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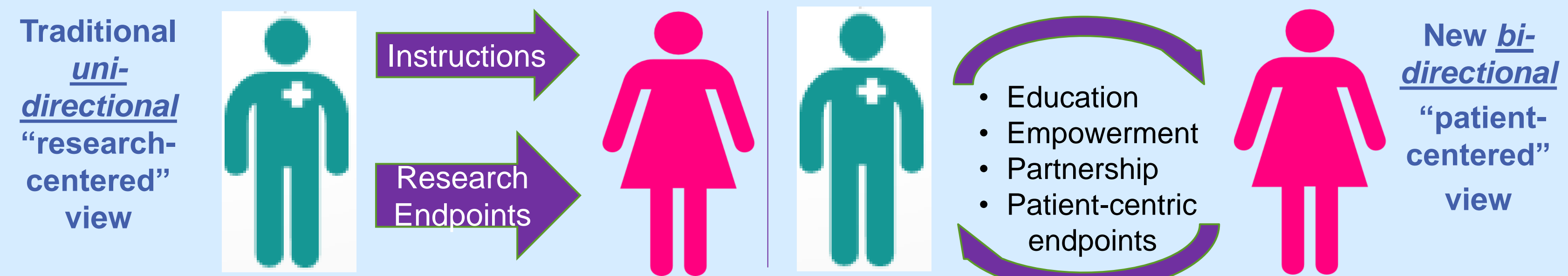
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**Project Transform was initiated in 2015 to integrate the patient experience into lung cancer treatment, research, and policy. Project Transform's vision is to ensure that the preferences of patients with lung cancer are recognized, their values are valued, and that living well with lung cancer can be the norm.**

| Objective | Results | Major Findings |
|-----------|---------|----------------|
|-----------|---------|----------------|

- Lung cancer is the leading cause of cancer mortality in the US [1].
- Understanding patient experiences with lung cancer can guide research, treatment, and healthcare decisions.
- We explored the decision-making style of lung cancer patients and determined what demographic and clinical factors impact these styles.

### Methods



- The decision-making style of patients with lung cancer (all stages) were explored using a preference question adapted from the control preference scale and previously used decision-style questions [2,3].
- Data came from a national survey that was administered via LUNGevity and other partners.
- Respondents fell into one of three decision making styles: patient-led (you made the decision either with little or no input from your doctors or after considering your doctors' opinions), shared (you and your doctors made the decision together), and doctor-led (your doctors made the decision after considering your opinion or with little or no input from you)
- Differences in the strategies across demographic and clinical indicators were identified through the use of exact Chi-square tests for categorical variables and one-way ANOVA for continuous variables

**Table 1 –Patient factors associated with treatment decision-making style**

| Variable                                   | Levels                       | Patient-led Decision (N = 174) | Shared Decision (N = 347) | Doctor-led Decision (N = 85) | p-value |
|--|------------------------------|--------------------------------|---------------------------|------------------------------|---------|
| <b>Demographics</b>                        |                              |                                |                           |                              |         |
| Gender                                     | Female                       | 99 (66.0%)                     | 230 (74.7%)               | 54 (76.1%)                   | 0.11    |
| Age  | Mean (SD)                    | 55.9 (15.5)                    | 59.4 (12.0)               | 60.2 (12.3)                  | 0.014   |
| Ethnicity                                  | Hispanic                     | 19 (12.2%)                     | 24 (7.7%)                 | 1 (1.4%)                     | 0.018   |
| Race                                       | Non-white                    | 33 (21.2%)                     | 46 (14.7%)                | 10 (13.5%)                   | 0.16    |
| Primary language                           | English                      | 154 (98.7%)                    | 309 (99.7%)               | 71 (97.3%)                   | 0.13    |
| Armed Forces                               | Yes                          | 25 (16.0%)                     | 33 (10.6%)                | 7 (9.6%)                     | 0.19    |
| Marital status                             | Married/domestic partnership | 88 (56.4%)                     | 231 (74.3%)               | 46 (63.0%)                   | <0.001  |
| Children                                   | Yes                          | 121 (77.6%)                    | 253 (81.4%)               | 62 (86.1%)                   | 0.30    |
| Highest level of education completed       | More than High school/GED    | 137 (87.8%)                    | 290 (93.2%)               | 61 (83.6%)                   | 0.018   |
| Employment status                          | Unemployed                   | 9 (5.8%)                       | 7 (2.3%)                  | 6 (8.2%)                     | 0.030   |
| Annual household income                    | More than \$75,000           | 55 (35.3%)                     | 126 (40.5%)               | 24 (32.9%)                   | 0.34    |
| City/town population                       | Population less than 2,500   | 7 (4.5%)                       | 21 (6.8%)                 | 7 (9.9%)                     | 0.31    |
| I am always optimistic about my future     | Strongly agree/Agree         | 130 (83.9%)                    | 254 (81.7%)               | 52 (71.2%)                   | 0.067   |
| I have a lot of self-control               | Strongly agree/Agree         | 122 (78.7%)                    | 246 (79.1%)               | 53 (72.6%)                   | 0.470   |
| I am actively working to improve my health | Strongly agree/Agree         | 132 (85.2%)                    | 253 (81.4%)               | 60 (82.2%)                   | 0.590   |
| I am a risk taker                          | Strongly agree/Agree         | 75 (48.4%)                     | 129 (41.5%)               | 33 (45.2%)                   | 0.360   |
| I am good with numbers                     | Strongly agree/Agree         | 118 (76.1%)                    | 215 (69.1%)               | 46 (63.0%)                   | 0.100   |
| <b>Lung Cancer Experience</b>              |                              |                                |                           |                              |         |
| Years since diagnosis                      | Mean (SD)                    | 5.0 (5.0)                      | 5.1 (3.8)                 | 5.5 (7.0)                    | 0.73    |
| Chronic conditions at diagnosis            | Yes                          | 53 (30.5%)                     | 98 (28.2%)                | 21 (24.7%)                   | 0.63    |
| Lung cancer type                           | NSCLC                        | 142 (83.0%)                    | 314 (91.8%)               | 70 (86.4%)                   | 0.011   |
| Biomarker present                          | Yes                          | 69 (47.3%)                     | 161 (54.0%)               | 43 (57.3%)                   | 0.27    |
| Private Health insurance                   | Yes                          | 110 (65.1%)                    | 234 (69.0%)               | 48 (62.3%)                   | 0.43    |
| Medicare/Medicaid                          | Yes                          | 71 (41.8%)                     | 131 (38.4%)               | 40 (48.8%)                   | 0.22    |
| Other Health insurance                     | Yes                          | 16 (9.6%)                      | 36 (10.7%)                | 5 (6.4%)                     | 0.51    |
| No Health insurance                        | Yes                          | 0 (0.0%)                       | 6 (1.8%)                  | 3 (3.8%)                     | 0.069   |
| Clinical trial participation               | Yes                          | 41 (23.6%)                     | 64 (18.4%)                | 5 (5.9%)                     | 0.002   |
| Number of lines of treatment               | Two or more                  | 93 (54.1%)                     | 202 (58.9%)               | 38 (45.8%)                   | 0.086   |

- Responses were collected from 606 patients completed the survey with an average age of 58.5 years, 72.4% were female, 62% earned less than \$75,000 per year, 9.6% had the equivalent of a high school degree or less, 4.1% were unemployed, and 67.6% were married or in a domestic partnership.
- The majority of patients engaged in a **shared decision-making** strategy (57.3%), while patients were more likely to engage in **patient-led decision-making** if they were younger (p = 0.014), Hispanic (p = 0.018), or had participated in a clinical trial (p = 0.002).
- Patients were more likely to participate in **shared decision-making** role if they were married (p < 0.001), more educated (p = 0.018), or had non-small cell lung cancer (p = 0.011).
- Unemployed respondents were more likely to adopt a **doctor-led decision-making** strategy (p = 0.030).

### Conclusions

- Patients decision-making strategies vary across age, ethnicity, marital status, education level, employment status, LC type, and previous participation in a clinical trial.**
- As healthcare delivery becomes more patient-centered, greater attention to individual decision-making style will be needed.**

**We are grateful to the lung cancer survivor community for making this study possible. Funding provided by LUNGevity with support from Celgene**

[1] U.S. National Institutes of Health. National Cancer Institute. SEER Cancer Statistics Review, 1975-2012. 2015. [2] Degner LF, Sloan JA. Decision making during serious illness: what role do patients really want to play? J Clin Epidemiol. 1992;45(9):941-50. [3] Kehl, Kenneth L., et al. "Shared decision making in cancer care: the association of actual and preferred decision roles with patient-reported quality." JAMA oncology 1.1 (2015): 50.