

# Analysis of the Cazenga Municipal Tuberculosis Database Program 2019-2023

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The database analyzed includes pertinent tuberculosis cases information. However, is unable to provide accurate data on the source of cases, for targeted intervention.

## BACKGROUND

Epidemiological surveillance databases should provide information that helps managers plan public health actions and evaluate the performance of a health system. In Angola, the Ministry of Health uses the Health Management Information System (DHIS2) to store data from different public health programs, including tuberculosis, which is a priority disease with high morbidity rates.

The aim of study was to investigate whether the tuberculosis surveillance database provides relevant information for decision-making.

## METHODS

A descriptive analysis of secondary data from the tuberculosis program was performed in the municipality of Cazenga. All tuberculosis cases notified from 2019 to 2023 and inserted in the database were included in the analysis. We use Microsoft-Excel to calculate central tendency, dispersion, and frequency measures.

## RESULTS

Overall, 92.7% (2.251/2.429) were new cases of tuberculosis, 91.3% (2.233/2.429) had pulmonary tuberculosis, and 53.7% (1.305/2.429) were a clinical diagnostic (table 1). The prevalence rate predominated in males and those over 14 years of age, with 170,7 and 193,47 cases/100.000 inhabitants, respectively (table 2); 3,8% (93/2.429) of the cases belonged to risk groups, of which 94,6% (88/93) were HIV-positive. Only 45,2% (1.098/2,429) had an outcome, of these, 21,2% (233/1.098) were cured, 39,2% (431/1.098) completed treatment, and 27,8% (305/1.098) abandoned the treatment. There was an uptrend in cases, with a median of 606 [224-991] cases (graph 1). Of the total number of essential fields that had to be completed in the five-year period, only 7,9% (326/4.140) were complete and correct.

**Table 1.** Distribution of TB cases, according to admission status, form of TB, type of diagnosis and outcome, municipality of Cazenga, 2019-2023

Variables	2019	2020	2021	2022	2023	Total
<b>Condition on admission</b>						
New Cases	-	283 (100)	205 (100)	903 (97,2)	860 (84,9)	2.251 (92,7)
Relapses	-	0 (0)	0 (0)	20 (2,2)	60 (5,9)	80 (3,3)
Retreatment	-	0 (0)	0 (0)	6 (0,6)	92 (9,2)	98 (4,0)
<b>Form of Tuberculosis</b>						
Pulmonary	-	283 (100)	195 (95,1)	798 (85,9)	957 (94,6)	2.233 (91,9)
Extrapulmonary	-	0 (0)	10 (4,9)	131 (14,1)	55 (5,4)	196 (8,1)
<b>Type of diagnosis</b>						
Clinical	-	115 (40,6)	63 (30,7)	551 (63,3)	576 (56,9)	1.305 (53,7)
Laboratory	-	168 (59,4)	142 (69,3)	378 (36,7)	436 (43,1)	1.124 (46,3)
<b>Total</b>	-	<b>n=283 (100%)</b>	<b>n=205 (100%)</b>	<b>n=929 (100%)</b>	<b>n=1.012 (100%)</b>	<b>2.424 (100%)</b>

- Data unavailable

Source: TB Database (dhis2)

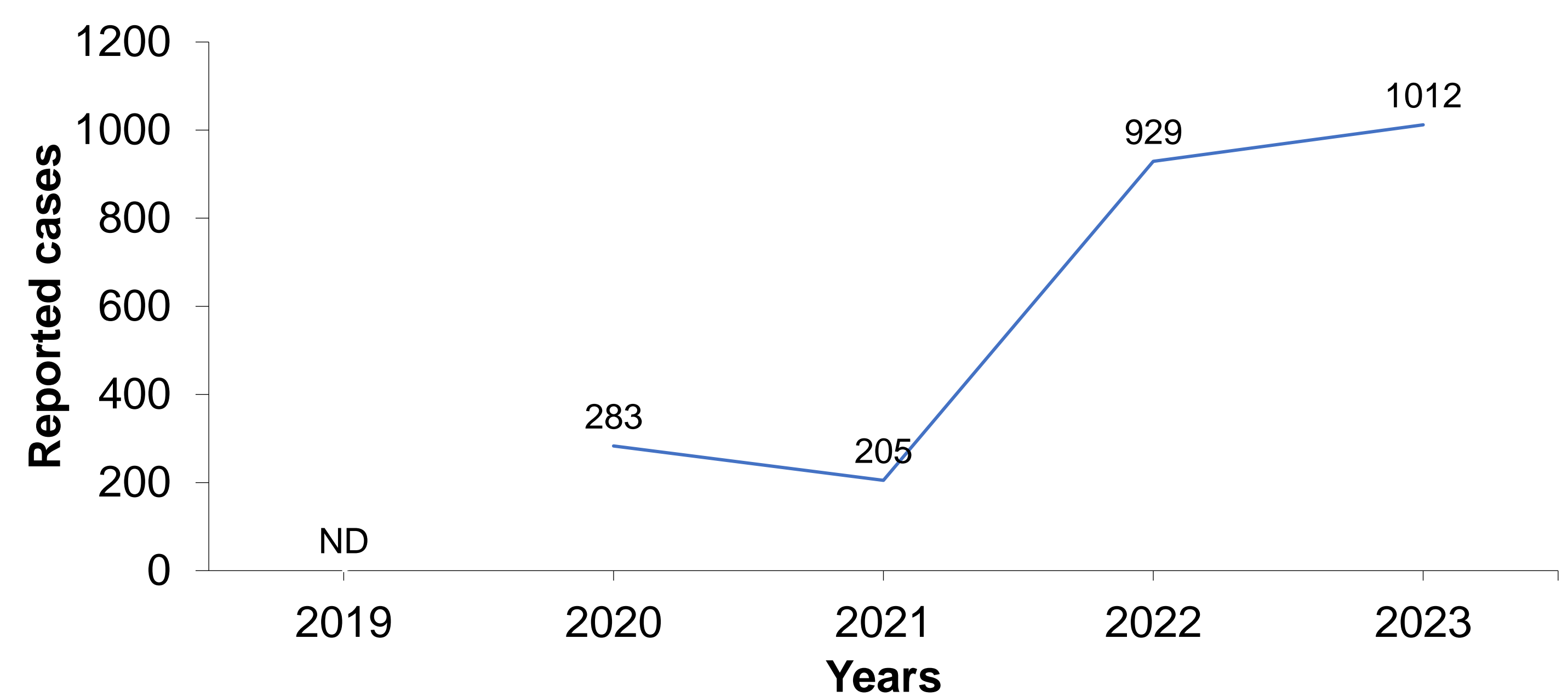
**Table 2.** Distribution of new cases and relapses TB cases by sex and age group in the municipality of Cazenga, 2019-2023

Variable	2019	2020	IR <sup>1</sup>	2021	IR <sup>1</sup>	2022	IR <sup>1</sup>	2023	IR <sup>1</sup>	Total	PR <sup>2</sup>
<b>Sex</b>											
Male	-	168	24,7	107	15,2	463	63,7	509	69,7	1 247	170,7
Female	-	115	16,4	95	13,1	296	39,6	359	47,2	865	113,7
<b>Age Group</b>											
0-4	-	6	2,69	3	1,3	20	8,48	5	2,1	34	11,79
5-14	-	89	21,6	90	21,5	250	58,7	44	10,7	473	111,5
>15	-	188	25,1	109	14	489	60,2	819	98,7	1 605	193,5
<b>Total</b>	-	<b>283</b>	<b>20,4</b>	<b>202</b>	<b>14,1</b>	<b>759</b>	<b>51,5</b>	<b>868</b>	<b>58,2</b>	<b>2 112</b>	<b>141,3</b>

Source: TB Database (dhis2)

<sup>1</sup>Incidence Rate/100.000 inhabitants; <sup>2</sup>Prevalence Rate/100.000 inhabitants

**Graph 1.** - Trends in tuberculosis cases in the municipality of Cazenga 2019-2023



Source: TB Database (dhis2)

## CONCLUSIONS

The database includes variables capable of providing information on the patient's condition at the time of admission, the form of presentation and diagnosis of the disease, the characteristics of the affected population, the period case notification, as well as the outcome after treatment. However, there was a lack of variables describing the origin of the cases, which limits the implementation of disease prevention actions in the community. In general, there was a high proportion of unfilled fields, which determined the low quality of the data, with consequent compromise of the veracity of the information generated by the analysis of these data. It is relevant to insert the place variable, as well as to fill all essential fields in the database.

## ADDITIONAL KEY INFORMATION

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