

## Background

- Cardiovascular health (CVH) is of increasing concern to cancer survivors and their healthcare providers, since survivors of many early-stage cancers are more likely to die of cardiovascular disease than cancer
- More than 85% of survivors do not meet the American Heart Association's (AHA's) healthy standards in multiple CVH components [body mass index (BMI), physical activity, diet, smoking, blood pressure, cholesterol, and glucose]<sup>1,2</sup>
- Our team adapted an existing EHR-based CVH data visualization tool designed for the primary care setting to be used in the community oncology setting. We evaluated survivors' knowledge of CVH pre- and post-use of the tool and the concordance between self-reported and EHR-reported CVH risk factors

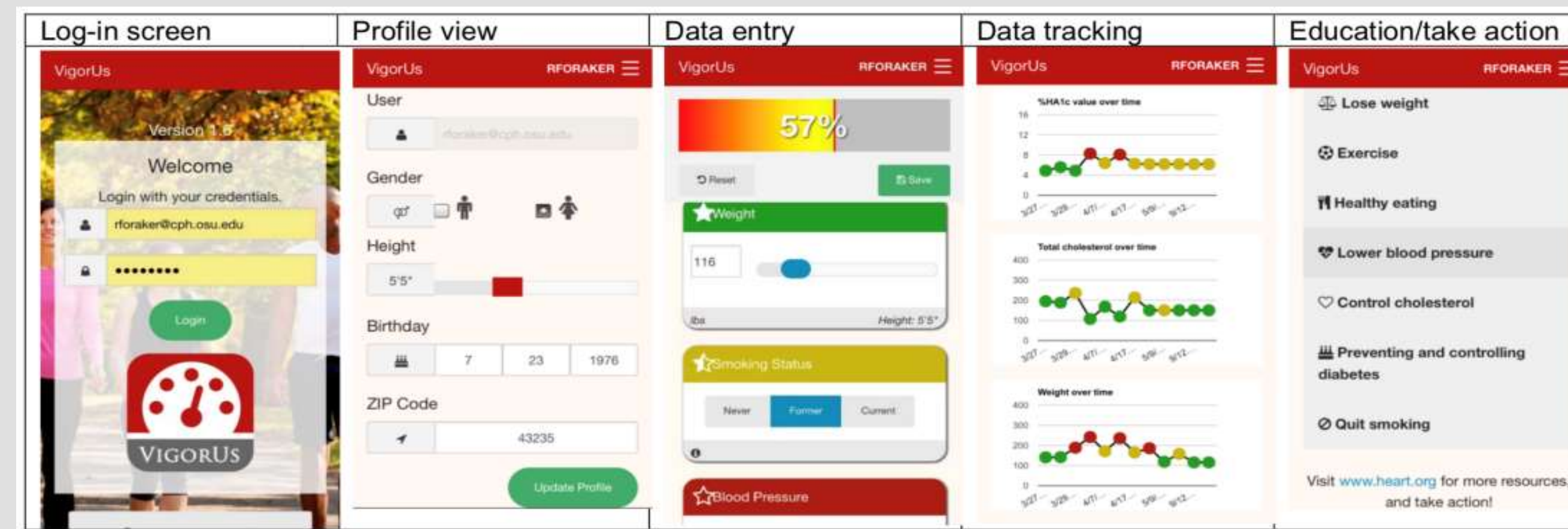
## Methods

**Breast Cancer Survivors (N=49):** >21 years of age, receiving ongoing care for female breast cancer; ≥ 3 months post-potentially curative cancer treatment; no current evidence of disease or history of cancer recurrence; have a working email address

**CVH Risk Factor Knowledge Items:** Survivors rated each of the AHA's Simple 7 CVH factors<sup>3</sup> (smoking, BMI, physical activity, diet, cholesterol, blood pressure, blood glucose/Hemoglobin A1c) as: "high" (poor), "somewhat high" (intermediate), "normal" (ideal), or "don't know"

**CVH Risk Factors from the EHR:** Smoking, BMI, cholesterol, blood pressure, & blood glucose values were abstracted from the EHR and classified as poor, intermediate, or ideal according to AHA's Simple 7 guidelines<sup>3</sup>

## The VIGOR-US Tool



## Cancer Survivor Results

### Descriptive Characteristics (N=49):

- 4% Hispanic; 84% White, 8% African American, 2% Asian
- 14% ≤High school education, 40% some college/vocational, 47% college education
- 69% use e-mail every day/almost every day

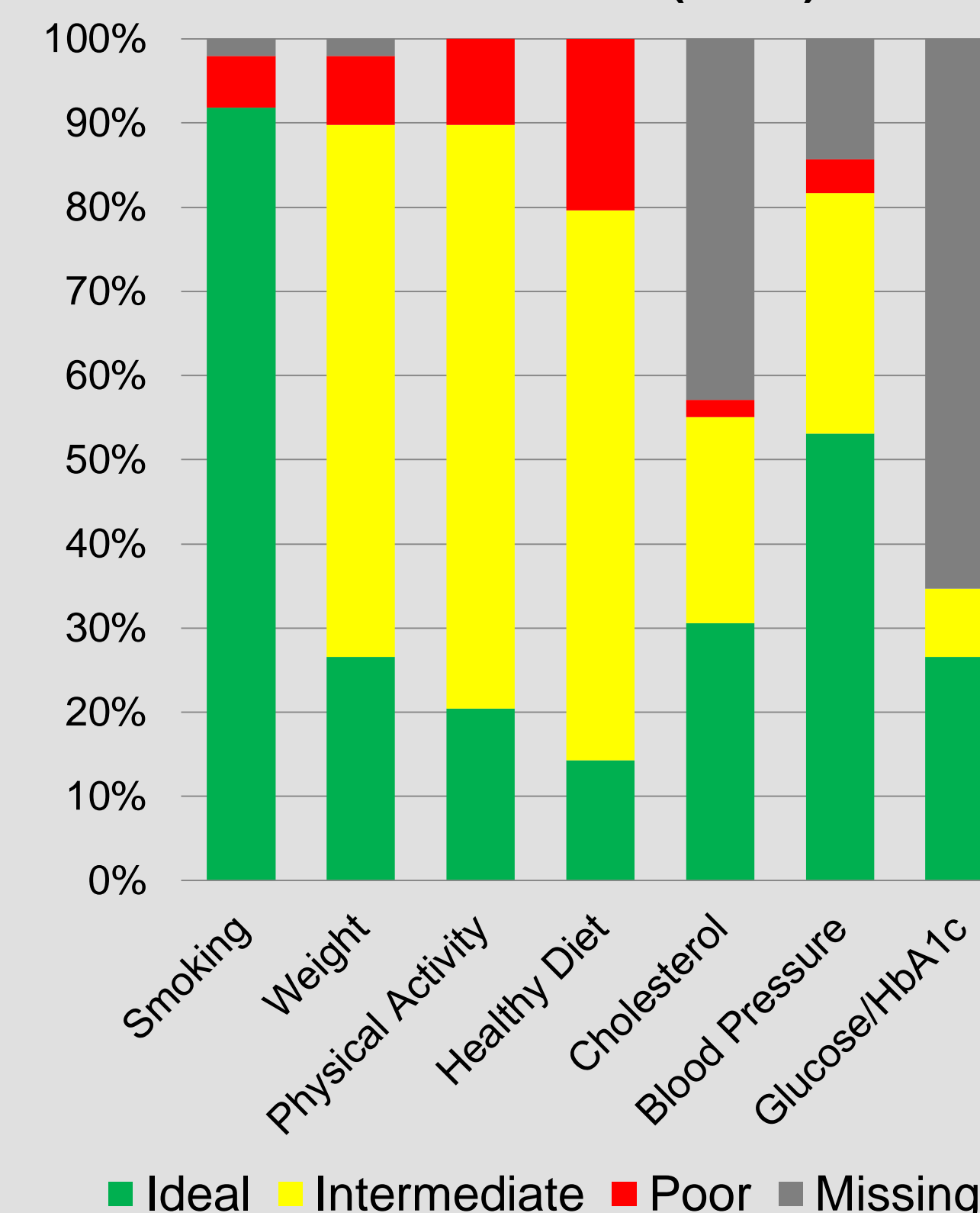
### Awareness of Cardiovascular Health Factors:

- Prior to viewing the tool, 84% of survivors agreed with the statements "heart disease poses a risk to my health" and "I understand my risk of heart disease"
- On average, only 45% of survivors known risk factors were at an ideal level. 65% of survivors did not know the level for one or more factors

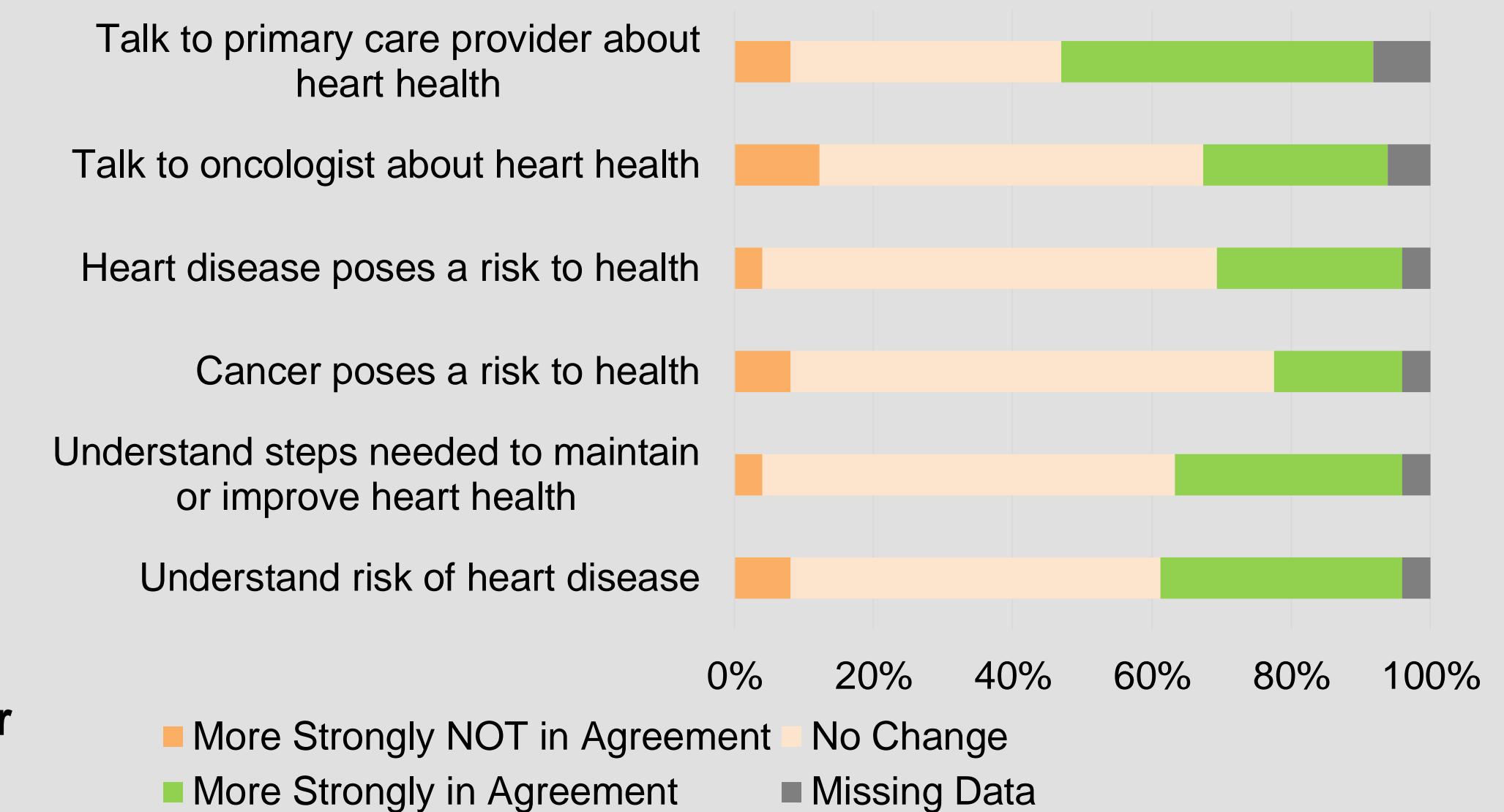
### EHR and Self-Report Concordance

- For factors assessed by survivors, concordance with the EHR values were 90% for BMI, 28% for blood glucose, 47% for blood pressure, and 34% for cholesterol

### Categorization of Cardiovascular Health Factors among Breast Cancer Survivors (N=49)



### CVH Perceptions among Breast Cancer Survivors (N=49) before and after viewing the CVH Assessment Tool



## Conclusions

There is a gap in awareness of CVH risk factors and a need to improve CVH among breast cancer survivors. Implementing CVH tools in oncology practices may improve knowledge of CVH risk factors among survivors, with a goal of reducing risk from cardiovascular disease and cancer.

## Acknowledgments

Funding for this research was supported by the Wake Forest Baptist Clinical Translational Science Institute (ULTR001420) and the Wake Forest Baptist Comprehensive Cancer Center (P30CA012197). This study was a pilot to our current project (1R01CA226078-01)

## References

- Weaver K, Foraker R, Alfano C, et al. Cardiovascular risk factors among long-term survivors of breast, prostate, colorectal, and gynecologic cancers: a gap in survivorship care? *J Cancer Surviv.* 2013;06/01 2013;7(2):253-261.
- Underwood J, Townsend J, Stewart S, et al. Surveillance of Demographic Characteristics and Health Behaviors Among Adult Cancer Survivors — Behavioral Risk Factor Surveillance System, United States, 2009. *MMWR Surveill Summ.* 2012;61(1):1-23.
- Lloyd-Jones DM, Hong Y, Labarthe D, Mozaffarian D, Appel LJ, Van Horn L, et al. Defining and setting national goals for cardiovascular health promotion and disease reduction: the American Heart Association's strategic Impact Goal through 2020 and beyond. *Circulation.* 2010 Feb 02;121(4):586-613. PMID: 20089546. doi: 10.1161/circulationaha.109.192703.