Characterization and evolution of children diagnosed with cancer in Haiti from January 2015 to September 2020

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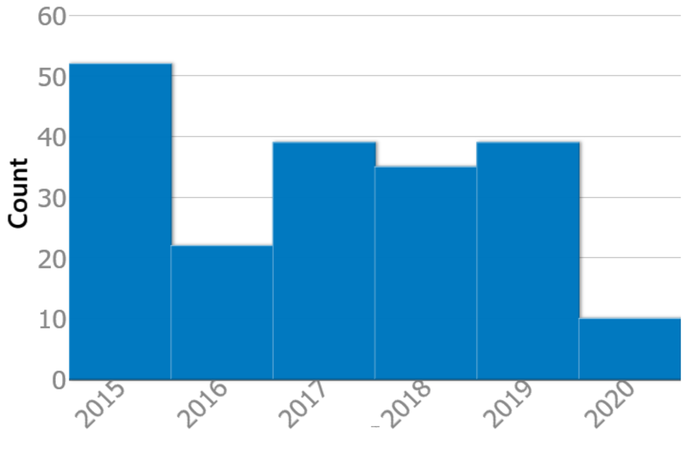
Background

- Haiti, like other countries in the Caribbean region and Latin America, is facing an increase in cancer cases.
- However, most national level data available for Haiti are estimates based on modeling data from other countries.
- This study aims to characterize children diagnosed with cancer and describe their evolution in selected cancer centers in Haiti from January 2015 to September 2020.

Methods

- The dataset used in this analysis emanates from of a project to improve cancer surveillance in Haiti, collecting paper and electronic medical record data of patients with cancer attending one of the nine main cancer centers (five hospitals, two largest private clinics, one institute, one society) from January 2015 to September 2020.
- Cancer cases either had a level 1 confirmation (clinical suspicion confirmed by imaging/laboratory tests) or a level 2 confirmation (histopathology).
- Count, percentage, mean and standard deviation were used via Epi Info 7 to describe demographic and clinical characteristics, treatment and evolution.

Figure 1. Number of children newly diagnosed with cancer in Haiti 2015-2020



Findings

Figure 2. Sex and age of children newly diagnosed with cancer in Haiti from 2015 to 2020

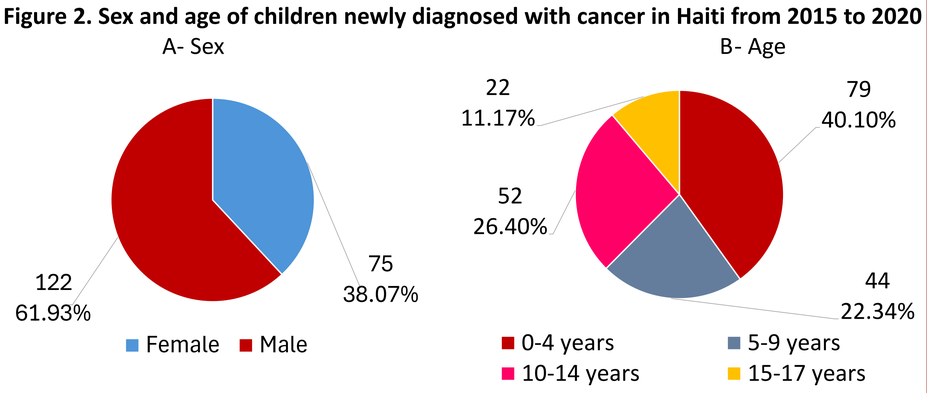


Figure 3. Top 5 cancer sites among children newly diagnosed with cancer in Haiti by age group from 2015 to 2020

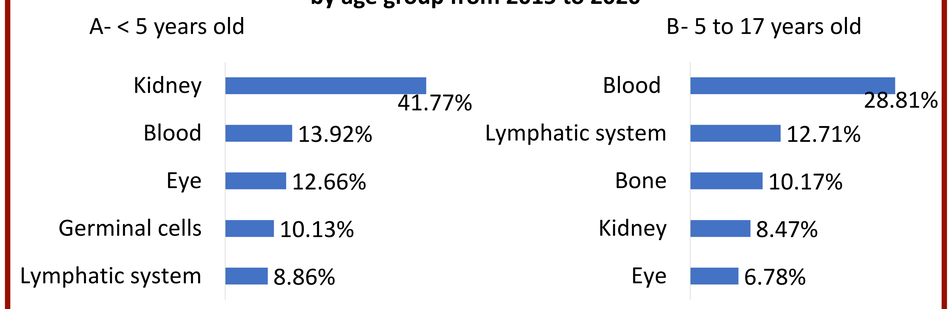
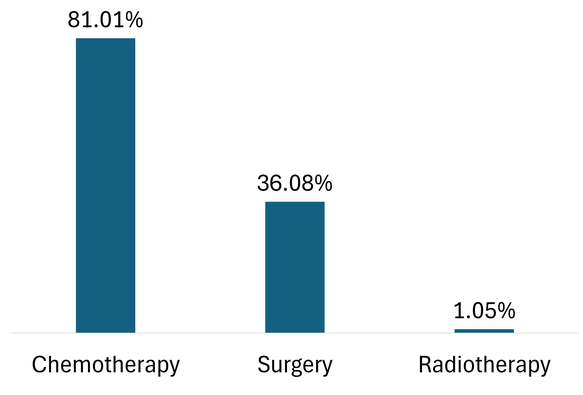


Table 1. Stage, confirmation, and circumstances of cancer diagnosis among children newly diagnosed with cancer in Haiti from 2015 to 2020

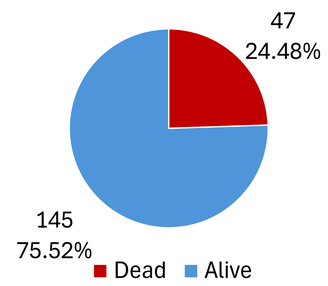
	Overall N (%)	< 5 years old n (%)	≥ 5 years old n (%)
Stage at diagnosis			
1	13 (11.82)	6 (12.24)	7 (11.48)
2	13 (11.82)	4 (8.16)	9 (14.75)
3	43 (39.09)	22 (44.9)	21 (34.43)
4	41 (37.27)	17 (34.69)	24 (39.34)
Missing, n	87	30	57
Cancer confirmation			
Histopathology	119 (60.41)	48 (60.76)	71 (60.17)
Imaging/laboratory	78 (39.59)	31 (39.24)	47 (39.83)
Circumstance of diagnosis			
Presence of symptoms	194 (98.48)	78 (98.73)	116 (98.31)
Other	3 (1.52)	1 (1.27)	2 (1.69)

Figure 4. Treatments received by children newly diagnosed with cancer in Haiti from 2015 to 2020



Findings

Figure 5. Mortality of children newly diagnosed with cancer in Haiti from 2015 to 2020



- A total of 197 children were diagnosed with cancer, the year 2015 had the highest number of new cases (52). The mean age of the children at the time of diagnosis was 7.44 years ± 5.00, 45.63% had a carcinoma.
- The most common cancer locations were blood (22.84%), kidney (21.83%), lymphatic system (11.17%), eye (9.14%), germinal cells (7.11%) and bone (6.09%).
- After treatment, 57.98% of patients improved and 7.98% relapsed; 9.04% abandoned therapy. Approximately 24.50% of the children died during follow-up which lasted on average 15.05 months ±13.63.

Interpretation

- A significant proportion of the children were diagnosed with cancer at an advanced stage, almost all were diagnosed because of symptoms.
- Almost all children did not have access to radiotherapy, the majority improved after treatment, and around a quarter died.
- It is essential to increase awareness on childhood cancer in Haiti and improve access to appropriate therapies including radiotherapy.

Funding: This work was funded by the Grant TPN-FE-GLBN_5140_3200 from Task Force For Global Health, Inc through TEPHINET. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention, the Department of Health and Human Services, The Task Force for Global Health, Inc. or TEPHINET.
Acknowledgement: Ruth Damuse, Jean Cantave, Bernard Junior Joseph, Pascale Gassant, Elsie Chalumeau Metellus, Robert Barrais