Exploring Digital Solutions to Health Insurance Literacy Disparities

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Insure EZ — Health Insurance Simplified

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AIM

A previous review of the literature revealed health insurance literacy (HIL) gaps among multiple demographics. As such, our study aimed to develop a digital tool to improve health insurance understanding. InsureEZ, our web-based app, was created with the aid of AI modalities to help users compare plans, understand coverage, and boost their HIL.

INTRODUCTION

Despite increased access to health insurance, many individuals struggle to navigate the complexities of insurance plans. Factors such as socioeconomic status, personal experiences, and educational background can significantly impact one's ability to effectively utilize health insurance. To address these issues, students at Rocky Vista University College of Osteopathic Medicine (RVUCOM) developed a AI powered website that provides clear and accessible information about health insurance options available in Colorado and Utah. Students, faculty, and family members of RVUCOM then evaluated this site to determine its usability and effectiveness through anonymous surveys.

METHODS AND MATERIALS

- InsureEZ.org was developed with the use of wix.com, Python, and JavaScript over the span of 3 months.
- Hallmark 'Browse Plans' Tool utilized Google's Gemini A.I and Microsoft's ChatGPT 3.5.
- Additional pages were developed including an interactive quiz, terminology page and resource page curated by the student team.
- Following development, IRB approval was gained to study website efficacy on the RVU student, faculty, staff and family member population.
- Participants were recruited via flyers displaying a QR code with access to pre-survey assessing health insurance comfortability and the website.
- After participants utilized the website, they were asked to complete a post-survey assessing helpfulness of tools and provide feedback.
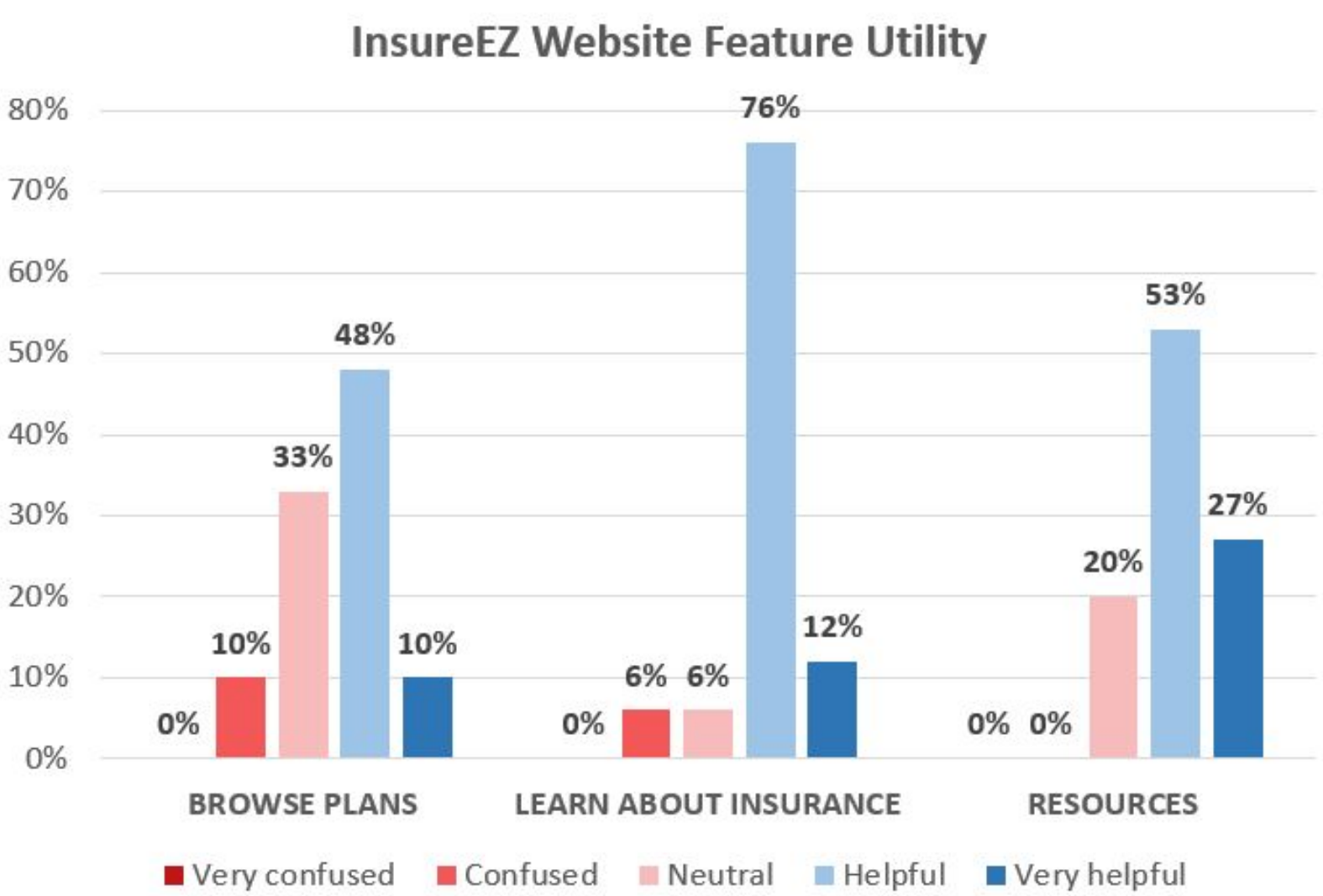

Figure 1. Histogram from post-survey data demonstrating the perceived utility of individual InsureEZ pages.
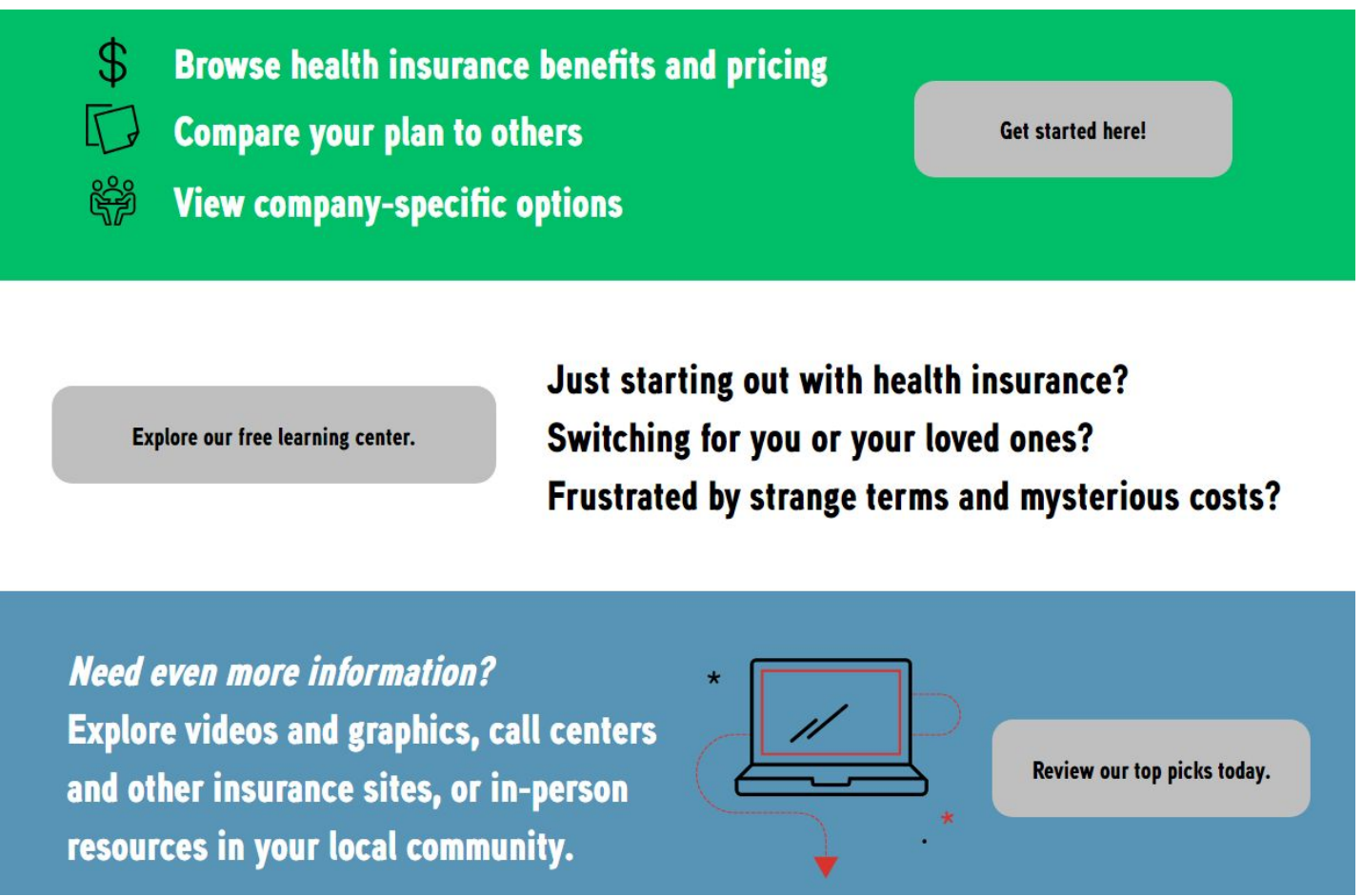

Figure 2. Screenshot from the InsureEZ site highlighting plan browsing, insurance literacy, and resource pages.

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Bibliography   InsureEZ Website

RESULTS

48% of participants completed both surveys.
58% of participants indicated a recent plan change to their health insurance within the previous 2 years.

Pre-survey - N=50 Complete responses
Demographics:
Students - **60%**, Employees - **14%**,
Family - **26%**, Insured - **90%**
Comfort Level with Health Insurance:
70% Rated neutral or uncomfortable, **30%** Rated comfortable

Post-Survey - N=24 Complete Responses
Demographics:
Students - **46%**, Employees - **21%**,
Family - **33%**, Insured - **88%**
Use of Website: 67% rated positively
Use of Tools:
'Browse Plan' - **58%** Helpful
'Learn about Insurance' - **88%** Helpful
'Resources' - **80%** Helpful

DISCUSSION

The InsureEZ website received positive feedback, with 67% of post-survey respondents finding it helpful in improving their understanding of health insurance. The site's three features simplified insurance concepts into easily understood terms, validating the potential utility of digital tools.

Before using InsureEZ, 80% of students felt uncomfortable with their insurance knowledge, compared to 57% of employees and 54% of family members. The trends suggest that younger students, who may lack experience with health insurance, benefited more from the resource. Notably, 92% of students with RVU-sponsored plans felt uncomfortable with their insurance, possibly due to the high-deductible Aetna plan. The overall positive reception of InsureEZ highlights the importance of designing user-friendly, accessible, and informative digital resources that cater to varying levels of knowledge within different populations.

CONCLUSION

Our study underscores the ongoing challenges in HIL and demonstrates the potential of digital tools to bridge these gaps. However, limitations such as small sample size necessitate further development. Future research should focus on expanding the website's content, enhancing user experience, conversion to a mobile app, and conducting large-scale studies to validate effectiveness. Ultimately, this study underscores the potential of thoughtfully designed digital platforms to empower individuals in making informed health insurance decisions, ultimately leading to better outcomes and a more informed public.