**S1 Table****. Variable descriptions and summary statistics.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Variable** | | | **Mean** | **Std** | **Min** | **Max** |
| 1. Panel data (*i, t*) | | | | | |
|  | Number of logins by patient *i* in week *t* (LOG\_IN) | 1.40 | 4.40 | 0 | 294 |
|  | Number of self-monitoring function usage by patient *i* in week *t* (SM) | 0.49 | 4.37 | 0 | 401 |
|  | Number of chart function usage by patient *i* in week *t* (CHART) | 5.06 | 19.33 | 0 | 610 |
|  | Number of medication function usage by patient *i* in week *t* (MED) | 0.55 | 4.93 | 0 | 642 |
|  | Number of outpatient support service usage by patient *i* in week *t* (OSS) | 0.96 | 4.21 | 0 | 227 |
|  | Elapsed weeks since app adoption by patient *i* (ELAPSED) | 25.62 | 18.41 | 1 | 75 |
| 2. Cross-sectional data (*i*) | | | | | |
|  | Average usage of self-monitoring function by patient *i* per week (AVG\_SM) | 0.83 | 3.77 | 0 | 106 |
|  | Average usage of chart function by patient *i* per week (AVG\_CHART) | 6.50 | 14.32 | 0 | 251 |
|  | Average usage of medication function by patient *i* per week (AVG\_MED) | 0.81 | 1.88 | 0 | 43.73 |
|  | Average usage of outpatient support service by patient *i* per week (AVG\_OSS) | 1.29 | 2.38 | 0 | 40.50 |
|  | Standard deviation of usage of self-monitoring function by patient *i* per week (STD\_SM) | 1.76 | 4.50 | 0 | 73.53 |
|  | Standard deviation of usage of chart function by patient *i* per week (STD\_CHART) | 9.41 | 14.62 | 0 | 223.45 |
|  | Standard deviation of usage of medication function by patient *i* per week (STD\_MED) | 1.94 | 3.96 | 0 | 87.37 |
|  | Standard deviation of usage of outpatient support service by patient *i* per week (STD\_OSS) | 2.50 | 3.52 | 0 | 52.34 |
| 3. Control variables (*i*): Time invariant and employed in both panel analysis and survival analysis | | | | | |
|  | Age of patient *i* (AGE)a | 3.21 | 1.66 | 0 | 7 |
|  | Gender of patient *i* (GENDER) | 0.55 | 0.50 | 0 | 1 |
|  | Number of outpatient visits of patient *i* (OPD) | 17.31 | 15.10 | 0 | 65 |
|  | Number of hospital admissions of patient *i* (ADM) | 2.38 | 4.24 | 0 | 43 |
|  | Number of emergency room visits of patient *i* (ER) | 1.22 | 2.64 | 0 | 28 |
| 4. Additional control variables (*i*) for survival analysis | | | | | |
|  | Average of number of days that patient *i* used the app in a week (AVG\_DAY) | 0.80 | 0.87 | 0.03 | 6.18 |
|  | Standard deviation of the number of days that patient i used the app in a week (STD\_DAY) | 0.84 | 0.55 | 0 | 4.24 |

aAge of patient is categorized into one-digit numbers (0: 0–9, 1: 10–19, 2: 20–29, 3: 30–39, 4: 40–49, 5: 50–59, 6: 60–69, and 7: 70–79)

b1 for male; 0 for female