

Supplementary Information:

Patterns and predictors of co-morbidities in Tuberculosis: A cross-sectional study in the Philippines

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Supplementary Table 1. Prevalence and pattern of co-morbidities by area in complete dataset including HIV and reported hypertension.

Number of comorbidities	Undernutrition	Diabetes	Moderate/severe anaemia	Reported hypertension	HIV	n (%)
Urban/Metro Manila¹: N=290						
0	No	No	No	No	No	128 (44.1)
1	No	No	No	No	Yes	54 (18.6)
1	Yes	No	No	No	No	32 (11.0)
1	No	No	No	Yes	No	14 (4.8)
1	No	Yes	No	No	No	13 (4.5)
1	No	No	Yes	No	No	11 (3.8)
2	Yes	No	Yes	No	No	8 (2.8)
2	Yes	No	No	No	Yes	7 (2.4)
2	No	No	Yes	No	Yes	7 (2.4)
2	No	Yes	No	Yes	No	4 (1.4)
2	No	Yes	Yes	No	No	3 (1.0)
2	No	No	Yes	Yes	No	2 (0.7)
2	No	Yes	No	No	Yes	1 (0.3)
2	No	No	No	Yes	Yes	1 (0.3)
3	Yes	No	Yes	No	Yes	4 (1.4)
3	Yes	No	Yes	Yes	No	1 (0.3)
Rural/Negros Occidental¹: N=261						
0	No	No	No	No	-	130 (44.8)
1	Yes	No	No	No	-	47 (16.2)
1	No	No	Yes	No	-	23 (7.9)
1	No	Yes	No	No	-	16 (5.5)
1	No	No	No	Yes	-	13 (4.5)
2	Yes	No	Yes	No	-	13 (4.5)
2	No	Yes	No	Yes	-	6 (2.1)
2	No	No	Yes	Yes	-	4 (1.4)
2	Yes	No	No	Yes	-	3 (1.0)
2	Yes	Yes	No	No	-	2 (0.7)
2	No	Yes	Yes	No	-	2 (0.7)
3	No	Yes	Yes	Yes	-	1 (0.3)
3	Yes	No	Yes	Yes	-	1 (0.3)

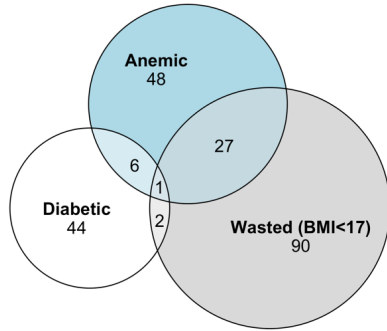
¹ number of participants with non-missing values for each co-morbidity shown

Supplementary Table 2. Waist-to-hip ratio as a predictor of diabetes

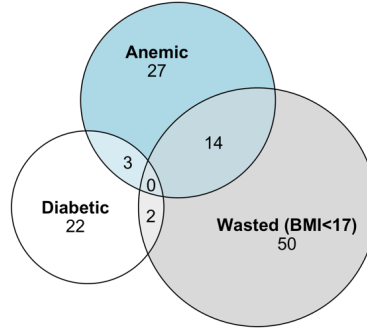
Waist-to ratio threshold	Sensitivity	Specificity	Positive predictive value	Negative predictive value	False negative rate
All:					
0.70	1.00 (0.93 - 1.00)	0.01 (0.00 - 0.02)	0.09 (0.07 - 0.12)	1.00 (0.48 - 1.00)	0.00 (0.00 - 0.07)
0.75	1.00 (0.93 - 1.00)	0.06 (0.04 - 0.09)	0.10 (0.07 - 0.13)	1.00 (0.90 - 1.00)	0.00 (0.00 - 0.07)
0.80	0.96 (0.87 - 1.00)	0.25 (0.22 - 0.29)	0.12 (0.09 - 0.15)	0.99 (0.95 - 1.00)	0.04 (0.00 - 0.13)
0.85	0.87 (0.75 - 0.95)	0.54 (0.50 - 0.58)	0.16 (0.12 - 0.21)	0.98 (0.95 - 0.99)	0.13 (0.05 - 0.25)
0.90	0.59 (0.45 - 0.72)	0.78 (0.74 - 0.82)	0.21 (0.15 - 0.29)	0.95 (0.93 - 0.97)	0.41 (0.28 - 0.55)
0.95	0.28 (0.16 - 0.42)	0.93 (0.90 - 0.95)	0.28 (0.17 - 0.42)	0.93 (0.90 - 0.95)	0.72 (0.58 - 0.84)
1.00	0.07 (0.02 - 0.18)	0.99 (0.97 - 0.99)	0.33 (0.10 - 0.65)	0.91 (0.89 - 0.93)	0.93 (0.82 - 0.98)
1.05	0.00 (0.00 - 0.07)	0.99 (0.98 - 1.00)	0.00 (0.00 - 0.71)	0.91 (0.88 - 0.93)	1.00 (0.93 - 1.00)
1.10	0.00 (0.00 - 0.07)	0.99 (0.98 - 1.00)	0.00 (0.00 - 0.71)	0.91 (0.88 - 0.93)	1.00 (0.93 - 1.00)
Female:					
0.70	1.00 (0.80 - 1.00)	0.03 (0.01 - 0.06)	0.10 (0.06 - 0.16)	1.00 (0.40 - 1.00)	0.00 (0.00 - 0.20)
0.75	1.00 (0.80 - 1.00)	0.17 (0.11 - 0.23)	0.12 (0.07 - 0.18)	1.00 (0.87 - 1.00)	0.00 (0.00 - 0.20)
0.80	1.00 (0.80 - 1.00)	0.40 (0.32 - 0.48)	0.15 (0.09 - 0.23)	1.00 (0.94 - 1.00)	0.00 (0.00 - 0.20)
0.85	0.94 (0.71 - 1.00)	0.68 (0.60 - 0.75)	0.24 (0.15 - 0.36)	0.99 (0.95 - 1.00)	0.06 (0.00 - 0.29)
0.90	0.59 (0.33 - 0.82)	0.84 (0.77 - 0.89)	0.29 (0.15 - 0.46)	0.95 (0.90 - 0.98)	0.41 (0.18 - 0.67)
0.95	0.29 (0.10 - 0.56)	0.96 (0.92 - 0.99)	0.45 (0.17 - 0.77)	0.93 (0.87 - 0.96)	0.71 (0.44 - 0.90)
1.00	0.06 (0.00 - 0.29)	0.97 (0.94 - 0.99)	0.20 (0.01 - 0.72)	0.90 (0.85 - 0.94)	0.94 (0.71 - 1.00)
1.05	0.00 (0.00 - 0.20)	0.99 (0.96 - 1.00)	0.00 (0.00 - 0.98)	0.90 (0.85 - 0.94)	1.00 (0.80 - 1.00)
1.10	0.00 (0.00 - 0.20)	0.99 (0.96 - 1.00)	0.00 (0.00 - 0.98)	0.90 (0.85 - 0.94)	1.00 (0.80 - 1.00)
Male:					
0.70	1.00 (0.91 - 1.00)	0.00 (0.00 - 0.01)	0.09 (0.06 - 0.12)	1.00 (0.03 - 1.00)	0.00 (0.00 - 0.09)
0.75	1.00 (0.91 - 1.00)	0.02 (0.01 - 0.04)	0.09 (0.06 - 0.12)	1.00 (0.63 - 1.00)	0.00 (0.00 - 0.09)
0.80	0.95 (0.82 - 0.99)	0.19 (0.15 - 0.24)	0.10 (0.07 - 0.14)	0.97 (0.91 - 1.00)	0.05 (0.01 - 0.18)
0.85	0.84 (0.68 - 0.94)	0.48 (0.43 - 0.53)	0.14 (0.09 - 0.19)	0.97 (0.93 - 0.99)	0.16 (0.06 - 0.32)
0.90	0.59 (0.42 - 0.75)	0.76 (0.71 - 0.80)	0.19 (0.13 - 0.28)	0.95 (0.92 - 0.97)	0.41 (0.25 - 0.58)
0.95	0.27 (0.14 - 0.44)	0.92 (0.88 - 0.94)	0.24 (0.12 - 0.39)	0.93 (0.90 - 0.95)	0.73 (0.56 - 0.86)
1.00	0.08 (0.02 - 0.22)	0.99 (0.97 - 1.00)	0.43 (0.10 - 0.82)	0.92 (0.89 - 0.94)	0.92 (0.78 - 0.98)
1.05	0.00 (0.00 - 0.09)	0.99 (0.98 - 1.00)	0.00 (0.00 - 0.84)	0.91 (0.88 - 0.94)	1.00 (0.91 - 1.00)
1.10	0.00 (0.00 - 0.09)	0.99 (0.98 - 1.00)	0.00 (0.00 - 0.84)	0.91 (0.88 - 0.94)	1.00 (0.91 - 1.00)

Supplementary Figure 1. Number of persons with TB with co-morbidities*, overall and by area

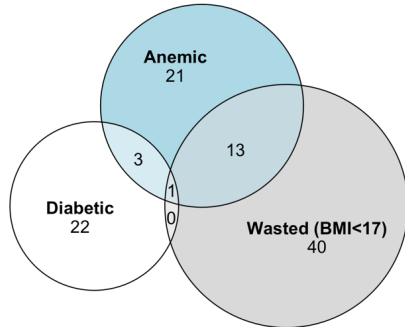
All available data: 218/584 (37.3%) have ≥ 1 comorbidity



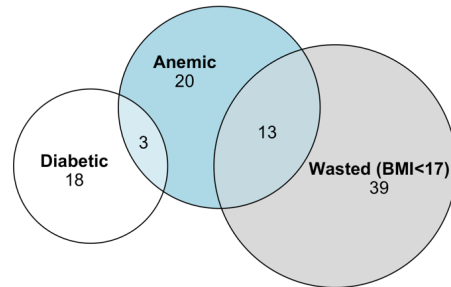
Negros Occidental: 118 / 261 (45.2%) have ≥ 1 comorbidity



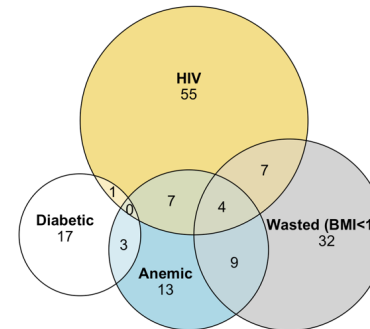
Metro Manila: 100/323 (31.0%) have ≥ 1 comorbidity



Metro Manila: 93/290 (32.1%) with known HIV status have ≥ 1 comorbidity



Metro Manila: 148/290 (51.0%) with known HIV status have ≥ 1 of four comorbidities including HIV



* amongst participants with non-missing values for each comorbidity shown