Latino Program - Gerard Gonzalez

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May 17, 2019

# Statistical Methods

# Summary Statistics

**Table 1a: . Descriptive statistics for Latino Program group by year (of last value per time period)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Baseline | Year1 | Year2 | Year3 |
| **A1C - Last Measure in Year** | 9.66±2.33 | 9.53±2.09 | 10.15±2.39 | 10.26±2.36 |
| n | 76 | 76 | 76 | 65 |
| **Checks per Day - Last Measure in Year** | 3.88±1.83 | 3.81±2.16 | 3.87±2.23 | 3.76±1.88 |
| n | 76 | 76 | 76 | 66 |

**Table 1b:. Descriptive statistics for Control group by year (of last value per time period)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable | Baseline | Year1 | Year2 | Year3 |
| **A1C - Last Measure in Year** | 9.41±2.13 | 8.78±1.36 | 8.95±2.04 | 9.92±1.84 |
| n | 17 | 16 | 17 | 15 |
| **Checks per Day - Last Measure in Year** | 4.11±1.65 | 3.35±1.99 | 3.82±2.18 | 3.43±2.1 |
| n | 17 | 16 | 17 | 15 |

Table 1 presents descriptive statistics of A1c and Checks per Day by time period, regardless of age group category.

**Table 2. A1c and BMI Descriptive Statistics by year, age category and group**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| variable | ControlYoung | ControlOld | TrtYoung | TrtOld |
| Base1: A1C - Last Measure in Year |  |  |  |  |
| n | 6 | 11 | 33 | 43 |
| mean (std. dev) | 9.533 (2.761) | 9.345 (2.761) | 9.218 (2.761) | 9.993 (2.761) |
| Year1: A1C - Last Measure in Year |  |  |  |  |
| n | 6 | 10 | 33 | 43 |
| mean (std. dev) | 8.833 (0.423) | 8.74 (0.423) | 8.727 (0.423) | 10.149 (0.423) |
| Year2: A1C - Last Measure in Year |  |  |  |  |
| n | 5 | 12 | 22 | 54 |
| mean (std. dev) | 9.32 (1.704) | 8.792 (1.704) | 8.614 (1.704) | 10.774 (1.704) |
| Year3: A1C - Last Measure in Year |  |  |  |  |
| n | 5 | 10 | 16 | 50 |
| mean (std. dev) | 9.3 (0.992) | 10.235 (0.992) | 8.738 (0.992) | 10.763 (0.992) |
| Base1: Checks per Day - Last Measure in Year |  |  |  |  |
| n | 6 | 11 | 33 | 43 |
| mean (std. dev) | 5.367 (1.546) | 3.427 (1.546) | 4.606 (1.546) | 3.323 (1.546) |
| Year1: Checks per Day - Last Measure in Year |  |  |  |  |
| n | 6 | 10 | 33 | 43 |
| mean (std. dev) | 3.583 (3.052) | 3.209 (3.052) | 5.142 (3.052) | 2.784 (3.052) |
| Year2: Checks per Day - Last Measure in Year |  |  |  |  |
| n | 5 | 12 | 22 | 54 |
| mean (std. dev) | 4.36 (1.466) | 3.595 (1.466) | 5.482 (1.466) | 3.209 (1.466) |
| Year3: Checks per Day - Last Measure in Year |  |  |  |  |
| n | 5 | 10 | 16 | 50 |
| mean (std. dev) | 4.36 (3.044) | 2.96 (3.044) | 4.775 (3.044) | 3.43 (3.044) |

Table 2 presents descriptive statistics of A1c and Checks per Day by treatment group, time period and age category.

**Table 3A. Results of mixed effects modeling A1c**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Value | Std.Error | p-value |
| (Intercept) | 5.707 | 0.954 | 0.000 |
| baseline\_a1c | 0.502 | 0.063 | 0.000 |
| factor(yeargrouping)Base1 | -0.823 | 0.544 | 0.131 |
| factor(yeargrouping)Year1 | -0.964 | 0.555 | 0.084 |
| factor(yeargrouping)Year2 | -0.690 | 0.544 | 0.206 |
| groupLess than 12 | -0.969 | 0.305 | 0.002 |
| factor(trt\_grp)LP | -0.017 | 0.569 | 0.976 |
| duration\_of\_diagnosis | -0.003 | 0.056 | 0.961 |
| factor(yeargrouping)Base1:factor(trt\_grp)LP | 0.398 | 0.608 | 0.513 |
| factor(yeargrouping)Year1:factor(trt\_grp)LP | 0.426 | 0.618 | 0.491 |
| factor(yeargrouping)Year2:factor(trt\_grp)LP | 0.502 | 0.604 | 0.407 |

**Table 3b: Results of Difference between Latino Program and Control A1c at each timepoint.**

|  |  |  |  |
| --- | --- | --- | --- |
| contrast | estimate | SE | p.value |
| c\_base1 | -0.3669376 | 0.6031574 | 0.5447618 |
| c\_year1 | 0.1872338 | 0.6123839 | 0.7606341 |
| c\_year2 | -0.0203312 | 0.6106911 | 0.9735289 |
| c\_year3 | 0.2469700 | 0.6141781 | 0.6887284 |

Table 3A-3B show results of mixed effects modeling looking at whether there was a significant difference in A1c in Treatment and Control groups at baseline, year 1 and year 2 (table 3A), as well as results of specific contrasts of interest. There is not a significant difference in trend of A1c over time between groups (table 3A, p=xxx). There was no significant difference in A1c between groups at baseline, year 1 or year 2 (table 3B, p=xxx, p=xxx, p=xxx).

**Table 4A. Results of mixed effects modeling of checks per day**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Value | Std.Error | p-value |
| (Intercept) | 4.233 | 1.055 | 0.000 |
| baseline\_a1c | -0.065 | 0.071 | 0.366 |
| factor(yeargrouping)Base1 | 0.567 | 0.550 | 0.304 |
| factor(yeargrouping)Year1 | 0.034 | 0.562 | 0.952 |
| factor(yeargrouping)Year2 | 0.327 | 0.550 | 0.553 |
| groupLess than 12 | 0.980 | 0.328 | 0.003 |
| factor(trt\_grp)LP | 0.247 | 0.614 | 0.689 |
| duration\_of\_diagnosis | -0.055 | 0.062 | 0.382 |
| factor(yeargrouping)Base1:factor(trt\_grp)LP | -0.614 | 0.615 | 0.319 |
| factor(yeargrouping)Year1:factor(trt\_grp)LP | -0.060 | 0.626 | 0.924 |
| factor(yeargrouping)Year2:factor(trt\_grp)LP | -0.267 | 0.611 | 0.662 |

**Table 4b: Results of Difference between Latino Program and Control Checks per Day at each timepoint.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| contrast | estimate | SE | df | t.ratio | p.value |
| c\_base1 | -0.367 | 0.603 | 76 | -0.6083614 | 0.545 |
| c\_year1 | 0.187 | 0.612 | 76 | 0.3057459 | 0.761 |
| c\_year2 | -0.020 | 0.611 | 76 | -0.0332922 | 0.974 |
| c\_year3 | 0.247 | 0.614 | 76 | 0.4021146 | 0.689 |

Table 4A-4B show results of mixed effects modeling looking at whether there was a significant difference in Checks per Day in Treatment and Control groups at baseline, year 1, year 2, and year 3 (table 4A), as well as results of specific comparisons of interest. There is not a significant difference in trend of A1c over time between groups (table 4A, p=xxx). There was no significant difference in Checks per Day between groups at baseline, year 1 or year 2 (table 4B, p=xxx, p=xxx, p=xxx).