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SUPPLEMENTAL FIGURES

Supplemental Figure 1: Readability Metric Equations

$$FKGL = 0.39 \left(\frac{\text{total words}}{\text{total sentences}} \right) + 11.8 \left(\frac{\text{total syllables}}{\text{total words}} \right) - 15.59$$

$$GFS = 0.4 \left[\left(\frac{\text{words}}{\text{sentences}} \right) + 100 \left(\frac{\text{complex words}}{\text{words}} \right) \right]$$

$$SMOG = 1.0430 \sqrt{\text{number of polysyllables} \times \frac{30}{\text{number of sentences}}} + 3.1291$$

$$CLI = 0.0588 * (\text{average letters per 100 words}) \\ - 0.296(\text{average sentences per 100 words}) - 15.8$$

$$ARI = 4.71 \left(\frac{\text{characters}}{\text{words}} \right) + 0.5 \left(\frac{\text{words}}{\text{sentences}} \right) - 21.43$$

SUPPLEMENTAL TABLES

Supplemental Table 1: National Cancer Institute-Designated Cancer Centers Identified for Analysis

| Center Name | Location |
|---|----------------------------------|
| O'Neal Comprehensive Cancer Center | Birmingham, Alabama |
| Arizona Cancer Center | Tucson, Arizona |
| Chao Family Comprehensive Cancer Center | Orange, California |
| Stanford Cancer Institute (SCI) | Stanford, California |
| City of Hope Comprehensive Cancer Center | Duarte, California |
| UC Davis Comprehensive Cancer Center | Sacramento, California |
| Jonsson Comprehensive Cancer Center | Los Angeles, California |
| Moores Comprehensive Cancer Center | La Jolla, California |
| Salk Institute Cancer Center | La Jolla, California |
| UCSF Helen Diller Family Comprehensive Cancer Center | San Francisco, California |
| Sanford Burnham Prebys Medical Discovery Institute | La Jolla, California |
| USC Norris Comprehensive Cancer Center | Los Angeles, California |
| University of Colorado Cancer Center | Aurora, Colorado |
| Yale Cancer Center | New Haven, Connecticut |
| Georgetown Lombardi Comprehensive Cancer Center | Washington, District of Columbia |
| Moffitt Cancer Center | Tampa, Florida |
| Sylvester Comprehensive Cancer Center | Miami, Florida |
| Winship Cancer Institute | Atlanta, Georgia |
| University of Hawaii Cancer Center | Honolulu, Hawaii |
| Robert H. Lurie Comprehensive Cancer Center | Chicago, Illinois |
| The University of Chicago Comprehensive Cancer Center | Chicago, Illinois |
| Indiana University Melvin and Bren Simon Cancer Center | Indianapolis, Indiana |
| Purdue University Center for Cancer Research | West Lafayette, Indiana |
| Holden Comprehensive Cancer Center | Iowa City, Iowa |
| The University of Kansas Cancer Center | Kansas City, Kansas |
| Markey Cancer Center | Lexington, Kentucky |
| The Jackson Laboratory Cancer Center | Bar Harbor, Maine |
| Sidney Kimmel Comprehensive Cancer Center | Baltimore, Maryland |
| University of Maryland Marlene and Stewart Greenebaum Comprehensive Cancer Center | Baltimore, Maryland |
| Dana-Farber/Harvard Cancer Center | Boston, Massachusetts |
| David H. Koch Institute for Integrative Cancer Research at MIT | Cambridge, Massachusetts |
| The Barbara Ann Karmanos Cancer Institute | Detroit, Michigan |
| University of Michigan Rogel Cancer Center | Ann Arbor, Michigan |

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| Masonic Cancer Center | Minneapolis, Minnesota |
| Mayo Clinic Cancer Center | Rochester, Minnesota |
| Alvin J. Siteman Cancer Center | St. Louis, Missouri |
| Fred and Pamela Buffett Cancer Center | Omaha, Nebraska |
| Norris Cotton Cancer Center at Dartmouth | Lebanon, New Hampshire |
| Rutgers Cancer Institute of New Jersey | New Brunswick, New Jersey |
| University of New Mexico Cancer Research and Treatment Center | Albuquerque, New Mexico |
| Albert Einstein Cancer Center | Bronx, New York |
| Memorial Sloan-Kettering Cancer Center | New York, New York |
| Cold Spring Harbor Laboratory Cancer Center | Cold Spring Harbor, New York |
| Roswell Park Comprehensive Cancer Center | Buffalo, New York |
| Herbert Irving Comprehensive Cancer Center | New York, New York |
| Tisch Cancer Institute | New York, New York |
| Laura and Isaac Perlmutter Cancer Center at NYU Langone Health | New York, New York |
| Duke Cancer Institute | Durham, North Carolina |
| Wake Forest Baptist Comprehensive Cancer Center | Winston-Salem, North Carolina |
| UNC Lineberger Comprehensive Cancer Center | Chapel Hill, North Carolina |
| Case Comprehensive Cancer Center | Cleveland, Ohio |
| The Ohio State University Comprehensive Cancer Center | Columbus, Ohio |
| Stephenson Cancer Center | Oklahoma City, Oklahoma |
| Knight Cancer Institute | Portland, Oregon |
| Abramson Cancer Center | Philadelphia, Pennsylvania |
| UPMC Hillman Cancer Center | Pittsburgh, Pennsylvania |
| Fox Chase Cancer Center | Philadelphia, Pennsylvania |
| The Wistar Institute Cancer Center | Philadelphia, Pennsylvania |
| Sidney Kimmel Cancer Center at Thomas Jefferson University | Philadelphia, Pennsylvania |
| Hollings Cancer Center | Charleston, South Carolina |
| St. Jude Children's Research Hospital | Memphis, Tennessee |
| Vanderbilt-Ingram Cancer Center | Nashville, Tennessee |
| Dan L Duncan Comprehensive Cancer Center | Houston, Texas |
| Mays Cancer Center at UT Health San Antonio | San Antonio, Texas |
| Harold C. Simmons Comprehensive Cancer Center | Dallas, Texas |
| The University of Texas MD Anderson Cancer Center | Houston, Texas |
| Huntsman Cancer Institute | Salt Lake City, Utah |
| Massey Cancer Center | Richmond, Virginia |
| University of Virginia Cancer Center | Charlottesville, Virginia |
| Fred Hutchinson/University of Washington Cancer Consortium | Seattle, Washington |
| University of Wisconsin Carbone Cancer Center | Madison, Wisconsin |

NCI Cancer Centers were searched for and found using the following link:

<https://www.cancer.gov/research/nci-role/cancer-centers/find>

Supplemental Table 2: Pediatric Hospitals Identified for Analysis

| Pediatric Hospital/Center Name | Location |
|---|--------------------|
| Dana-Farber/Boston Children's Cancer and Blood Disorders Center | Boston, MA |
| St. Jude Children's Research Hospital | Memphis, TN |
| Texas Children's Hospital | Houston, TX |
| Nationwide Children's Hospital | Columbus, OH |
| Johns Hopkins Children's Center | Baltimore, MD |
| Cincinnati Children's Hospital Medical Center | Cincinnati, OH |
| Children's Hospital of Philadelphia | Philadelphia, PA |
| Children's Healthcare of Atlanta | Atlanta, GA |
| Children's National Hospital | Washington, DC |
| Children's Hospital Los Angeles | Los Angeles, CA |
| Seattle Children's Hospital | Seattle, WA |
| UCSF Benioff Children's Hospitals, San Francisco and Oakland | San Francisco, CA |
| Memorial Sloan Kettering Children's Cancer Center | New York, NY |
| Children's Hospital Colorado | Aurora, CO |
| Monroe Carell Jr. Children's Hospital at Vanderbilt | Nashville, TN |
| Riley Hospital for Children at IU Health | Indianapolis, IN |
| Ann and Robert H. Lurie Children's Hospital of Chicago | Chicago, IL |
| Lucile Packard Children's Hospital Stanford | Palo Alto, CA |
| CHOC Children's Hospital | Orange, CA |
| Cleveland Clinic Children's Hospital | Cleveland, OH |
| Children's Medical Center Dallas | Dallas, TX |
| C.S. Mott Children's Hospital-Michigan Medicine | Ann Arbor, MI |
| Rady Children's Hospital | San Diego, CA |
| St. Louis Children's Hospital-Washington University | Saint Louis, MO |
| UF Health Shands Children's Hospital | Gainesville, FL |
| Duke Children's Hospital and Health Center | Durham, NC |
| Cohen Children's Medical Center | New Hyde Park, NY |
| UCLA Mattel Children's Hospital | Los Angeles, CA |
| Levine Children's Hospital | Charlotte, NC |
| Children's Mercy Kansas City | Kansas City, MO |
| Intermountain Primary Children's Hospital-University of Utah | Salt Lake City, UT |
| Nemours Alfred I. duPont Hospital for Children | Wilmington, DE |
| UPMC Children's Hospital of Pittsburgh | Pittsburgh, PA |
| Children's Hospital of Wisconsin | Milwaukee, WI |
| Phoenix Children's Hospital | Phoenix, AZ |
| North Carolina Children's Hospital at UNC | Chapel Hill, NC |

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| New York-Presbyterian Hospital-Columbia and Cornell | New York, NY |
| Rainbow Babies and Children's Hospital | Cleveland, OH |
| University of Minnesota Masonic Children's Hospital | Minneapolis, MN |
| MUSC Health-Children's Hospital | Charleston, SC |
| Children's Hospital of Alabama at UAB | Birmingham, AL |
| Yale New Haven Children's Hospital | New Haven, CT |
| Spectrum Health Helen DeVos Children's Hospital | Grand Rapids, MI |
| Johns Hopkins All Children's Hospital | Saint Petersburg, FL |
| Hackensack Meridian Health Sanzari and Hovnanian Children's Hospitals | Neptune, NJ |
| University of Iowa Stead Family Children's Hospital | Iowa City, IA |
| Doernbecher Children's Hospital at Oregon Health and Science University | Portland, OR |
| Penn State Children's Hospital | Hershey, PA |
| Children's Cancer Hospital-University of Texas M.D. Anderson Cancer Center | Houston, TX |
| Wolfson Children's Hospital | Jacksonville, FL |

Pediatric Hospitals were identified using the U.S. News and World Report ranking system for cancer care. The top 50 cancer centers were identified via the following link and included in the study: <https://health.usnews.com/best-hospitals/pediatric-rankings/cancer>

Supplemental Table 3: Student's T-test Comparing Readability between Top 10 Google.com OS Sites and NCIDCC and PH OS OPI

| | Top 10 vs NCIDCC t (p-value) | Top 10 vs PH t (p-value) |
|------|---------------------------------|--------------------------|
| CGL | -1.246 (0.217) | -0.423 (0.674) |
| FKGL | -1.159 (0.251) | -0.336 (0.715) |
| GFS | -0.721 (0.474) | -0.366 (0.715) |
| SMOG | -0.670 (0.505) | -0.324 (0.747) |
| CLI | -1.297 (0.200) | 0.192 (0.848) |
| ARI | -1.391 (0.169) | -0.450 (0.654) |

CGL: Composite Grade Level; FKGL: Flesch Kincaid Grade Level; GFS: Gunning Fog Score; SMOG: Simple Measure of Gobbledygook; CLI: Coleman Liau Index; ARI: Automated Readability Index

Supplemental Table 4: Comparison of Average NCIDCC and PH Readability

| | NCIDCC | CI low | CI high | PH | CI low | CI high | T-test P-value |
|------|----------|----------|----------|----------|----------|----------|----------------|
| CGL | 12.86538 | 12.12771 | 13.60306 | 12.75 | 10.98819 | 14.51181 | 0.91 |
| FKGL | 12.46154 | 11.61154 | 13.31154 | 12.35625 | 9.937564 | 14.77494 | 0.94 |
| GFS | 13.94423 | 13.09221 | 14.79625 | 14.21094 | 12.09199 | 16.32988 | 0.83 |
| SMOG | 10.79615 | 10.02879 | 11.56352 | 10.69063 | 9.506117 | 11.87513 | 0.89 |
| CLI | 14.81346 | 14.17396 | 15.45297 | 13.72344 | 13.21371 | 14.23316 | 0.008 |
| ARI | 12.41731 | 11.42915 | 13.40547 | 12.52187 | 9.574361 | 15.46939 | 0.95 |

CGL: Composite Grade Level; FKGL: Flesch Kincaid Grade Level; GFS: Gunning Fog Score; SMOG: Simple Measure of Gobbledygook; CLI: Coleman Liau Index; ARI: Automated Readability Index

Supplemental Table 5: Association between OTS and NCIDCC and PH OPI Readability

| | NCIDCCs Pearson Correlation Coefficient r (p-value) | PHs Pearson Correlation Coefficient r (p-value) |
|----------|--|--|
| CGL/OTS | -0.088 (0.536) | -0.056 (0.663) |
| FKGL/OTS | -0.108 (0.448) | -0.045 (0.725) |
| GFS/OTS | -0.081 (0.567) | -0.042 (0.739) |
| SMOG/OTS | -0.084 (0.552) | -0.052 (0.685) |
| CLI/OTS | -0.026 (0.854) | -0.058 (0.648) |
| ARI/OTS | -0.059 (0.680) | -0.057 (0.656) |

CGL: Composite Grade Level; OTS: Organic Traffic Score; FKGL: Flesch Kincaid Grade Level; GFS: Gunning Fog Score; SMOG: Simple Measure of Gobbledygook; CLI: Coleman Liau Index; ARI: Automated Readability Index