

## **Correlates of disability status in Filipino women**

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### **Extended Abstract**

#### **Introduction**

Among the many changes that accompany advancing age are limitations and difficulties in physical activities and performing basic functions. The disablement process, as suggested by Verbrugge and Jette (1994), begins with the pathology of disease followed by physical and mental dysfunctions that eventually cause disability. Thus, it is important to determine the quality of life of an elderly person. Good health reflects the quality and independence of an elderly person's life. "However, the gain to survival to old age may be accompanied by increased morbidity due to age-related chronic diseases or disabilities" (Dunlop, 1997). This study examines disability measures and factors associated with these measures in a large sample of Filipino mothers.

#### **Data Source**

We used data from the Cebu Longitudinal Health and Nutrition Survey (CLHNS), a community-based prospective study of a cohort of infants and their mothers. The baseline study in 1983 recruited 3327 pregnant women who were in their last trimester of pregnancy. These women were followed up at birth, and in subsequent follow-up surveys from 1983 to 2007. To date, about 59% of the baseline sample continue to participate in the surveys. Our analysis sample is limited to 1933 mothers who were present in the last full surveys done in 2005 and 2007.

## Methods

*Outcome variable.* Disability measures examined were a) limitations in performing physical activities, b) activities of daily living (ADL) and c) instrumental activities of daily living. Women with at least one activity reported as done with difficulty is considered as disabled.

*Other variables.* The women's background characteristics include: age, educational attainment, marital status, number of pregnancies, household size, currently smoking and drinking, assets score, and a composite score measuring level of urbanicity.

Descriptive statistics and logistic regressions were run using STATA 11.

### Preliminary Results:

Findings showed (Table 1) that there are more married women in the younger age (<49.5) and a greater percentage of them smoke and drink. They also have the highest urbanicity score and waist circumference. The middle-aged women (49.5 – 59.4) have a higher asset score than the other women. On the other hand, the older women are the least educated, they have the most number of pregnancies but they have the smallest waist circumference.

Logistic regressions indicate that among younger women (49 years and younger), having more pregnancies and more illnesses contribute to the development of limitations in IADL. It is also found out that among younger women, the odds of having chronic physical disability among educated, living in urbanized areas and in big households and having illnesses is more likely compared to having no disability.

In middle-aged women (>49 to 59 years old), high waist circumference, more illnesses, urbanized residency are associated with having IADL limitation. Furthermore, among middle-aged women, living in urbanized areas and having illnesses are associated with having physical limitations, but having more pregnancies is protective.

Among older women (60 and above), being more educated and being married are protective of IADL but having illnesses contribute to its development. In addition, being older and having illnesses contribute to the development of limitations in ADL. Also, among older women, the odds of having chronic physical limitations is associated with being a smoker, having high waist circumference, living in big households and having illnesses.

**Table 1. Mother's characteristics, by age category**

Individual/Household Characteristics	Age category in years			All ages (n=1933)
	<49.5 (n = 886)	49.5 – 59.4 (n = 864)	>59.4 (n = 183)	
Mean age in 2007 (S.D)	45.8 (2.4)	53.7 (2.8)	62.9 (2.7)	59.9 (6.0)
Mean years of schooling (S.D.)	7.2 (3.1)	7.5 (3.9)	6.0 (4.5)	7.2 (3.7)
% married	48.8	44.5	6.7	83.5
Mean number of pregnancies (S.D)	6.1 (2.8)	6.5 (3.0)	8.4 (3.4)	6.5 (3.0)
Mean assets score in 2005 (S.D)	5.1 (1.8)	5.4 (2.0)	4.9 (2.0)	5.2 (1.9)
Mean urbanicity index in 2005 (S.D.)	41.1 (13.1)	40.0 (13.9)	38.2 (14.7)	40.3 (13.6)
Mean number of household members (S.D.)	6.7 (2.8)	6.4 (2.7)	5.6 (2.7)	6.5 (2.8)
% drinker	49.9	39.9	10.2	40.3
Mean waist circumference	80.6 (11.4)	80.5 (11.8)	77.7 (11.4)	80.3 (11.6)
% smoker	43.1	40.5	16.4	16.1

**Table 2. IADL disability status by age category**

	< 49.5 years		49.5 to 59.4 years		>60 years	
	OR	95% CI	OR	95% CI	OR	95% CI
Assets score in 2005	0.98	0.75, 1.29	0.94	0.81, 0.08	1.05	0.79, 1.40
Smoker	1.54	0.52, 4.58	1.36	0.69, 2.64	2.22	0.77, 6.37
Drinker	0.64	0.25, 1.60	1.02	0.61, 1.69	0.47	0.18, 1.22
Number of pregnancies	1.18	0.98, 1.41	1.02	0.93, 1.12	0.98	0.85, 1.13
Waist circumference	1.01	0.97, 1.06	0.98	0.96, 1.00	0.99	0.95, 1.03
Education	0.91	0.75, 1.10	0.98	0.90, 1.07	0.84	0.72, 0.99
Marital status	1.19	0.26, 5.47	0.93	0.49, 1.77	0.34	0.13, 0.88
Number of household members	0.97	0.80, 1.16	1.00	0.91, 1.11	1.10	0.93, 1.31
Urbanicity index	1.03	0.99, 1.07	1.02	1.00, 1.04	1.02	0.99, 1.06
Presence of illness	1.84	1.33, 2.54	1.73	1.42, 2.10	1.61	1.07, 2.41

**Table 3. ADL disability status by age category**

	OR	95% CI	
Age, years			
<49.4	1.00		
49.5 to 59.4	1.213859	.8055504	1.829127
>59.4	2.487462	1.406431	4.399411
Assets score in 2005	.9709618	.8721137	1.081014
Smoker	1.040478	.6222948	1.73968
Drinker	.7562389	.5157823	1.108796
Number of pregnancies	.9968325	.9287261	1.069933
Waist circumference	.9972025	.9813956	1.013264
Education	1.003608	.9420067	1.069238
Marital status	.8362133	.5193616	1.34637
Number of household members	1.025928	.9536855	1.103643
Urbanicity index	1.003046	.9886749	1.017626
Presence of illness	1.713513	1.485888	1.97601

**Table 4. Physical limitations disability status by age category**

a. < 49.5 years

limit0507	RRR	Std. Err.	z	P>z	[95% Conf.	Interval]
0	(base outcome)					
1						
assets05	1.026038	.0852281	0.31	0.757	.8718832	1.207449
masmoke05	1.414312	.5265764	0.93	0.352	.6817509	2.934029
madrink05	.7779802	.2117306	-0.92	0.356	.456363	1.326254
nopregn	.9951065	.0606506	-0.08	0.936	.8830591	1.121371
waistma	.9924405	.0114287	-0.66	0.510	.9702915	1.015095
educati~2005	1.115363	.0580032	2.10	0.036	1.007281	1.235043
married07	1.888684	.8794453	1.37	0.172	.7582395	4.704485
numbper	.9775061	.0591392	-0.38	0.707	.8682038	1.100569
urbindx05	1.042002	.0130251	3.29	0.001	1.016783	1.067846
sumill07	1.665698	.190642	4.46	0.000	1.33099	2.084576
2						
assets05	1.002451	.0564989	0.04	0.965	.8976124	1.119535
masmoke05	1.514469	.3711394	1.69	0.090	.9368348	2.448262
madrink05	1.180639	.2136757	0.92	0.359	.8280642	1.683334
nopregn	.9041074	.0383795	-2.37	0.018	.8319292	.9825478
waistma	1.014762	.0089633	1.66	0.097	.997345	1.032482
educati~2005	1.000193	.0364055	0.01	0.996	.9313252	1.074153
married07	2.130503	.6866342	2.35	0.019	1.132793	4.006947
numbper	1.025249	.0404128	0.63	0.527	.9490237	1.107597
urbindx05	1.004539	.0071553	0.64	0.525	.9906122	1.018661
sumill07	1.677604	.1361118	6.38	0.000	1.43096	1.96676
3						
assets05	.8657739	.0791528	-1.58	0.115	.7237424	1.035679
masmoke05	.9844819	.4438111	-0.03	0.972	.4068931	2.381964
madrink05	.8203023	.2496978	-0.65	0.515	.4517213	1.489626
nopregn	.9384938	.062683	-0.95	0.342	.823339	1.069754
waistma	1.002264	.0140519	0.16	0.872	.9750976	1.030187
educati~2005	1.116713	.0669686	1.84	0.066	.9928768	1.255994
married07	2.273994	1.274157	1.47	0.143	.7583104	6.819174
numbper	1.120272	.0672462	1.89	0.058	.9959298	1.260138
urbindx05	1.03644	.0138012	2.69	0.007	1.00974	1.063846
sumill07	2.1999	.2641473	6.57	0.000	1.73859	2.783612

b. 49.5 to 59.4 years

limit0507	RRR	Std. Err.	z	P>z	[95% Conf.	Interval]
0	(base outcome)					
1						
assets05	.8720367	.0697952	-1.71	0.087	.7454305	1.020146
masmoke05	.468439	.2592345	-1.37	0.171	.1583425	1.385826
madrink05	.8803986	.2612115	-0.43	0.668	.4921874	1.57481
nopregn	.9264226	.0567419	-1.25	0.212	.8216265	1.044585
waistma	1.010282	.0128872	0.80	0.423	.9853366	1.035859
educati~2005	1.071631	.0496884	1.49	0.136	.9785381	1.173581
married07	.9286229	.3484662	-0.20	0.844	.4450672	1.937551
numbper	.9642416	.0602068	-0.58	0.560	.8531733	1.089769
urbindx05	1.051503	.0138368	3.82	0.000	1.02473	1.078976
sumill07	1.306121	.1632156	2.14	0.033	1.022387	1.668596
2						
assets05	.9312257	.0452861	-1.47	0.143	.8465652	1.024353
masmoke05	.9427176	.2254752	-0.25	0.805	.5899223	1.506497
madrink05	.8189217	.142713	-1.15	0.252	.5819746	1.15234
nopregn	.9244388	.0309501	-2.35	0.019	.8657251	.9871345
waistma	1.008937	.0073424	1.22	0.221	.9946481	1.023431
educati~2005	.9987634	.0280665	-0.04	0.965	.9452416	1.055316
married07	.822831	.1867785	-0.86	0.390	.5273418	1.283894
numbper	1.014561	.0350177	0.42	0.675	.948198	1.085569
urbindx05	1.005914	.0063939	0.93	0.354	.9934601	1.018525
sumill07	1.664637	.124604	6.81	0.000	1.437487	1.92768
3						
assets05	.8940786	.0612657	-1.63	0.102	.7817143	1.022594
masmoke05	.9508138	.3313342	-0.14	0.885	.4802569	1.882424
madrink05	1.036253	.2502736	0.15	0.883	.6454838	1.66359
nopregn	.9061399	.0429952	-2.08	0.038	.8256705	.9944517
waistma	1.011497	.0104976	1.10	0.271	.9911297	1.032282
educati~2005	.9914257	.0388687	-0.22	0.826	.9180978	1.07061
married07	.7751077	.2412118	-0.82	0.413	.4211822	1.426442
numbper	1.054651	.0494536	1.13	0.256	.9620449	1.156172
urbindx05	1.032862	.0102037	3.27	0.001	1.013056	1.053056
sumill07	2.409552	.2435069	8.70	0.000	1.976582	2.937365

c. >59.4 years

limit0507	RRR	Std. Err.	z	P>z	[95% Conf.	Interval]
0	(base outcome)					
1						
assets05	.8383552	.1729512	-0.85	0.393	.5595342	1.256115
masmoke05	6.732203	5.308552	2.42	0.016	1.435351	31.57593
madrink05	.1400575	.1081107	-2.55	0.011	.0308505	.635844
nopregn	.9168224	.1047333	-0.76	0.447	.7329057	1.146891
waistma	1.064894	.0315218	2.12	0.034	1.004871	1.128503
educati~2005	1.061543	.1011951	0.63	0.531	.8806315	1.279621
married07	1.054366	.7788208	0.07	0.943	.2478795	4.484791
numbper	1.10303	.1406339	0.77	0.442	.8591344	1.416165
urbindx05	1.042745	.0274066	1.59	0.111	.9903889	1.097868
sumill07	1.638306	.4782779	1.69	0.091	.924485	2.903287
2						
assets05	1.026271	.1228484	0.22	0.828	.811653	1.29764
masmoke05	2.179895	1.082355	1.57	0.117	.8237579	5.768615
madrink05	.3870942	.1551296	-2.37	0.018	.1764795	.8490617
nopregn	1.009298	.0668804	0.14	0.889	.8863698	1.149274
waistma	1.036941	.0200966	1.87	0.061	.9982907	1.077087
educati~2005	.9629749	.0638142	-0.57	0.569	.8456833	1.096534
married07	.6257597	.2629046	-1.12	0.265	.2746544	1.425702
numbper	1.018528	.0834517	0.22	0.823	.8674231	1.195955
urbindx05	.9886178	.0139694	-0.81	0.418	.9616139	1.01638
sumill07	1.443603	.2651075	2.00	0.046	1.007235	2.069021
3						
assets05	1.217555	.1794967	1.34	0.182	.9120135	1.625459
masmoke05	8.56666	5.33166	3.45	0.001	2.529569	29.01193
madrink05	.7552056	.3667585	-0.58	0.563	.2915327	1.956335
nopregn	1.088908	.085386	1.09	0.277	.9337809	1.269807
waistma	1.051503	.0237381	2.22	0.026	1.005991	1.099073
educati~2005	1.059765	.0767754	0.80	0.423	.9194826	1.221449
married07	.5157791	.2613003	-1.31	0.191	.1910884	1.392173
numbper	1.223767	.1181863	2.09	0.037	1.012729	1.478782
urbindx05	1.029757	.0195624	1.54	0.123	.9921206	1.068822
sumill07	2.761072	.6231597	4.50	0.000	1.77405	4.297239

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