Supplemental Table 1: Distribution of multi-level characteristics according to number of total cases and deaths and quintile of neighborhood SES among men diagnosed with prostate cancer, San Francisco Bay Area and Los Angeles County 1999-2003

|  | Neighborhood SES Quintile | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Q1 (lowest) | | | Q2 | | Q3 | | | Q4 | | Q5 (highest) | | |
|  | Cases | Deaths | | Cases | Deaths | Cases | | Deaths | Cases | Deaths | Cases | | Deaths |
| **Individual-level sociodemographic factors1** | | | | |  |  | |  |  |  |  | |  |
| Education |  |  | |  |  |  | |  |  |  |  | |  |
| High school degree  or less | 198 | 72 | | 147 | 55 | 120 | | 46 | 114 | 46 | 89 | | 36 |
| Some college | 65 | 28 | | 85 | 28 | 103 | | 30 | 109 | 24 | 149 | | 43 |
| College graduate or  higher | 14 | 6 | | 37 | 12 | 61 | | 15 | 117 | 34 | 386 | | 81 |
| Study Site |  |  | |  |  |  | |  |  |  |  | |  |
| SF Bay Area | 16 | 7 | | 62 | 28 | 77 | | 27 | 144 | 51 | 420 | | 109 |
| Los Angeles County | 261 | 99 | | 207 | 67 | 207 | | 64 | 196 | 53 | 204 | | 51 |
| Race/ethnicity |  |  | |  |  |  | |  |  |  |  | |  |
| non-Hispanic White | 14 | 7 | | 62 | 26 | 131 | | 45 | 229 | 70 | 539 | | 138 |
| African-American | 139 | 53 | | 124 | 46 | 101 | | 33 | 76 | 26 | 62 | | 18 |
| Hispanic | 124 | 46 | | 83 | 23 | 52 | | 13 | 35 | 8 | 23 | | 4 |
| Nativity |  |  | |  |  |  | |  |  |  |  | |  |
| U.S.-born | 107 | 31 | | 69 | 18 | 44 | | 8 | 47 | 10 | 56 | | 11 |
| Foreign-born | 170 | 75 | | 200 | 77 | 240 | | 83 | 293 | 94 | 568 | | 149 |
| **Tumor and treatment factors2** | | | |  |  |  | |  |  |  |  | |  |
| Age at diagnosis (years) |  |  | |  |  |  | |  |  |  |  | |  |
| 40-49 | 10 | 1 | | 9 | 5 | 10 | | 2 | 16 | 2 | 23 | | 4 |
| 50-59 | 52 | 18 | | 63 | 15 | 76 | | 17 | 76 | 10 | 175 | | 22 |
| 60-69 | 127 | 41 | | 105 | 35 | 108 | | 31 | 136 | 31 | 246 | | 61 |
| 70-79 | 72 | 36 | | 81 | 35 | 78 | | 30 | 98 | 54 | 160 | | 59 |
| 80+ | 16 | 10 | | 11 | 5 | 12 | | 11 | 14 | 7 | 20 | | 14 |
| Marital status at diagnosis | | | |  |  |  | |  |  |  |  | |  |
| Single/Never Married | 24 | 5 | | 38 | 14 | 43 | | 18 | 41 | 13 | 50 | | 19 |
| Married | 174 | 64 | | 164 | 59 | 190 | | 59 | 244 | 73 | 500 | | 120 |
| Separated/Divorced | 43 | 22 | | 28 | 10 | 23 | | 5 | 32 | 13 | 42 | | 12 |
| Widowed | 15 | 7 | | 19 | 7 | 16 | | 7 | 11 | 3 | 20 | | 9 |
| Unknown | 21 | 8 | | 20 | 5 | 12 | | 2 | 12 | 2 | 12 | | 0 |
| Stage |  |  | |  |  |  | |  |  |  |  | |  |
| Localized | 142 | 53 | | 111 | 30 | 117 | | 35 | 134 | 42 | 179 | | 42 |
| Advanced | 135 | 53 | | 158 | 65 | 167 | | 56 | 206 | 62 | 445 | | 118 |
| Histologic Grade |  |  | |  |  |  | |  |  |  |  | |  |
| Grade I-II | 182 | 53 | | 169 | 46 | 184 | | 46 | 218 | 54 | 402 | | 71 |
| Grade III-IV | 84 | 47 | | 93 | 43 | 94 | | 41 | 113 | 42 | 216 | | 87 |
| Unknown | 11 | 6 | | 7 | 6 | 6 | | 4 | 9 | 8 | 6 | | 2 |
|  | | | |  |  |  | |  |  |  |  | |  |
|  | | | |  |  |  | |  |  |  |  | |  |
| **Tumor and treatment factors, continued** | | | |  |  |  | |  |  |  |  | |  |
| One or More Subsequent Tumors | | | |  |  |  | |  |  |  |  | |  |
| No | 250 | 89 | | 233 | 78 | 244 | | 75 | 300 | 76 | 539 | | 116 |
| Yes | 27 | 17 | | 36 | 17 | 40 | | 16 | 40 | 28 | 85 | | 44 |
| Surgery |  |  | |  |  |  | |  |  |  |  | |  |
| None | 172 | 83 | | 159 | 74 | 139 | | 62 | 152 | 69 | 250 | | 98 |
| Local or NOS | 18 | 6 | | 10 | 5 | 17 | | 12 | 11 | 6 | 16 | | 10 |
| Radical  prostatectomy | 87 | 17 | | 100 | 16 | 128 | | 17 | 177 | 29 | 358 | | 52 |
| Radiation |  |  | |  |  |  | |  |  |  |  | |  |
| None | 186 | 71 | | 177 | 61 | 192 | | 61 | 244 | 71 | 420 | | 99 |
| Given | 91 | 35 | | 92 | 34 | 92 | | 30 | 96 | 33 | 204 | | 61 |
| **Medical History1** |  |  | |  |  |  | |  |  |  |  | |  |
| Family history of prostate cancer | | |  | |  |  | |  |  |  |  | |  |
| No | 225 | 92 | | 218 | 81 | 217 | | 74 | 280 | 83 | 495 | | 129 |
| Yes | 52 | 14 | | 51 | 14 | 67 | | 17 | 60 | 21 | 128 | | 31 |
| Unknown |  |  | |  |  |  | |  |  |  | 1 | |  |
| Benign prostatic hyperplasia | | | |  |  |  | |  |  |  |  | |  |
| No | 125 | 42 | | 135 | 46 | 147 | | 53 | 191 | 50 | 360 | | 79 |
| Yes | 144 | 57 | | 122 | 44 | 128 | | 34 | 141 | 53 | 244 | | 73 |
| Unknown | 8 | 7 | | 12 | 5 | 9 | | 4 | 8 | 1 | 20 | | 8 |
| Prostatitis |  |  | |  |  |  | |  |  |  |  | |  |
| No | 151 | 57 | | 169 | 63 | 186 | | 59 | 236 | 72 | 463 | | 112 |
| Yes | 118 | 44 | | 93 | 29 | 91 | | 28 | 95 | 30 | 142 | | 41 |
| Unknown | 8 | 5 | | 7 | 3 | 7 | | 4 | 9 | 2 | 19 | | 7 |
| Comorbidities3 |  |  | |  |  |  | |  |  |  |  | |  |
| No | 163 | 55 | | 179 | 59 | 182 | | 58 | 244 | 59 | 459 | | 104 |
| Yes | 114 | 51 | | 90 | 36 | 102 | | 33 | 96 | 45 | 165 | | 56 |
| **Behavioral factors1** |  |  | |  |  |  | |  |  |  |  | |  |
| Body mass index (BMI, kg/m2) | | | |  |  |  | |  |  |  |  | |  |
| <25 | 48 | 20 | | 67 | 25 | 65 | | 21 | 93 | 34 | 184 | | 42 |
| 25-29 | 139 | 54 | | 121 | 35 | 131 | | 39 | 174 | 51 | 309 | | 87 |
| 30+ | 88 | 32 | | 79 | 35 | 82 | | 28 | 70 | 17 | 128 | | 30 |
| Unknown | 2 | 0 | | 2 | 0 | 6 | | 3 | 3 | 2 | 3 | | 1 |
| Average daily caloric intake (kcal, year prior to diagnosis) | | | | | |  | | |  |  |  | |  |
| <1950 | 34 | 13 | | 51 | 20 | 59 | | 23 | 86 | 31 | 164 | | 45 |
| 1951-2584 | 46 | 23 | | 53 | 20 | 54 | | 13 | 76 | 28 | 173 | | 37 |
| 2585-3301 | 47 | 15 | | 48 | 17 | 60 | | 21 | 69 | 13 | 147 | | 43 |
| 3302+ | 94 | 36 | | 83 | 28 | 74 | | 20 | 76 | 26 | 114 | | 31 |
| Missing | 56 | 19 | | 34 | 10 | 37 | | 14 | 33 | 6 | 26 | | 4 |
|  | | | | | | | | | |  |  | |  |
|  | | | | | | | | | |  |  | |  |
| **Behavioral factors, continued** | | |  | | |  | | |  |  |  | |  |
| Average daily alcohol consumption (grams, year prior to diagnosis) | | | | | | | | |  |  |  | |  |
| 0 | 146 | 54 | | 154 | 56 | 135 | | 41 | 161 | 53 | 210 | | 57 |
| 5-Jan | 15 | 9 | | 16 | 5 | 22 | | 9 | 33 | 9 | 71 | | 11 |
| 5-9.9 | 12 | 3 | | 14 | 6 | 13 | | 4 | 15 | 6 | 55 | | 19 |
| 10-14.9 | 9 | 2 | | 4 | 2 | 27 | | 7 | 20 | 4 | 69 | | 16 |
| 15+ | 39 | 19 | | 47 | 16 | 50 | | 16 | 78 | 26 | 193 | | 53 |
| Unknown | 56 | 19 | | 34 | 10 | 37 | | 14 | 33 | 6 | 26 | | 4 |
| Smoking |  |  | |  |  |  | |  |  |  |  | |  |
| Never | 71 | 24 | | 58 | 23 | 87 | | 25 | 107 | 33 | 191 | | 36 |
| Former | 144 | 58 | | 143 | 43 | 135 | | 44 | 167 | 50 | 337 | | 93 |
| Current | 59 | 23 | | 67 | 29 | 59 | | 20 | 63 | 19 | 93 | | 30 |
| Unknown | 3 | 1 | | 1 | 0 | 3 | | 2 | 3 | 2 | 3 | | 1 |
| Physical Activity (hours/week, previous 5 years) | | | | | |  | |  |  |  |  | |  |
| <2.8 | 92 | 40 | | 83 | 33 | 64 | | 31 | 86 | 34 | 107 | | 35 |
| 2.8-9.2 | 66 | 24 | | 67 | 28 | 72 | | 21 | 71 | 20 | 175 | | 38 |
| 9.3-22.9 | 44 | 17 | | 41 | 10 | 72 | | 19 | 95 | 27 | 195 | | 53 |
| 23.0+ | 67 | 21 | | 75 | 23 | 70 | | 19 | 86 | 21 | 145 | | 34 |
| Unknown | 8 | 4 | | 3 | 1 | 6 | | 1 | 2 | 2 | 2 | | 0 |
| **Hospital-level factors2** |  |  | |  |  |  | |  |  |  |  | |  |
| NCI designated Cancer Center | | |  | | |  | |  |  |  |  | |  |
| No | 266 | 103 | | 250 | 88 | 260 | | 83 | 298 | 97 | 522 | | 140 |
| Yes | 11 | 3 | | 19 | 7 | 24 | | 8 | 42 | 7 | 102 | | 20 |
| Hospital race/ethnicity (quartiles)4 | | |  | |  |  | |  |  |  |  | |  |
| Q1 | 165 | 56 | | 113 | 29 | 91 | | 28 | 52 | 19 | 55 | | 17 |
| Q2 | 62 | 30 | | 68 | 28 | 73 | | 25 | 95 | 40 | 125 | | 41 |
| Q3 | 37 | 16 | | 54 | 23 | 65 | | 21 | 94 | 22 | 172 | | 45 |
| Q4 | 13 | 4 | | 34 | 15 | 55 | | 17 | 99 | 23 | 272 | | 57 |
| Hospital SES (quartiles)5 |  |  | |  |  |  | |  |  |  |  | |  |
| Q1 | 150 | 52 | | 99 | 29 | 87 | | 28 | 64 | 22 | 44 | | 11 |
| Q2 | 83 | 29 | | 85 | 30 | 91 | | 29 | 76 | 24 | 70 | | 22 |
| Q3 | 41 | 23 | | 60 | 23 | 73 | | 24 | 122 | 35 | 193 | | 57 |
| Q4 | 3 | 2 | | 25 | 13 | 33 | | 10 | 78 | 23 | 317 | | 70 |
| **Contextual-level factors6** | | | | |  |  | |  |  |  |  | |  |
| Percentage of residents traveling 60+ minutes to work (quartiles7) | | | | | | | | | |  |  | |  |
| Q1 | 46 | 26 | | 60 | 27 | 63 | | 22 | 70 | 23 | 177 | | 50 |
| Q2 | 73 | 26 | | 68 | 25 | 81 | | 27 | 94 | 30 | 153 | | 36 |
| Q3 | 77 | 25 | | 77 | 21 | 55 | | 14 | 89 | 26 | 125 | | 33 |
| Q4 | 81 | 29 | | 64 | 22 | 85 | | 28 | 87 | 25 | 169 | | 41 |
|  | | | | | | | | |  |  |  | |  |
|  | | | | | | | | |  |  |  | |  |
|  | | | | | | | | |  |  |  | |  |
| **Contextual-level factors, continued** | | |  | | |  | | |  |  |  | |  |
| Percentage of residents traveling to work by car or motorcycle (quartiles7) | | | | | | | | |  |  |  | |  |
| Q1 | 133 | 43 | | 67 | 23 | 37 | | 14 | 53 | 23 | 140 | | 46 |
| Q2 | 87 | 39 | | 82 | 33 | 51 | | 15 | 71 | 24 | 146 | | 33 |
| Q3 | 36 | 9 | | 63 | 19 | 77 | | 23 | 83 | 23 | 160 | | 35 |
| Q4 | 21 | 15 | | 57 | 20 | 119 | | 39 | 133 | 34 | 178 | | 46 |
| Residential mobility8 (quartiles7) | | |  | | |  | | |  |  |  | |  |
| Q1 | 68 | 25 | | 69 | 27 | 71 | | 23 | 81 | 28 | 156 | | 40 |
| Q2 | 79 | 31 | | 77 | 25 | 63 | | 20 | 101 | 26 | 130 | | 36 |
| Q3 | 83 | 36 | | 68 | 26 | 75 | | 30 | 70 | 21 | 154 | | 44 |
| Q4 | 47 | 14 | | 55 | 17 | 75 | | 18 | 88 | 29 | 184 | | 40 |
| Household crowding (quartiles7) | | |  | | |  | |  |  |  |  | |  |
| Q1 | 0 | 0 | | 2 | 0 | 16 | | 4 | 52 | 12 | 389 | | 88 |
| Q2 | 0 | 0 | | 15 | 5 | 67 | | 19 | 151 | 50 | 186 | | 56 |
| Q3 | 21 | 9 | | 113 | 42 | 151 | | 56 | 128 | 39 | 49 | | 16 |
| Q4 | 256 | 97 | | 139 | 48 | 50 | | 12 | 9 | 3 | 0 | | 0 |
| Percentage of multi-family housing units9 (quartiles7) | | | | | |  |  | |  | |  |  | |
| Q1 | 6 | 2 | | 32 | 9 | 50 | | 19 | 87 | 24 | 272 | | 73 |
| Q2 | 49 | 24 | | 60 | 18 | 82 | | 28 | 80 | 26 | 181 | | 34 |
| Q3 | 121 | 46 | | 77 | 35 | 84 | | 24 | 81 | 25 | 87 | | 30 |
| Q4 | 101 | 34 | | 100 | 33 | 68 | | 20 | 92 | 29 | 84 | | 23 |
| Street connectivity (gamma measure10, quartiles7) | | | | | |  |  | |  | |  |  | |
| Q1 | 5 | 1 | | 15 | 6 | 35 | | 8 | 75 | 25 | 273 | | 66 |
| Q2 | 38 | 18 | | 89 | 31 | 100 | | 30 | 115 | 31 | 169 | | 37 |
| Q3 | 98 | 37 | | 75 | 23 | 65 | | 27 | 68 | 16 | 91 | | 29 |
| Q4 | 136 | 50 | | 90 | 35 | 84 | | 26 | 82 | 32 | 91 | | 28 |
| Businesses (total number, quartiles11) | | |  | | |  | |  |  |  |  | |  |
| Q1 | 9 | 6 | | 34 | 16 | 40 | | 9 | 86 | 27 | 257 | | 66 |
| Q2 | 61 | 26 | | 63 | 22 | 82 | | 26 | 95 | 22 | 140 | | 29 |
| Q3 | 124 | 45 | | 81 | 22 | 76 | | 30 | 78 | 25 | 94 | | 21 |
| Q4 | 83 | 29 | | 91 | 35 | 86 | | 26 | 81 | 30 | 133 | | 44 |
| Restaurant Environment Index11,12 | | |  | | |  | |  |  |  |  | |  |
| 0 | 7 | 2 | | 28 | 12 | 47 | | 14 | 96 | 26 | 336 | | 82 |
| T1 | 43 | 11 | | 56 | 18 | 58 | | 19 | 86 | 28 | 147 | | 42 |
| T2 | 74 | 23 | | 86 | 29 | 96 | | 34 | 81 | 25 | 72 | | 22 |
| T3 | 153 | 70 | | 99 | 36 | 83 | | 24 | 77 | 25 | 69 | | 14 |
| Food Retail Environment Index11,13 | | |  | | |  | |  |  |  |  | |  |
| 0 | 3 | 2 | | 13 | 6 | 25 | | 6 | 57 | 12 | 235 | | 57 |
| T1 | 116 | 46 | | 80 | 26 | 49 | | 18 | 79 | 30 | 148 | | 41 |
| T2 | 128 | 49 | | 106 | 37 | 94 | | 30 | 94 | 30 | 112 | | 34 |
| T3 | 30 | 9 | | 70 | 26 | 116 | | 37 | 110 | 32 | 129 | | 28 |
|  |  |  | |  |  |  | |  |  |  |  | |  |
| **Contextual-level factors, continued** | | | |  |  |  | |  |  |  |  | |  |
| Parks (total number) |  |  | |  |  |  | |  |  |  |  | |  |
| 0 | 71 | 26 | | 87 | 28 | 66 | | 24 | 84 | 22 | 189 | | 47 |
| 1-2 | 168 | 71 | | 127 | 48 | 159 | | 47 | 177 | 55 | 276 | | 70 |
| 3 | 24 | 3 | | 25 | 7 | 26 | | 7 | 40 | 11 | 58 | | 16 |
| 4 | 14 | 6 | | 30 | 12 | 33 | | 13 | 39 | 16 | 101 | | 27 |
| Farmers markets (total number) | | |  | | |  | |  |  |  |  | |  |
| 0 | 219 | 84 | | 203 | 68 | 217 | | 68 | 253 | 70 | 501 | | 118 |
| 1 | 43 | 18 | | 44 | 19 | 54 | | 17 | 62 | 25 | 84 | | 29 |
| 2+ | 15 | 4 | | 22 | 8 | 13 | | 6 | 25 | 9 | 39 | | 13 |
| Traffic density11 |  |  | |  |  |  | |  |  |  |  | |  |
| Q1 | 16 | 6 | | 31 | 9 | 46 | | 17 | 83 | 22 | 272 | | 66 |
| Q2 | 69 | 25 | | 70 | 26 | 75 | | 26 | 88 | 26 | 147 | | 34 |
| Q3 | 97 | 42 | | 80 | 27 | 84 | | 29 | 75 | 26 | 112 | | 27 |
| Q4 | 95 | 33 | | 88 | 33 | 79 | | 19 | 94 | 30 | 93 | | 33 |

1. Data obtained from interview

2. Data obtained from the California Cancer Registry

3. Self-reported comorbidities (asthma, diabetes, kidney disease, liver disease, cataracts, epilepsy, and skin cancer) that were associated at p<0.05 with overall survival (heart disease, diabetes, liver disease, kidney disease; data not shown) in the base model (adjusted for age at diagnosis and race/ethnicity, stratified by stage at diagnosis, census-block-group adjusted) were used to create a composite measure of any comorbidities (yes, no), such that a categorization of ‘yes’ indicates an individual experienced at least one comorbidity among heart disease, diabetes, liver disease, and kidney disease.

4. Hospital race/ethnicity defined as the percentage of cancer patients that were non-Hispanic White at the time of diagnosis

5. Hospital SES defined as the percentage of cancer patients residing in quintile 5 of nSES at the time of diagnosis

6. Data obtained from the California Neighborhoods Data System

7. Based on the quintile/quartile distribution for block groups/census tracts in California

8. Neighborhood residential mobility was measured as the percent of residents who lived in the same location from 1995-2000.

9. Percentage of multi-family housing was defined as the percentage of total housing units that are not single family dwellings (i.e., structures with more than 2 units).

10. Gamma measure, ratio of actual number of street segments to the maximum possible given the number of intersections

11. Based on the quartile/tertile distribution among all study cases

12. The Restaurant Environment Index is the ratio of the number of fast food restaurants compared to the number of other restaurants within the residential buffer. Cases with residential buffers with no businesses were included in the ‘0’ category.

13. The Retail Food Environment Index is the ratio of the number of convenience stores, liquor stores, and fast food restaurants compared to the number of supermarkets and farmers markets within the residential buffer. Cases with residential buffers with no businesses were included in the ‘0’ category.

14. SES, socioeconomic status; Q, quintile; SF, San Francisco