

HEALTH ORIENTATION REPOSITORY

CENTER OF EXCELLENCE IN NEWCOMER HEALTH

PURPOSE

One of the most challenging aspects of refugee resettlement is learning to navigate the U.S. health care system. This includes learning how to make healthy and economically viable decisions about accessing care. This project gathered and developed culturally sensitive and targeted materials to better address health orientation for refugees resettling in the United States.

LEAD AGENCY/STATE

Minnesota Center of Excellence in Newcomer Health (MN COE), Nationalities Service Center (NSC)

LEAD STAFF

Blain Mamo (MDH), Ariel Ressler MacNeill (NSC), Minnesota Center of Excellence in Newcomer Health partners

COLLABORATORS

Mavis Corrigan, Katina Cummings, Juliana Davis, Hyojin Im, Patricia A Kirshenbaum, Joanne Morales, Laura P Newman, Gianna Pembroke, Douglas Pryce, Shelby Rodriguez, Gretchen Shanfeld

GOAL

Development and dissemination of refugee orientation materials to improve refugees' continuity of care, communication with service providers, and access to health care services.

OBJECTIVES

Refugee orientation

Development and deployment of accessible health orientation materials focused on newly arrived refugees. Topics include key health-related content that inform new arrivals on self-care and navigating health systems. The materials are intended to be disseminated at resettlement agencies, public health and clinic settings, employment sites, and mobile apps.

Health education

Development of disease-specific educational materials to be used by health care providers working with refugees to explain health conditions and health care follow-up in plain language. Improved communication between providers, interpreters, and patients will help recognize health care service needs of refugees and assist with improved health outcomes.

TIMELINE

Task	By Quarter											
	2018			2019				2020				
	2	3	4	1	2	3	4	1	2	3	4	
Online Health Orientation Repository												
Primary Vetting												
Request and gather materials												
Explore available materials online												
Primary vetting by project team												
Relevant materials' readabilities scored												
Secondary Vetting												
Vet with PEMAT tool by project team and volunteer experts												
Passed materials considered for adaptations												
Create/adapt materials to fill content gaps												
Identify standardized format												
Submit materials for translations												
Dissemination												

Note: Due to COVID-19 pandemic, the timeline was extended.

PROCESS

Step 1: Material collection

Our team collected health orientation and education materials from local, national, and global sources, with a specific emphasis on gathering materials with a range of available languages. Project team also explored available materials online.

Documents of interest included the following criteria:

- Clear and appealing layout
- Reasonable length (1-2 pages, double spaced)
- Culturally sensitive and appropriate images
- Use of absolute data

In total, our team collected **163 documents**.

Categories of documents:

- Health Orientation
 - Orientation of the US Health Systems (norms, insurance, etc.)
 - Immediate Health Care Needs (access points)
- Initial Health Screenings and Immunizations
 - Infectious diseases such as tuberculosis, HIV, hepatitis B
 - Mental health
 - Preventative health
 - Women's health

What type	How reviewed	Is this material useful in any of the following ways?	or notes on the quality of this material.	notes on the quality of this material.	Total points	Total actual points
Print	1	Clinical settings	has and how it can be utilized. Trauma		8	3
Print	1	Clinical settings	and can be informative. However, medical		10	8
Print	1	Clinical settings	brochure. Helpful only if there is follow up to		8	5
Print	3	Resettlement agency, Personal use at	space and areas for people to write, good		15	15
Audio/Visual	3	Resettlement agency		explanations about payment and	12	9

Step 2: Initial vetting

The project team conducted initial vetting, including readability scores of collected materials. Initial vetting criteria was on a five-point scale (3 or higher proceeded to further vetting), with the following criteria:

- Culturally sensitive and appropriate images
- Use of absolute data
- Available in more than one language

Materials above a fifth-grade level were assessed for potential edits and adaptations. Materials that could not reasonably be adapted were excluded from further rounds of vetting.

For list of readability scoring tools, see APPENDIX A

Step 3: Secondary vetting

Volunteer vetters were assigned materials at random and asked to assess them and then use our abbreviated Patient Education Materials Assessment Tool (PEMAT).

Title of Material:	Content Area	Code	What type	How reviewed	Is this material useful in any of the following ways?	Please provide feedback	Please provide feedback	Total points	Total actual points	Score	Recommendation
Refugees and the Affordable Care Act	Health Insurance	A2	Audio/Visual	3	Clinical settings, Resettlement	N/A	Available in	12	12	100%	Yes
Information about Medicaid	Health Insurance	A55	Print	1	Resettlement agency, Personal use at	Material is	N/A	9	9	100%	Discuss
What immigrants and refugees need to know	Health Insurance	HI-04	Audio/Visual	3	Clinical settings, Resettlement	N/A	Great material	12	12	100%	Yes

For PEMAT and adaptations, see APPENDIX B

Step 4: Addressing gaps

The team used information from the second vetting to identify materials that could continue in the vetting process. Materials that did not pass were brought to the group, where they were further assessed for potential adaptations. Project partners and contributors were contacted on the possibility of making adaptations to materials collected and/or asked for permission for project team to edit.

After removing materials that did not proceed to the second screening process, the team identified gaps in content areas. New materials were created and vetted according to previous standards and brought to the working group for input.

Identified gaps:

- Health Insurance;
- Immediate Health Care Needs;
- Intestinal Parasites
- Pediatrics;
- Preventative Health;
- Women's Health

Step 5: Formatting and Translation

Secondary vetting involved assessing documents for overall graphic appeal, layout, and length. Materials not granted permission for edits were removed from material pool. New materials were formatted into a standardized layout, as determined by the working group.

Materials were also selected for translation into languages commonly spoken by newly-arrived refugees.

Step 6: Dissemination

Dissemination method:

- Vetted and translated materials will be available on the Minnesota Center of Excellence's and partners' websites
- Materials will be disseminated via HealthReach and CareRef, an interactive clinical decision tool
- Materials and process will be promoted at national conferences and meetings of professional associations and local partners

Key audiences:

- Refugees/immigrants
- Resettlement agencies
- Public health agencies
- Health care providers/centers serving refugees
- Community-based organizations working on refugee health issues

CHALLENGES AND BEST PRACTICES

Availability of health orientation and education materials

We only reviewed a limited number of materials that were submitted for this initiative. There were more materials that are being widely used for health education and orientation across states and local service providers; some of which may be much better than the submitted materials. Ideally, it would be good to partner with various partners to establish a central repository of health education materials for newly-arrived refugees and solicit refugee/immigrant feedback on the materials early in the project.

Locating materials published in our priority languages such as Somali, Karen, Swahili, Kinyarwanda, Arabic, etc., was difficult, as most were only available in Spanish and English. Due to this, our team spent extensive time exploring potential resources and reaching out to partners. While some materials were in each language, the project required considerable translations.

This project highlighted the importance of considering readability and accessibility before creating educational materials for limited English proficient populations. Depending on the target audience, the original content must be written in plain language, with minimal technical language and a low readability score. In turn, translating these materials will yield accessible educational resources. The project team did not identify nearly as many audiovisual resources as written materials. Audiovisual resources may be more accessible to those with literacy challenges.

Due to the fragmented nature of the health orientation materials in use, it was difficult to centralize the materials. The project team quickly identified a tension between wanting to standardize materials to have a broad range of health orientation topics covered in full and to meet different needs, but also recognizing the variance among local systems and different populations, and the fact that tailoring of materials is needed to maintain relevancy.

Related to this fragmentation, messaging related to health orientation is not always coordinated from overseas to after arrival in the U.S. Coordination of key messages from all overseas steps to domestic connection to care and service delivery is crucial.

Maintenance and sustainability

Establish a strong group of vetters representing various stakeholders, from refugees to health care providers. Different perspective enhance the quality of the resources. Each vetter was trained on the vetting process and additional support was offered to provide guidance and instructions during the vetting process. Coordinating a workgroup, located in different time zones and availability, requires additional personnel capacity.

To sustain and maintain this multi-step process, it would be important to collaborate with established entities such as the ARHC Health Education Committee, health care providers, community health educators, or members of the community who can develop, adapt, or review newly submitted materials in a timely manner.

OUTCOMES:

1. Development of educational materials for resettlement agencies, health care providers, community agencies and employers.
2. Development and deployment of mobile applications to communicate with refugees about health issues in accessible and useful ways.

For more information:

Minnesota Department of Health
Refugee Health Program
651-201-5414
refugeehealth@state.mn.us

APPENDIX A: Reading Level Tools

Flesch Reading Ease

Background

The Flesch Reading Ease Formula is a simple approach to assess the grade-level of the reader. It's also one of the few accurate measures around that we can rely on without too much scrutiny.

This formula is best used on school text. It has since become a standard readability formula used by many U.S. government agencies, including the U.S. Department of Defense. However, primarily, we use the formula to assess the difficulty of a reading passage written in English.

The Flesch Reading Ease Readability Formula

The specific mathematical formula is:

$$RE = 206.835 - (1.015 \times ASL) - (84.6 \times ASW)$$

RE = Readability Ease

ASL = Average Sentence Length (i.e., the number of words divided by the number of sentences)

ASW = Average number of syllables per word (i.e., the number of syllables divided by the number of words)

The output, i.e., RE is a number ranging from 0 to 100. The higher the number, the easier the text is to read.

- Scores between 90.0 and 100.0 are considered easily understandable by an average fifth grader.
- Scores between 60.0 and 70.0 are considered easily understood by eighth and ninth graders.
- Scores between 0.0 and 30.0 are considered easily understood by college graduates.

Flesch-Kincaid Grade Level

Flesch Grade Level Readability Formula improves upon the Flesch Reading Ease Readability Formula.

Rudolph Flesch, an author, writing consultant, and the supporter of Plain English Movement, is the co-author of this formula along with John P. Kincaid.

This formula is known by different names, like Flesch-Kincaid Index, Flesch-Kincaid Grade Level Score, Flesch-Kincaid Scale, Flesch-Kincaid Score, Flesch-Kincaid Readability Score, Flesch-Kincaid Readability Statistics, Flesch-Kincaid Grade Level Index, Flesch-Kincaid Readability Index, Flesch-Kincaid readability equation, and so on.

Originally formulated for U.S. Navy purposes, this Formula is best suited in the field of education.

The Flesch-Kincaid Grade Level Readability Formula

- Step 1: Calculate the average number of words used per sentence.
- Step 2: Calculate the average number of syllables per word.
- Step 3: Multiply the average number of words by 0.39 and add it to the average number of syllables per word multiplied by 11.8.
- Step 4: Subtract 15.59 from the result.

The specific mathematical formula is:

$$FKRA = (0.39 \times ASL) + (11.8 \times ASW) - 15.59$$

FKRA = Flesch-Kincaid Reading Age

ASL = Average Sentence Length (i.e., the number of words divided by the number of sentences)

ASW = Average number of Syllable per Word (i.e., the number of syllables divided by the number of words)

Analyzing the results is a simple exercise. For instance, a score of 5.0 indicates a grade-school level; i.e., a score of 9.3 means that a ninth grader would be able to read the document. This score makes it easier for teachers, parents, librarians, and others to judge the readability level of various books and texts for the students.

Theoretically, the lowest grade level score could be -3.4, but since there are no real passages that have every sentence consisting of a one-syllable word, it is a highly improbable result in practice.

APPENDIX B: Modified Patient Education Materials Assessment Tool (PEMAT)

Minnesota Center of Excellence in Newcomer Health and Nationalities Service Center

This tool is intended to be used to vet health orientation resources for newcomer populations. The tool is a modified Patient Education Materials Assessment Tool (PEMAT). The PEMAT was originally developed by the Agency for Healthcare Research and Quality (AHRQ) and has been adapted by the Minnesota Center of Excellence and the Nationalities Service Center.

Vetting Stage 2

(Print) Understandability

Topic	Item #	Item	Response Options	Rating
Content	1	The material makes its purpose completely evident.	Disagree=0, Agree=1	
	2	The material does not include information or content that distracts from its purpose.	Disagree=0, Agree=1	
Word Choice & Style	3	The material uses common, everyday language.	Disagree=0, Agree=1	
	4	Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.	Disagree=0, Agree=1	
	5	The material uses the active voice.	Disagree=0, Agree=1	
Use of Numbers	6	Numbers appearing in the material are clear and easy to understand, do not require calculations.	Disagree=0, Agree=1, No numbers=N/A	
Organization	7	The material breaks or "chunks" information into short sections that are in a logical sequence.	Disagree=0, Agree=1, Very short material=N/A	
Layout & Design	8	The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree=0, Agree=1, Video=N/A	
Use of Visual Aids	9	The material uses visual aids whenever they could make content more easily understood (e.g., illustration of healthy portion size).	Disagree=0, Agree=1	
	10	The material's visual aids reinforce rather than distract from the content.	Disagree=0, Agree=1, No visual aids=N/A	
	11	The material uses illustrations and photographs that are clear and uncluttered.	Disagree=0, Agree=1, No visual aids=N/A	
	12	Visual aids are not culturally specific, thus can be understood across cultures.	Disagree=0, Agree=1	
Actionability	13	The material clearly identifies an action the user can take.	Disagree=0, Agree=1	
	14	The material provides a tangible tool (e.g. menu planner, checklists) whenever it could help the user take action.	Disagree=0, Agree=1	
	15	The material explains how to use the charts, graphs, tables or diagrams to take actions.	Disagree=0, Agree=1 No charts, graphs, tables, diagrams= N/A	

Total Points: _____

Total Possible Points: _____

Score (%): _____

(Total Points / Total Possible Points x 100)

(Audio/Visual) Understandability

Topic	Item #	Item	Response Options	Rating
Content	1	The material makes its purpose completely evident.	Disagree=0, Agree=1	
Word Choice & Style	2	The material uses common, everyday language.	Disagree=0, Agree=1	
	3	Medical terms are used only to familiarize audience with the terms. When used, medical terms are defined.	Disagree=0, Agree=1	
Organization	4	The material breaks or "chunks" information into short sections.	Disagree=0, Agree=1, Very short material=N/A	
Layout & Design	5	The material uses visual cues (e.g., arrows, boxes, bullets, bold, larger font, highlighting) to draw attention to key points.	Disagree=0, Agree=1, Video=N/A	
	6	Text on the screen is easy to read.	Disagree=0, Agree=1, No text or all text is narrated=N/A	
	7	The material allows the user to hear the words clearly (e.g., not too fast, not garbled).	Disagree=0, Agree=1, No narration=N/A	
Use of Visual Aids	8	The material uses illustrations and photographs that are clear and uncluttered.	Disagree=0, Agree=1, No visual aids=N/A	
	9	The material uses simple tables with short and clear row and column headings.	Disagree=0, Agree=1, No tables=N/A	
	10	Visual aids are not culturally specific, thus can be understood across cultures.	Disagree=0, Agree=1, No Visual aids=N/A	
Actionability	11	The material clearly identifies an action the user can take.	Disagree=0, Agree=1	
	12	The material breaks down any action into manageable, explicit steps.	Disagree=0, Agree=1	

Total Points: _____

Total Possible Points: _____

Score (%): _____

(Total Points / Total Possible Points x 100)