```
      name:  <unnamed>
       log:  /Users/caislin/sfuvault/INT_TimexNbhood/Manuscript/Final models.smcl
  log type:  smcl
 opened on:  14 Oct 2021, 14:45:37

1 . **All physical activity

2 . ***Montreal

3 . menbreg total_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpr
  > _q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
  > == 1 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =     39,464
Overdispersion:             mean
Group variable:     interact_id                 Number of groups  =        157

                                                Obs per group:
                                                              min =         24
                                                              avg =      251.4
                                                              max =        565

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(24)     =    6306.58
Log likelihood = -81445.891                     Prob > chi2       =     0.0000
------------------------------------------------------------------------------
total_active_minutes_n |        IRR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-----------------------+------------------------------------------------------
           ale_index_q |   1.180712   .0252849     7.76   0.000     1.132181    1.231325

       gentrify_Dingx3 |
             Low SES   |   .8947062    .027967    -3.56   0.000     .8415373    .9512344
          Gentrified   |   .9346066   .0285977    -2.21   0.027     .8802037     .992372

             sprawl_n  |   .6628286   .0166897   -16.33   0.000     .6309114    .6963605
       prox_idx_emp_q  |   1.013108   .0189188     0.70   0.486     .9766986    1.050876
    prox_idx_pharma_q  |   1.147199   .0201637     7.81   0.000     1.108352    1.187408
  prox_idx_childcare_q |   1.054003   .0162638     3.41   0.001     1.022604    1.086367
     prox_idx_health_q |   .9839212   .0145507    -1.10   0.273     .9558116    1.012857
   prox_idx_grocery_q  |   .9250066   .0138385    -5.21   0.000     .8982774    .9525313
   prox_idx_educpri_q  |    .902028   .0103566    -8.98   0.000     .8819562    .9225566
   prox_idx_educsec_q  |   .9456143   .0092463    -5.72   0.000     .9276644    .9639115
       prox_idx_lib_q  |   .9925228   .0084921    -0.88   0.380     .9760173    1.009307
   prox_idx_transit_q  |   .8940329   .0120696    -8.30   0.000     .8706871    .9180048
     prox_idx_parks_q  |   1.068537   .0103901     6.82   0.000     1.048365    1.089096

             genderx3  |
                male   |   1.061265   .1206151     0.52   0.601     .8493421    1.326064
               other   |    .726283   .3498252    -0.66   0.507     .2825608    1.866809

           incomegrps  |
             $50-100k  |   .9413081   .1572264    -0.36   0.717     .6785094    1.305893
               $100k+  |   .8571269   .1326088    -1.00   0.319     .6329261    1.160746

             0.white   |   1.026413   .2246882     0.12   0.905      .668327     1.57636
           agegroupx4  |   1.040239   .0856915     0.48   0.632     .8851438     1.22251
             home_yes  |   34.37677   1.665231    73.03   0.000     31.26312    37.80052
               weekend |   .9514947   .0200011    -2.37   0.018     .9130898    .9915149
    total_precip_mm_n  |   .9969202   .0019155    -1.61   0.108      .993173    1.000682
        mean_temp_c_n  |    .988788   .0028158    -3.96   0.000     .9832846    .9943223
                 _cons |   3.419917   .8003937     5.25   0.000     2.161729    5.410406
-----------------------+------------------------------------------------------
             /lnalpha  |   1.025833   .0092218                     1.007759    1.043908
-----------------------+------------------------------------------------------
interact_id            |
        var(count_days)|   .0040581   .0006877                     .0029112    .0056567
             var(_cons)|   .3968528   .0532903                     .3050199    .5163339
------------------------------------------------------------------------------
Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(2) = 2534.62            Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

4 .
5 . ***Saskatoon

6 . menbreg total_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpr
  > _q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
  > == 2 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =     11,909
Overdispersion:             mean
Group variable:     interact_id                 Number of groups  =         78

                                                Obs per group:
                                                              min =          3
                                                              avg =      152.7
                                                              max =        376

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(24)     =    1546.23
Log likelihood = -27685.225                     Prob > chi2       =     0.0000
------------------------------------------------------------------------------
total_active_minutes_n |        IRR   Std. Err.      z    P>|z|     [95% Conf. Interval]
```

ale_index_q	1.299567	.0815848	4.17	0.000	1.14911	1.469724
gentrify_Dingx3						
Low SES	.4387898	.0347266	-10.41	0.000	.3757429	.5124154
Gentrified	1.026368	.0870015	0.31	0.759	.8692606	1.211871
sprawl_n	.7942243	.0778984	-2.35	0.019	.6553244	.9625648
prox_idx_emp_q	.8214776	.0618847	-2.61	0.009	.7087154	.9521812
prox_idx_pharma_q	.9054514	.0403742	-2.23	0.026	.8296788	.9881443
prox_idx_childcare_q	1.086728	.0401561	2.25	0.024	1.010806	1.168353
prox_idx_health_q	.7439372	.0393133	-5.60	0.000	.6707406	.8251215
prox_idx_grocery_q	.7868337	.0239823	-7.87	0.000	.7412057	.8352706
prox_idx_educpri_q	.7162676	.0204689	-11.68	0.000	.6772522	.7575306
prox_idx_educsec_q	.9070572	.0230497	-3.84	0.000	.8629872	.9533778
prox_idx_lib_q	1.14532	.0298934	5.20	0.000	1.088204	1.205435
prox_idx_transit_q	.9966432	.0420619	-0.08	0.936	.9175209	1.082589
prox_idx_parks_q	1.289188	.0364048	9.00	0.000	1.219775	1.362552
genderx3						
male	.870082	.1594919	-0.76	0.448	.6074761	1.24621
other	15.11773	11.26628	3.64	0.000	3.508651	65.13774
incomegrps						
$50-100k	1.101827	.237298	0.45	0.653	.7224235	1.680485
$100k+	1.558643	.2950305	2.34	0.019	1.075538	2.258749
0.white	.7536442	.1603865	-1.33	0.184	.4966131	1.143706
agegroupx4	1.05587	.1357891	0.42	0.672	.8206209	1.358559
home_yes	27.31902	3.092278	29.22	0.000	21.88348	34.10467
weekend	1.066939	.0493748	1.40	0.161	.9744252	1.168236
total_precip_mm_n	.9703142	.0224989	-1.30	0.194	.9272042	1.015429
mean_temp_c_n	1.003424	.0044279	0.77	0.439	.9947834	1.012141
_cons	18.65154	6.225844	8.77	0.000	9.695841	35.8793
/lnalpha	1.520552	.0157274			1.489727	1.551377
interact_id						
var(count_days)	.0009526	.0008139			.0001785	.0050833
var(_cons)	.4214627	.0827782			.2867988	.6193571

Note: Estimates are transformed only in the first equation.
Note: **_cons** estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(**2**) = **630.42** Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

```
7 .
8 . **Vancouver

9 . menbreg total_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpr
  > _q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
  > == 3 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =     42,685
Overdispersion:             mean
Group variable:     interact_id                 Number of groups  =        150

                                                Obs per group:
                                                              min =         21
                                                              avg =      284.6
                                                              max =        691

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(23)     =    6157.22
Log likelihood = -85528.641                     Prob > chi2       =     0.0000
```

total_active_minutes_n	IRR	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ale_index_q	1.149268	.0215108	7.43	0.000	1.107872	1.192211
gentrify_Dingx3						
Low SES	1.14653	.0361454	4.34	0.000	1.07783	1.219608
Gentrified	1.153103	.0329756	4.98	0.000	1.09025	1.21958
sprawl_n	.5098774	.0177004	-19.40	0.000	.4763391	.5457771
prox_idx_emp_q	.896109	.0175353	-5.61	0.000	.8623912	.9311451
prox_idx_pharma_q	1.055264	.0175659	3.23	0.001	1.021391	1.09026
prox_idx_childcare_q	.8339564	.0127428	-11.88	0.000	.8093512	.8593096
prox_idx_health_q	1.142545	.0224846	6.77	0.000	1.099315	1.187475
prox_idx_grocery_q	1.068635	.0134924	5.26	0.000	1.042515	1.095409
prox_idx_educpri_q	.9258973	.014104	-5.05	0.000	.8986625	.9539575
prox_idx_educsec_q	.9150093	.0137661	-5.90	0.000	.8884222	.9423922
prox_idx_lib_q	1.116683	.0098477	12.51	0.000	1.097548	1.136152
prox_idx_transit_q	.8521872	.0118253	-11.53	0.000	.8293224	.8756824
prox_idx_parks_q	1.122313	.0115661	11.20	0.000	1.099872	1.145213
genderx3						
male	.70442	.0799038	-3.09	0.002	.5639988	.8798025
incomegrps						
$50-100k	.7379457	.1263563	-1.77	0.076	.5275647	1.032222
$100k+	.7337501	.1119409	-2.03	0.042	.5441127	.9894811
0.white	.9582458	.1470183	-0.28	0.781	.7093847	1.29441
agegroupx4	.9184956	.0717477	-1.09	0.276	.7881085	1.070454
home_yes	38.35815	2.108392	66.35	0.000	34.44059	42.72133

```
              weekend |   1.042365   .0226178     1.91   0.056      .998964    1.087651
    total_precip_mm_n |   1.000565   .0029256     0.19   0.847      .994847    1.006315
        mean_temp_c_n |   1.019931   .0069508     2.90   0.004     1.006398    1.033645
                _cons |   6.168833   1.957703     5.73   0.000     3.311852     11.4904
----------------------+-----------------------------------------------------------------
           /lnalpha |   1.227323   .0092092                      1.209274    1.245373
----------------------+-----------------------------------------------------------------
interact_id           |
     var(count_days) |   .0039587   .0007064                      .0027904    .0056162
         var(_cons) |    .318689   .0456152                      .2407306    .4218934
------------------------------------------------------------------------------------------
Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(2) = 2299.45            Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

10 .
11 . ***Victoria

12 . menbreg total_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpr
   > _q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > == 4 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =     35,658
Overdispersion:             mean
Group variable:     interact_id                 Number of groups  =        152

                                                Obs per group:
                                                              min =         66
                                                              avg =      234.6
                                                              max =        512

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(24)     =    6945.65
Log likelihood = -88664.633                     Prob > chi2       =     0.0000
------------------------------------------------------------------------------
total_active_minutes_n |        IRR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-----------------------+------------------------------------------------------
           ale_index_q |   1.338586   .0261348    14.94   0.000     1.288331    1.390802

       gentrify_Dingx3 |
             Low SES |   .8004989   .0292275    -6.09   0.000     .7452157    .8598832
          Gentrified |   .9509282   .0354068    -1.35   0.177     .8840038    1.022919

             sprawl_n |   .5569012   .0275004   -11.85   0.000     .5055277    .6134955
       prox_idx_emp_q |   .8064385   .0226851    -7.65   0.000     .7631799     .852149
    prox_idx_pharma_q |   1.197442   .0197005    10.95   0.000     1.159446    1.236684
  prox_idx_childcare_q |   .8759487   .0133629    -8.68   0.000     .8501455     .902535
     prox_idx_health_q |   .9650185   .0160952    -2.13   0.033     .9339826    .9970858
    prox_idx_grocery_q |    1.05578   .0142895     4.01   0.000     1.028141    1.084162
    prox_idx_educpri_q |   1.095217   .0136779     7.28   0.000     1.068734    1.122356
    prox_idx_educsec_q |    .834931   .0082289   -18.30   0.000     .8189575    .8512161
        prox_idx_lib_q |   1.082383   .0101077     8.48   0.000     1.062752    1.102376
   prox_idx_transit_q |   .9293698   .0157861    -4.31   0.000     .8989389    .9608309
     prox_idx_parks_q |   .9586955   .0117268    -3.45   0.001     .9359847    .9819573

              genderx3 |
                 male |   1.006344   .0987587     0.06   0.949      .830258    1.219776
                other |   1.879011   .6565062     1.81   0.071     .9473894    3.726747

           incomegrps |
              $50-100k |   .7662035   .1098428    -1.86   0.063      .578517    1.014781
                $100k+ |    .675579   .0933548    -2.84   0.005     .5152914    .8857259

              0.white |    .944536   .1626181    -0.33   0.740      .674015    1.323633
           agegroupx4 |   .9747071   .0652649    -0.38   0.702     .8548284    1.111397
             home_yes |   33.7828    1.56423    76.02   0.000     30.85196    36.99205
              weekend |   .9661414   .0204174    -1.63   0.103     .9269414    1.006999
    total_precip_mm_n |    1.00387   .0021178     1.83   0.067     .9997275    1.008029
        mean_temp_c_n |   .9946176   .0055828    -0.96   0.336     .9837354     1.00562
                _cons |   6.149299   1.370298     8.15   0.000     3.973246    9.517124
-----------------------+------------------------------------------------------
           /lnalpha |    .974109   .0086438                      .9571675    .9910506
-----------------------+------------------------------------------------------
interact_id            |
     var(count_days) |   .0022201   .0004153                      .0015386    .0032035
         var(_cons) |   .2961012   .0404844                      .2264956    .3870977
------------------------------------------------------------------------------
Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(2) = 2698.56            Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

13 . **MVPA

14 . ***Montreal

15 . menbreg mvpa_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpri
   > q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > = 1 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =     39,464
Overdispersion:             mean
Group variable:     interact_id                 Number of groups  =        157
```

```
                                                Obs per group:
                                                              min =         24
                                                              avg =      251.4
                                                              max =        565

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(24)     =    1970.53
Log likelihood = -41553.506                     Prob > chi2       =     0.0000
------------------------------------------------------------------------------
mvpa_active_minutes_n |        IRR   Std. Err.      z    P>|z|     [95% Conf. Interval]
----------------------+-------------------------------------------------------
          ale_index_q |   1.458577   .0442251    12.45   0.000     1.374423    1.547884
                      |
      gentrify_Dingx3 |
              Low SES |    .9873744   .0427178    -0.29   0.769     .9071006    1.074752
           Gentrified |    1.037175   .0436117     0.87   0.385     .9551254    1.126274
                      |
              sprawl_n |    .5941449   .0204741   -15.11   0.000     .5553415    .6356597
          prox_idx_emp_q |   1.072499   .0277754     2.70   0.007     1.019419    1.128343
       prox_idx_pharma_q |   1.112392   .0270294     4.38   0.000     1.060657     1.16665
    prox_idx_childcare_q |    .9226748    .020144    -3.69   0.000     .8840261    .9630133
       prox_idx_health_q |    .9827812   .0199313    -0.86   0.392     .9444827    1.022633
      prox_idx_grocery_q |     .919688   .0191564    -4.02   0.000     .8828982    .9580107
      prox_idx_educpri_q |    .9305739   .0145102    -4.61   0.000     .9025646    .9594524
      prox_idx_educsec_q |    .9544687   .0129007    -3.45   0.001     .9295158    .9800914
          prox_idx_lib_q |    .9897254   .0119352    -0.86   0.392     .9666071    1.013397
      prox_idx_transit_q |    .9823209   .0182369    -0.96   0.337     .9472196    1.018723
        prox_idx_parks_q |   1.066272   .0145522     4.70   0.000     1.038128    1.095179
                         |
                genderx3 |
                   male |     1.22948   .2135684     1.19   0.234     .8747069    1.728147
                  other |    .9674897   .7146123    -0.04   0.964     .2274717    4.114957
                         |
              incomegrps |
               $50-100k |    .7953098   .2028519    -0.90   0.369     .4824237    1.311125
                 $100k+ |    .9197647   .2173387    -0.35   0.723     .5788144    1.461552
                         |
                 0.white |   1.213485   .4052456     0.58   0.562     .6306292    2.335042
              agegroupx4 |   1.036263   .1302327     0.28   0.777     .8100189      1.3257
                home_yes |   9.113335   .5885545    34.22   0.000      8.02981    10.34307
                 weekend |    .8916291   .0266448    -3.84   0.000     .8409062    .9454115
    total_precip_mm_n |   1.003824   .0026827     1.43   0.153     .9985802    1.009096
        mean_temp_c_n |    .9874136    .004028    -3.10   0.002     .9795502      .99534
                _cons |    .4048775   .1439767    -2.54   0.011     .2016655      .81286
----------------------+-------------------------------------------------------
              /lnalpha |   1.445352   .0153905                     1.415187    1.475517
----------------------+-------------------------------------------------------
interact_id           |
       var(count_days) |    .0093995    .001553                     .0067993    .0129941
             var(_cons) |    .9447513    .125057                     .7288592    1.224592
------------------------------------------------------------------------------
Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(2) = 3269.59            Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

16 .
17 . ***Saskatoon

18 . menbreg mvpa_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpri
   > q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > = 2 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =     11,909
Overdispersion:                 mean
Group variable:     interact_id                 Number of groups  =         78

                                                Obs per group:
                                                              min =          3
                                                              avg =      152.7
                                                              max =        376

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(24)     =     530.20
Log likelihood = -13341.495                     Prob > chi2       =     0.0000
------------------------------------------------------------------------------
mvpa_active_minutes_n |        IRR   Std. Err.      z    P>|z|     [95% Conf. Interval]
----------------------+-------------------------------------------------------
          ale_index_q |    1.37799   .1022235     4.32   0.000      1.19152    1.593642
                      |
      gentrify_Dingx3 |
              Low SES |    .5944332    .059005    -5.24   0.000     .4893399     .722097
           Gentrified |    1.473357   .1536871     3.72   0.000     1.200932     1.80758
                      |
              sprawl_n |    .7370163   .0875599    -2.57   0.010     .5839176    .9302563
          prox_idx_emp_q |   .7554466   .0705895    -3.00   0.003     .6290234    .9072787
       prox_idx_pharma_q |   .9997952   .0554062    -0.00   0.997     .8968908    1.114506
    prox_idx_childcare_q |   .9726071   .0440083    -0.61   0.539     .8900665    1.062802
       prox_idx_health_q |   .7538467   .0479985    -4.44   0.000     .6654045     .854044
      prox_idx_grocery_q |   .7295636   .0285814    -8.05   0.000     .6756418    .7877889
      prox_idx_educpri_q |   .7714598   .0271681    -7.37   0.000     .7200075     .826589
      prox_idx_educsec_q |   .8942757   .0289728    -3.45   0.001     .8392555     .952903
          prox_idx_lib_q |   1.104404   .0341659     3.21   0.001      1.03943    1.17344
      prox_idx_transit_q |   1.223189   .0627432     3.93   0.000     1.106194    1.352557
        prox_idx_parks_q |   1.167955   .0410893     4.41   0.000     1.090135     1.25133
```

genderx3						
male	1.211552	.2485715	0.94	0.350	.8104066	1.811262
other	8.62637	7.388096	2.52	0.012	1.60995	46.22147
incomegrps						
$50-100k	1.239591	.3029479	0.88	0.379	.7678039	2.001274
$100k+	1.452487	.3107875	1.74	0.081	.9549514	2.209241
0.white	.8271106	.1976373	-0.79	0.427	.5178092	1.321166
agegroupx4	.9027158	.1304789	-0.71	0.479	.6800142	1.198351
home_yes	6.644724	.9113201	13.81	0.000	5.078496	8.693982
weekend	1.015709	.0616845	0.26	0.797	.9017278	1.144098
total_precip_mm_n	.951656	.0294054	-1.60	0.109	.8957328	1.011071
mean_temp_c_n	1.00984	.0058379	1.69	0.090	.9984621	1.021347
_cons	2.640142	1.005574	2.55	0.011	1.251476	5.569703
/lnalpha	1.883141	.0267817			1.83065	1.935633
interact_id						
var(count_days)	.003091	.0013923			.0012785	.0074731
var(_cons)	.4846952	.1029564			.3196398	.7349816

Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(2) = 447.05 Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

```
19 .
20 . ***Vancouver

21 . menbreg mvpa_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpri
   > q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > = 3 || interact_id: count_days, irr nolog
```

Mixed-effects nbinomial regression — Number of obs = 42,685
Overdispersion: mean
Group variable: interact_id — Number of groups = 150

Obs per group:
min = 21
avg = 284.6
max = 691

Integration method: mvaghermite — Integration pts. = 7

Wald chi2(23) = 2230.94
Log likelihood = -46720.684 — Prob > chi2 = 0.0000

mvpa_active_minutes_n	IRR	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ale_index_q	1.168012	.0296773	6.11	0.000	1.11127	1.227651
gentrify_Dingx3						
Low SES	1.348335	.0596396	6.76	0.000	1.236367	1.470443
Gentrified	1.249917	.0494715	5.64	0.000	1.15662	1.350739
sprawl_n	.4784158	.022983	-15.35	0.000	.4354256	.5256505
prox_idx_emp_q	.8726221	.0239912	-4.96	0.000	.8268447	.9209339
prox_idx_pharma_q	1.125588	.026565	5.01	0.000	1.074708	1.178878
prox_idx_childcare_q	.8067846	.0176369	-9.82	0.000	.772947	.8421036
prox_idx_health_q	1.336712	.0378618	10.25	0.000	1.264526	1.413018
prox_idx_grocery_q	1.057253	.0190792	3.09	0.002	1.020512	1.095317
prox_idx_educpri_q	.8647427	.0181728	-6.92	0.000	.8298483	.9011044
prox_idx_educsec_q	.8448106	.0177057	-8.05	0.000	.8108111	.8802358
prox_idx_lib_q	1.097427	.0133816	7.62	0.000	1.071511	1.12397
prox_idx_transit_q	.8263779	.0162626	-9.69	0.000	.7951108	.8588747
prox_idx_parks_q	1.155295	.0161519	10.33	0.000	1.124068	1.18739
genderx3						
male	.6698951	.1199796	-2.24	0.025	.4715794	.9516094
incomegrps						
$50-100k	.7187046	.1945185	-1.22	0.222	.4228355	1.221601
$100k+	.7624003	.1838858	-1.12	0.261	.4752027	1.223171
0.white	.7888381	.1913618	-0.98	0.328	.4903402	1.269049
agegroupx4	.7860619	.0971761	-1.95	0.052	.6169185	1.00158
home_yes	7.647848	.5661864	27.48	0.000	6.614895	8.842102
weekend	1.108977	.033877	3.39	0.001	1.044528	1.177403
total_precip_mm_n	.9903377	.0042724	-2.25	0.024	.9819992	.9987469
mean_temp_c_n	1.014401	.0101803	1.42	0.154	.994643	1.034552
_cons	2.902249	1.442718	2.14	0.032	1.095467	7.688999
/lnalpha	1.717307	.0140049			1.689858	1.744756
interact_id						
var(count_days)	.012505	.002082			.0090233	.0173301
var(_cons)	.8143664	.1165926			.6151111	1.078167

Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(2) = 2262.79 Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

```
22 .
```

```
23 . ***Victoria

24 . menbreg mvpa_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpri
   > q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > = 4 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =     35,658
Overdispersion:             mean
Group variable:     interact_id                 Number of groups  =        152

                                                Obs per group:
                                                              min =         66
                                                              avg =      234.6
                                                              max =        512

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(24)     =    2002.68
Log likelihood = -39553.163                     Prob > chi2       =     0.0000
------------------------------------------------------------------------------
mvpa_active_minutes_n |        IRR   Std. Err.      z    P>|z|     [95% Conf. Interval]
----------------------+-------------------------------------------------------
          ale_index_q |   1.570293   .050453    14.05   0.000     1.474456    1.672359
                      |
      gentrify_Dingx3 |
              Low SES |   .7803047   .047874    -4.04   0.000     .6918954    .8800107
           Gentrified |   .9458519   .0594142   -0.89   0.375     .8362853    1.069773
                      |
              sprawl_n |   .3679975   .0291702  -12.61   0.000     .3150448    .4298504
         prox_idx_emp_q |   .6511034   .0306829   -9.11   0.000     .5936597    .7141056
      prox_idx_pharma_q |   1.163553   .0317539    5.55   0.000     1.102951    1.227484
   prox_idx_childcare_q |   .8308105   .0208449   -7.39   0.000     .7909436    .8726869
      prox_idx_health_q |   .9644539   .0271694   -1.28   0.199     .9126462    1.019202
     prox_idx_grocery_q |   1.115699   .0249482    4.90   0.000     1.067858    1.165684
     prox_idx_educpri_q |   1.095248   .0227209    4.39   0.000     1.051609    1.140698
     prox_idx_educsec_q |   .7746199   .0127809  -15.48   0.000     .7499706    .8000794
         prox_idx_lib_q |   1.101823   .0172638    6.19   0.000     1.068501    1.136184
     prox_idx_transit_q |    1.00084   .0285233    0.03   0.976     .9464679    1.058335
       prox_idx_parks_q |   .9822916   .0194791   -0.90   0.368     .9448457    1.021222
                      |
              genderx3 |
                 male |   1.257003   .170934     1.68   0.093     .9629088    1.640919
                other |   1.033664   .5032665    0.07   0.946     .3980608    2.684165
                      |
            incomegrps |
             $50-100k |   .9472442   .1880802   -0.27   0.785     .6418766    1.397888
               $100k+ |   .9885691   .1895053   -0.06   0.952     .6789451    1.439393
                      |
              0.white |   .7639752   .1817455   -1.13   0.258     .4792731    1.217799
            agegroupx4 |    .818595    .076267   -2.15   0.032     .6819683    .9825937
             home_yes |   11.23462   .8526719   31.87   0.000     9.681773    13.03653
              weekend |   .9601363   .0337568   -1.16   0.247     .8962024    1.028631
    total_precip_mm_n |   1.001886   .0036249    0.52   0.603     .9948063    1.009016
        mean_temp_c_n |   .9891377   .0089106   -1.21   0.225     .9718265    1.006757
                _cons |   1.261965   .4051285    0.72   0.469     .6726458    2.367601
----------------------+-------------------------------------------------------
              /lnalpha |   1.843794   .0149618                      1.81447    1.873119
----------------------+-------------------------------------------------------
interact_id           |
         var(count_days) |   .0057525   .0011223                      .0039245     .008432
              var(_cons) |   .5277797   .0773787                      .3959648    .7034752
------------------------------------------------------------------------------
Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(2) = 1626.36            Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

25 .
26 . *Sensitivity, participants in DAs for at least 5 minutes/day

27 .
28 . **All physical activity

29 . ***Montreal

30 . menbreg total_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpr
   > _q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > == 1 & minutes_da >= 5 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =      8,182
Overdispersion:             mean
Group variable:     interact_id                 Number of groups  =        157

                                                Obs per group:
                                                              min =          7
                                                              avg =       52.1
                                                              max =        131

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(24)     =    3390.84
Log likelihood = -31258.666                     Prob > chi2       =     0.0000
------------------------------------------------------------------------------
total_active_minutes_n |        IRR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-----------------------+------------------------------------------------------
           ale_index_q |   1.073658   .0323636     2.36   0.018     1.012064    1.139001
```

gentrify_Dingx3						
Low SES	.8737346	.0386837	-3.05	0.002	.8011124	.9529401
Gentrified	.8306189	.0355043	-4.34	0.000	.7638669	.9032042
sprawl_n	.9711457	.0309731	-0.92	0.359	.912298	1.033789
prox_idx_emp_q	.9663535	.024911	-1.33	0.184	.9187417	1.016433
prox_idx_pharma_q	1.024099	.0253101	0.96	0.335	.9756744	1.074927
prox_idx_childcare_q	1.066392	.022032	3.11	0.002	1.024073	1.110461
prox_idx_health_q	1.042102	.0221913	1.94	0.053	.9995025	1.086516
prox_idx_grocery_q	.8659648	.0181742	-6.86	0.000	.8310666	.9023284
prox_idx_educpri_q	.9559769	.0146554	-2.94	0.003	.9276801	.9851369
prox_idx_educsec_q	1.03247	.0143961	2.29	0.022	1.004636	1.061075
prox_idx_lib_q	.9711472	.0118716	-2.40	0.017	.9481558	.9946961
prox_idx_transit_q	.9209269	.0176275	-4.30	0.000	.8870177	.9561325
prox_idx_parks_q	1.01363	.0138414	0.99	0.321	.9868614	1.041125
genderx3						
male	.9675648	.0778124	-0.41	0.682	.8264673	1.132751
other	.7595244	.2596785	-0.80	0.421	.3886146	1.484446
incomegrps						
$50-100k	1.017267	.1186172	0.15	0.883	.809434	1.278463
$100k+	.9430106	.1021146	-0.54	0.588	.7626822	1.165976
0.white	.8813195	.1354295	-0.82	0.411	.6521267	1.191063
agegroupx4	.999221	.058086	-0.01	0.989	.8916206	1.119807
home_yes	7.127384	.2604698	53.74	0.000	6.634727	7.656623
weekend	1.039729	.0285189	1.42	0.155	.9853084	1.097154
total_precip_mm_n	.9978885	.0023827	-0.89	0.376	.9932293	1.002569
mean_temp_c_n	.9956304	.0026869	-1.62	0.105	.990378	1.000911
_cons	19.88915	3.563906	16.69	0.000	13.9988	28.25802
/lnalpha	.1003399	.0160945			.0687953	.1318845
interact_id						
var(count_days)	.0005445	.0003227			.0001704	.0017397
var(_cons)	.1795866	.0271027			.133602	.2413987

Note: Estimates are transformed only in the first equation.
Note: **_cons** estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(**2**) = **612.06** Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

```
31 .
32 .
33 . ***Saskatoon

34 . menbreg total_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpr
   > _q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > == 2 & minutes_da >= 5 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =      3,620
Overdispersion:            mean
Group variable:     interact_id                 Number of groups  =         78

                                                Obs per group:
                                                              min =          3
                                                              avg =       46.4
                                                              max =         85

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(24)     =    1069.70
Log likelihood = -14877.295                     Prob > chi2       =     0.0000
```

total_active_minutes_n	IRR	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ale_index_q	.7305962	.0496534	-4.62	0.000	.6394805	.8346945
gentrify_Dingx3						
Low SES	.6588485	.056513	-4.86	0.000	.556895	.779467
Gentrified	.8877059	.0785666	-1.35	0.178	.7463342	1.055857
sprawl_n	1.490959	.1510041	3.94	0.000	1.22252	1.81834
prox_idx_emp_q	.9697877	.0738218	-0.40	0.687	.8353756	1.125827
prox_idx_pharma_q	.5887409	.0277978	-11.22	0.000	.5367032	.6458241
prox_idx_childcare_q	1.108612	.0454774	2.51	0.012	1.022967	1.201427
prox_idx_health_q	1.247622	.0745207	3.70	0.000	1.10979	1.402573
prox_idx_grocery_q	.9351885	.0314475	-1.99	0.046	.8755397	.9989011
prox_idx_educpri_q	.8828236	.0296213	-3.71	0.000	.8266347	.9428317
prox_idx_educsec_q	1.004836	.0295097	0.16	0.870	.9486314	1.064371
prox_idx_lib_q	1.117401	.032203	3.85	0.000	1.056034	1.182334
prox_idx_transit_q	1.021635	.0462599	0.47	0.636	.9348743	1.116448
prox_idx_parks_q	1.243606	.0387126	7.00	0.000	1.169999	1.321844
genderx3						
male	.930853	.1240017	-0.54	0.591	.7169519	1.208571
other	2.513997	1.302238	1.78	0.075	.9108493	6.938776
incomegrps						
$50-100k	1.067451	.1680555	0.41	0.678	.7840391	1.453308
$100k+	1.463663	.2024667	2.75	0.006	1.11608	1.919494
0.white	1.073796	.1697528	0.45	0.652	.7876949	1.463812
agegroupx4	.9991601	.0934413	-0.01	0.993	.8318229	1.20016
home_yes	4.767413	.3672977	20.27	0.000	4.09924	5.544498
weekend	1.042533	.049023	0.89	0.376	.950744	1.143183

```
      total_precip_mm_n |   .9594238   .0217182    -1.83   0.067     .9177874    1.002949
         mean_temp_c_n |   1.005143   .0040241     1.28   0.200     .9972871    1.013061
                 _cons |   46.85655   12.18118    14.80   0.000     28.15046    77.99289
-----------------------+------------------------------------------------------------------
               /lnalpha |   .4091275   .0227805                      .3644785    .4537765
-----------------------+------------------------------------------------------------------
interact_id            |
         var(count_days) |   1.89e-34   2.77e-20                      .           .
              var(_cons) |   .2160275   .0431204                      .1460844    .3194583
------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chibar2(01) = 263.53     Prob >= chibar2 = 0.0000

35 .
36 .
37 . ***Vancouver

38 . menbreg total_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpr
   > _q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > == 3 & minutes_da >= 5 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =      9,261
Overdispersion:             mean
Group variable:     interact_id                 Number of groups  =        150

                                                Obs per group:
                                                              min =          2
                                                              avg =       61.7
                                                              max =        124

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(23)     =    4149.91
Log likelihood =  -35177.15                     Prob > chi2       =     0.0000
------------------------------------------------------------------------------
total_active_minutes_n |        IRR   Std. Err.      z    P>|z|     [95% Conf. Interval]
-----------------------+------------------------------------------------------------------
          ale_index_q |   1.047211    .022886     2.11   0.035     1.003303    1.093042

       gentrify_Dingx3 |
              Low SES |   1.002244   .0374646     0.06   0.952     .9314402     1.07843
           Gentrified |   1.098644    .036702     2.82   0.005     1.029014    1.172986

             sprawl_n |   .7960665   .0344946    -5.26   0.000     .7312497    .8666286
        prox_idx_emp_q |   .9467866    .021747    -2.38   0.017     .9051085     .990384
     prox_idx_pharma_q |   .9313335   .0190403    -3.48   0.001     .8947529    .9694096
   prox_idx_childcare_q |   .9808266   .0175432    -1.08   0.279     .9470384     1.01582
      prox_idx_health_q |   1.024029   .0260015     0.94   0.350     .9743144     1.07628
     prox_idx_grocery_q |   .9951923   .0150516    -0.32   0.750     .9661248    1.025134
     prox_idx_educpri_q |   1.058504   .0194457     3.09   0.002     1.021069    1.097311
     prox_idx_educsec_q |   .9764421   .0167442    -1.39   0.164     .9441694    1.009818
        prox_idx_lib_q |   1.037849   .0115322     3.34   0.001      1.01549     1.0607
     prox_idx_transit_q |   .8815506   .0147181    -7.55   0.000     .8531706    .9108746
       prox_idx_parks_q |   1.070442    .012994     5.61   0.000     1.045274    1.096215

               genderx3 |
                  male |   .9313215   .0759853    -0.87   0.383     .7936904    1.092819

             incomegrps |
               $50-100k |   1.071994   .1298286     0.57   0.566     .8454811    1.359193
                 $100k+ |   1.050526    .112846     0.46   0.646     .8510829    1.296706

               0.white |   .9236318   .1022019    -0.72   0.473     .7435523    1.147324
             agegroupx4 |   .8979495   .0508972    -1.90   0.058     .8035343    1.003458
               home_yes |   7.503301   .2580526    58.60   0.000     7.014197     8.02651
                weekend |    1.06036   .0255642     2.43   0.015     1.011421    1.111668
     total_precip_mm_n |    1.00212   .0031174     0.68   0.496     .9960284    1.008248
         mean_temp_c_n |   1.011224   .0063039     1.79   0.073     .9989438    1.023655
                 _cons |   22.07911   5.306034    12.88   0.000     13.78547    35.36239
-----------------------+------------------------------------------------------------------
               /lnalpha |   .0032641   .0151747                     -.0264778    .0330061
-----------------------+------------------------------------------------------------------
interact_id            |
         var(count_days) |   .0004142   .0002414                      .0001322    .0012979
              var(_cons) |   .1611207   .0231903                      .1215168    .2136318
------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(2) = 885.98              Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

39 .
40 .
41 . ***Victoria

42 . menbreg total_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpr
   > _q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > == 4 & minutes_da >= 5 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =      9,603
Overdispersion:             mean
Group variable:     interact_id                 Number of groups  =        152

                                                Obs per group:
                                                              min =          9
                                                              avg =       63.2
```

```
                                                max =        126

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(24)     =    4048.57
Log likelihood = -39401.611                     Prob > chi2       =     0.0000
```

total_active_minutes_n	IRR	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ale_index_q	1.102025	.0263834	4.06	0.000	1.051509	1.154968
gentrify_Dingx3						
Low SES	1.013421	.0475362	0.28	0.776	.9244059	1.111007
Gentrified	.9400191	.0461492	-1.26	0.208	.8537837	1.034965
sprawl_n	.8585037	.0518009	-2.53	0.011	.7627495	.9662787
prox_idx_emp_q	.8493843	.0308872	-4.49	0.000	.7909535	.9121315
prox_idx_pharma_q	.9804851	.0208524	-0.93	0.354	.9404552	1.022219
prox_idx_childcare_q	1.045571	.0207973	2.24	0.025	1.005594	1.087138
prox_idx_health_q	.9416642	.0200011	-2.83	0.005	.9032675	.9816931
prox_idx_grocery_q	1.000308	.0169242	0.02	0.985	.9676814	1.034035
prox_idx_educpri_q	.9960358	.0162798	-0.24	0.808	.9646336	1.02846
prox_idx_educsec_q	.9508359	.0123765	-3.87	0.000	.9268852	.9754054
prox_idx_lib_q	.9967826	.0116658	-0.28	0.783	.9741783	1.019911
prox_idx_transit_q	1.059884	.0236068	2.61	0.009	1.01461	1.107177
prox_idx_parks_q	.9845763	.015794	-0.97	0.333	.9541022	1.016024
genderx3						
male	.9545521	.0725629	-0.61	0.541	.8224192	1.107914
other	1.163355	.3104679	0.57	0.571	.6895242	1.962794
incomegrps						
$50-100k	.8665261	.0957379	-1.30	0.195	.6978095	1.076035
$100k+	.8195719	.0874809	-1.86	0.062	.6648597	1.010285
0.white	1.103334	.1506323	0.72	0.471	.8443	1.441839
agegroupx4	.9762628	.0505738	-0.46	0.643	.8820059	1.080592
home_yes	7.791936	.2702745	59.19	0.000	7.279813	8.340086
weekend	1.056081	.0266429	2.16	0.031	1.005132	1.109613
total_precip_mm_n	1.000919	.0024562	0.37	0.708	.996116	1.005744
mean_temp_c_n	1.002816	.0059057	0.48	0.633	.9913073	1.014458
_cons	24.2105	4.687035	16.46	0.000	16.56591	35.38281
/lnalpha	.0947936	.0140933			.0671713	.1224158
interact_id						
var(count_days)	.0006975	.0002473			.0003481	.0013976
var(_cons)	.1638974	.0240772			.122893	.2185832

```
Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(2) = 1066.97            Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

43 .
44 .
45 . **MVPA

46 . ***Montreal

47 . menbreg mvpa_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpri
   > q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > = 1 & minutes_da >= 5 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =      8,182
Overdispersion:           mean
Group variable:     interact_id                 Number of groups  =        157

                                                Obs per group:
                                                              min =          7
                                                              avg =       52.1
                                                              max =        131

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(24)     =     366.19
Log likelihood = -18566.214                     Prob > chi2       =     0.0000
```

mvpa_active_minutes_n	IRR	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ale_index_q	1.282673	.0512027	6.24	0.000	1.186143	1.387058
gentrify_Dingx3						
Low SES	.9369473	.0535668	-1.14	0.255	.8376268	1.048045
Gentrified	.9091153	.0501433	-1.73	0.084	.815962	1.012903
sprawl_n	.7648741	.0324929	-6.31	0.000	.7037683	.8312854
prox_idx_emp_q	1.047028	.0352238	1.37	0.172	.9802175	1.118392
prox_idx_pharma_q	.9830733	.0318217	-0.53	0.598	.9226413	1.047464
prox_idx_childcare_q	.9405681	.0259537	-2.22	0.026	.8910509	.992837
prox_idx_health_q	1.02149	.0276905	0.78	0.433	.9686345	1.07723
prox_idx_grocery_q	.87265	.0238072	-4.99	0.000	.8272143	.9205813
prox_idx_educpri_q	.9959946	.0198735	-0.20	0.841	.957795	1.035718
prox_idx_educsec_q	1.037546	.0188325	2.03	0.042	1.001283	1.075121
prox_idx_lib_q	.948209	.0152432	-3.31	0.001	.9187987	.9785608
prox_idx_transit_q	1.019964	.0252573	0.80	0.425	.9716423	1.070688
prox_idx_parks_q	1.058593	.018844	3.20	0.001	1.022297	1.096179

genderx3						
male	1.053445	.1199791	0.46	0.648	.8426875	1.316912
other	.8920366	.4336784	-0.23	0.814	.3439988	2.313175
incomegrps						
$50-100k	.8960216	.1483926	-0.66	0.507	.6476623	1.239619
$100k+	1.027506	.1579048	0.18	0.860	.7602799	1.388657
0.white	1.084431	.235534	0.37	0.709	.7084749	1.659891
agegroupx4	1.016728	.0832724	0.20	0.839	.8659433	1.193769
home_yes	1.858625	.0888196	12.97	0.000	1.692445	2.041121
weekend	.9442346	.0346089	-1.57	0.117	.8787816	1.014563
total_precip_mm_n	1.002413	.0031575	0.77	0.444	.9962434	1.008621
mean_temp_c_n	.9960982	.00368	-1.06	0.290	.9889116	1.003337
_cons	2.140017	.5315765	3.06	0.002	1.315165	3.482204
/lnalpha	.4905266	.0224815			.4464637	.5345894
interact_id						
var(count_days)	.000936	.0005466			.000298	.00294
var(_cons)	.3745594	.0525068			.2845751	.4929974

Note: Estimates are transformed only in the first equation.
Note: **_cons** estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(**2**) = **845.80** Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

```
48 .
49 . ***Saskatoon

50 . menbreg mvpa_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpri
   > q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > = 2 & minutes_da >= 5 || interact_id: count_days, irr nolog
```

Mixed-effects nbinomial regression — Number of obs = **3,620**
Overdispersion: **mean**
Group variable: **interact_id** — Number of groups = **78**

Obs per group:
min = **3**
avg = **46.4**
max = **85**

Integration method: **mvaghermite** — Integration pts. = **7**

Wald chi2(**24**) = **174.13**
Log likelihood = **-8411.6859** — Prob > chi2 = **0.0000**

mvpa_active_minutes_n	IRR	Std. Err.	z	P>|z|	[95% Conf.	Interval]
ale_index_q	.9735596	.0702548	-0.37	0.710	.8451571	1.12147
gentrify_Dingx3						
Low SES	.8635123	.0805802	-1.57	0.116	.7191792	1.036812
Gentrified	1.235278	.1201183	2.17	0.030	1.020925	1.494636
sprawl_n	1.175974	.1279683	1.49	0.136	.9501038	1.455542
prox_idx_emp_q	.8800858	.0733314	-1.53	0.125	.7474812	1.036215
prox_idx_pharma_q	.6954542	.0361664	-6.98	0.000	.6280622	.7700775
prox_idx_childcare_q	.9034567	.03999	-2.29	0.022	.8283814	.9853361
prox_idx_health_q	1.051074	.06562	0.80	0.425	.9300185	1.187886
prox_idx_grocery_q	.8921868	.0332333	-3.06	0.002	.8293716	.9597596
prox_idx_educpri_q	.9276705	.0328326	-2.12	0.034	.865501	.9943058
prox_idx_educsec_q	1.017136	.0321958	0.54	0.591	.9559512	1.082237
prox_idx_lib_q	1.078295	.0326003	2.49	0.013	1.016256	1.144122
prox_idx_transit_q	1.259164	.0600603	4.83	0.000	1.146783	1.382558
prox_idx_parks_q	1.146427	.0394732	3.97	0.000	1.071614	1.226463
genderx3						
male	1.182303	.1754091	1.13	0.259	.8839806	1.581303
other	1.699675	.9879771	0.91	0.361	.5439822	5.310646
incomegrps						
$50-100k	1.143723	.2036102	0.75	0.451	.806838	1.621269
$100k+	1.349541	.2098508	1.93	0.054	.9950065	1.8304
0.white	.9924437	.1734335	-0.04	0.965	.7046202	1.397838
agegroupx4	.8418862	.0874838	-1.66	0.098	.6867546	1.03206
home_yes	1.48174	.1215452	4.79	0.000	1.261679	1.740183
weekend	.9765096	.0531529	-0.44	0.662	.8776964	1.086447
total_precip_mm_n	.9510562	.0248911	-1.92	0.055	.9035007	1.001115
mean_temp_c_n	1.010858	.0047385	2.30	0.021	1.001613	1.020188
_cons	6.973273	2.002003	6.76	0.000	3.97246	12.24091
/lnalpha	.5093356	.0336978			.4432891	.5753821
interact_id						
var(count_days)	.0005725	.0006953			.000053	.0061873
var(_cons)	.2510268	.0555448			.1626951	.3873163

Note: Estimates are transformed only in the first equation.
Note: **_cons** estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(**2**) = **250.03** Prob > chi2 = **0.0000**

Note: LR test is conservative and provided only for reference.

```
51 .
52 . ***Vancouver

53 . menbreg mvpa_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpri
   > q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > = 3 & minutes_da >= 5 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =      9,261
Overdispersion:             mean
Group variable:     interact_id                 Number of groups  =        150

                                                Obs per group:
                                                              min =          2
                                                              avg =       61.7
                                                              max =        124

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(23)     =     390.05
Log likelihood = -22637.055                     Prob > chi2       =     0.0000
------------------------------------------------------------------------------
mvpa_active_minutes_n |        IRR   Std. Err.      z    P>|z|     [95% Conf. Interval]
----------------------+-------------------------------------------------------
          ale_index_q |      1.051   .0301625     1.73   0.083     .9935143    1.111811
                      |
      gentrify_Dingx3 |
              Low SES |   1.213437   .0620115     3.79   0.000     1.097786    1.341273
           Gentrified |   1.153102   .0513621     3.20   0.001     1.056704    1.258295
                      |
              sprawl_n |   .6693814   .0392201    -6.85   0.000     .5967609    .7508392
          prox_idx_emp_q |   .9240366   .0292064    -2.50   0.012     .8685301    .9830904
       prox_idx_pharma_q |   1.021023   .0284235     0.75   0.455     .9668067     1.07828
     prox_idx_childcare_q |   .9449237   .0234715    -2.28   0.023     .9000224    .9920652
       prox_idx_health_q |   1.196507   .0427591     5.02   0.000     1.115568    1.283318
      prox_idx_grocery_q |   .9722304   .0204658    -1.34   0.181     .9329344    1.013182
      prox_idx_educpri_q |   .9834489   .0244874    -0.67   0.503     .9366068    1.032634
      prox_idx_educsec_q |   .9492344     .02195    -2.25   0.024     .9071736    .9932454
          prox_idx_lib_q |    1.00856   .0149045     0.58   0.564     .9797671      1.0382
     prox_idx_transit_q |   .8702418   .0200468    -6.03   0.000     .8318246    .9104334
       prox_idx_parks_q |   1.104222   .0178845     6.12   0.000     1.069719    1.139837
                      |
              genderx3 |
                 male |    .951037   .1204599    -0.40   0.692      .741964    1.219023
                      |
           incomegrps |
            $50-100k |   1.140505   .2153489     0.70   0.486     .7877246    1.651278
              $100k+ |    1.11462   .1875339     0.64   0.519     .8015171    1.550032
                      |
              0.white |   .8309843   .1430506    -1.08   0.282     .5930098    1.164458
            agegroupx4 |   .7448552   .0654731    -3.35   0.001      .626976    .8848972
             home_yes |     1.4337   .0671176     7.70   0.000     1.308006    1.571472
              weekend |   1.103096   .0367335     2.95   0.003     1.033398    1.177493
    total_precip_mm_n |   .9923214    .004454    -1.72   0.086      .98363     1.00109
        mean_temp_c_n |   1.008072   .0092327     0.88   0.380      .990138    1.026332
                _cons |   9.148107   3.361543     6.02   0.000     4.451954    18.79801
------------------------------------------------------------------------------
            /lnalpha |   .4917548   .0198786                      .4527933    .5307162
------------------------------------------------------------------------------
interact_id
       var(count_days) |   .0025388   .0008075                      .001361    .0047356
            var(_cons) |   .3755356   .0592614                     .2756304    .5116524
------------------------------------------------------------------------------
Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(2) = 720.47              Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

54 .
55 . ***Victoria

56 . menbreg mvpa_active_minutes_n ale_index_q i.gentrify_Dingx3 sprawl_n prox_idx_emp_q prox_idx_pharma_q prox_idx_childcare_q prox_idx_health_q prox_idx_grocery_q prox_idx_educpri
   > q prox_idx_educsec_q prox_idx_lib_q prox_idx_transit_q prox_idx_parks_q i.genderx3 i.incomegrps ib1.white agegroupx4 home_yes weekend total_precip_mm_n mean_temp_c_n if city_n
   > = 4 & minutes_da >= 5 || interact_id: count_days, irr nolog

Mixed-effects nbinomial regression              Number of obs     =      9,603
Overdispersion:             mean
Group variable:     interact_id                 Number of groups  =        152

                                                Obs per group:
                                                              min =          9
                                                              avg =       63.2
                                                              max =        126

Integration method: mvaghermite                 Integration pts.  =          7

                                                Wald chi2(24)     =     479.33
Log likelihood = -22299.084                     Prob > chi2       =     0.0000
------------------------------------------------------------------------------
mvpa_active_minutes_n |        IRR   Std. Err.      z    P>|z|     [95% Conf. Interval]
----------------------+-------------------------------------------------------
          ale_index_q |    1.22374   .0439409     5.62   0.000     1.140578    1.312965
                      |
      gentrify_Dingx3 |
              Low SES |   .9509125   .0692036    -0.69   0.489     .8245055    1.096699
           Gentrified |   .9571928   .0721998    -0.58   0.562     .8256471    1.109697
                      |
              sprawl_n |   .5824187    .051508    -6.11   0.000     .4897299    .6926502
```

```
        prox_idx_emp_q |   .7438171   .0412502    -5.34   0.000     .6672072    .8292235
      prox_idx_pharma_q |   .9364006   .0300445    -2.05   0.041     .8793278    .9971777
   prox_idx_childcare_q |   .9747809   .0287534    -0.87   0.387     .9200233    1.032797
      prox_idx_health_q |   1.016247   .0334754     0.49   0.625     .9527099    1.084022
    prox_idx_grocery_q |   1.016103   .0260894     0.62   0.534     .9662338    1.068546
    prox_idx_educpri_q |   .9862529   .0246741    -0.55   0.580     .9390592    1.035818
    prox_idx_educsec_q |   .8792832   .0175196    -6.46   0.000     .8456072    .9143003
        prox_idx_lib_q |     1.0231   .0185177     1.26   0.207     .9874425    1.060046
   prox_idx_transit_q |   1.137379   .0387328     3.78   0.000     1.063942    1.215885
     prox_idx_parks_q |   .9922951   .0233402    -0.33   0.742     .9475877    1.039112
                      |
              genderx3 |
                 male |   1.146747   .1260245     1.25   0.213     .9245343     1.42237
                other |   .9055093   .3485336    -0.26   0.797     .4258559     1.92541
                      |
           incomegrps |
             $50-100k |   .9809733    .156436    -0.12   0.904     .7176553    1.340906
               $100k+ |   1.056588    .162816     0.36   0.721     .7811586    1.429133
                      |
              0.white |   .8438731   .1658401    -0.86   0.388     .5741123    1.240388
           agegroupx4 |    .806789   .0604088    -2.87   0.004     .6966678    .9343169
             home_yes |   2.403269    .126612    16.64   0.000     2.167496    2.664689
              weekend |   1.048628   .0403818     1.23   0.218     .9723944    1.130839
    total_precip_mm_n |   .9978028   .0039126    -0.56   0.575     .9901636    1.005501
        mean_temp_c_n |   .9864728    .008746    -1.54   0.124     .9694791    1.003764
                _cons |   7.415925    2.09552     7.09   0.000     4.262271    12.90297
----------------------+-----------------------------------------------------------------
              /lnalpha |   .8263119   .0194188                     .7882518     .864372
----------------------+-----------------------------------------------------------------
interact_id           |
       var(count_days) |   .0017296   .0006027                     .0008736    .0034241
            var(_cons) |   .3302024   .0496504                     .2459181    .4333736
------------------------------------------------------------------------------------------

Note: Estimates are transformed only in the first equation.
Note: _cons estimates baseline incidence rate (conditional on zero random effects).
LR test vs. nbinomial model: chi2(2) = 772.80             Prob > chi2 = 0.0000

Note: LR test is conservative and provided only for reference.

57 .
58 . log close
      name:  <unnamed>
       log:  /Users/caislin/sfuvault/INT_TimexNbhood/Manuscript/Final models.smcl
  log type:  smcl
 closed on:  14 Oct 2021, 15:31:53
------------------------------------------------------------------------------------------
```