

Implementation of a Web-Based Resource Directory to Promote Accessibility of Local Resources for Community Health Nurses

Jennifer Lam, MSN, RN, Kimberly McIltrout, DNP, CPNP, CWOCN, CNE, FAAN & Phyllis Sharps, PhD, RN, FAAN



JOHNS HOPKINS
SCHOOL of NURSING

Background

- Social determinants of health (SDOH) are conditions in the environment where people live, learn, play and work that significantly influence health outcomes, increase risk of health conditions, and lower life expectancy¹⁻³
- Healthcare providers are essential in addressing SDOH by offering community resources to patients¹⁻⁴
- Challenges with locating resources in a busy practice as information can be on handouts, pamphlets or online^{1, 5}
- Web-based directories have been recommended to increased referrals to community resources^{1,6-8}
- User-desired functionalities for the directory include:⁶

Up-to-date

Organized

Public-facing Website

Purpose and Aims

The purpose of this quality improvement project was to evaluate the implementation of a centralized web-based community resource directory to support nurses' accessibility to information for local resources.

- The **aims** of this project included:
 1. To increase nurse's knowledge of the availability of local community resources
 2. To examine the frequency of directory usage
 3. To assess satisfaction and usability of directory

Methods

Design: Pre- and post-intervention design over 8-weeks

Setting: Two nurse-managed community-based urban clinics lead by a center of an academic university in the Mid-Atlantic region

Sample: All four community health nurses

Measures: Knowledge was rated on a 5-point Likert scale using an adapted Knowledge and Use of Community Resources Scale pre-and post-intervention.⁹ Frequency of directory webpage views was tracked weekly with Google Analytics reports. Nurses' satisfaction and directory's usability was assessed on a 7-point Likert scale with the Computer System Usability Questionnaire (CSUQ) in a post-intervention survey.¹⁰

Analysis: Descriptive statistics

Intervention

ECONOMIC-RELATED ASSISTANCE

- Employment
- Health Insurance

EDUCATIONAL ADVANCEMENT

- Education

HEALTH CARE RESOURCES

- COVID-19 & Influenza Related
- Dental Health
- Mental Health
- Primary Care
- Reproductive Health
- Sexual Violence & Trauma
- Urgent Care
- Vision

SOCIAL AND LIVING ENVIRONMENT SUPPORT

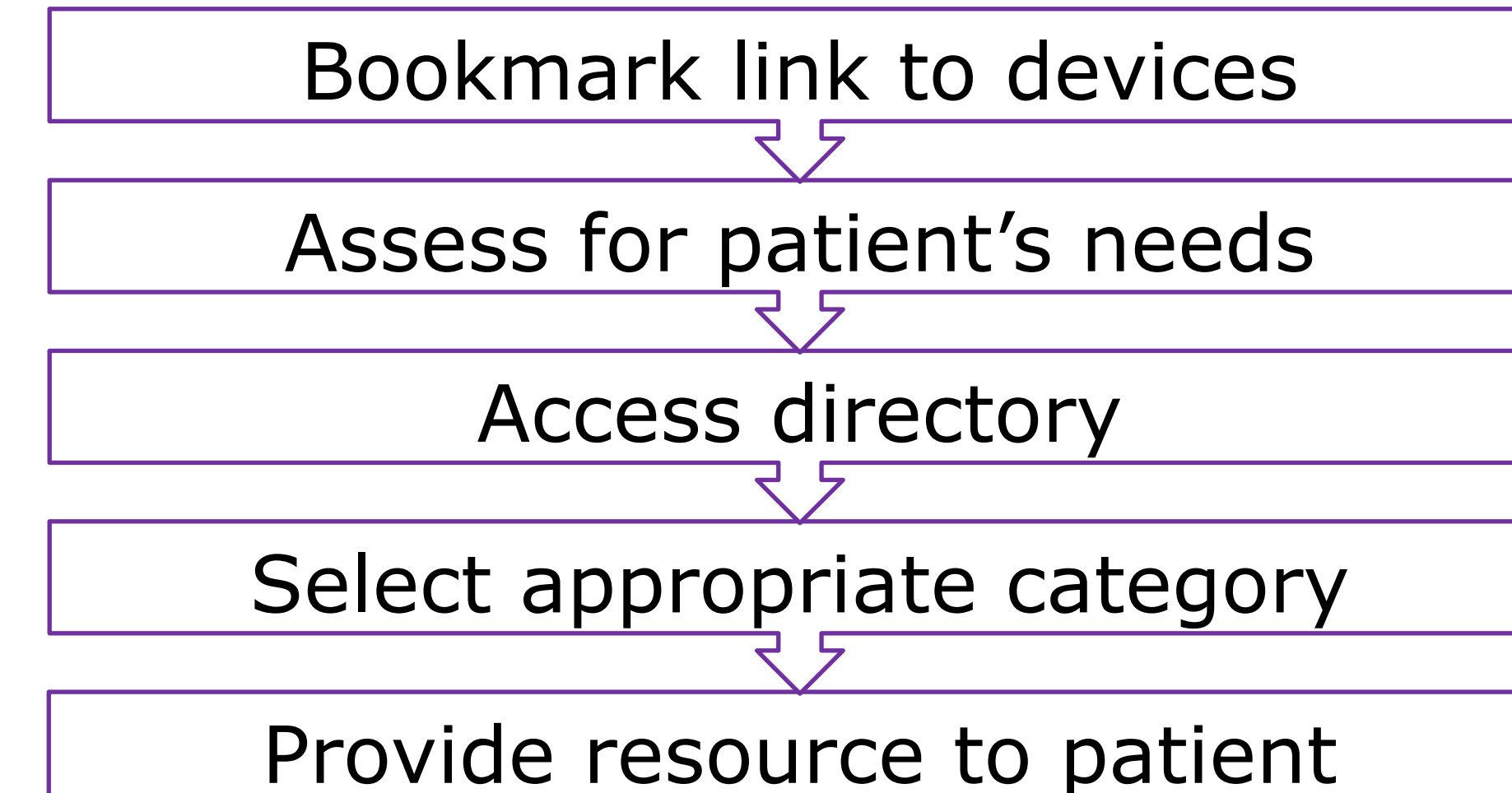
- Food
- Housing
- Transportation
- Child-related & Additional Resources

Figure 1 - Overview of the directory

Development of site-specific directory guided by literature recommendations:

- Locally relevant community resources were collected from staff
- Directory was organized by overarching domains of SDOH to facilitate the ease of locating information
- Directory made readily available on the organization's website (nursing.jhu.edu/waldresources)

Workflow to incorporate directory:



Results

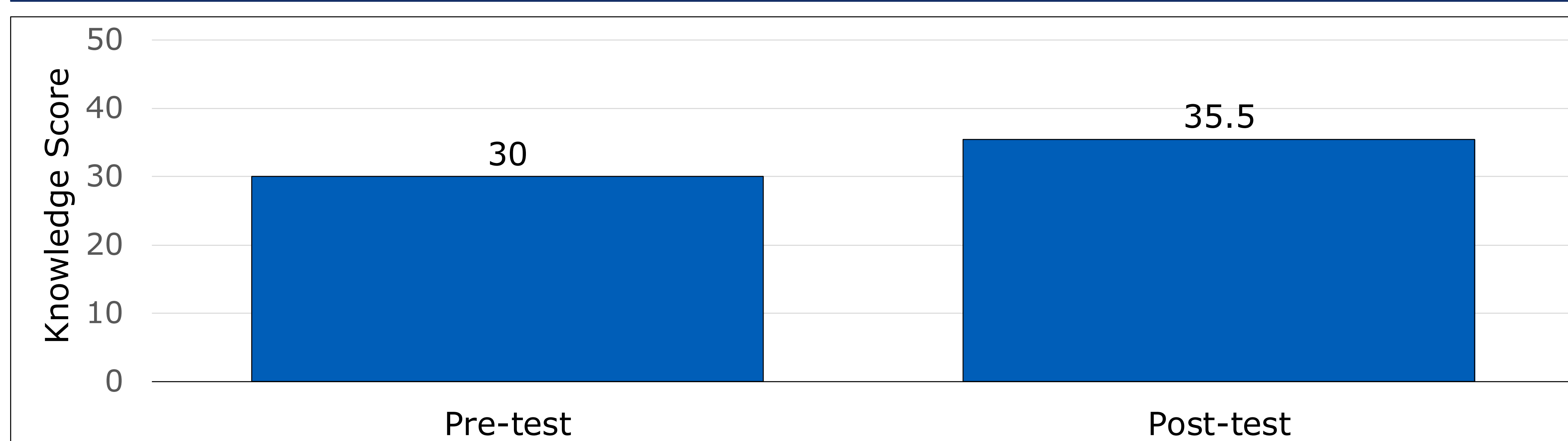


Figure 2 - Knowledge scores of available community resources on pre- and post-test

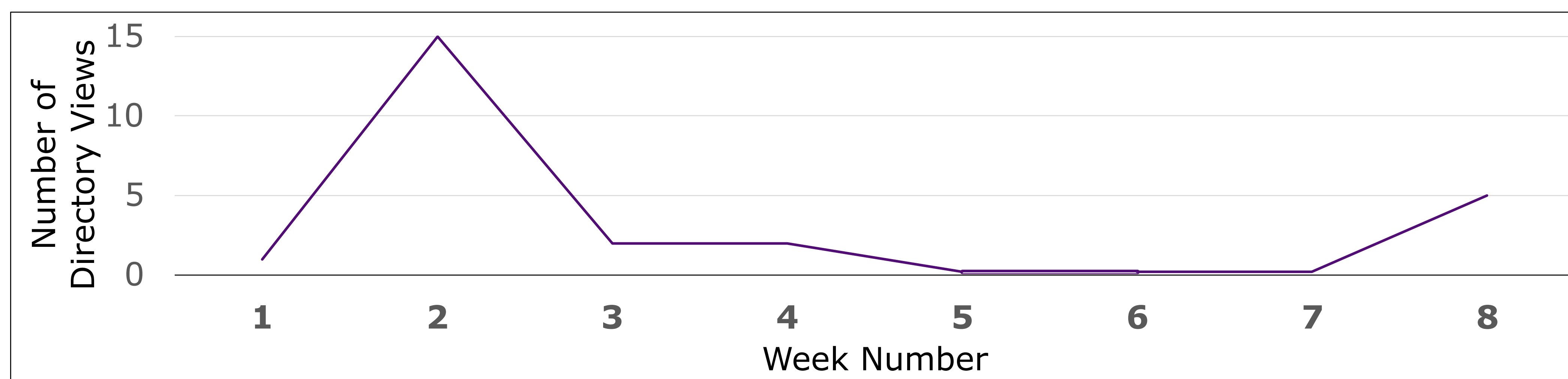


Figure 3 - Frequency of directory use over 8 weeks from October to December 2020

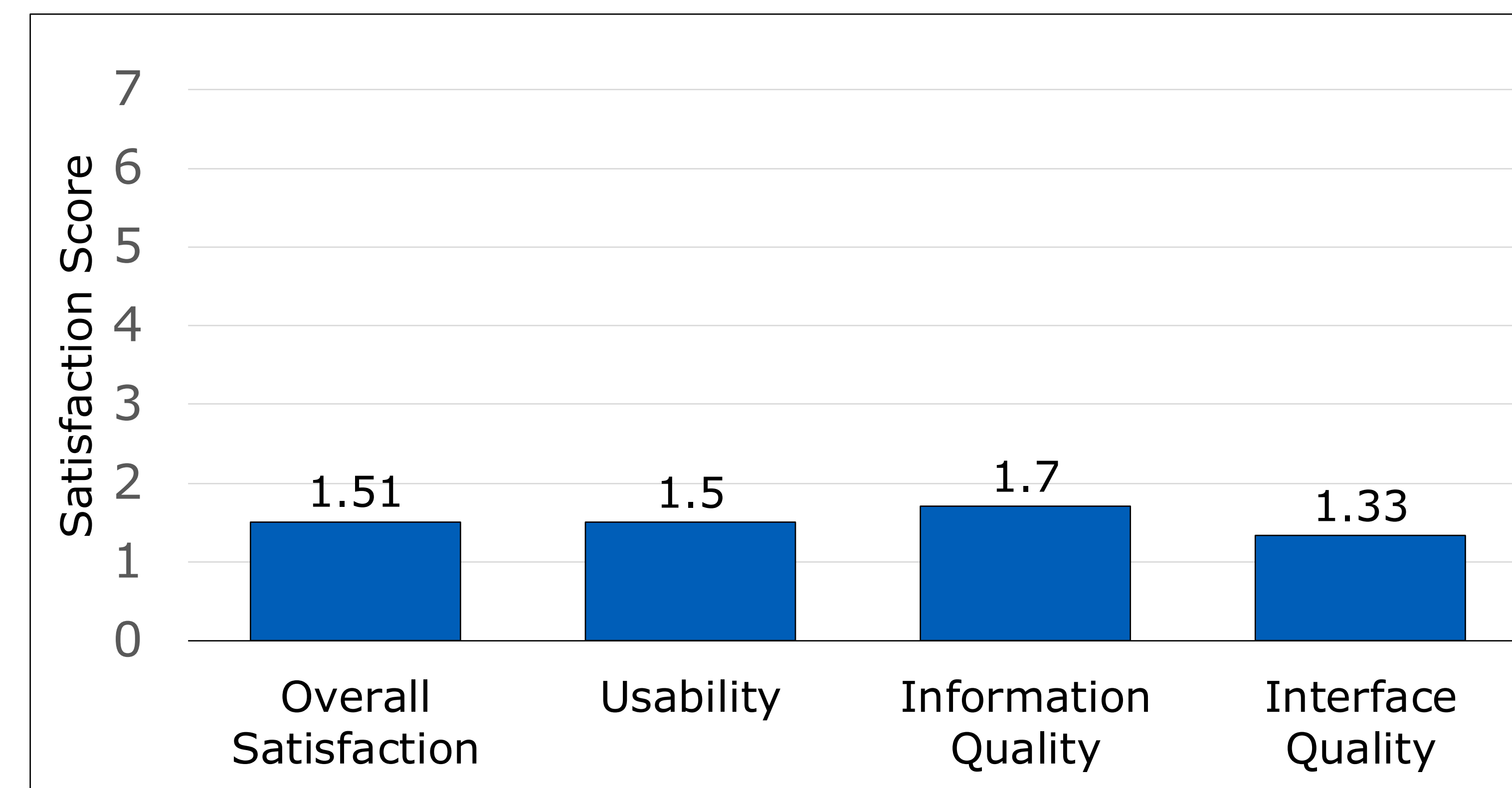


Figure 4 - Satisfaction score with the directory; lower scores indicate higher satisfaction

Limitations

- Very small sample size
- Reduced patients visits due to coronavirus pandemic

Conclusion

- A centralized web-based directory can increase knowledge of available community resources to empower nurses and increase their confidence in finding and providing referrals for various social and healthcare needs
- Pattern of initial surge in directory usage followed by a decline in views was consistent with existing literature.^{7, 11} Upward trends are likely due to the novelty of the intervention while decreases may stem from challenges with maintaining momentum of the project
- Given the high satisfaction, the directory is a promising tool to improve clinical practice in addressing SDOH and improve health equity

Sustainability

- A staff champion has been recruited for continual efforts in engaging new and current nurses
- Directory can be easily updated as patients' needs evolve
- Intervention will be expanded to other community-based programs lead by this organization

References: See reference list

Acknowledgements: Special thank you to Timothy Carl and Kimberly Hill for technical assistances with the directory development