

The dynamism of the HIV epidemic as reflected in all-cause mortality in an urban Zimbabwean HIV cohort in 2010 and 2020

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BACKGROUND

- The life expectancy of people living with HIV (PLHIV) has improved due to widespread roll out of antiretroviral therapy (ART), life expectancy is now similar to that of HIV negative people
- With widespread and early introduction of ART there has been a shift from predominance of opportunistic infections as a cause of mortality in PLHIV. Over the same period non-communicable diseases have become a leading contributor to disease burden and death
- In 2020, around 680 000 people died from AIDS-related illnesses worldwide, compared to 1.9 million people in 2004 and 1.3 million people in 2010

METHODS

- A retrospective review of routine collected data extracted from electronic medical records was conducted
- All patients deceased from January 1st - December 31st in 2010 and the same period in 2020 were included
- Cause of death (COD), demographic and clinical data were collected for all eligible patients. Data was summarized using descriptive statistics

RESULTS

- A combined total of 156 patients died in both years. 65 deaths were recorded in 2010 out of a total of 3292 patients in care. 91 deaths out of 6709 patients died in 2020
- In 2010 almost half of all deaths were due to infectious causes as compared to one third in 2020
- 23% of deaths were due to opportunistic infections in 2010 and 20% in 2020. 2 patients died due to Covid-19 in 2020
- All 2010 NCD-related deaths were due to chronic kidney disease (CKD). In 2020, 8 were due to CKD, 4 to cardiovascular disease and 1 to diabetes
- The proportion of HIV associated malignancies (cervical cancer, Non-Hodgkin's lymphoma, Kaposi sarcoma) declined in 2020 whilst non-HIV related malignancy COD have increased
- Multiple myeloma, oesophageal, cholangio-, hepatocellular and gastric carcinoma were absent in our 2010 cohort but accounted for 27.5% of non-HIV related malignancy deaths in 2020. Proportions of death attributable to colon cancer were similar in both cohorts
- Proportion of anogenital malignancies were similar in both cohorts, we noted the emergence of anal and vulval cancer: no deaths were recorded in 2010 with 8%(2) and 4% (1) respectively in 2020

Figure 1: Cause of death by cohort

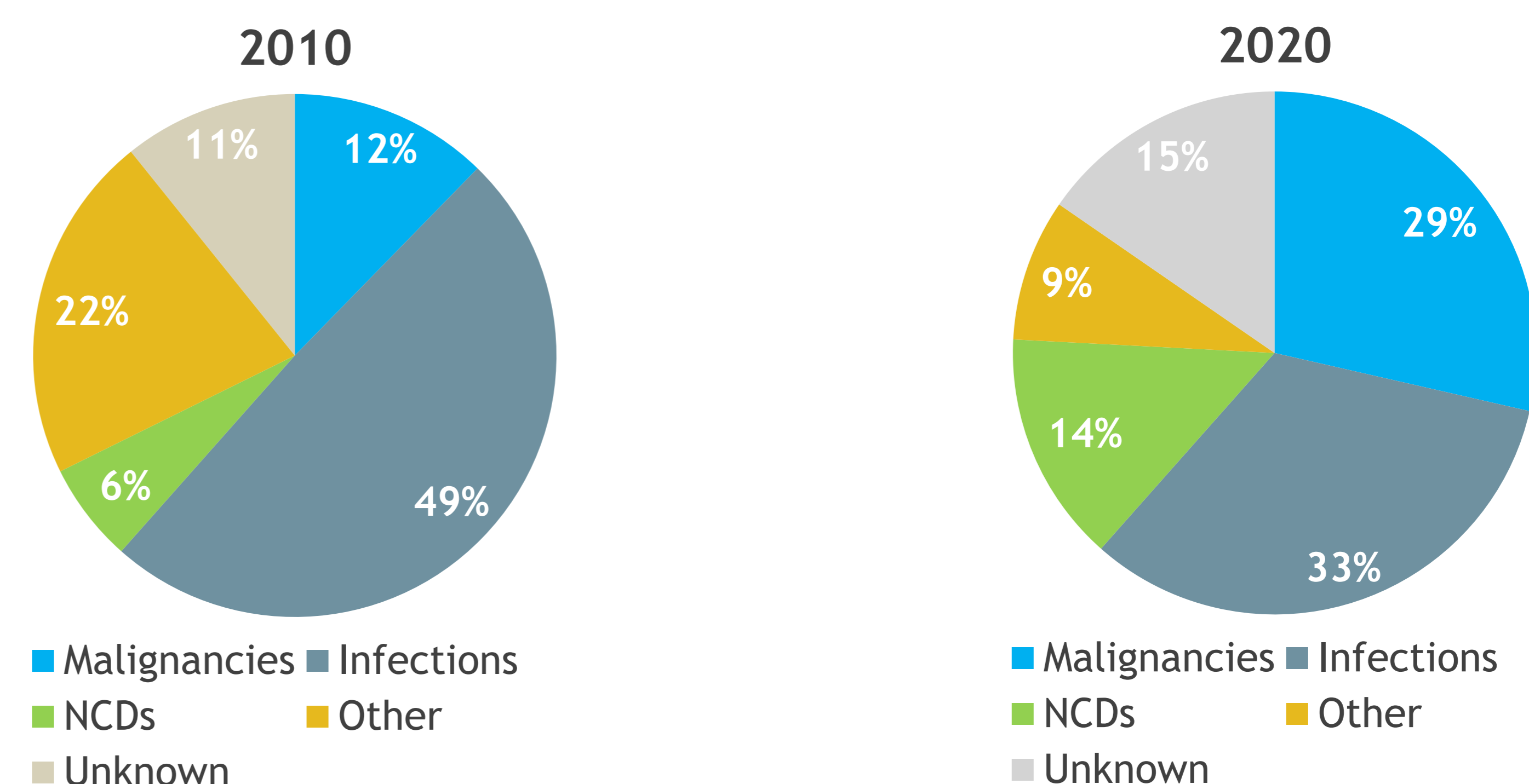
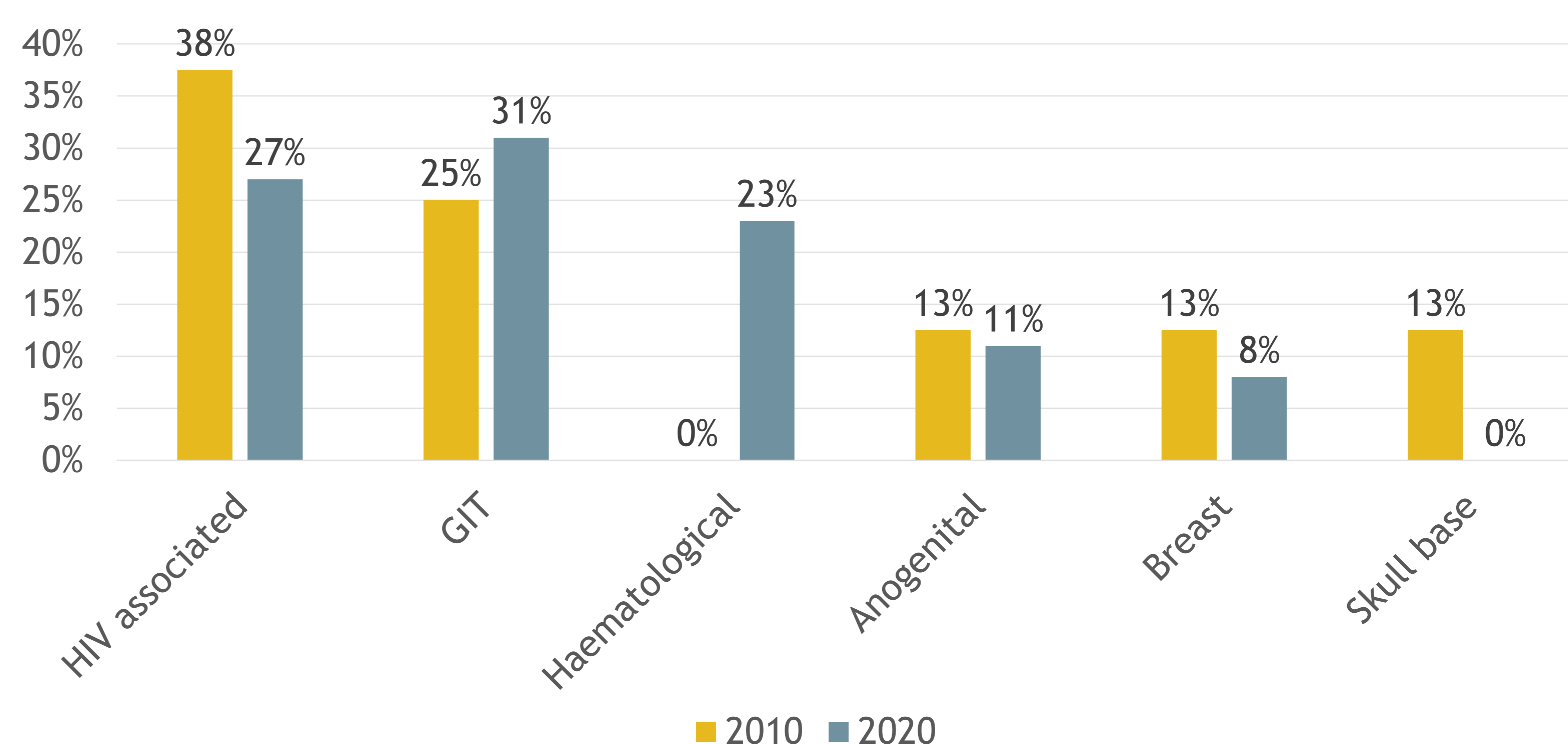


Table 1: Demographics and clinical characteristics

	2010	2020
Male n (%)	25 (38%)	42 (46%)
Female n (%)	40 (62%)	49 (54%)
Median age at death in years	19 IQR(13-44)	46 IQR(34-57)
Median CD4 at death	242 cells/ml IQR(105-381)	289 cells/ml IQR(74-537)
Median ART Duration in weeks	62 IQR(18-216)	396 IQR(171-655)

Figure 2: COD due to malignancy type in each cohort



CONCLUSIONS

- COD and median age at time of death has changed dramatically over the decade.
- Non-HIV related malignancies and other NCDs have become significant contributors to COD in PLHIV.
- Integrated HIV care which includes screening, monitoring and treatment of NCDs and non-HIV-associated cancers is highly recommended