
IDENTIFICATION OF HEALTH LITERACY DISPARITY

DELIVERING PATIENT-FRIENDLY RADIOLOGY REPORTS TO
SPANISH-SPEAKING POPULATIONS

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BACKGROUND

- The 21st Century Cures Act **ensures** patients immediate web access to radiology reports
- Radiology reports in the US are written in **English**
- **Spanish** is the **second most common language** used in the US and is the preferred language of 17% of the population where this study was conducted
- The RSNA and ACR both identify Health Equity and Literacy as a **priority**
- To address healthcare disparities, we first need to **identify** where they exist

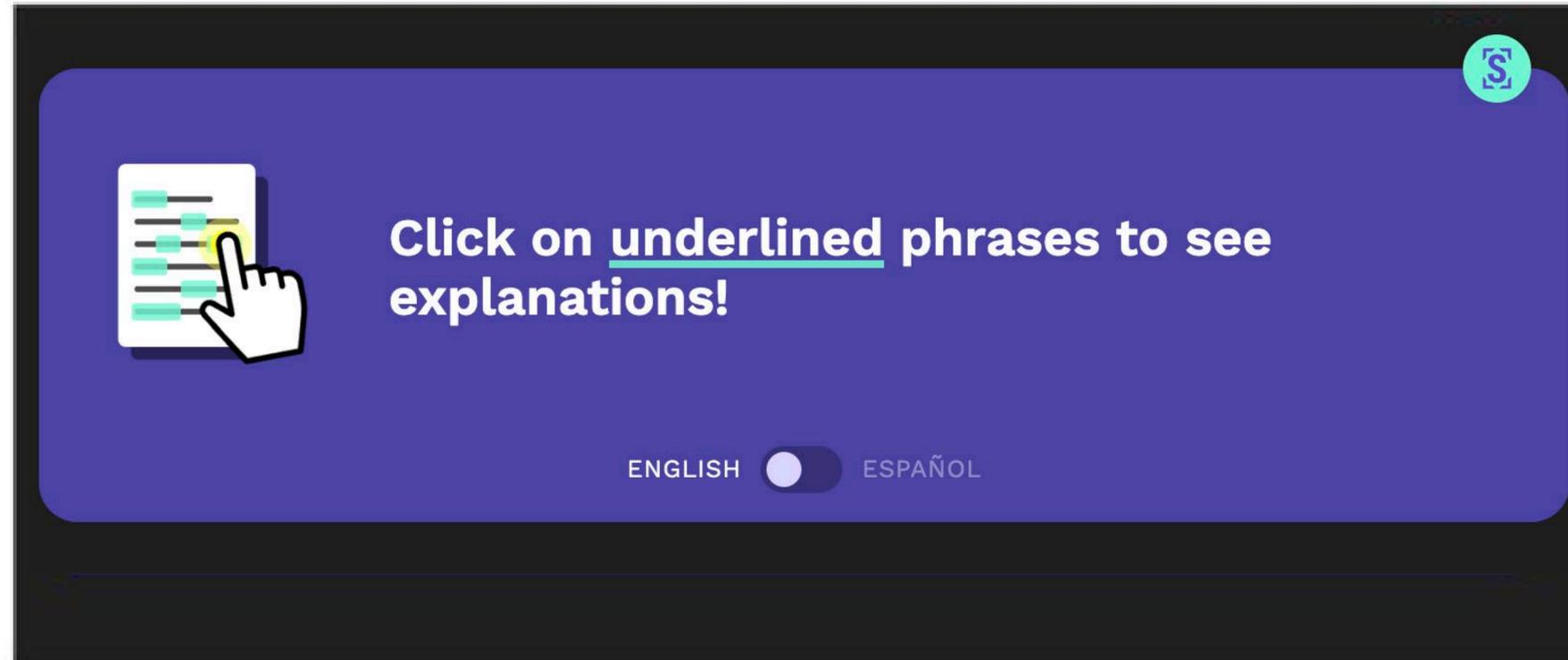
PURPOSE

Assess the utilization rate for patient friendly radiology report **definition viewing in Spanish** and compare this to the proportion of **Spanish-speaking patients** in the population served by this study

METHODS

- All patients at 10 outpatient imaging centers receive their imaging reports in a **web-based interactive patient portal** with lay language definitions and diagrams
- The **default language is English**, but the interactive report has a toggle switch that patients can use to **display the content in Spanish**
- Because the population in this city is 31% Latino and 57% of those identify Spanish as their primary language – we would **expect up to 17%** of our patient population to prefer to view patient friendly explanations in Spanish
- We analyzed data over a **1.5-year period** to determine how many definitions were viewed in Spanish compared to English

A.

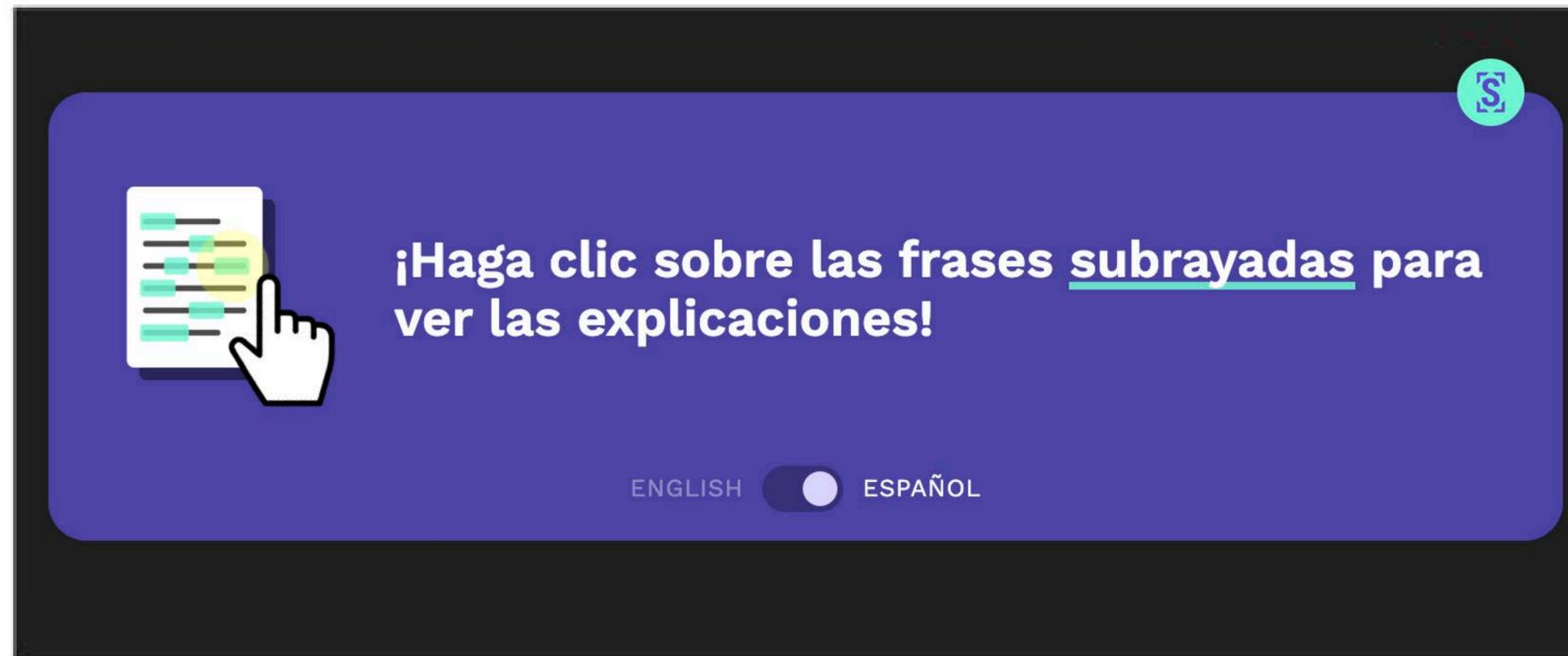


Click on underlined phrases to see explanations!

ENGLISH ESPAÑOL

This screenshot shows a user interface with a dark background and a purple rounded rectangle. On the left is an icon of a document with a hand pointing to a highlighted line. The main text is in English, with the word 'underlined' underlined. At the bottom, there is a language toggle switch that is currently set to 'ENGLISH'.

B.



¡Haga clic sobre las frases subrayadas para ver las explicaciones!

ENGLISH ESPAÑOL

This screenshot shows the same user interface as in A, but with the language toggle switch set to 'ESPAÑOL'. The main text is now in Spanish, with the word 'subrayadas' underlined.

MRI Lumbar Spine

Performed October 15, 2021



Report by Dr. Jennifer Kemp

EXAM: MRI Lumbar Spine without contrast

INDICATION: M54.56 Low back pain, Lumbar region

COMPARISON: Lumbar spine radiographs 5/1/2019

TECHNIQUE: Multiplanar, multisequence MR imaging of the lumbar spine was performed without intravenous contrast.

FINDINGS:

Marrow signal is normal. The conus medullaris terminates at approximately L1. Normal alignment. There is a mild anterior wedge deformity at L3, unchanged compared with the prior radiographs. Vertebral body height is otherwise maintained.

L1-L2: Mild disc desiccation. No significant disc bulge. No spinal canal stenosis or neural foraminal narrowing.

L2-L3: Mild disc desiccation. No significant disc bulge. No spinal canal stenosis or neural foraminal narrowing.

L3-L4: Small circumferential disc bulge. No spinal canal or neural foraminal narrowing.

L4-L5: Small posterior disc protrusion indents the thecal sac. No significant spinal canal stenosis. Moderate bilateral neural foraminal stenosis due to facet arthropathy.

L5-S1: Moderate disc height loss and desiccation. Small circumferential disc bulge. No spinal canal stenosis. Moderate bilateral neural foraminal stenosis due to facet arthropathy.

Visualized portion of the sacrum is normal. Visualized paraspinous and retroperitoneal soft tissues are unremarkable.

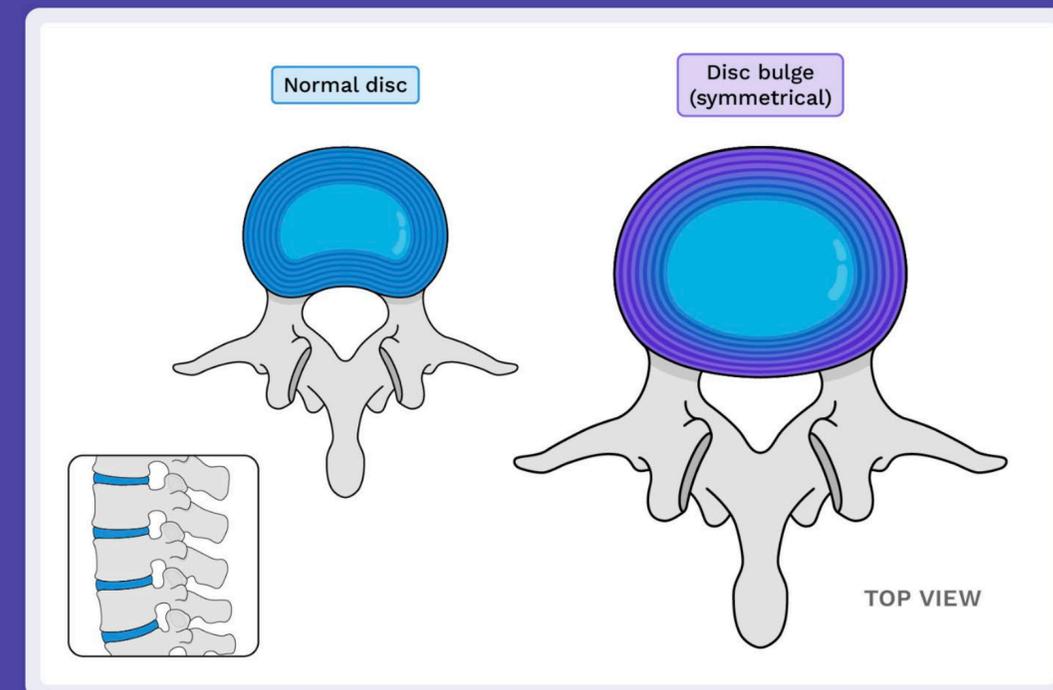
IMPRESSION:

- Moderate bilateral neuroforaminal stenosis at L4-L5 and L5-S1 secondary to facet arthropathy.
- Small disc protrusion at L4-L5. No spinal canal stenosis.

circumferential disc bulge

Abombamiento circunferencial del disco

En la columna vertebral, un abombamiento circunferencial del disco es un empujón hacia el exterior del material del disco en todas las direcciones. Si se imagina un disco apretado entre dos huesos de la columna vertebral, y si aprieta a los huesos juntos, el disco blando se abultaría hacia fuera por todos los lados (como presionar hacia abajo la parte superior de una pelota de goma). Si el abultamiento se agranda puede ejercer presión sobre los nervios cercanos, lo cual puede causar dolor. Los abultamientos pequeños del disco como estos son comunes y quizás no causen ningún síntoma.



ENGLISH ESPAÑOL

RESULTS

- Over an 18-month period **404,115 patient-friendly definitions were viewed** by patients in an interactive format
- Of the 404,115 definitions viewed, **>99%** (402,445) were viewed **in English**
- Of the 404,115 definitions viewed, **0.1%** (1670) were viewed **in Spanish**

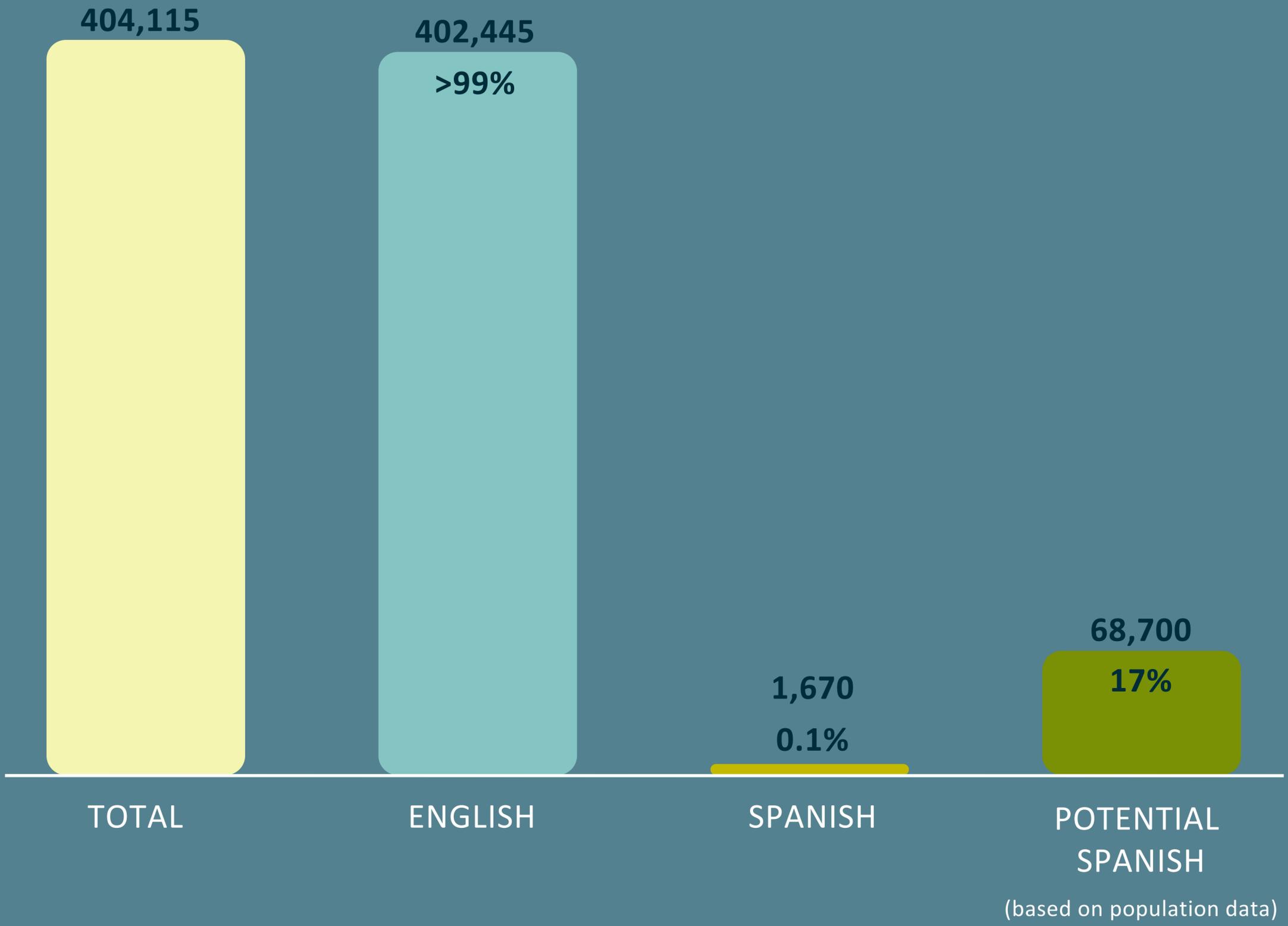
96%

of patients who utilized
Spanish language content
stated that the definitions and
diagrams help them to understand their
reports

98%

of patients who utilized
English language content
stated that the definitions and
diagrams help them to understand their
reports

DEFINITIONS VIEWED



CONCLUSION

- Based on population data we would **expect up to 17%** of our patient population to prefer to view their interactive web-based patient friendly radiology report in Spanish
- Yet **only 0.1%** of our patient population who viewed their online report utilized the Spanish language feature
- **Additional efforts are needed** to improve radiology report **accessibility** for Spanish-speaking patients.

Simply providing a **toggle switch** to choose between Spanish and English is **not enough to overcome** this health literacy disparity
