

# Health Literacy: Healthcare Market Researchers' Responsibility and Opportunity

By Intellus Worldwide's Clear Health Communication Taskforce

Low health literacy is related to medication errors, device misuse, lower compliance, and poor health, but is traditionally not considered in market research studies. The purpose of this article is to raise awareness of how health literacy could be used as a lever to improve public health, while challenging market researchers to consider health literacy as both a responsibility and an opportunity in their research designs.

## I. Negative impact of low health literacy on compliance

Patients' well-being suffers with poor understanding of their health and available treatments. Device and medication misuse can cause problems for patients' health. In the US, billions of prescriptions are written every year. More than half are taken incorrectly or not at all.<sup>1</sup> In a survey of 1,000 patients, nearly 75% admitted to not always taking their medication as directed.<sup>2</sup> Another study of over 75,000 commercially insured patients found that 30% failed to fill a new prescription.<sup>3</sup> There are many explanations as to what leads to medication errors, device misuse, and lower compliance. With an aging population, there has been an increase in the number of medications – with different dosing schedules – given to individual patients to treat a variety of chronic medical conditions. This can lead to confusion over treatment schedules. There can also be contraindications among various medications resulting in unintended side effects or other problems affecting adherence to a prescribed plan. In 2009, Kaiser Permanente conducted an exhaustive literature review on the topic of non-compliance and found **seven patient-related barriers to compliance**: forgetfulness, financial challenge, lack of knowledge, lack of social support, culture/beliefs, lack of health literacy, and denial/ambivalence.<sup>4</sup> Although high cost of medications is often referenced as a major reason for poor adherence, compliance rates improve only marginally when the cost barrier is removed. Health literacy may be a key lever to improving patients' health.

## The Role of Health Literacy

The key to understanding and improving compliance is the role of health literacy, which has been defined as “the degree to which individuals have the capacity to obtain, process, understand, [and act upon] basic health information and services needed to make appropriate health decisions.”<sup>5</sup> Multiple studies suggest a link between low health literacy and low comprehension. Research

shows only 12% of the population is health literate.<sup>6</sup>

People with low health literacy may not understand their health issues (e.g., diabetes, high blood pressure, high cholesterol). This lack of understanding can result in devaluing its treatment, which can negatively impact their health in the long term. While certain populations are at greater risk for experiencing limitations on their health literacy (e.g., individuals who speak English as a second language), the state is by no means static. Rather, health literacy is dynamic, changing for individuals based on the context of any given situation. Even people with advanced education and reading skills can face health literacy challenges. Consider the stresses imposed by health emergencies. At such times, even the most health literate individual may experience difficulties understanding or processing health information. Simpler and easier-to-understand patient materials, therefore, benefits everyone.

## II. Low Health Literacy Challenge for Market Research

There are four main challenges that low health literacy presents to market research:

**Recruitment.** Patients with low health literacy are traditionally screened out of samples because researchers want respondents who can understand the information provided in the study and can effectively communicate their feedback. This common practice leads to the exclusion of an important segment of the population. When the study has implications for communications to patients, such as patient education materials or instructions on using a device, this approach is not only deficient in research design, but it also doesn't allow for the learnings that will help create materials that can be better and more easily understood. It is difficult to recruit people with low health literacy and the tools are still being developed.

**Participation.** Patients who are lower in health literacy tend to be more reluctant to participate and voice their opinions. This lack of participation arises from lower confidence or embarrassment in their abilities, such as having difficulties speaking, reading, and/or understanding – whether it is a challenge with the English language or medical terminology. Researchers must change the way they collect their data in order to make this work. For

<sup>1</sup> Cutler DM, Everett W. “Thinking outside the pillbox – medication adherence as a priority for health care reform.” *New England Journal of Medicine*. (2010). 362:1553-1555.

<sup>2</sup> Osterberg L, Blaschke T. “Adherence to medication.” *New England Journal of Medicine*. (2005) 353:487-489.

<sup>3</sup> “Enhancing prescription medication adherence: a national action plan.” National Council on Patient Information and Education. August 2007.

<sup>4</sup> Oyekan E, Nimalasuriya A, Martin J, et al. “The B-SMART appropriate medication-use process: a guide for clinicians to help patients – part 1: barriers, solutions, and motivation.” *Permanente J*. (2009) 13:62-69.

<sup>5</sup> US Dept Health & Human Services. *Healthy People 2010*. Washington, DC: US Govt Printing Office. 2000.

<sup>6</sup> US Dept. Health & Human Services, Office of Disease Prevention & Health Promotion.

example, during in-person research, moderators should provide extended warm-up time at the beginning of the interview to build trust. They should also understand that bland or non-committal participation (e.g., “yes I agree”, “no I do not like that”) are a signal of potential problems, and thus be prepared to shift activities as needed to get more involved participation and better data.

**Analysis.** Once included into the research, data for low health literacy patients should be analyzed separately from those with adequate literacy to ensure the needs of this at-risk group are not missed. With the proper data collection techniques, researchers should have uncovered the true reactions of the low health literacy group to be included in consideration, rather than being lost in background noise.

**Stimuli.** The stimuli used in research – which is often closely linked to the actual communication to the patients – should be formatted to follow best practices for health literacy.<sup>8</sup>

### III. Results Market Research Study

In an effort to better understand health literacy, the Clear Health Communications Taskforce conducted two market research studies, one with healthcare practitioners (not discussed here<sup>7</sup>) and another with patients. As noted above, special efforts were taken to include low health literacy patients who are not usually included in traditional market research studies.

#### Patient Study

For the patient study, the objectives were to: (1) Assess individuals’ health literacy; (2) Assess comfort with filling out medical forms; and (3) Determine how an individual’s health literacy impacts their ability to read a medication label

**Sample.** Research was conducted with 805 patients, half of whom had high blood pressure (hypertension) and half among the general population. Special recruitment was in place to ensure adequate numbers of patients with low income and low education. Respondents completed a 10-minute online survey.

**Method.** Although the Newest Vital Sign (NVS) has only been validated for in-person research, we adapted the tool for online use. A component of this research was used to understand how the NVS may be administered online. The measure used was a series of 6 questions about an ice cream nutrition label. Respondents were grouped into

adequate vs. limited health literacy based on their score. Half of each group was randomly given the traditional label and half was randomly given the optimized label.

**Stimuli.** For the purposes of this study, the traditional pharmaceutical label was modified into the optimized label by following some of the health literacy best practices described in the list above. This was a proof of concept study, to allow us to document the effect a minimum change would have. If this were an actual market research study for a product to be launched, we would recommend engaging a health literacy consultant and conducting research with people who have low health literacy.

**Key Findings.** Contrary to expectations, the improved label did not have a big effect among those with low health literacy, with only slightly improved comprehension of the product label.<sup>8</sup> This highlights the importance of additional work such as including low health literacy respondents in research and hiring a health literacy consultant to achieving a better result for this group. Most surprising to us, the biggest positive effect on comprehension was seen among those who had adequate health literacy. The comprehension level was raised by over 30%, to a level indicating that almost everyone with adequate health literacy understood the basics about the drug. This illustrates a side benefit of including those with low health literacy in our research - that by doing so we will improve comprehension for all. This patient study shows the need to: (1) Include low health literacy patients in the sample design; (2) Separately analyze performance of low health literacy patients; and (3) Carefully craft patient communications using best practices and expert consultation. Health literacy can be a key lever in improving patients’ health. With some simple techniques<sup>8</sup>, comprehension can increase, which could lead to improved compliance, as well as reduced medication errors and device misuse.

### V. Intellus Worldwide’s Clear Health Communications

Intellus Worldwide’s Clear Health Communications Taskforce provides today’s leaders in healthcare marketing research with the tools and understanding required to address the needs of all patients. By providing education, resources, and training, the team works to drive change within our industry and at regulatory agencies. This initiative is a collaboration of members across the healthcare industry including manufacturers, payers, and agency organizations. We welcome you to connect with us: <https://www.intellus.org/Member-Resources/Clear-Health-Communications-Taskforce-an-Intellus-Health-Literacy-Initiative>

<sup>7</sup> Patient counseling materials: The effect of patient health literacy on the comprehension of printed prescription drug information Research in Social and Administrative Pharmacy · Sep 3, 2018. <https://www.sciencedirect.com/science/article/abs/pii/S1551741117308331?via%3Dihub>

<sup>8</sup> Low Health Literacy and its impact on market research. Quirk’s Media Oct. 2017. [http://bluetoad.com/display\\_article.php?id=2895943&view=441559](http://bluetoad.com/display_article.php?id=2895943&view=441559)