

Engaging Health Literacy Partners to Advance Health Equity in Rural Communities:

One Community's Approach to Better Understanding Health Literacy in a Rural-Border Region

Shiloh Williams, PhD, RN, NPD-BC, CNE,
Assistant Professor
SDSU – School of Nursing, Imperial Valley



Session Learning Objectives

- Explain the challenges faced by rural healthcare systems in supporting national/international health literacy practices.
- Recognize the importance of engaging with current and *future* healthcare professionals to address health literacy as a health equity issue.
- Apply the ideas and concepts presented through case study to your own health literacy practices and settings to engage a multidisciplinary health literacy team



Audience Question #1

- **Where does your health literacy work occur?**
 - Hospital/Acute Care Setting
 - Clinic/ Outpatient Care Setting
 - Community-based organization
 - Academia/University
 - Government Sponsored Agency or Program
 - Other



Invested in Imperial County

**Community
Resident/Advocate**

**1st Generation College
Graduate**

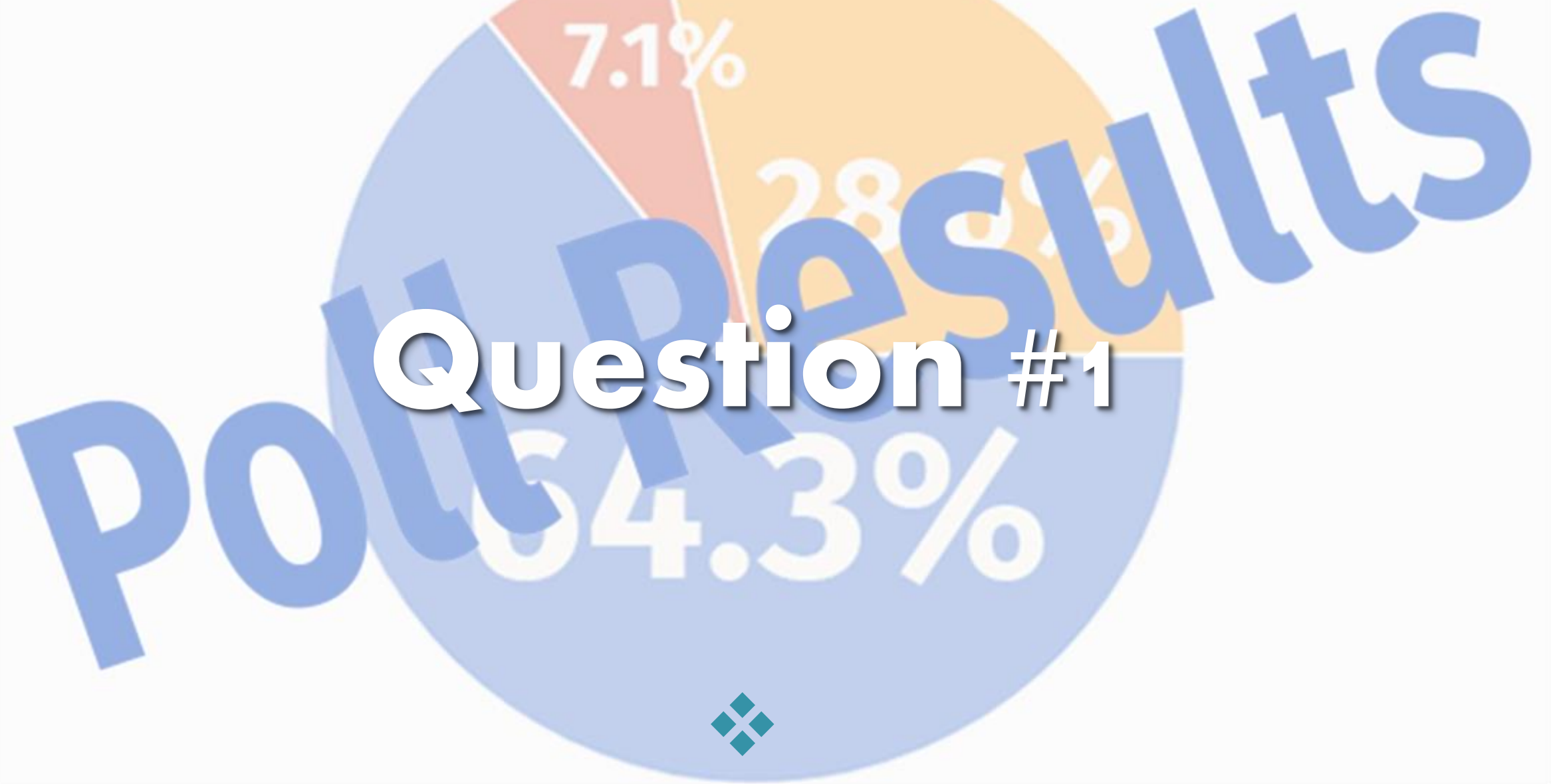
Registered Nurse

Nurse Educator

Nurse Leader/Administrator

Nurse Scientist

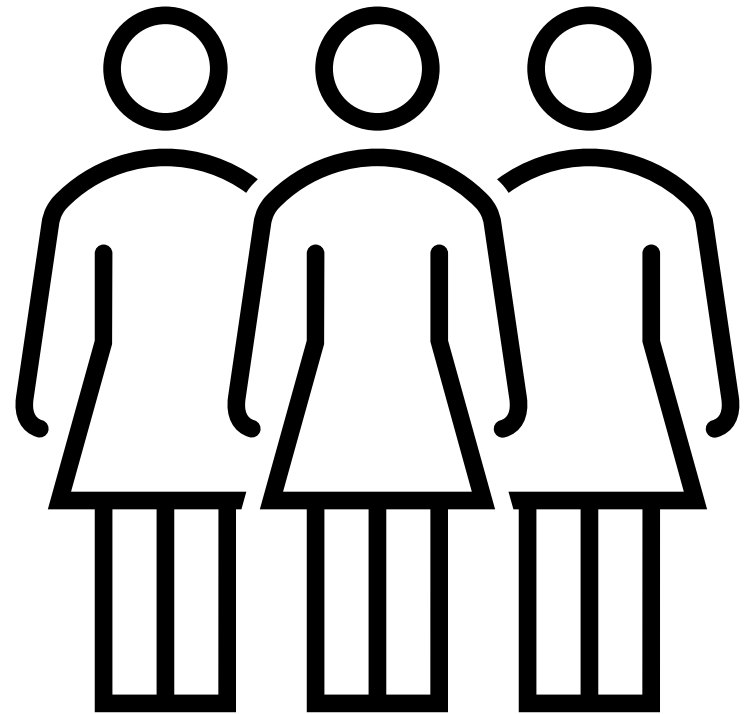




Audience Question #2

What is the prevalence of low health literacy in your community?

- 9% or less
- 10-19%
- 20-29%
- 30-39%
- 40-49%
- 50% or more
- Not Sure



The Perfect Storm....

- Low health literacy (LHL) is
 - A significant factor in a patient's ability to actively participate in their plan of care
 - More common in **rural** and **racially and ethnically diverse** communities
 - More common in communities where **educational levels are lower** and **limited English proficiency** or **English as a second language (ESL)** is present.
 - More common in populations where **social and economic disparities** are prevalent



Clinicians are not aware...

- Healthcare providers...
 - Overestimate patients' abilities
 - Fail to detect when low health literacy is present

WHY?????

- Inconsistent predictors of low health literacy
 - Largely population-dependent
- Limited, if any, curriculum in their academic training
- Hurried and impersonal care delivery models (quantity vs. quality)



POLL RESULTS

Question #2



Audience Question #3

- **Who are your typical health literacy partners?**
 - Healthcare providers (MDs, PAs, etc.)
 - Public health professionals
 - Social services professionals
 - Nurses
 - Non-licensed healthcare providers (ex. promotoras)
 - Community organizations/staff
 - Other



Low Health Literacy Prevalence

Is the data accurate?

- **Data Reporting Challenges**

- Variability in measurements
 - Various HLA instruments
 - Simple → → → COMPLEX
- Non-generalizable samples
 - Convenience samples
 - Single-site/location

- **Interventional Challenges**

- Finally emerging as a priority!
- Many approaches, many options

Challenge Example:

County Level Reported Data ¹	Study Data ² (Generalizable)
Prevalence of Low Health Literacy in Population: 42.3%	Prevalence of Low Health Literacy in Sample: 80.0%
Prevalence of LHL by Gender in Population: Male: 50.7% Female: 49.0%	Prevalence of LHL by Gender in Sample: Male: 83.0% Female: 77.5%

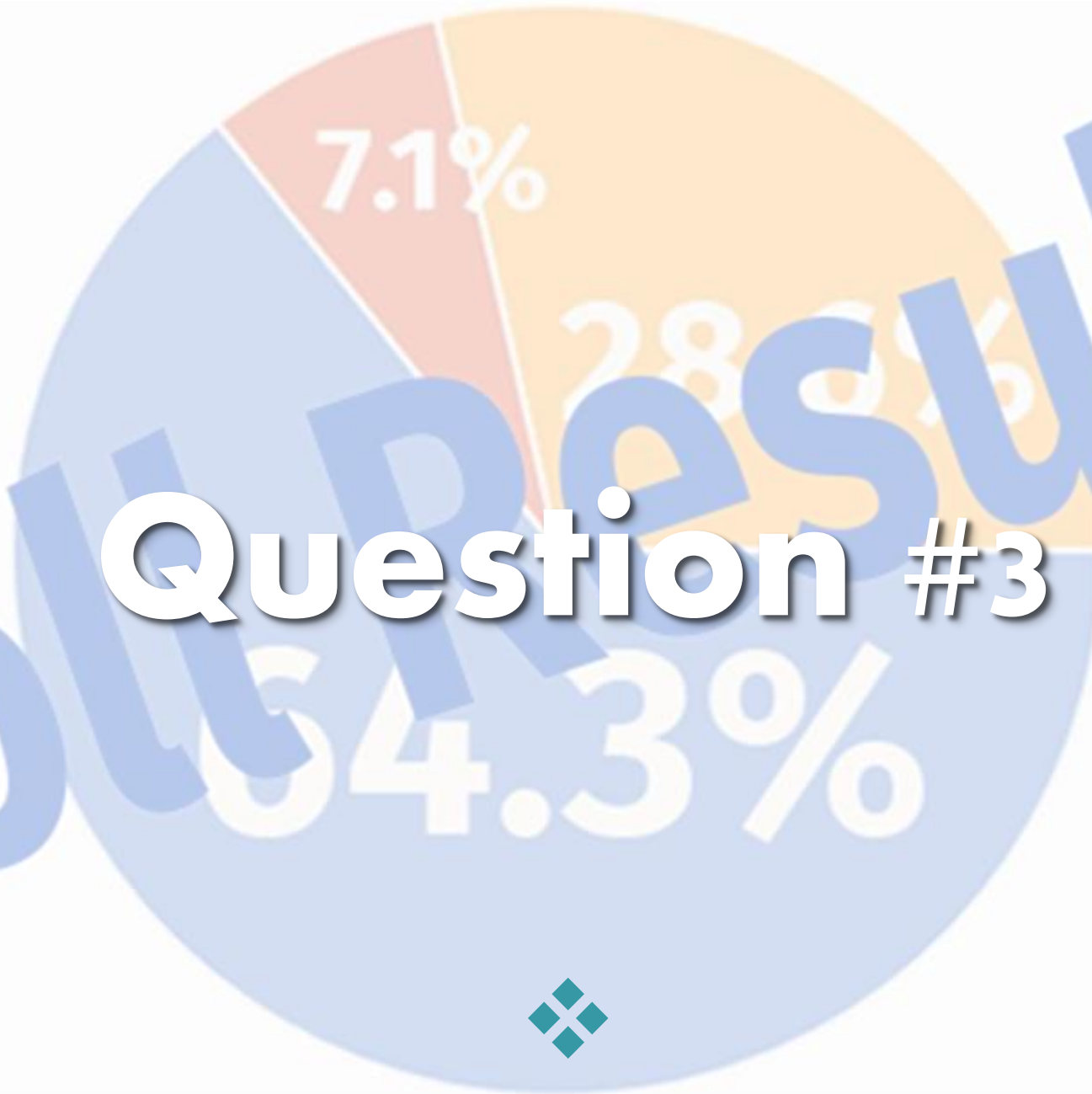
¹ 2022 Imperial County Community Health Assessment <https://www.prceasyview.com/Utilities/Home.aspx>

² Williams, S., & Carlson, B., (2022) Evaluating Health Literacy in a Rural Border Region



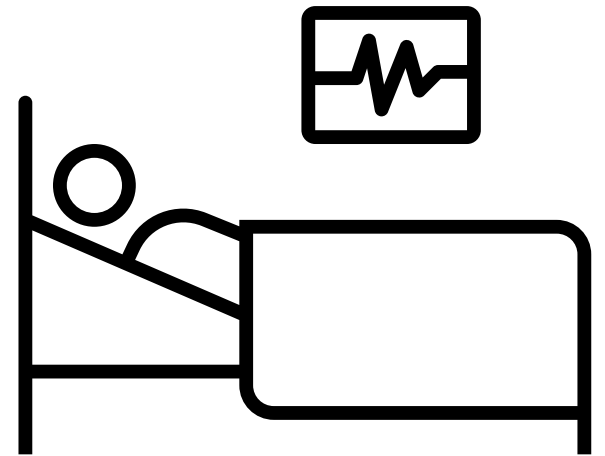
POLL RESULTS

Question #3



Case Study:

Use of Non-Traditional Health Literacy Partners at a Rural Border Hospital



Welcome to Imperial County!!!

- Population of Limited English Households
 - Imperial County: 16.73%
 - California: 8.32%
- High School Graduation Rate
 - Imperial County: 88.5%
 - California: 87.9
- 4th Graders Scored “Not Proficient” in Reading
 - Imperial County: 62.89%
 - California: 55.16%
- Free or Reduced Lunch Eligibility
 - Imperial County: 74.14%
 - California: 58.11%
- Primary Care Provider Ratio
 - Imperial County: 4890:1
 - California: 1090:1

	IMPERIAL COUNTY	CALIFORNIA	U. S.
Median Household Income	\$45,834	\$71,228	\$60,293
Children in Poverty	32.1%	19.5%	19.5%
Poverty, All Ages	24.2%	14.3%	11.8%
Disabled	14.4%	10.6%	12.6%
Uninsured Population	11.8%	10.5%	10.5%
Public Insurance Coverage	51.6%	37.2%	34.7%
Unemployment	20.6%	3.7%	6.6%
High School Graduate or Higher Age 25+	69.0%	82.5%	87.7%
Bachelor's Degree or Higher Age 25+	14.5%	33.3%	31.5%



Source: U.S. Census Bureau, American Community Survey, 2014-2018





El Centro Regional Medical Center

El Centro, CA



Pilot Project: Exploring Health Literacy in a Rural Border Community

- Pilot Project Lead: Dr. Shiloh A. Williams, PhD, RN, NPD-BC, CNE
- Project Mentor: Dr. Beverly Carlson, PhD, RN, NS, CCRN-K, FAHA

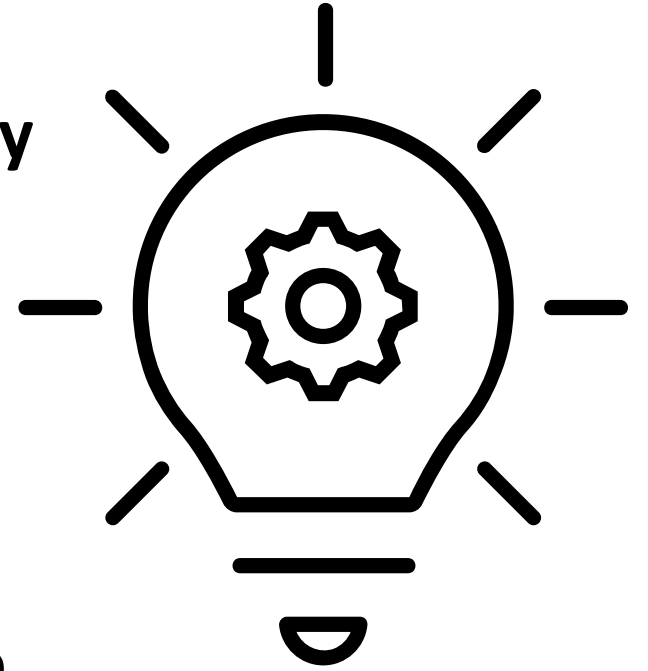
This research was supported by the National Institute on Minority Health and Health Disparities of the National Institutes of Health under Award Number U54MD012397.



Health Literacy Assessment...

... A New Concept

- Health literacy was identified as an organizational priority
- Project was selected by a community-led initiative; supported through the organization's Multidisciplinary Research Council (MRC)
- Required individual health literacy assessment
 - Newest Vital Sign
 - Initial implementation involved nurses assessing patients at time of admission/ clinic visit.
- Initially implemented in January 2021, delayed due to significant COVID outbreak
 - 6-month data collection period



COVID wasn't the only challenge....

- **Electronic medical record**
 - HLA build & reporting
- **Initial leadership “bought-in” but staff did not**
 - Education & training
- **Organizational Restructure**
 - New leadership “liked the idea”

New strategies to collect HLA data were needed...



Engaging a New Team!!

- Chief Clinical Officer – organizational sponsor
 - Nursing committed the Physical Therapy team to collect **Inpatient** Assessments
 - \$\$\$\$\$
 - A NEW CONCEPT! – Excited for training & implementation
 - Linked HL concepts back to their own patient education and services
- **Outpatient** Departments were still a challenge....

**So, we embraced our
Volunteers!!**





ECRMC's Volunteer Program

- **Jr. Auxiliary**
 - Health Professions/Career Path Program
 - 16 yrs. of age and over
 - Provide additional experiences and skillsets to students (high school & college)
 - Looks great for college applications!
 - Excited about doing "research!"



Data Collection Success!!!

	N (%) or Median (IQR)
Location (n=909)	
Inpatient (IP)	543 (59.7)
Medical-Surgical	524 (57.7)
Maternal Child	18 (2.0)
Outpatient (OP)	366 (40.3)
Clinic	342 (37.7)
Emergency Dept.	24 (2.6)

Target Sample Size:

Inpatient – 500

Outpatient – 4000

Data Collection Period:

March 2021 – August 2021



Feedback & Provider Engagement

- Very excited to participate in “research”
- Better understanding of the needs of the community:
 - *“I didn’t even realize this was a thing. Now I find myself thinking about every patient I work with and looking for clues that they may have low health literacy”* – Physical Therapist
 - *“I have never heard of health literacy, but it makes so much sense!”* – Speech therapist
 - *“I can see where health literacy can be a challenge here. I don’t think my mom could answer these questions and she works in education!”* – Career Path Program Volunteer
 - *“This helps me as I want to be a doctor someday. I want to make sure my patients understand what I am telling them.”* – Career Path Program Volunteer



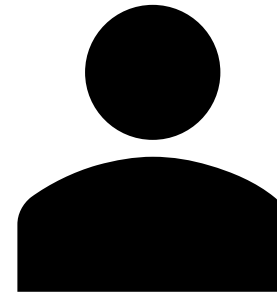
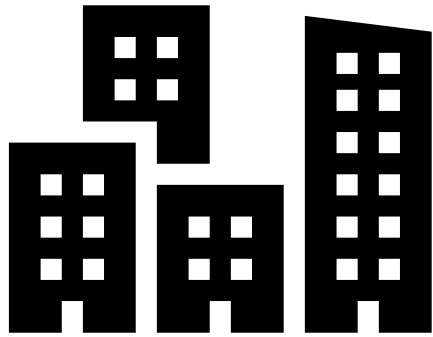


Did they continue assessment?

- **Unfortunately, No.**
 - New EHR build did not allow for customization
 - Revamping their educational program, including materials and moving towards alternative and supplemental educational products (video, audio, etc.)
 - However, finances are challenged, and the education department is severely underfunded.

Despite this, new opportunities have presented...

Organizational vs. Individual Health Literacy Approaches



**Why are rural healthcare
organizations struggling????**



FORBES > INNOVATION > HEALTHCARE

1 In 4 Rural Hospitals Are At Risk Of Closure And The Problem Is Getting Worse

Clary Estes Former Contributor ①

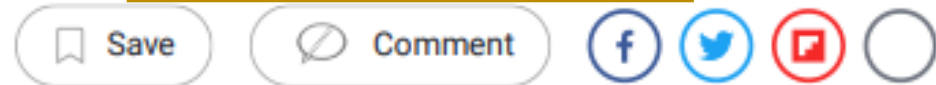


Feb 24, 2020, 02:13pm EST

Home / News / Health News / Hundreds of Hospitals Could ...

Hundreds of Hospitals Could Close Across Rural America

By HealthDay | Jan. 16, 2023



By Dennis Thompson HealthDay Reporter

MONDAY, Jan. 16, 2023 (HealthDay News) – Hundreds of rural hospitals across the United States are teetering on the edge of closure, with their financial status increasingly in peril, a new report reveals.





**COVID only exacerbated
ongoing problems...**

Industry-Created Materials are Missing the Mark in Rural Healthcare...

- **Language is still too complex**
 - Limiting healthcare jargon is tricky
- **Language/images can be misinterpreted**
- **Translation is problematic**
 - Message gets “lost”
- **May not be culturally appropriate**
- **Designed to be delivered by healthcare providers (unrealistic)**

Mean HL Score by Diagnosis:
Hypertension (n=147)

1.74

Limited Literacy Possible/Likely

Health Literacy Status by Diagnosis:
Hypertension (n=147)

Health Literacy Status	N (%)
Limited Literacy Likely (NVS: 0-1)	75 (51.0)
Limited Literacy Possible (NVS: 2-3)	50 (34.0)
Adequate Literacy Likely (NVS: 4-6)	22 (15.0)

Average PEMAT-P & SMOG Scores by Educational Topic

Educational Topic (# of Documents Analyzed)	Understandability Score ^(a)	Actionability Score ^(a)	SMOG Score ^(b)	Grade Level
Hypertension (2)				
English	68.7%	45%	27	9
Spanish	75%	50%	135	8*

(a) As determined by the PEMAT-P

(b) Number of words that contain 3 or more syllables within a 30-sentence passage of text taken from the document

* SOL Formula applied as a conversion between English Spanish to account for language complexities





Health Literacy is the Ultimate Team Sport!

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Thank You

Shiloh A. Williams, PhD, RN, NPD-BC, CNE
Shiloh.Williams@SDSU.edu

