

Table 1
Descriptive Statistics

Variables	Region A	Region B	Region C	Total
Population	6345	5240	6856	18441
Sex (female=1)	54.8	52.4	54.0	53.8
Age	25.3	26.8	24.4	25.4
Distance	2.75	7.28	8.16	6.21
Crop Sale	59.1	85.8	79.8	75.9
Fishing	15.4	39.2	65.0	40.2
Hunting	6.7	7.8	4.6	6.5
Cattle Breeding	52.9	68.2	64.7	62.5
Craftsman	14.8	27.9	9.5	18.1
Salaried Worker	36.1	13.5	6.4	18.1
Other	5.9	13.8	11.6	10.5
Car	3.0	0.6	0.5	1.3
Motorcycle	9.4	10.2	2.8	7.6
Moped	26.1	12.3	4.2	13.9
Bicycle	23.1	43.9	15.8	28.8
Piragua	2.0	12.3	29.4	15.6

All variables are expressed in % except Population, Age and Distance.

Table 2
Distribution of Diagnostics (%)

Diseases	Region A	Region B	Region C	Total
Fever	41.12	39.14	35.34	40.2
Respiratory Infections	13.33	12.88	16.47	13.60
Parasitose	9.98	8.59	7.23	9.50

Table 3
Alternative Estimates Using Aggregated Frequencies

	(1) Unconditional Poisson	(2) Binary Outcome	(3) Conditional Poisson	(4) Negative Binomial	(5) QGPML	(6) Ordinal [†] Probit
One	-0.933* (0.079)	-0.968* (0.123)	-0.093* (0.100)	-0.919* (0.162)	-0.950* (0.057)	-0.609* (0.079)
Age	-1.159* (0.254)	-3.937* (0.397)	1.945* (0.284)	-1.514* (0.503)	-1.898* (0.243)	-1.969* (0.248)
Age ²	1.943* (0.368)	4.966* (0.597)	-1.978* (0.439)	2.639* (0.760)	2.981* (0.308)	2.618* (0.375)
Sex	-0.194* (0.031)	-0.060 (0.049)	-0.150* (0.036)	-0.229* (0.057)	-0.325* (0.026)	-0.059* (0.031)
Metal Roof	0.670* (0.057)	0.520* (0.087)	0.309* (0.070)	0.642* (0.085)	0.775* (0.038)	0.304* (0.049)
Tile Roof	0.995* (0.115)	0.731* (0.175)	0.526* (0.145)	0.899* (0.289)	1.026* (0.128)	0.415* (0.122)
Other Roof	0.319* (0.127)	0.103 (0.199)	0.362* (0.161)	0.408** (0.229)	-0.077 (0.129)	0.082 (0.118)
Ciment Walls	-0.069** (0.042)	-0.141* (0.066)	0.027 (0.051)	-0.055 (0.094)	-0.261* (0.033)	-0.056 (0.044)
Clay Walls	-0.674* (0.062)	-0.733* (0.102)	-0.070 (0.073)	-0.683* (0.117)	-0.731* (0.053)	-0.438* (0.059)
Other Walls	0.293* (0.126)	0.285** (0.173)	-0.127 (0.163)	0.578* (0.293)	0.652* (0.046)	0.303* (0.115)
Moped	0.384* (0.061)	0.311* (0.095)	0.189* (0.074)	0.369* (0.143)	0.173* (0.047)	0.232* (0.064)
Piragua	0.422* (0.068)	0.069 (0.110)	0.419* (0.076)	0.292* (0.113)	-0.610* (0.064)	0.054 (0.064)
Car	0.535* (0.116)	0.510* (0.192)	0.254** (0.137)	0.292 (0.560)	0.088 (0.143)	0.336* (0.163)
Other Transport	0.117* (0.051)	-0.043 (0.079)	0.266* (0.065)	0.104 (0.106)	-0.023 (0.033)	0.005 (0.052)
Farming	0.380* (0.109)	0.360* (0.176)	-0.014 (0.129)	0.294 (0.302)	0.053 (0.177)	0.239* (0.118)
Hunting	-0.633* (0.123)	-0.274** (0.175)	-0.406* (0.165)	-0.665* (0.221)	-0.710* (0.105)	-0.221* (0.104)
Craftwork	0.063 (0.065)	0.038 (0.103)	0.161* (0.078)	0.127 (0.137)	0.456* (0.041)	0.028 (0.066)
Salaried Worker	0.228* (0.042)	0.165* (0.067)	0.202* (0.049)	0.329* (0.107)	0.548* (0.032)	0.123* (0.045)
Tontine	0.048* (0.006)	0.034* (0.010)	0.021* (0.007)	0.066* (0.014)	0.054* (0.005)	0.025* (0.007)
Region B	0.550* (0.063)	-0.132 (0.101)	0.978* (0.078)	0.547* (0.131)	0.399* (0.058)	0.049 (0.063)
Region C	-0.443* (0.059)	-0.796* (0.091)	0.544* (0.068)	-0.433* (0.103)	0.195* (0.046)	-0.379* (0.053)
Distance	-0.599* (0.040)	-0.420* (0.060)	-0.413* (0.049)	-0.639* (0.076)	-0.877* (0.039)	-0.283* (0.037)
Wealth × Distance	0.180* (0.020)	0.109* (0.030)	0.137* (0.023)	0.206* (0.033)	0.384* (0.018)	0.073* (0.017)
α				6.006* (0.240)		

* Statistically significant at 5% ** Statistically significant at 10%

† Estimated ancillary parameters and their standard errors are: $\hat{\mu}_0 = 0.424(0.014)$, $\hat{\mu}_1 = 0.719(0.020)$, $\hat{\mu}_2 = 0.955(0.025)$, $\hat{\mu}_3 = 1.152(0.029)$, $\hat{\mu}_4 = 1.324(0.035)$, $\hat{\mu}_5 = 1.478(0.041)$, $\hat{\mu}_6 = 1.595(0.046)$, $\hat{\mu}_7 = 1.674(0.050)$, $\hat{\mu}_8 = 1.787(0.057)$.

Table 4
Alternative Estimates Using Disaggregated frequencies

	(1) Poisson	(2) Neg. Bin.	(3) PMLE	(4) QGPML
One	-2.144* (0.089)	-2.069* (0.104)	-2.160* (0.025)	-1.959* (0.076)
Age	1.237* (0.262)	1.055* (0.315)	1.171* (0.045)	0.989* (0.211)
Age ²	-1.021* (0.369)	-0.866* (0.433)	-1.162* (0.059)	-1.077* (0.323)
Sex	-0.109* (0.031)	-0.096* (0.036)	-0.103* (0.006)	-0.084* (0.027)
Metal Roof	0.232* (0.058)	0.227* (0.068)	0.234* (0.011)	0.239* (0.049)
Tile Roof	0.380* (0.118)	0.364* (0.138)	0.399* (0.021)	0.408* (0.099)
Other Roof	0.245** (0.133)	0.225 (0.178)	0.091* (0.031)	0.203* (0.103)
Ciment Walls	0.016 (0.042)	0.019 (0.052)	0.043* (0.008)	0.004 (0.035)
Clay Walls	-0.040 (0.063)	-0.047 (0.076)	-0.042* (0.012)	-0.076 (0.056)
Other Walls	-0.087 (0.132)	-0.083 (0.175)	-0.150* (0.031)	-0.045 (0.101)
Moped	0.138* (0.061)	0.136** (0.074)	0.089* (0.011)	0.142* (0.052)
Piragua	0.323* (0.066)	0.305* (0.076)	0.360* (0.011)	0.243* (0.061)
Car	0.171 (0.117)	0.161 (0.153)	0.068* (0.027)	0.166** (0.092)
Other Transport	0.186* (0.053)	0.176* (0.064)	0.165* (0.009)	0.161* (0.045)
Farming	-0.004 (0.110)	0.013 (0.143)	-0.110* (0.025)	0.032 (0.089)
Hunting	-0.269* (0.124)	-0.238 (0.161)	-0.359* (0.022)	-0.180* (0.093)
Craftwork	0.119** (0.066)	0.114 (0.081)	0.075* (0.012)	0.109* (0.055)
Salaried Worker	0.147* (0.042)	0.140* (0.052)	0.113* (0.008)	0.105* (0.036)
Tontine	0.015* (0.006)	0.013** (0.007)	0.013* (0.001)	0.008 (0.006)
Region B	0.707* (0.064)	0.708* (0.079)	0.810* (0.017)	0.710* (0.057)
Region C	0.369* (0.057)	0.377* (0.069)	0.320* (0.012)	0.420* (0.051)
Distance	-0.287* (0.040)	-0.289* (0.048)	-0.262* (0.008)	-0.307* (0.035)
Wealth × Distance	0.099* (0.019)	0.095* (0.024)	0.102* (0.004)	0.094* (0.017)
Trend	0.024* (0.008)	0.019* (0.009)	0.021* (0.002)	0.014* (0.007)
Shift	-0.177* (0.055)	-0.179* (0.069)	-0.123* (0.011)	-0.171* (0.046)
α		1.803* (0.096)		
η			1.963* (0.293)	

* Statistically significant at 5%

** Statistically significant at 10%