**Table 5a**. Descriptive Statistics of the Test and Validation Samples, Overall for Six Facility Groups in Health System 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristics** | **Test Sample** | **Validation Sample** | **P-Value** |
| ***Positive index stool tests in eCQM denominator — no.*** | 2,398 | 2,414 |  |
| ***Timely colonoscopy (eCQM numerator) — no.*** | 1,351 | 1,357 |  |
| ***eCQM rate of timely colonoscopy — %*** | 56.3% | 56.2% | 0.93 |
| ***Number of facility groups — no.*** | 6 | 6 |  |
| ***Number of measurement years — no. (range of years)*** | 6 (2018-2023) | 6 (2018-2023) |  |
| ***Age at index positive stool test*** |  |  |  |
| Mean (SD) — yr | 62.7 (8.5) | 62.8 (8.5) |  |
| Distribution — no. (%) |  |  | 0.82 |
| 45 to 49 yr | 202 (8.42) | 193 (8.0) |  |
| 50 to 64 yr | 1,053 (43.9) | 1,054 (43.7) |  |
| 65 to 75 yr | 1,143 (47.7) | 1,167 (48.3) |  |
| ***Sex — no. (%)*** |  |  | 0.19 |
| Female | 1,426 (59.5) | 1,391 (57.62) |  |
| Male | 972 (40.5) | 1,023 (42.4) |  |
| ***Race — no. (%)*** |  |  | 0.68 |
| Asian | 106 (4.4) | 88 (3.7) |  |
| Black | 133 (5.6) | 126 (5.2) |  |
| White | 1,944 (81.1) | 1,985 (82.2) |  |
| Other\* | 7 (0.3) | 6 (0.3) |  |
| Unknown | 208 (8.7) | 209 (8.7) |  |
| ***Ethnic group — no. (%)*** |  |  | 0.14 |
| Hispanic | 203 (8.5) | 199 (8.2) |  |
| Non-Hispanic | 2,034 (84.9) | 2,017 (83.6) |  |
| Unknown | 161 (6.7) | 198 (8.2) |  |
| ***Primary insurance at index positive stool test — no. (%)*** |  |  | 0.67 |
| Private | 949 (39.6) | 953 (39.5) |  |
| Medicare | 481 (20.1) | 510 (21.1) |  |
| Medicaid | 186 (7.8) | 181 (7.5) |  |
| Other | 11 (0.5) | 6 (0.3) |  |
| Unknown | 771 (32.2) | 764 (31.7) |  |
| ***Primary language — no. (%)*** |  |  | 0.26 |
| English | 2,144 (89.4) | 2,196 (91.0) |  |
| Spanish | 146 (6.1) | 131 (5.4) |  |
| Other | 86 (3.6) | 66 (2.7) |  |
| Unknown | 22 (0.9) | 21 (0.9) |  |
| ***Type of index positive stool test — no. (%)*** |  |  | 0.70 |
| Fecal Immunochemical Test (FIT) | 795 (33.2) | 812 (33.6) |  |
| FIT-DNA (i.e., Cologuard) | 1,557 (64.9) | 1,563 (64.8) |  |
| Guaiac Fecal Occult Blood Test (gFOBT) | 46 (1.9) | 39 (1.6) |  |

\*Patients identified as American Indian, Alaska Native, or Native Hawaiian or Other Pacific Islander.

**Table 5b**. Descriptive Statistics of the Test and Validation Samples for Facility Group 1 in Health System 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristics** | **Test Sample** | **Validation Sample** | **P-Value** |
| ***eCQM rate of timely colonoscopy — %*** | 38.7% | 37.2% | 0.79 |
| ***Number of measurement years — no. (range of years)*** | 6 (2018-2023) | 6 (2018-2023) |  |
| ***Age at index positive stool test*** |  |  |  |
| Mean (SD) — yr | 64.1 (8.3) | 64.2 (8.6) |  |
| Distribution — % |  |  | 0.80 |
| 45 to 49 yr | 7.4 | 8.5 |  |
| 50 to 64 yr | 38.0 | 34.8 |  |
| 65 to 75 yr | 54.6 | 56.7 |  |
| ***Sex — %*** |  |  | 0.96 |
| Female | 55.8 | 56.1 |  |
| Male | 44.2 | 43.9 |  |
| ***Race — %*** |  |  | 0.66 |
| Asian | 2.5 | 3.7 |  |
| Black | 1.2 | 0.0 |  |
| White | 84.7 | 84.2 |  |
| Other\* | 0.6 | 0.6 |  |
| Unknown | 11.0 | 12.0 |  |
| ***Ethnic group — %*** |  |  | 0.96 |
| Hispanic | 4.3 | 3.7 |  |
| Non-Hispanic | 90.2 | 90.9 |  |
| Unknown | 5.5 | 5.5 |  |
| ***Primary insurance at index positive stool test — %*** |  |  | 0.67 |
| Private | 49.1 | 54.3 |  |
| Medicare | 35.6 | 29.3 |  |
| Medicaid | 7.4 | 7.3 |  |
| Unknown | 8.0 | 9.2 |  |
| ***Primary language — %*** |  |  | 0.20 |
| English | 93.2 | 93.9 |  |
| Spanish | 1.2 | 0.0 |  |
| Other | 3.7 | 1.8 |  |
| Unknown | 1.8 | 4.3 |  |
| ***Type of index positive stool test — %*** |  |  | 0.48 |
| Fecal Immunochemical Test (FIT) | 55.8 | 50.6 |  |
| FIT-DNA (i.e., Cologuard) | 35.0 | 41.5 |  |
| Guaiac Fecal Occult Blood Test (gFOBT) | 9.2 | 7.9 |  |

\*Patients identified as American Indian, Alaska Native, or Native Hawaiian or Other Pacific Islander.

**Table 5c**. Descriptive Statistics of the Test and Validation Samples for Facility Group 2 in Health System 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristics** | **Test Sample** | **Validation Sample** | **P-Value** |
| ***eCQM rate of timely colonoscopy — %*** | 50.3% | 53.2% | 0.56 |
| ***Number of measurement years — no. (range of years)*** | 6 (2018-2023) | 6 (2018-2023) |  |
| ***Age at index positive stool test*** |  |  |  |
| Mean (SD) — yr | 61.5 (9.3) | 62.7 (8.7) |  |
| Distribution — % |  |  | 0.22 |
| 45 to 49 yr | 13.3 | 8.8 |  |
| 50 to 64 yr | 41.9 | 39.5 |  |
| 65 to 75 yr | 44.8 | 51.7 |  |
| ***Sex — %*** |  |  | 0.44 |
| Female | 69.5 | 65.9 |  |
| Male | 30.5 | 34.2 |  |
| ***Race — %*** |  |  | 0.40 |
| Asian | 6.4 | 3.9 |  |
| Black | 0.5 | 2.0 |  |
| White | 91.1 | 92.7 |  |
| Other\* | 0.5 | 0.0 |  |
| Unknown | 1.5 | 1.5 |  |
| ***Ethnic group — %*** |  |  | 0.37 |
| Hispanic | 1.0 | 1.5 |  |
| Non-Hispanic | 93.6 | 89.8 |  |
| Unknown | 5.4 | 8.8 |  |
| ***Primary insurance at index positive stool test — %*** |  |  | **0.04** |
| Private | 43.5 | 46.3 |  |
| Medicare | 12.8 | 20.5 |  |
| Medicaid | 0.0 | 0.5 |  |
| Unknown | 43.8 | 32.7 |  |
| ***Primary language — %*** |  |  | 0.22 |
| English | 99.5 | 99.0 |  |
| Other | 0.5 | 0.0 |  |
| Unknown | 0.0 | 1.0 |  |
| ***Type of index positive stool test — %*** |  |  | **0.04** |
| Fecal Immunochemical Test (FIT) | 18.2 | 26.8 |  |
| FIT-DNA (i.e., Cologuard) | 81.8 | 73.2 |  |

\*Patients identified as American Indian, Alaska Native, or Native Hawaiian or Other Pacific Islander.

**Table 5d**. Descriptive Statistics of the Test and Validation Samples for Facility Group 3 in Health System 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristics** | **Test Sample** | **Validation Sample** | **P-Value** |
| ***eCQM rate of timely colonoscopy — %*** | 56.9% | 56.5% | 0.90 |
| ***Number of measurement years — no. (range of years)*** | 6 (2018-2023) | 6 (2018-2023) |  |
| ***Age at index positive stool test*** |  |  |  |
| Mean (SD) — yr | 62.3 (8.7) | 62.5 (8.5) |  |
| Distribution — % |  |  | 0.24 |
| 45 to 49 yr | 9.9 | 4.4 |  |
| 50 to 64 yr | 43.3 | 46.7 |  |
| 65 to 75 yr | 46.9 | 48.9 |  |
| ***Sex — %*** |  |  | **0.01** |
| Female | 57.7 | 50.7 |  |
| Male | 42.3 | 49.3 |  |
| ***Race —*** |  |  | 0.35 |
| Asian | 3.7 | 3.1 |  |
| Black | 7.6 | 6.1 |  |
| White | 78.2 | 82.3 |  |
| Unknown | 10.5 | 8.5 |  |
| ***Ethnic group — %*** |  |  | 0.09 |
| Hispanic | 17.6 | 13.5 |  |
| Non-Hispanic | 77.9 | 80.5 |  |
| Unknown | 4.5 | 6.0 |  |
| ***Primary insurance at index positive stool test — %*** |  |  | 0.88 |
| Private | 40.9 | 40.6 |  |
| Medicare | 19.6 | 21.4 |  |
| Medicaid | 16.2 | 16.3 |  |
| Other | 1.0 | 0.6 |  |
| Unknown | 22.5 | 21.1 |  |
| ***Primary language — %*** |  |  | 0.04 |
| English | 78.0 | 83.6 |  |
| Spanish | 15.0 | 11.8 |  |
| Other | 5.7 | 4.4 |  |
| Unknown | 1.3 | 0.3 |  |
| ***Type of index positive stool test — %*** |  |  | 0.12 |
| Fecal Immunochemical Test (FIT) | 59.8 | 61.7 |  |
| FIT-DNA (i.e., Cologuard) | 39.6 | 38.3 |  |
| Guaiac Fecal Occult Blood Test (gFOBT) | 0.7 | 0.0 |  |

**Table 5e**. Descriptive Statistics of the Test and Validation Samples for Facility Group 4 in Health System 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristics** | **Test Sample** | **Validation Sample** | **P-Value** |
| ***eCQM rate of timely colonoscopy — %*** | 58.8% | 54.7% | 0.14 |
| ***Number of measurement years — no. (range of years)*** | 6 (2018-2023) | 6 (2018-2023) |  |
| ***Age at index positive stool test*** |  |  |  |
| Mean (SD) — yr | 63.6 (8.2) | 63.6 (8.4) |  |
| Distribution — % |  |  | 0.65 |
| 45 to 49 yr | 5.9 | 6.9 |  |
| 50 to 64 yr | 43.1 | 41.3 |  |
| 65 to 75 yr | 51.1 | 51.8 |  |
| ***Sex — %*** |  |  | 0.27 |
| Female | 61.6 | 64.6 |  |
| Male | 38.4 | 35.4 |  |
| ***Race — %*** |  |  | 0.88 |
| Asian | 3.1 | 3.1 |  |
| Black | 6.0 | 4.8 |  |
| White | 82.3 | 83.4 |  |
| Other\* | 0.3 | 0.5 |  |
| Unknown | 8.3 | 8.3 |  |
| ***Ethnic group — %*** |  |  | **<0.01** |
| Hispanic | 6.0 | 8.2 |  |
| Non-Hispanic | 88.7 | 82.3 |  |
| Unknown | 5.3 | 9.6 |  |
| ***Primary insurance at index positive stool test — %*** |  |  | 0.73 |
| Private | 45.5 | 42.5 |  |
| Medicare | 23.3 | 24.8 |  |
| Medicaid | 5.1 | 4.5 |  |
| Other | 0.5 | 0.3 |  |
| Unknown | 25.6 | 27.9 |  |
| ***Primary language — %*** |  |  | 0.85 |
| English | 93.1 | 93.1 |  |
| Spanish | 3.9 | 4.5 |  |
| Other | 1.9 | 1.4 |  |
| Unknown | 1.2 | 1.1 |  |
| ***Type of index positive stool test — %*** |  |  | 0.30 |
| Fecal Immunochemical Test (FIT) | 14.8 | 11.9 |  |
| FIT-DNA (i.e., Cologuard) | 82.1 | 84.9 |  |
| Guaiac Fecal Occult Blood Test (gFOBT) | 3.1 | 3.2 |  |

\*Patients identified as American Indian, Alaska Native, or Native Hawaiian or Other Pacific Islander.

**Table 5f**. Descriptive Statistics of the Test and Validation Samples for Facility Group 5 in Health System 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristics** | **Test Sample** | **Validation Sample** | **P-Value** |
| ***eCQM rate of timely colonoscopy — %*** | 40.8% | 38.5% | 0.39 |
| ***Number of measurement years — no. (range of years)*** | 6 (2018-2023) | 6 (2018-2023) |  |
| ***Age at index positive stool test*** |  |  |  |
| Mean (SD) — yr | 62.4 (8.4) | 62.1 (8.6) |  |
| Distribution — % |  |  | 0.89 |
| 45 to 49 yr | 8.4 | 8.6 |  |
| 50 to 64 yr | 46.0 | 47.0 |  |
| 65 to 75 yr | 45.7 | 44.4 |  |
| ***Sex — %*** |  |  | 0.43 |
| Female | 57.7 | 55.6 |  |
| Male | 42.3 | 44.4 |  |
| ***Race — %*** |  |  | 0.56 |
| Asian | 6.2 | 5.0 |  |
| Black | 5.2 | 6.1 |  |
| White | 79.8 | 78.4 |  |
| Other\* | 0.4 | 0.3 |  |
| Unknown | 8.4 | 10.2 |  |
| ***Ethnic group — %*** |  |  | 0.91 |
| Hispanic | 5.9 | 6.4 |  |
| Non-Hispanic | 85.0 | 84.7 |  |
| Unknown | 9.1 | 8.9 |  |
| ***Primary insurance at index positive stool test — %*** |  |  | 0.72 |
| Private | 30.8 | 31.0 |  |
| Medicare | 16.5 | 16.9 |  |
| Medicaid | 5.3 | 5.1 |  |
| Other | 0.3 | 0.0 |  |
| Unknown | 47.1 | 47.0 |  |
| ***Primary language — %*** |  |  | 0.89 |
| English | 91.6 | 92.0 |  |
| Spanish | 3.4 | 3.8 |  |
| Other | 4.6 | 3.8 |  |
| Unknown | 0.4 | 0.4 |  |
| ***Type of index positive stool test — %*** |  |  | 0.63 |
| Fecal Immunochemical Test (FIT) | 28.1 | 30.1 |  |
| FIT-DNA (i.e., Cologuard) | 70.8 | 69.2 |  |
| Guaiac Fecal Occult Blood Test (gFOBT) | 1.0 | 0.7 |  |

\*Patients identified as American Indian, Alaska Native, or Native Hawaiian or Other Pacific Islander.

**Table 5g**. Descriptive Statistics of the Test and Validation Samples for Facility Group 6 in Health System 1

|  |  |  |  |
| --- | --- | --- | --- |
| **Characteristics** | **Test Sample** | **Validation Sample** | **P-Value** |
| ***eCQM rate of timely colonoscopy — %*** | 59.3% | 66.7% | 0.31 |
| ***Number of measurement years — no. (range of years)*** | 6 (2018-2023) | 6 (2018-2023) |  |
| ***Age at index positive stool test*** |  |  |  |
| Mean (SD) — yr | 61.2 (7.9) | 62.7 (8.0) |  |
| Distribution — |  |  | 0.24 |
| 45 to 49 yr | 8.1 | 4.4 |  |
| 50 to 64 yr | 54.7 | 46.7 |  |
| 65 to 75 yr | 37.2 | 48.9 |  |
| ***Sex — %*** |  |  | 0.90 |
| Female | 53.5 | 54.4 |  |
| Male | 46.5 | 45.6 |  |
| ***Race — %*** |  |  | 0.53 |
| Asian | 4.7 | 1.1 |  |
| Black | 10.5 | 12.2 |  |
| White | 72.1 | 75.6 |  |
| Unknown | 12.8 | 11.1 |  |
| ***Ethnic group — %*** |  |  | 0.34 |
| Hispanic | 7.0 | 10.0 |  |
| Non-Hispanic | 73.3 | 77.8 |  |
| Unknown | 19.8 | 12.2 |  |
| ***Primary insurance at index positive stool test — %*** |  |  | 0.70 |
| Private | 27.9 | 32.2 |  |
| Medicare | 15.1 | 11.1 |  |
| Medicaid | 5.8 | 3.3 |  |
| Unknown | 51.2 | 53.3 |  |
| ***Primary language — %*** |  |  | >0.99 |
| English | 95.4 | 95.6 |  |
| Spanish | 3.5 | 3.3 |  |
| Other | 1.2 | 1.1 |  |
| ***Type of index positive stool test — %*** |  |  | 0.55 |
| Fecal Immunochemical Test (FIT) | 11.6 | 8.9 |  |
| FIT-DNA (i.e., Cologuard) | 88.4 | 91.1 |  |

**Table 6.** Spearman’s Rank-Order Correlation Coefficients, Overall and by Year from 2018 to 2023 for Six Facility Groups in Health System 1

|  |  |  |
| --- | --- | --- |
| **Measurement Year** | **Test-Validation Correlation** | **95% CI** |
| ***Overall*** | ***0.36*** | ***0.04, 0.62*** |
| 2018 | 0.60 | -0.46, 0.94 |
| 2019 | 0.60 | -0.46, 0.94 |
| 2020 | 0.02 | -0.80, 0.82 |
| 2021 | -0.46 | -0.92, 0.59 |
| 2022 | 0.54 | -0.52, 0.93 |
| 2023 | 0.83 | -0.03, 0.98 |

**Table 7.** Interclass Correlation Coefficients (ICC), Overall and by Year from 2018 to 2023 for Six Facility Groups in Health System 1

|  |  |  |
| --- | --- | --- |
| **Measurement Year** | **Test Sample (95% CI)** | **Validation Sample (95% CI)** |
| ***Overall*** | ***0.025 (0.008, 0.2432)*** | ***0.037 (0.013, 0.3021)*** |
| 2018 | 0.054 (0.009, 0.999) | 0.002 (0.001, 0.999) |
| 2019 | 0.025 (0.002, 0.999) | 0.021 (0.004, 0.914) |
| 2020 | 0.006 (0.001, 0.999) | 0.019 (0.003, 0.999) |
| 2021 | 0.031 (0.004, 0.999) | 0.052 (0.012, 0.910) |
| 2022 | 0.018 (0.004, 0.905) | 0.007 (0.001, 0.999) |
| 2023 | 0.006 (0.001, 0.999) | 0.019 (0.003, 0.999) |