

# Food security status among informal waste pickers in Johannesburg, South Africa, 2018: A cross-sectional study

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Thulani Moiane<sup>1,2</sup>, Nisha. N Naicker<sup>3,4</sup>, Hellen Netshivhumbé<sup>2</sup>, Kerry Wilson<sup>3,4</sup>

<sup>1</sup>School of Health Systems and Public Health, University of Pretoria, Pretoria, South Africa. <sup>2</sup>South African Field Epidemiology Training Programme of the National Institute for Communicable Diseases, Johannesburg, South Africa. <sup>3</sup>National Institute for Occupational Health of the National Health Laboratory Services, Johannesburg, South Africa. <sup>4</sup>School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa

*More than half of the waste pickers in Johannesburg experienced food insecurity higher than the general population.*

## BACKGROUND

- The scarcity of job opportunities driven by poverty has compelled individuals to seek survival through informal economy jobs, such as waste picking
- In 2022, an estimated 125,000 people were engaged in waste picking in South Africa
- Waste pickers face significant challenges in maintaining food security due to insufficient income
- We aimed to determine the factors that were associated with food insecurity among informal waste pickers on landfills in Johannesburg, South Africa, 2018

## METHODS

- We conducted a cross sectional study using secondary data derived from the National Institute for Occupational Health
- The Community Childhood Hunger Identification Project Index was used to measure food insecurity
  - Score of one or more (Yes) responses from the eight questions indicated household or individual food insecure
  - The total score for the 8 food security questions was converted into a percentage ranging from 0% to 100%
- Logistic regression was used to determine the factors associated with food insecurity among the waste pickers

## RESULTS

- Overall, 55.40% of waste pickers were food insecure

**Table 1. Socio demographic characteristics of the waste picker by landfill site, Johannesburg, South Africa, 2018**

Socio demographic characteristics	N = 361, Missing (n)	Landfill side 1 (n= 299)	Landfill side 2 (n=92)	P Value
<b>Sex</b>				
Male	265	235 (88.70)	30 (11.32)	
Female	96	64 (66.67)	32 (33.33)	<0.001
<b>Age</b>				
18-28	126	121 (96.03)	5 (3.97)	
29-39	155	132 (85.16)	23 (14.84)	
40+	80	15 (18.75)	34 (18.75)	<0.001
<b>Level of education</b>				
None	15	11 (73.33)	4 (26.67)	
Primary	59	35 (59.32)	24 (40.68)	
Secondary	281	248 (88.26)	33 (11.74)	
Tertiary	5	4 (80.00)	1 (20.00)	<0.001
<b>Current smoker</b>				
Yes	240	217 (90.41)	23 (9.58)	
No	110	74 (67.27)	36 (32.73)	
Missing	11			<0.001
<b>Fuel for cooking</b>				
Electricity	241	187(77.59)	54(22.41)	
Paraffin	69	63(91.30)	6(8.70)	
Gas	51	49(96.08)	2(3.92)	<0.001
<b>Hypertension</b>				
Yes	34	27(83.08)	5(16.92)	
No	325	27(79.41)	7(20.59)	0.591
Missing	5			
<b>Receiving social grants</b>				
Yes	77	60(77.92)	17(22.08)	
No	279	234(83.87)	45(16.13)	16.13
Missing	5			

## RESULTS CONTINUED

**Table 2: Univariate and multivariate analysis of the factors associated with food insecurity among waste pickers in Johannesburg, South Africa, 2018**

Characteristics	Univariate analysis			Multivariate analysis		
	OR	95%CI	P-Value	OR	95%CI	p-Value
<b>Sex</b>						
Male	Ref					
Female	0.74	(0.46 to 1.19)	0.215	2.47	(1.26 to 4.85)	0.008*
<b>Age group</b>						
18-28	Ref					
29-39	0.56	(0.35 to 0.90)	0.017			
40+	0.80	(0.45 to 1.43)	0.457			
<b>Current smoker</b>						
Yes	1.36	(0.87 to 2.15)	0.172	2.30	(1.27 to 4.42)	0.007*
No	Ref					
<b>Fuel for cooking</b>						
Electricity						
Paraffin	1.91	(1.09 to 3.36)	0.023	1.77	(1.01 to 3.11)	0.044*
Gas	1.50	(0.80 to 2.75)	0.207			
<b>Number of people in a household</b>						
1-3						
4-10	1.16	(0.73 to 1.86)	0.010	1.90	(1.10 to 3.31)	0.021*
>11	1.89	(1.05 to 3.39)	0.032			
<b>Hypertension</b>						
Yes	2.66	(1.23 to 5.70)	0.023	3.19	(1.36 to 7.45)	0.007*
No						
<b>Receiving grant</b>						
Yes	0.68	(0.4 to 1.14)	0.148	0.49	(0.27 to 0.87)	0.016*
No						

## CONCLUSIONS

- The study findings reveal that more than half of the waste pickers experienced food insecurity in Johannesburg

## RECOMMENDATION

- Further research on food security among waste pickers should be conducted
- An increase in social grant to cater vulnerable and marginalized population such as waste pickers

## ADDITIONAL INFORMATION

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