Supplementary Table 1. Sensitivity Analyses. Cross-sectional Associations of Perceived Environmental Facilitators for Outdoor Mobility with Walking Modifications in Community-Dwelling Older People. Odds are Reported for those with No Modifications (n = 280) and Adaptive Modifications (n = 315) vs. Maladaptive Modifications (n = 123, reference).

| Facilitators                                                                 | Model 1                                      | Model 2                                      |
|------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|
|                                                                              | No walking modifications (n = 280)           | No walking modifications (n = 315)           |
|                                                                              | OR (95 % CI) Adjusted p-value                | OR (95 % CI) Adjusted p-value                |
| **Sum of nature facilitators**                                               |                                              |                                              |
| 1 vs. 0                                                                      | 0.9 (0.4–1.9) 0.906                         | 0.8 (0.4–1.8) 0.761                         |
| ≥ 2 vs. 0                                                                    | 1.9 (1.0–3.9) 0.141                         | 1.8 (0.9–3.8) 0.289                         |
| **Sum of infrastructure facilitators**                                       |                                              |                                              |
| 1 vs. 0                                                                      | 1.3 (0.7–2.5) 0.565                         | 1.4 (0.7–2.8) 0.516                         |
| ≥ 2 vs. 0                                                                    | 1.5 (0.9–2.5) 0.265                         | 1.6 (0.9–2.9) 0.253                         |
| **Sum of safety facilitators**                                               |                                              |                                              |
| 1 vs. 0                                                                      | 0.6 (0.3–1.4) 0.372                         | 0.6 (0.3–1.4) 0.398                         |
| ≥ 2 vs. 0                                                                    | 1.4 (0.8–2.7) 0.377                          | 1.5 (0.8–3.0) 0.417                         |
| **Item-specific**                                                            |                                              |                                              |
| **Nature**                                                                   |                                              |                                              |
| Park or other green area                                                      | 1.2 (0.8–1.9) 0.606                         | 1.2 (0.7–1.9) 0.709                         |
| Walking trail, skiing track                                                  | 2.8 (1.8–4.4) <0.001                         | **2.8 (1.7–4.5) <0.001**                     |
| Nature, lakeside                                                            | 1.2 (0.7–2.1) 0.589                         | 1.2 (0.7–2.1) 0.709                         |
| **Infrastructure**                                                           |                                              |                                              |
| Good lighting                                                                | 1.4 (0.9–2.2) 0.273                         | 1.4 (0.9–2.2) 0.377                         |
| Peaceful and good quality walkways                                           | 1.6 (1.0–2.5) 0.097                         | 1.7 (1.0–2.7) 0.133                         |
| Even sidewalks                                                               | 0.9 (0.5–1.4) 0.756                         | 1.0 (0.6–1.7) 0.971                         |
| Resting places by the walking route                                          | 0.8 (0.5–1.4) 0.645                         | 1.0 (0.6–1.9) 0.945                         |
| Walkways without steep hills                                                 | 1.1 (0.5–2.1) 0.964                         | 1.5 (0.7–3.1) 0.513                         |
| Services close                                                               | 1.4 (0.9–2.2) 0.252                         | 1.4 (0.9–2.3) 0.311                         |
| Safe crossings: Traffic lights, zebra crossing or traffic island between lanes| 1.2 (0.7–2.0) 0.624                         | 1.2 (0.7–2.1) 0.672                         |
| **Safety**                                                                   |                                              |                                              |
| Familiar environment                                                         | **1.8 (1.2–2.9) 0.030**                      | **2.0 (1.2–3.2) 0.028**                     |
| Appealing scenery                                                            | 1.3 (0.8–2.1) 0.370                         | 1.4 (0.9–2.4) 0.352                         |
| Own yard                                                                     | 1.0 (0.7–1.6) 0.977                         | 0.9 (0.6–1.4) 0.768                         |
| Other people outdoors motivate                                               | 1.3 (0.8–2.3) 0.442                         | 1.7 (0.9–3.0) 0.239                         |
| No car traffic                                                              | 1.1 (0.6–2.1) 0.841                         | 1.2 (0.6–2.4) 0.731                         |
| No cyclists on walkways                                                      | 0.8 (0.3–1.9) 0.691                         | 0.7 (0.3–2.0) 0.709                         |

**Note:** Multinomial logistic regression analyses. Reference category: maladaptive walking modifications, n = 123. Model 1: Adjusted for age and sex. Model 2: Adjusted for age, sex, years of education, depressive symptoms, chronic conditions, and lower extremity function. OR = Odds Ratio; CI = Confidence Interval. False discovery rates (adjusted p-values) were calculated to correct for multiple testing.
Supplementary Table 2. Sensitivity Analyses. Cross-sectional Associations of Perceived Environmental Barriers to Outdoor Mobility with Walking Modifications among Community-Dwelling Older People. Odds are Reported for those with Adaptive Modifications (n = 315) and Maladaptive Modifications (n = 123) vs. those with No Modifications (n = 280, reference).

| Item-specific | Model 1 | Model 2 |
|---------------|---------|---------|
| Nature | Adaptive walking modifications (n = 315) | Maladaptive walking modifications (n = 123) | Adaptive walking modifications (n = 315) | Maladaptive walking modifications (n = 123) |
| Sum of nature barriers | OR (95 % CI) | Adjusted p-value | OR (95 % CI) | Adjusted p-value | OR (95 % CI) | Adjusted p-value | OR (95 % CI) | Adjusted p-value |
| 1 vs. 0 | 2.4 (1.6–3.4) | <0.001 | 1.8 (1.1–2.9) | 0.045 | 1.8 (1.2–2.7) | 0.020 | 1.1 (0.7–1.9) | 0.768 |
| 2 vs. 0 | 4.9 (2.9–8.5) | <0.001 | 2.2 (1.1–4.5) | 0.087 | 3.6 (2.0–6.5) | <0.001 | 1.4 (0.6–2.9) | 0.620 |
| Sum of infrastructure barriers | | | | | | | | |
| 1 vs. 0 | 1.6 (1.1–2.5) | 0.087 | 1.9 (1.1–3.2) | 0.074 | 1.4 (0.9–2.1) | 0.383 | 1.5 (0.8–2.7) | 0.377 |
| ≥ 2 vs. 0 | 4.0 (2.4–6.7) | <0.001 | 3.7 (2.0–7.0) | <0.001 | 2.6 (1.5–4.6) | 0.006 | 2.2 (1.1–4.3) | 0.094 |
| Sum of safety barriers | | | | | | | | |
| 1 vs. 0 | 1.5 (0.9–2.3) | 0.187 | 1.0 (0.5–1.8) | 0.968 | 1.2 (0.8–2.0) | 0.609 | 0.8 (0.4–1.5) | 0.682 |
| ≥ 2 vs. 0 | 2.3 (1.3–4.0) | 0.012 | 1.2 (0.6–2.6) | 0.756 | 1.5 (0.8–2.6) | 0.401 | 0.7 (0.3–1.6) | 0.542 |
| Infrastructure | | | | | | | | |
| Poor street condition | 1.5 (1.0–2.3) | 0.140 | 0.8 (0.4–1.5) | 0.645 | 1.2 (0.7–1.9) | 0.709 | 0.5 (0.3–1.1) | 0.210 |
| High curbs | 3.6 (1.4–9.1) | 0.023 | 2.3 (0.7–7.3) | 0.268 | 2.2 (0.8–6.1) | 0.298 | 1.1 (0.3–3.9) | 0.941 |
| Lack of pedestrian zones | 2.2 (0.8–6.5) | 0.268 | 2.4 (0.7–8.5) | 0.295 | 2.9 (0.9–9.8) | 0.226 | 3.3 (0.8–13.8) | 0.254 |
| Long distances to services | 2.1 (1.0–4.2) | 0.119 | 4.7 (2.2–9.8) | <0.001 | 1.8 (0.8–3.9) | 0.298 | 4.0 (1.7–9.1) | 0.006 |
| Lack of resting places, summer | 3.4 (1.9–6.0) | <0.001 | 4.0 (2.0–7.9) | <0.001 | 2.1 (1.1–4.0) | 0.072 | 2.4 (1.1–4.8) | 0.080 |
| Lack of resting places, winter | 3.5 (2.0–5.9) | <0.001 | 3.4 (1.8–6.3) | <0.001 | 2.4 (1.4–4.3) | 0.015 | 2.2 (1.4–4.3) | 0.102 |
| Poor lighting | 2.7 (1.0–7.2) | 0.119 | 1.3 (0.3–5.4) | 0.841 | 2.2 (0.8–6.2) | 0.320 | 1.0 (0.2–4.3) | 0.962 |
| Safety | | | | | | | | |
| Noisy traffic | 3.2 (1.2–8.9) | 0.078 | 2.8 (0.8–9.7) | 0.197 | 2.0 (0.7–6.2) | 0.389 | 2.0 (0.5–7.4) | 0.498 |
| Busy traffic | 2.4 (1.2–4.6) | 0.045 | 2.2 (0.9–5.0) | 0.152 | 1.7 (0.8–3.6) | 0.302 | 1.6 (0.6–3.8) | 0.516 |
| Dangerous crossroads | 2.0 (1.1–3.6) | 0.076 | 1.3 (0.6–2.9) | 0.712 | 1.6 (0.8–2.9) | 0.352 | 1.0 (0.4–2.3) | 0.945 |
| Vehicles on walkways | 1.1 (0.3–4.2) | 0.972 | 1.0 (0.2–6.0) | 0.995 | 0.8 (0.2–3.6) | 0.886 | 0.7 (0.1–4.6) | 0.821 |
| Cyclists in the walkways | 1.5 (0.9–2.3) | 0.142 | 0.7 (0.4–1.4) | 0.502 | 1.2 (0.7–1.8) | 0.715 | 0.5 (0.3–1.0) | 0.194 |
| Insecurity due to other pedestrians | 1.7 (0.8–3.4) | 0.295 | 0.9 (0.3–2.7) | 0.968 | 1.0 (0.4–2.2) | 0.971 | 0.5 (0.2–1.6) | 0.417 |

Note: Multinomial logistic regression analyses. Reference category: no walking modifications, n = 280. Model 1: Adjusted for age and sex. Model 2: Adjusted for age, sex, years of education, depressive symptoms, chronic conditions, and lower extremity function. OR = Odds Ratio; CI = Confidence Interval. False discovery rates (adjusted p-values) were calculated to correct for multiple testing.
Supplementary Table 3. Sensitivity Analyses. Perceived Environmental Facilitators for Outdoor Mobility as Predictors of Use of Maladaptive Walking Modifications over the 2-Year Follow-Up in Community-Dwelling Older People (N = 605).

| Facilitators                          | Maladaptive walking modifications |          |          |          |          |
|---------------------------------------|-----------------------------------|----------|----------|----------|----------|
|                                       | Model 1                           | OR (95 % CI) | Adjusted p-value | Model 2                           | OR (95 % CI) | Adjusted p-value |
| Sum of nature facilitators           |                                   |          |          |          |          |
| 1 vs. 0                              | 0.7 (0.4–1.1)                     | 0.268    |          | 0.7 (0.4–1.7) | 0.277    |
| ≥ 2 vs. 0                            | 0.9 (0.5–1.7)                     | 0.931    |          | 1.0 (0.5–1.7) | 0.910    |
| Sum of infrastructure facilitators   |                                   |          |          |          |          |
| 1 vs. 0                              | 0.9 (0.6–1.5)                     | 0.892    |          | 0.9 (0.5–1.6) | 0.664    |
| ≥ 2 vs. 0                            | 0.9 (0.5–1.5)                     | 0.841    |          | 0.9 (0.5–1.6) | 0.843    |
| Sum of safety facilitators           |                                   |          |          |          |          |
| 1 vs. 0                              | 1.0 (0.6–1.8)                     | 0.980    |          | 0.9 (0.5–1.7) | 0.857    |
| ≥ 2 vs. 0                            | 1.9 (0.9–3.7)                     | 0.154    |          | 1.7 (0.8–3.3) | 0.329    |
| Item-specific                        |                                   |          |          |          |          |
| Nature                               |                                   |          |          |          |          |
| Park or other green area             | 0.8 (0.6–1.2)                     | 0.242    |          | 0.7 (0.5–1.1) | 0.258    |
| Walking trail, skiing track          | 0.5 (0.4–0.7)                     | <0.001   |          | 0.5 (0.3–0.7) | <0.001   |
| Nature, lakeside                     | 1.2 (0.8–1.9)                     | 0.471    |          | 1.3 (0.8–1.9) | 0.481    |
| Infrastructure                       |                                   |          |          |          |          |
| Good lighting                        | 0.9 (0.7–1.3)                     | 0.841    |          | 0.9 (0.6–1.3) | 0.761    |
| Peaceful and good quality walkways   | 0.9 (0.6–1.2)                     | 0.645    |          | 0.9 (0.6–1.2) | 0.584    |
| Even sidewalks                       | 1.3 (0.9–1.8)                     | 0.353    |          | 1.2 (0.8–1.7) | 0.584    |
| Resting places by the walking route  | 1.5 (1.0–2.3)                     | 0.123    |          | 1.4 (0.9–2.1) | 0.330    |
| Walkways without steep hills         | 1.2 (0.7–1.9)                     | 0.661    |          | 1.1 (0.7–1.9) | 0.777    |
| Services close                       | 1.2 (0.8–1.6)                     | 0.598    |          | 1.2 (0.8–1.7) | 0.540    |
| Safe crossings: Traffic lights, zebra crossing or traffic island between lanes | 0.9 (0.6–1.3) | 0.658 |          | 0.8 (0.6–1.3) | 0.584 |
| Safety                               |                                   |          |          |          |          |
| Familiar environment                 | 1.0 (0.7–1.5)                     | 0.972    |          | 1.0 (0.7–1.5) | 0.945    |
| Appealing scenery                    | 0.8 (0.5–1.1)                     | 0.268    |          | 0.8 (0.5–1.1) | 0.321    |
| Own yard                             | 1.1 (0.8–1.6)                     | 0.701    |          | 1.1 (0.8–1.6) | 0.709    |
| Other people outdoors motivate       | 0.9 (0.6–1.4)                     | 0.897    |          | 0.9 (0.6–1.3) | 0.642    |
| No car traffic                       | 0.9 (0.6–1.5)                     | 0.892    |          | 0.9 (0.5–1.4) | 0.731    |
| No cyclists on walkways              | 1.1 (0.5–2.5)                     | 0.917    |          | 1.0 (0.4–2.4) | 0.971    |

Note: Development of maladaptive walking modifications was analyzed by using binary logistic regression models. Reference category: no and adaptive walking modifications. Model 1: Adjusted for age and sex. Model 2: Adjusted for age, sex, years of education, depressive symptoms, chronic conditions, and lower extremity function. OR = Odds Ratio; CI = Confidence Interval. False discovery rates (adjusted p-values) were calculated to correct for multiple testing.
Supplementary Table 4. Sensitivity Analyses. Perceived Environmental Barriers to Outdoor Mobility as Predictors of Use of Maladaptive Walking Modifications over 2-Year Follow-Up in Community-Dwelling Older People (N = 605).

| Barriers                        | Model 1 |                | Adjusted | Model 2 |                | Adjusted |
|--------------------------------|---------|----------------|----------|---------|----------------|----------|
|                                 | OR (95 % CI) | p-value         | OR (95 % CI) | p-value         |          |
| Sum of nature barriers         |         |                |          |         |                |          |
| 1 vs. 0                        | 2.5 (1.5–4.1) | <0.001         | 2.0 (1.2–3.4) | 0.046         |          |
| 2 vs. 0                        | 1.7 (1.1–2.5) | 0.030         | 1.4 (0.9–2.1) | 0.288         |          |
| Sum of infrastructure barriers |         |                |          |         |                |          |
| 1 vs. 0                        | 1.6 (1.0–2.5) | 0.119         | 1.3 (0.8–2.1) | 0.536         |          |
| ≥ 2 vs. 0                      | 1.2 (0.7–1.8) | 0.661         | 1.1 (0.7–1.7) | 0.900         |          |
| Sum of safety barriers         |         |                |          |         |                |          |
| 1 vs. 0                        | 1.1 (0.7–2.0) | 0.750         | 0.9 (0.5–1.6) | 0.836         |          |
| ≥ 2 vs. 0                      | 1.4 (0.9–2.2) | 0.229         | 1.3 (0.8–2.1) | 0.418         |          |
| Item-specific                  |         |                |          |         |                |          |
| Nature                         |         |                |          |         |                |          |
| Hills in the nearby environment| 1.7 (1.1–2.7) | 0.040         | 1.6 (1.0–2.4) | 0.170         |          |
| Snow and ice in winter         | 1.8 (1.3–2.6) | 0.004         | 1.5 (1.1–2.2) | 0.102         |          |
| Infrastructure                  |         |                |          |         |                |          |
| Poor street condition          | 1.5 (0.9–2.3) | 0.147         | 1.3 (0.8–2.0) | 0.436         |          |
| High curbs                     | 1.7 (0.8–3.5) | 0.273         | 1.2 (0.6–2.6) | 0.777         |          |
| Lack of pedestrian zones       | 1.0 (0.3–3.2) | 0.978         | 1.3 (0.4–4.2) | 0.768         |          |
| Long distances to services     | 1.0 (0.5–2.0) | 0.995         | 1.0 (0.5–1.9) | 0.945         |          |
| Lack of resting places, summer | 1.4 (0.8–2.3) | 0.372         | 1.1 (0.6–1.8) | 0.878         |          |
| Lack of resting places, winter | 1.6 (1.0–2.5) | 0.141         | 1.3 (0.8–2.1) | 0.533         |          |
| Poor lighting                  | 1.1 (0.4–2.6) | 0.969         | 0.8 (0.3–2.0) | 0.761         |          |
| Safety                         |         |                |          |         |                |          |
| Noisy traffic                  | 1.0 (0.4–2.5) | 0.977         | 0.7 (0.3–1.9) | 0.664         |          |
| Busy traffic                   | 1.9 (1.0–3.6) | 0.108         | 1.6 (0.8–3.1) | 0.318         |          |
| Dangerous crossroads           | 1.2 (0.7–2.2) | 0.645         | 1.1 (0.6–1.9) | 0.886         |          |
| Vehicles on walkways           | 0.9 (0.2–3.6) | 0.917         | 0.8 (0.2–3.4) | 0.851         |          |
| Cyclists in the walkways       | 1.3 (0.8–1.9) | 0.440         | 1.2 (0.7–1.8) | 0.709         |          |
| Insecurity due to other pedestrians | 1.0 (0.5–2.1) | 0.977         | 0.8 (0.4–1.7) | 0.761         |          |

Note: Development of maladaptive walking modifications was analyzed by using binary logistic regression models. Reference category: no and adaptive walking modifications. Model 1: Adjusted for age and sex. Model 2: Adjusted for age, sex, years of education, depressive symptoms, chronic conditions and lower extremity function. OR = Odds Ratio; CI = Confidence Interval. False discovery rates (adjusted p-values) were calculated to correct for multiple testing.