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## What could be worse than an HIV prevalence of 33%?



### Overall...



**71%**

Body mass index of 25+



**33%**

Stage 1 or 2 hypertension  
140-159 over 90-99



**37%**

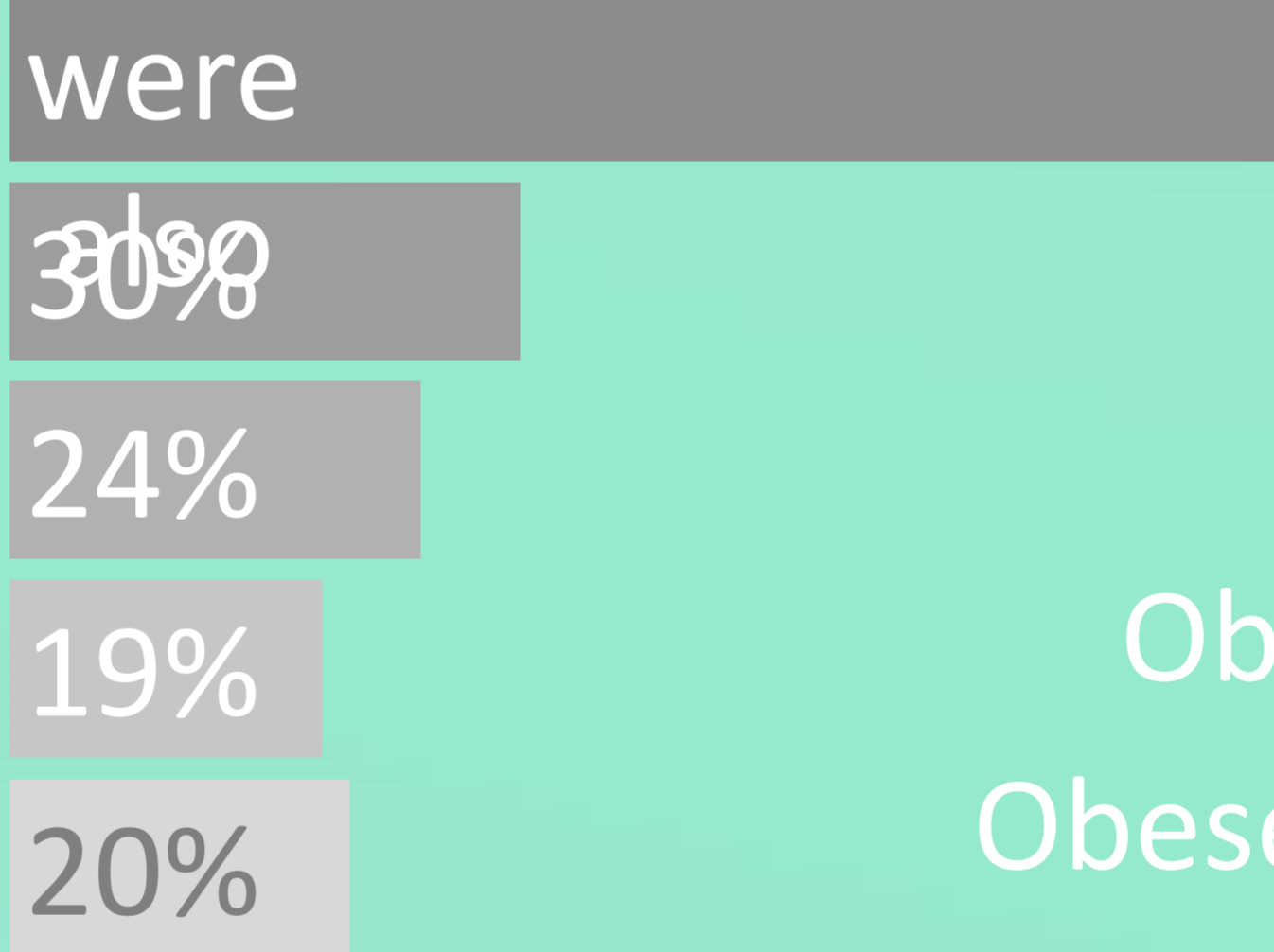
Patient Health Questionnaire (PHQ-9) > 5



**46%**

low density cholesterol > 5.2mmol/L

### Of those with HIV...



**Introduction:** South Africa faces dual epidemics of HIV and non-communicable chronic diseases (NCDs; hypertension, diabetes, obesity). Differentiated care for HIV, community health workers providing testing and linkage services in the community, has the potential to integrate NCD screening with community-based HIV testing, improve service delivery and avert leading causes of morbidity and mortality. However, characterization of prevalence of NCDs and integration with HIV linkage is limited; evidence from of community-based HIV testing and counseling programs are required.

**Methods:** We conducted a home based HIV counselling and testing study in rural and peri-urban communities in Kwa-Zulu Natal, South Africa between November 2011 and June 2012. 545 contiguous households were approached and all adults over the age of 18 were offered an HIV test. During follow-up visits in January 2015 HIV, depression, obesity, blood glucose, cholesterol and blood pressure screening were conducted using point-of-care tests. Logistic regression was used to compare the outcomes of obesity, hypertension, hypercholesterolemia, diabetes, and depression by HIV status and demographics.

**Results:** Thirty months after the initial visit, 587 (46%) of 1272 participants were located and screened; 69% were female and 33% were HIV positive. NCD prevalence was high in this sample; 71% were overweight (BMI 25-29.9) or obese (BMI ≥ 30), 33% had hypertension (> 140/90 mm Hg), 46% had hyperlipidemia (low density cholesterol > 5.2mmol/L) and 37% had depression (PHQ ≥ 5). Gender, age, employment and education were all found to be significantly associated with one or more condition. Three quarters of HIV positive individuals were found to also be overweight or obese.

**Conclusions:** In this community-based sample of adults, HIV and NCDs were prevalent. Approximately one-third had HIV, hypertension, diabetes or depression and two-thirds were overweight or obese. While community HIV testing programs provide an opportunity for early detection and linkage to care for NCDs and HIV, careful planning and adequate resources are needed to address the high volumes of persons with NCDs in a population with a high (>30%) HIV prevalence.

	HIV+	Random plasma glucose	Hypertension	LDL	Depression	
Adjusted Odds Ratios (95% Confidence Interval)						
Gender						
	Male	1.0	1.0	1.0	1.0	
	Female	2.69 (1.69 - 4.29)	2.28 (0.64 - 8.19)	1.32 (0.85 - 2.03)	1.13 (0.77 - 1.66)	1.23 (0.81 - 1.89)
Age						
	18-25	1.0	1.0	1.0	1.0	
	26-35	3.67 (1.92 - 7.00)	0.59 (0.04 - 9.75)	1.17 (0.57 - 2.42)	1.01 (0.58 - 1.77)	1.08 (0.57 - 2.04)
	36-45	6.79 (3.39 - 13.60)	1.75 (0.15 - 20.48)	2.09 (1.00 - 4.36)	1.67 (0.92 - 3.02)	0.94 (0.47 - 1.87)
	46-65	1.62 (0.78 - 3.35)	9.42 (1.03 - 86.58)	6.01 (2.87 - 12.59)	2.24 (1.21 - 4.14)	1.96 (1.01 - 3.82)
	66+	0.16 (0.04 - 0.61)	6.96 (0.64 - 76.20)	9.91 (4.28 - 22.91)	2.45 (1.19 - 5.04)	2.95 (1.36 - 6.41)
Employed						
	No	1.0	1.0	1.0	1.0	
	Yes	0.66 (0.41 - 1.07)	1.12 (0.38 - 3.74)	2.03 (1.27 - 3.24)	1.04 (0.68 - 1.59)	1.07 (0.67 - 1.71)
Education						
	Completed primary or less	1.0	1.0	1.0	1.0	
	Completed secondary	1.61 (0.92 - 2.82)	1.33 (0.43 - 4.15)	1.17 (0.70 - 1.97)	1.02 (0.63 - 1.64)	0.44 (0.27 - 0.71)
	Completed high school or more	0.90 (0.49 - 1.64)	1.67 (0.39 - 7.20)	1.30 (0.72 - 2.37)	1.03 (0.61 - 1.76)	0.23 (0.13 - 0.41)
	R <sup>2</sup>	0.275	0.124	0.181	0.045	0.202