Perceived Availability of Culturally and Demographically Diverse Photographs for Health Education Materials, Colorado, 2010

Mary K. Buller, MA; Erwin Bettinghaus, PhD; David B. Buller, PhD; Xia Liu, MS; Lyndsay Fluharty, MA

Suggested citation for this article: Buller MK, Bettinghaus E, Buller DB, Liu X, Fluharty L. Perceived Availability of Culturally and Demographically Diverse Photographs for Health Education Materials, Colorado, 2010. Prev Chronic Dis 2015;12:140450. DOI: http://dx.doi.org/10.5888/pcd12.140450.

Abstract
An online survey was conducted with health educators in Colorado to ascertain their needs and ability to access relevant stock art photographs for their print and electronic educational media. Health educators were dissatisfied with the cultural and demographic diversity of photographs available from their own sources or from commercial stock art websites. There was a perceived need for more photographs that would better represent their target populations. The health educators believed, furthermore, that representative visual images can help improve their message effectiveness.

Objective
The purpose of this survey was to determine whether health educators have difficulty or ease in finding culturally and demographically diverse photographs for their health education materials. For example, could they find photographs of their unique target populations on existing commercial stock art websites? Could they find photographs of their target populations engaging in the healthy or unhealthy behaviors they wish to represent in their materials? Did they believe matching photographs to the target population can improve the effectiveness of the health message? The survey provided guidance for the development of a larger study to test visual images and message effectiveness.

Methods
During 6 months in 2010, an invitation to participate in an online survey was emailed to 489 public health education organizations. The sample was drawn from public health membership organizations in Colorado such as nonprofit health organizations, public health foundations, rural health centers, and educational health sciences programs. The organizations were asked to forward the survey to the person in their organization responsible for creating health education media. Three weeks after the initial email invitation, a reminder email was sent to all organizations. Exclusions to the survey included being younger than 21 years and not able to read or speak English. No respondents identified as being ineligible, and therefore no surveys were removed from the final analysis. The Inquisite (Millisecond Software, Version 9.6) online survey consisted of 26 questions asking about primary target populations reached, types of health education messages and materials created, and availability of stock photographs needed. Questions were categorical Likert-type scales or open-ended. For example: “On a scale of 1 to 5, how well do the photographs that are available to you match the demographics and physical characteristics of the target populations you are trying to reach with your materials?” Survey material and protocols were approved by the Western Institutional Review Board.

Results
A total of 151 people completed the online survey (31% response rate). Respondents were 88% female, 5% Hispanic, and aged 24 to 68 years (mean age, 44 y) (Table). Eighty percent of those surveyed indicated that their target populations were low income. Respondents also reported targeting people of a wide range of ages (0–79 y) and racial groups; 89% reported targeting whites; 56%, African Americans; 27%, American Indians/Alaskan Natives;
This formative research suggests a need for more diverse images for health education materials. This is consistent with King (1), who recently reported finding few photographs showing subpopulations in a cancer context. Nearly 40% of the US population does not identify as “white alone” (2), more than two-thirds of adults are overweight or obese (3), 15% of the population lives in poverty (2), and the number of adults over 65 is increasing rapidly with the aging of the baby boomer generation (4). The rise in the use of the Internet as a health communication vehicle calls for increased visual representation of the diversity that is the United States will be well received by the health education community.

Acknowledgments

This research was funded by the Institute of Minority Health and Health Disparities, National Institutes of Health, no. 1R43MD003338-01A1.

Author Information

Corresponding Author: Mary K. Buller, MA, President, Klein Buendel, Inc, 1667 Cole Blvd, Ste 225, Golden, CO 80113. Telephone: 303-565-4330. Email: mbuller@kleinbuendel.com.

Author Affiliations: Erwin Bettinghaus, David B. Buller, Xia Liu, Lyndsay Fluharty, Klein Buendel, Inc, Golden, Colorado.

References

1. King AJ. A content analysis of visual cancer information: prevalence and use of photographs and illustrations in printed health materials. Health Commun 2014:1–10.
2. US Department of Commerce. State & county quickfacts, USA. Washington (DC): United States Census Bureau. http://quickfacts.census.gov/qfd/states/00000.html. Updated December 3, 2014. Accessed December 17, 2014.
3. Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of childhood and adult obesity in the United States, 2011–2012. JAMA 2014;311(8):806–14.
4. Vincent GK, Velkoff VA. The next four decades: the older population in the United States: 2010 to 2050. Washington (DC): US Department of Commerce, Economics and Statistics Administration, US Census Bureau; 2010 May. Report No.: P25-1138.

The opinions expressed by authors contributing to this journal do not necessarily reflect the opinions of the U.S. Department of Health and Human Services, the Public Health Service, the Centers for Disease Control and Prevention, or the authors' affiliated institutions.
Table

Table. Characteristics of Study Population (n = 151), Survey on Cultural and Demographic Diversity in Visual Images, Colorado, 2010

| Characteristic | Valuea  |
|----------------|---------|
| **Sex**        |         |
| Male           | 17 (11) |
| Female         | 132 (88)|
| Unknown        | 2 (1)   |
| **Hispanic**   |         |
| Yes            | 8 (5)   |
| No             | 138 (92)|
| Refused/unknown| 5 (3)   |
| **Race**       |         |
| American Indian| 2 (1)   |
| Asian          | 5 (3)   |
| African American| 7 (5) |
| White          | 124 (82)|
| Other          | 12 (8)  |
| Unknown        | 1 (<1)  |
| **Age**        |         |
| No. of respondents | 149     |
| Mean age, y    | 44      |

a Values are no. (%) unless otherwise indicated.