

# Metastatic breast cancer patients' preferences and expectations for oral chemotherapy

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## Background

As options for cancer treatment continue to expand, there is a growing need to understand patients' preferences for treatment options and their tolerance for related side effects.<sup>1,2</sup> The aims of the present analysis were to 1) describe metastatic breast cancer (MBC) patient and survivor perceptions of intravenous (IV) and oral chemotherapy modalities, and 2) explore the relationship between modality perceptions, tolerance for side effects, and current levels of physical and social functioning.

## Methods

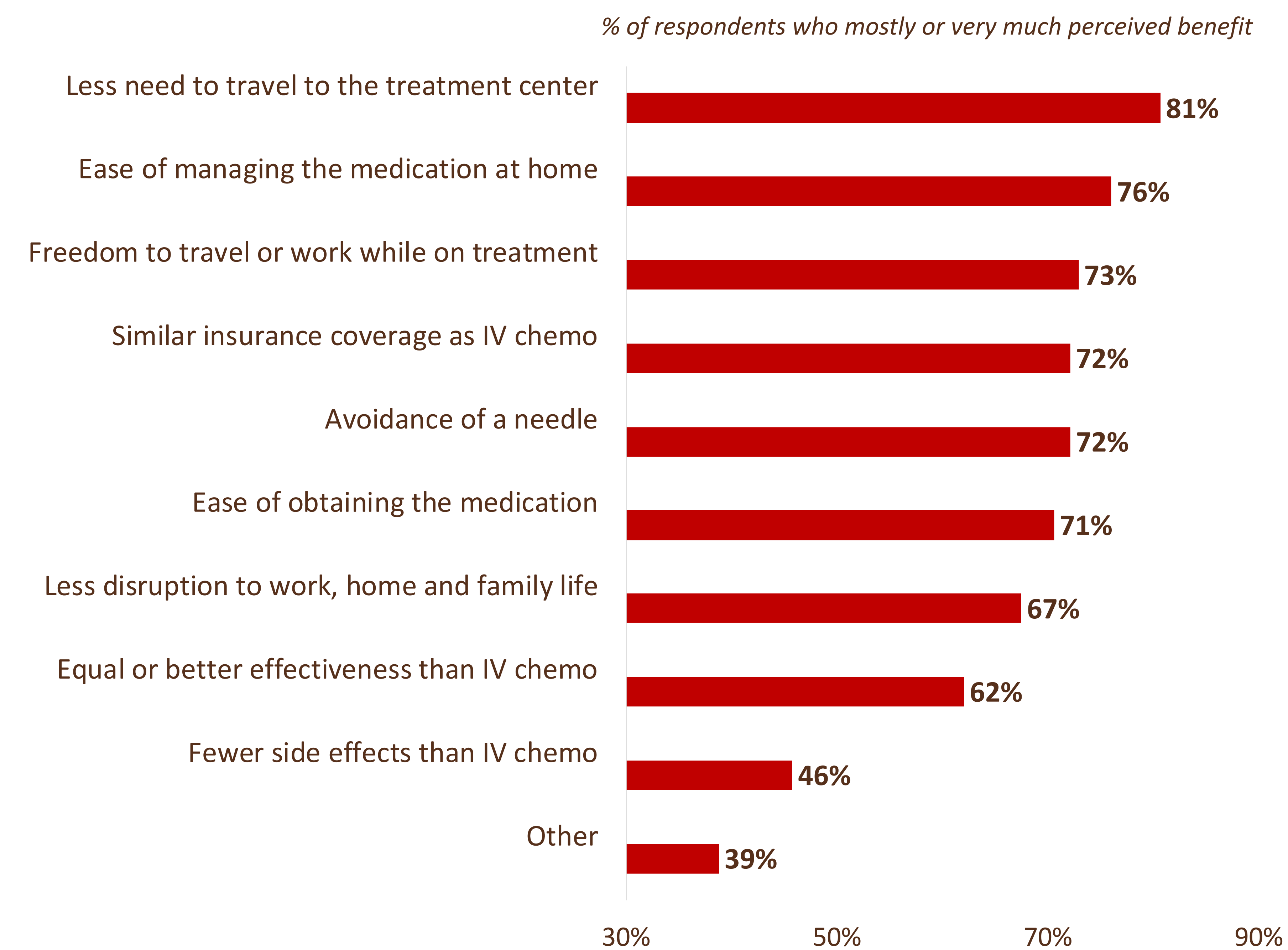
129 MBC patients were recruited to participate in an online research survey about expectations and preferences for oral and IV chemotherapy treatments. Respondents were asked to indicate the perceived benefits of various aspects of oral chemotherapy on a Likert-type scale (1= Not at all a perceived benefit; 7= Very much perceived benefit). Respondents were also asked to report their willingness to tolerate various chemotherapy side effects on a Likert-type scale. (1= Least willing; 7 = Most willing). Quality of life was assessed using two Patient-Reported Outcomes Measurement Information System (PROMIS-29 v2.0) subscales, Physical Function and Ability to Participate in Social Roles and Activities, with transformed T scores used for purposes of interpretation.

## Participants

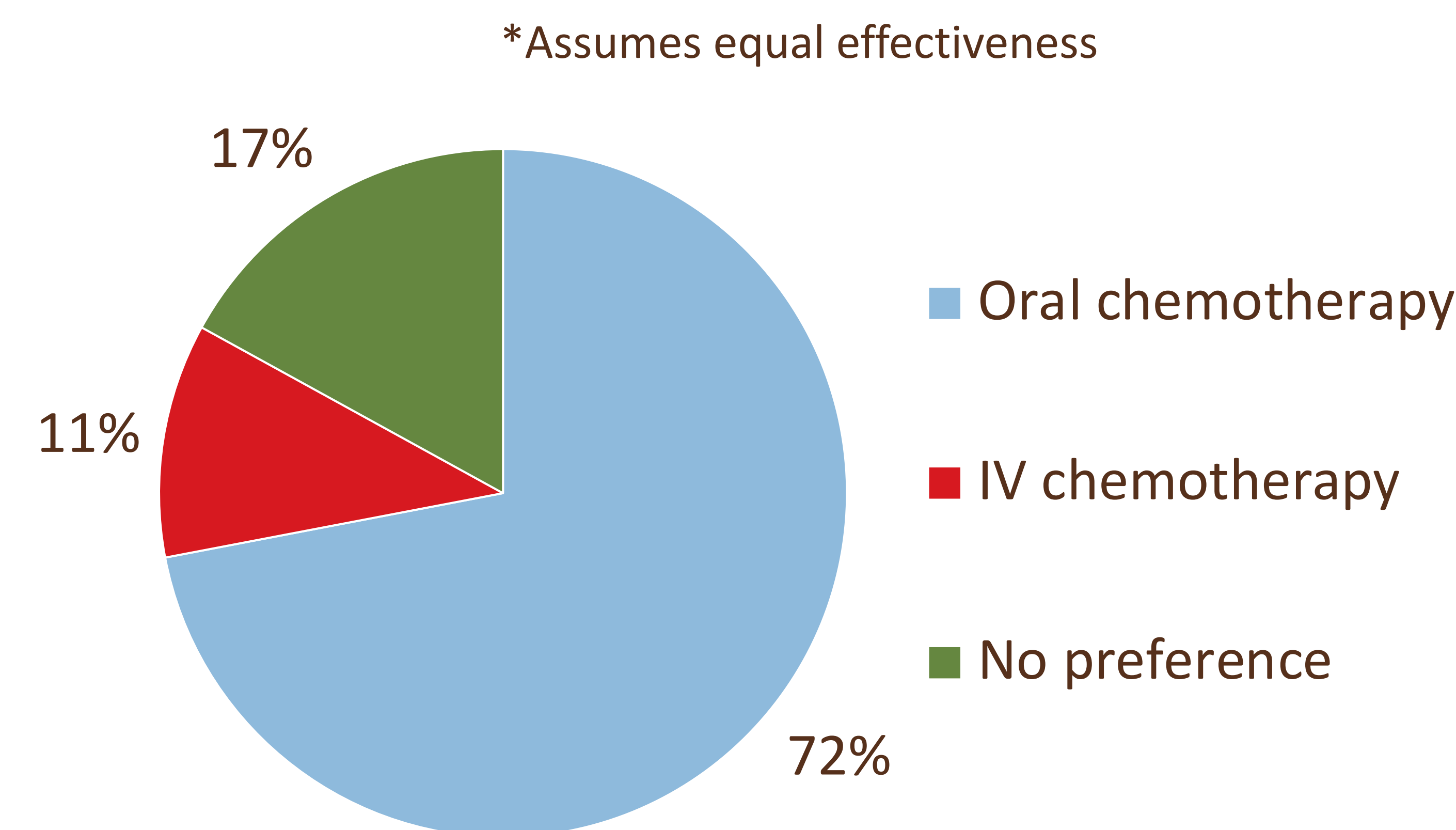
	M/n	SD/%
Age (years; Range 28-77)	58	10.1
Race/Ethnicity		
Non-Hispanic White	117	91%
Black/African American	8	6%
Stage IV (Metastatic) at Diagnosis	81	52%
Time since diagnosis (years; Range <1 to 32)	11	6.4
Chemotherapy treatment history		
IV and oral	59	46%
IV only	46	36%
Oral only	14	11%

## Results







### Patient Perceived Benefits of Oral Chemotherapy (n = 129)



### MBC Patient Preference for Chemotherapy Type\*



### MBC Patients indicating a preference for oral chemotherapy also report:

-  Greater perceived benefit for oral chemotherapy:  $t(113)=-2.69, p<.01$
-  Better physical functioning:  $t(113)=-2.06, p<.05$
-  Better social functioning:  $t(113)= -2.27, p<.05$
-  Less willingness to tolerate nausea:  $t(47.37*)=2.40, p<.05$
-  Less willingness to tolerate neuropathy:  $t(42.49)=2.10, p<.05$
-  Less willingness to tolerate diarrhea:  $t(43.38)=1.97, p<.055$

\*Degrees of freedom presented in this section are based on equal variances not being assumed

## Conclusion and Implications

Many MBC patients report a preference for oral chemotherapy and believe it will deliver benefits, with the most commonly cited benefits including less traveling for treatment, easier medication management, and more freedom for travel and work. Those who prefer oral chemotherapy are less willing to tolerate side effects (nausea, diarrhea, and neuropathy), and they report better social and physical functioning.

As options for treatment continue to expand, it is important to understand the shifting perceptions of available treatments among patients. Insufficient knowledge of treatment benefits have been associated with non-use and early discontinuation of breast cancer treatments,<sup>3,4</sup> and regret around treatment decisions is a negative emotion and adverse psychological event<sup>5</sup>. Therefore, it is key to not only ensure patients are involved in treatment decision-making, but also that they are prepared with the tools to engage in meaningful shared decision-making.

## Acknowledgments

Support for this project was provided by Athenex Oncology. Support for the Cancer Experience Registry was provided by Genentech, Inc., and Novartis. Support for the Cancer Experience Registry Metastatic Breast Cancer was provided by: Celgene Corporation (inaugural sponsor), Amgen Oncology, Pfizer Oncology, and Lilly Oncology.

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- The Registry is for all cancer survivors and caregivers, and also includes 13 disease-specific surveys.
- Findings contribute toward advancing research, health care and policy.
- Over 15,000 cancer survivors and caregivers are registered in the Cancer Experience Registry.