

## AbbVie Foundation STEM Challenge 2018-19

### Introduction: About AbbVie Foundation

The AbbVie Foundation, a nonprofit 501(c)(3), is dedicated to having a remarkable impact on the lives of the underserved around the world through a commitment to building strong communities, sustainable health care systems and effective educational programs. For more information please visit [www.abbviefoundation.org](http://www.abbviefoundation.org).

### The AbbVie Foundation Challenge

The AbbVie Foundation is dedicated to building strong communities, sustainable health care systems and effective educational programs.

- **Building Strong Communities:** Supporting basic needs of the underserved with programs including support for our disaster relief efforts and Matching Grants Plan.
- **Building Sustainable Health Care Systems:** Promoting community-based models of care to strengthen local health care systems and improve health outcomes, to support the eradication & elimination and prevention & control of neglected tropical diseases.
- **Building Effective Educational Programs:** Supporting STEM (Science Technology Engineering and Math) education and basic and health literacy for those in grades K-12, along with existing programs providing complementary community support.

As part of our initiative to build sustainable health care systems and build effective education programs, *health literacy* becomes a key factor to enable and empower patients and their families to manage their health. Health literacy is defined as the cognitive and social skills which determine the motivation and ability of individuals to gain access to, understand and use information in ways which promote and maintain good health. Health literacy goes beyond a narrow concept of health education and individual behavior-oriented communication, and addresses the environmental, political and social factors that determine health. ([World Health Organization, 2009](#))

There is a recognized gap in educating children and adults the skills to obtain, process, and act on credible medical information. This gap exists between what healthcare professionals know and the information patients are expected to understand and use to make healthcare decisions. Health literacy is vital for everyday healthy lifestyle choices, as well as every doctor visit, prescription, treatment option, and every recovery.

In 2010, the US Department of Health and Human Services created a National Action Plan to Improve Health Literacy. In that report, they cite sources highlighting the scope of the health literacy deficit. “Two decades of research indicate that today’s health information is presented in a way that isn’t usable by most Americans. Nearly 9 out of 10 adults have difficulty using the everyday health information that is routinely available in our health care facilities, retail outlets, media, and communities.” These statistics point out that the need for improved health literacy affects most Americans. In fact this is a global issue that spans all geographic areas, crossing cultural, racial, ethnic, and socioeconomic boundaries. Health literacy is important yet needs improvement for ALL global citizens. Health care is complex and the systems that a patient and their family need to navigate make a patient journey even more complex.

The HHS report has clear overarching goals, strategies, and recommendations at a national level. However, as neighbors and partners, the AbbVie Foundation would like your input into how to improve health literacy in the North Chicago Community. **Your Challenge is to design and recommend an innovation or system that would improve health literacy and overall wellness in the North Chicago community.**

### **Predicted Problem Statement**

In order to investigate this problem, you will need to consider the following questions:

What is health literacy?

- Research definitions, criteria, and statistics on health literacy from various credible sources.
- What is the difference between health literacy and health education?
- Why is there a need for more health literacy?
- How can we assess the current state of health literacy in North Chicago?

What are the needs and challenges of different user groups?

- What are needs & challenges of different age groups in North Chicago?
- How do you get information about healthcare? How does that differ from your parents, teachers, younger siblings or grandparents?
- Select an age group for your further research and design.
- How do patients in particular age groups obtain and use health or well-being information?
  - What sources are available?
  - Are these sources credible? Accessible? Easy to be read and understood?
  - What sources are used by your target patient group?

- Are these credible? Accessible? Easy to be read and understood?
- How does your selected age group decide what kinds of health information resources to use?
- Use surveys, interviews, or other observation methods to gather information about the current health literacy status and needs of your patient users.

Understand the *patient journey*

- How do individuals know when and how to seek medical care?
- How do patients and their caregivers assess risk/reward of treatment options?
- How does the patient journey differ for those who have acute vs. chronic illnesses?
- What does the decision making process for treatment look like?

What resources are currently available? How can you determine effectiveness and areas for innovation of a new or improved system?

- For your group of users, what are the current resources that are available? In North Chicago? In Illinois? Nationally?
  - To provide health care information
  - To increase health literacy
  - To compensate for a gap in health literacy
- How effective are the current resources?
- Where are there gaps for your users?
- What resources, suggestions, guidelines, recommendations, and innovations exist elsewhere in the US and globally?
- How might these be effective or ineffective with your patient users in the North Chicago Community?

What is needed as a result of your research and analysis?

- Brainstorm possible design ideas that could lessen gaps and improve health literacy in your community.
- Create a prototype, description, or mockup of your design idea/system
- Based on this feedback, redesign your system or innovation.
- Present your data, analysis, and observations from this to AbbVie with your design recommendations

## Suggested Learning Activities and Potential Resources

### Health Literacy Websites and Resources

- The US Department of Health and Human Services Office of Disease Prevention and Health Promotion in 2010 put together a [National Action Plan to Improve Health Literacy](#). This source has excellent definitions, statistics, as well as suggestions for improvement.
- [The Center for Disease Control and Prevention](#) maintains a health literacy site with a wealth of resources available.
- [The website health.gov](#) has a quick reference sheet with health literacy information. Another related site is part of the [Healthy People 2020 initiative](#). Explore this site to find tools, resources, as well as a rich data set.
- The NIH maintains the US National Library of Medicine that has a [section on health literacy](#).
- The NIH also maintains a site dedicated to [clear communication](#) in part related to health literacy.
- The [American Medical Association's You Tube Channel](#) has videos explaining health literacy with great examples of real patients discussing their challenges.
- You can search the [HHS Agency for Health Research & Quality](#) to find a variety of resources and studies conducted about health literacy.
- [The National Network of Libraries of Medicine](#) has information and resources around health literacy.
- The World Health Organization publication [Health Literacy and Health Behavior](#) outlines health literacy worldwide.

### Patient Journeys

- [Macadamia.com](#) examines health literacy and tech apps, highlighting how patient journey mapping can improve healthcare apps.
- This webinar illustrates how patient journeys are important to recognize for healthcare IT designers.

### Health Literacy and Technology

- [Health Affairs](#) is a team that examines relationships between health literacy and connected health.
- [This European Parliament News article examines](#) how technology can be used as a health literacy tool to empower patients.
- [The Journal of Nutritional Disorders and Therapy](#) also posted an article asking whether technology can improve patients' health literacy.