

# Goitre in the Western Province of Zambia

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## SUMMARY

The prevalence of Goitre in Zambia is confirmed. This is especially so among female subjects.

TABLE 1

PREVALENCE OF GOITRES IN DIFFERENT PARTS OF WESTERN PROVINCE

AREA	AGE IN YEARS									
	14 - 15		16 - 19		20 - 25		26 - 30		MORE THAN 30	
	M	F	M	F	M	F	M	F	M	F
<b>KAMBULE SECONDARY</b>										
School										
Nos Examined	112		310		92					
Nos with goitres	14 (12.4%)		42 (13.5%)		6 (6.5%)					
Grade 1.	40 (35.7%)		163 (52.5%)		38 (41.3%)					
Grade 2.	3 (2.6%)		32 (10.9%)		5 (5.3%)					
Grade 3.										
<b>MALENGWA SECONDARY</b>										
School										
Nos Examined	141		463		112					
Nos with goitres	12 (8.5%)		49 (1.5%)		31 (27.6%)					
Grade 1.	46 (32.6%)		166 (35.8%)		2 (1.7%)					
Grade 2.	6 (4.2%)		39 (8.4%)		7 (6.2%)					
Grade 3.										
<b>ST JOHN'S SECONDARY</b>										
School										
Nos Examined	89		272		91					
Nos with goitres	4 (4.4%)		19 (7.0%)		3 (3.3%)					
Grade 1.	21 (24.2%)		84 (30.6%)		27 (29.6%)					
Grade 2.	70 (11.2%)		64 (23.5%)		9 (9.8%)					
Grade 3.										
<b>SEFULA SECONDARY</b>										
School										
Nos Examined	32		87		106		301		54	
Nos with goitres	6 (18.7%)		11 (12.6%)		16 (15.0%)		38 (12.6%)		2 (3.7%)	
Grade 1.	11 (17.1%)		14 (16.0%)		20 (18.8%)		106 (35.2%)		16 (29.6%)	
Grade 2.	4 (12.4%)		15 (17.2%)		24 (22.5%)		68 (22.5%)		5 (9.2%)	
Grade 3.									18 (28.0%)	
<b>O.P.D. LEWANIKA HOSPITAL</b>										
Nos Examined	20		26		31		39		26	
Nos with goitres	1 (5.0%)		2 (7.6%)		1 (3.2%)		9 (23.0%)		2 (7.6%)	
Grade 1.	8 (30.7%)		3 (11.5%)		5 (16.1%)		7 (17.9%)		8 (30.7%)	
Grade 2.	2 (10.0%)		2 (7.6%)		2 (6.4%)		6 (15.3%)		4 (15.2%)	
Grade 3.									9 (9.6%)	
<b>KAOMA SECONDARY</b>										
School										
Nos Examined	82		121		196		261		65	
Nos with goitre	6 (7.3%)		24 (19.8%)		94 (47.9%)		12 (4.5%)		-	
Grade 1.	14 (17.0%)		26 (21.4%)		45 (28.0%)		132 (50.5%)		15 (23.0%)	
Grade 2.	12 (14.6%)		13 (10.7%)		31 (15.8%)		68 (26.0%)		5 (7.7%)	
Grade 3.									7 (4.3%)	
<b>LUKULU SECONDARY</b>										
School										
Nos Examined	29		34		27		129		92	
Nos with goitres	1 (3.4%)		4 (11.7%)		4 (14.8%)		32 (24.8%)		20 (21.7%)	
Grade 1.	4 (13.7%)		6 (17.0%)		5 (18.5%)		41 (39.5%)		15 (17.3%)	
Grade 2.	4 (13.4%)		3 (8.9%)		1 (3.7%)		18 (13.9%)		5 (5.3%)	
Grade 3.									2 (2.4%)	
<b>SESHEKE SECONDARY</b>										
School										
Nos Examined	47		187		179		284		32	
Nos with goitres	2 (4.2%)		17 (9.0%)		20 (11.2%)		62 (21.8%)		2 (6.2%)	
Grade 1.	8 (17.0%)		31 (16.5%)		32 (17.8%)		98 (34.5%)		8 (24.8%)	
Grade 2.	2 (4.2%)		30 (16.0%)		15 (8.3%)		17 (5.9%)		2 (6.2%)	
Grade 3.									1 (1.8%)	
<b>TOTAL ALL AREAS:</b>										
Nos examined	411		596		1121		1477		452	
Nos with goitres	31 (7.5%)		70 (11.7%)		196 (17.8%)		202 (13.5%)		35 (7.7%)	
Grade 1.	94 (22.8%)		131 (23.5%)		354 (31.5%)		550 (30.4%)		127 (28.0%)	
Grade 2.	34 (8.2%)		69 (11.5%)		169 (15.0%)		216 (14.7%)		35 (7.7%)	
Grade 3.									40 (7.0%)	

INTRODUCTION

Goitre surveys have been reported from several areas in Zambia – from Central Province (Khodorovski 1971), Copperbelt (Fisher 1971), Zambezi (Reid et al 1972), Serenje (Beet 1951) and areas served by the Flying Doctor Service (Goldin et al 1972).

We decided to examine all the school children from secondary schools in our province and all out-patients attending the surgical clinic.

METHOD

The size of goitres was graded according to the classification of Perez et al (1960). In Grade 1 the thyroid gland is visible or palpable only with the neck extended; in Grade 2 the thyroid gland is visible without having the neck extended; and in Grade 3 the thyroid gland is large.

RESULTS

The results have been grouped from secondary schools and Out-Patient Department. In Table 1 we have seen the prevalence in these groups and distribution by age and sex.

The total numbers of patients which were examined in Out-Patient Department and secondary schools were 7924, and we found 3953 had enlargement of thyroid glands.

TABLE 2

PLACES	PEOPLE EXAMINED	PATIENTS WITH GOITRE
Kambule Secondary School	514	343 (66.7%)
Lewanika Hospital (O.P.D.)	624	273 (43.7%)
Malengwa Secondary School	716	358 (50.0%)
Sefula Secondary School	644	389 (60.4%)
St. John's Secondary School	452	241 (53.3%)
<b>TOTAL</b>	<b>2950</b>	<b>1604 (54.3%)</b>

TABLE 3

OTHER DISTRICTS	NO. OF PATIENTS EXAMINED	NO. OF PATIENTS WITH GOITRES
Kaoma Secondary School	887	587 (66.1%)
Lukulu Secondary School	406	198 (48.7%)
Sesheke Secondary School	892	374 (41.9%)
<b>TOTAL</b>	<b>2185</b>	<b>1159 (53.0%)</b>

Fifty percent of students had goitres in Malengwa Secondary School. In Out-Patient Department we examined 624 patients, but only 43.7% had goitres.

The data of other secondary schools are shown in the Table 3.

DISCUSSION

The prevalence of goitre was found to vary considerably in different districts of the Western Province as shown in the Table 2. The prevalence of goitre in Zambia is confirmed. This is especially so among female subjects.

In these districts the highest number of students with goitres was found in Kaoma Secondary School, with 66.1% having goitre.

In females the incidence of thyroid reaches its peak in the 17–19 years age group. The incidence in females is higher than in males in all age groups.

CONCLUSION

1) The highest number of students with goitres was found in Mongu district in Kambule Secondary School, 343 (66.7%). The same percentage of students had goitres in Kaoma Secondary School, 587 (66.1%).

2) The incidence of goitre was found to be higher in females than in all age groups.

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