

# Assessing Preference for Written Communication of Bone Density Test (DXA) Results

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## Background/Objective

- Patients who receive bone density (DXA) results vary widely in literacy and numeracy skills.
- Objective: To determine if adults with different literacy levels prefer different options for written communication of fracture risk.

## Methods

- English speaking Kaiser Permanente Georgia members, 50 years of age and older were asked to complete a 30 minute in-person assessment that consisted of a review of 3 letters (A, B, and C) and four graphs depicting fracture risk (Bar, Stoplight, Arrow, and Faces).
- Each letter included t-scores, a diagnosis, and 10-year fracture risk.
- Participants were asked to rank letters and graphical depictions to determine preference, ease of understanding, and perceived threat.
- Participants were also asked to complete the Rapid Estimate of Adult Literacy in Medicine (REALM) assessment.
- Mean REALM scores by preferred letter and graph were assessed for differences using multiple comparisons tests.

## Results

- Participants' (N=63) ages ranged from 50 to 86 years.
- 40% were African-American, 75% were female, and 56% were college graduates.
- REALM scores ranged from 35-66 with a mean of 61.6 ( $\pm 7.1$ ).
- 54% ranked Letter B as easiest to understand, 24% ranked Letter A as easiest to understand, and 22% ranked Letter C as easiest to understand.
- The mean REALM scores of participants who ranked Letter A or B as easiest to understand were 59.8 ( $\pm 1.0$ ) and 61.2 ( $\pm 6.3$ ) – lower than those who ranked letter C as easiest to understand (mean score of 64.9 ( $\pm 2.8$ )).
- 70% ranked either the Bar or Faces graphic as easiest to understand, 16% ranked the Arrow as easiest to understand, and 14% ranked the Stoplight as easiest to understand.
- The mean REALM scores of participants who ranked the Arrow, Faces, or Bar graphics as easiest to understand were 60.3 ( $\pm 7.9$ ), 60.4 ( $\pm 9.0$ ), and 62.6 ( $\pm 5.3$ ) – lower than those who ranked the Stoplight as easiest to understand (mean score of 63.9 ( $\pm 3.7$ )).

### Letters

**A**

**B**

**C**

Most liked phrases

Most disliked phrases

### Graphics

**Bar**

**Arrow**

**Stoplight**

**Faces**

## Conclusions

- Because Letter C was less frequently ranked easiest to understand, and when ranked easy to understand was preferred by participants with higher average health literacy, we eliminated this letter as an option.
- This pilot study demonstrates how information about preferences and literacy information was used to develop a refined letter to communicate DXA results to insured adults.