are needed to:

- Find information and services
- Understand, interpret, and analyze health information
- Navigate the health-care system
- Actively participate in encounters with healthcare professionals and workers
- Understand the choices, consequences and context of the information and services
- Decide which information and services match their needs and preferences so they can act appropriately

Health literacy has been shown to be lowest among the more vulnerable members of our communities—those with lower education levels, racial/ethnic minorities, the uninsured and publicly insured, and the elderly. Studies have also indicated that individuals with lower health literacy had lower levels of HIV knowledge, are less likely to understand the meaning and importance of HIV viral loads and CD4 cell counts, and less likely to have an undetectable HIV viral load.

### Methods

We conducted a cross sectional analysis of data from a representative sample of 425 HIV-infected Georgia adults receiving medical care and who participated in the Medical Monitoring Project between 2009-2011. Data were collected via in-person interviews and linked medical record abstractions. Health literacy was assessed using three screening questions from the MMP interview tool. Based on these questions, participants were classified as having either low to moderate health literacy (LMHL), or high health literacy (HHL). Additionally, two questions were asked to assess the participant's understanding of antiretroviral therapy. Adherence to ART medication was measured by the participant's self reported ability to maintain their regimen schedule and follow any instructions associated with their regime.

## Results

Table 1: Characteristics of MMP Study Population, 2009-2011

| | | Low or Moderate Health Literacy | | High Health Literacy | |
|---|---|---|---|---|---|
| Characteristic | Stratification | N | Weighted % | N | Weighted % |
| Race/Ethnicity | | | | | |
| | White | 18 | 26.2 | 80 | 21.1 |
| | Black | 45 | 61.5 | 233 | 68.0 |
| | Hispanic, Other | 11 | 12.3 | 36 | 10.8 |
| | Total | 74 | 100.0 | 349 | 100.0 |
| Gender | | | | | |
| | Male | 51 | 67.4 | 242 | 69.2 |
| | Female | 21 | 30.3 | 107 | 29.9 |
| | Trans | 2 | 2.3 | 2 | 0.9 |
| | Total | 74 | 100.0 | 351 | 100.0 |
| Age Group | | | | | |
| | 18-24 | 2 | 2.4 | 15 | 5.1 |
| | 25-34 | 12 | 15.7 | 46 | 13.6 |
| | 35-44 | 22 | 28.3 | 92 | 26.2 |
| | 45-54 | 21 | 29.3 | 131 | 37.3 |
| | 55+ | 17 | 24.3 | 66 | 17.8 |
| | Total | 74 | 100.0 | 350 | 100.0 |
| Education | | | | | |
| | Less than high school | 29 | 37.3 | 43 | 11.2 |
| | High school diploma or equivalent | 25 | 37.9 | 97 | 27.4 |
| | More than high school | 20 | 24.7 | 211 | 61.4 |
| | Total | 74 | 99.9 | 351 | 100 |
| Income Status | | | | | |
| | <$20,000/yr | 27 | 82.8 | 107 | 48.2 |
| | >=$20,000/yr | 5 | 17.2 | 98 | 51.8 |
| | Total | 32 | 100.0 | 205 | 100.0 |
| Sexual Identity | | | | | |
| | Heterosexual | 26 | 34.1 | 136 | 39.5 |
| | Homosexual | 43 | 58.1 | 168 | 47.0 |
| | Bisexual | 5 | 7.8 | 40 | 11.4 |
| | Other | 0 | 0.0 | 5 | 2.1 |
| | Total | 74 | 100.0 | 349 | 100.0 |
| Viral suppression documented during surveillance period | | | | | |
| | No | 27 | 38.3 | 99 | 28.7 |
| | Yes | 47 | 61.7 | 252 | 71.3 |
| | Total | 74 | 100.0 | 351 | 100.0 |
| Any documentation of ART prescription | | | | | |
| | No | 9 | 12.0 | 49 | 14.9 |
| | Yes | 65 | 88.0 | 302 | 85.1 |
| | Total | 74 | 100.0 | 351 | 100.0 |
| Adherence (instruction and schedule) | | | | | |
| | No | 30 | 48.0 | 117 | 36.0 |
| | Yes | 38 | 52.0 | 197 | 64.0 |
| | Total | 68 | 100.0 | 314 | 100.0 |

Figure 1: Distribution of health literacy

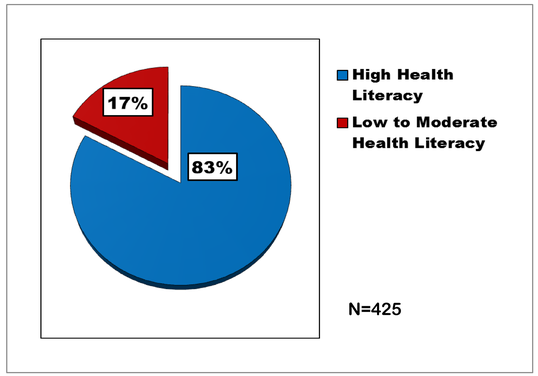


Figure 3: Percentage of LMHL and HHL who understood ART, were virally suppressed, had a prescription for ART, and were adherent

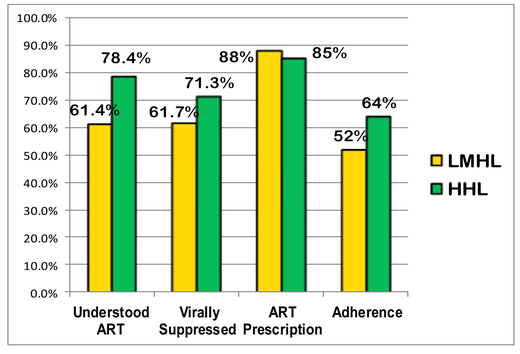


Table 2: Overall Response Rate for Data Set, 2009-2011

| | 2009 | 2010 | 2011 |
|---|---|---|---|
| Response rate | 27.30% | 17.58% | 23.23% |

## Discussion

The findings show that low to moderate health literacy is more common among participants who have low educational attainment and who have a lower income. Lower health literacy creates a barrier for persons to fully understand their health and treatments, such as antiretroviral therapy. Lower understanding of ART as well as lower ART adherence were more common in participants who were in the low to moderate health literacy category. Other studies have indicated that people with limited health literacy skills:

- Report poorer overall health
- Have poorer ability to manage chronic disease
- Are less likely to understand diagnosis
- Enter the health care system when they are sicker

Health literacy is a multifaceted issue and improvements will require a variety of approaches. Taking time to establish rapport, listening effectively, educating patients about what is happening, and providing appropriate printed educational materials is crucial in helping some patients to comprehend what's taking place so that they can make appropriate decisions about their health.

## Limitations

Representativeness of this study sample is limited by low overall response rates. Also, a comprehensive assessment of ART adherence including measures of dose, schedule, and instruction would provide a more accurate estimate of adherence among the sampled participants. This study utilized two of those measures, instruction and schedule, but will incorporate dose in future analysis. Lastly, the proportion of participants categorized as having low to moderate health literacy is low in comparison to other measurements, e.g. the National Assessment of Adult Literacy (2003) overseen by the U.S. Department of Education. Further investigation will be needed to understand this difference.