Epidemiology and histological classification of lung cancer patients in Zimbabwe: A five-year retrospective study

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Background

- Globally lung cancer represents about 11% of all new cancers.
- It is the leading cause of cancer-related deaths in 87 countries and 26 countries for women.
- However, only 1% of these deaths were reported in Africa.
- In Zimbabwe it accounts for only 3% of cancers in men and 1.6% in women ranking at number 8 and 12 respectively.
- There is a discrepancy in lung cancer incidence ranking globally and that observed in Zimbabwe and Africa.
- Here we describe the epidemiology and histological classification of lung cancer cases at Zimbabwe's largest clinical oncology centre

Methodology

A retrospective descriptive study reviewing medical records of patients who presented with pathologically confirmed primary lung cancer from January 2014 to 31 December 2018 was done.

Results

- A total of 73 patients were treated with a median age at diagnosis of 60 years. (Table 1)
- Rural residents who mainly use firewood for energy made up 44% of the study population.
- Less that half of the patients had a history of smoking with an average pack-year of 28.1
- 1 in 5 patients were HIV positive and 57% of HIV infected patients were smokers compared to 31% among HIV negative patients.
- HIV positive patients with lung cancer younger at diagnosis compared to HIV negative patients by 4 years and a higher smoking prevalence & pack-years.
- High-risk occupations were identified in 8% of cases.
- Non-Small cell lung carcinoma (NSCLC) was the most common type with adenocarcinoma being the most prevalent subtype. (fig. 2)
- Most patients had stage IV disease at diagnosis. (Fig.3)

Table 1: Patient characteristic & Risk factors

Characteristics	Frequency (%)
Sex: Male	43 (58.9)
Female	30 (41.1)
Age group (in years) <65	33 (45.2)
>65	40 (54.8)
Primary Residence: Urban	37 (56.1)
Rural	29 (43.9)
Tobacco Smoking history: No	33 (45.3)
Yes	34 (46.5)
No record	6 (8.2)
HIV status: Negative	35 (49.3)
Positive	14 (19.7)
Unknown	22 (31)
Family history of cancer No	65 (89)
Yes	8 (11)
History of high risk occupation: No	67 (91.8)
Yes	6 (8.2)

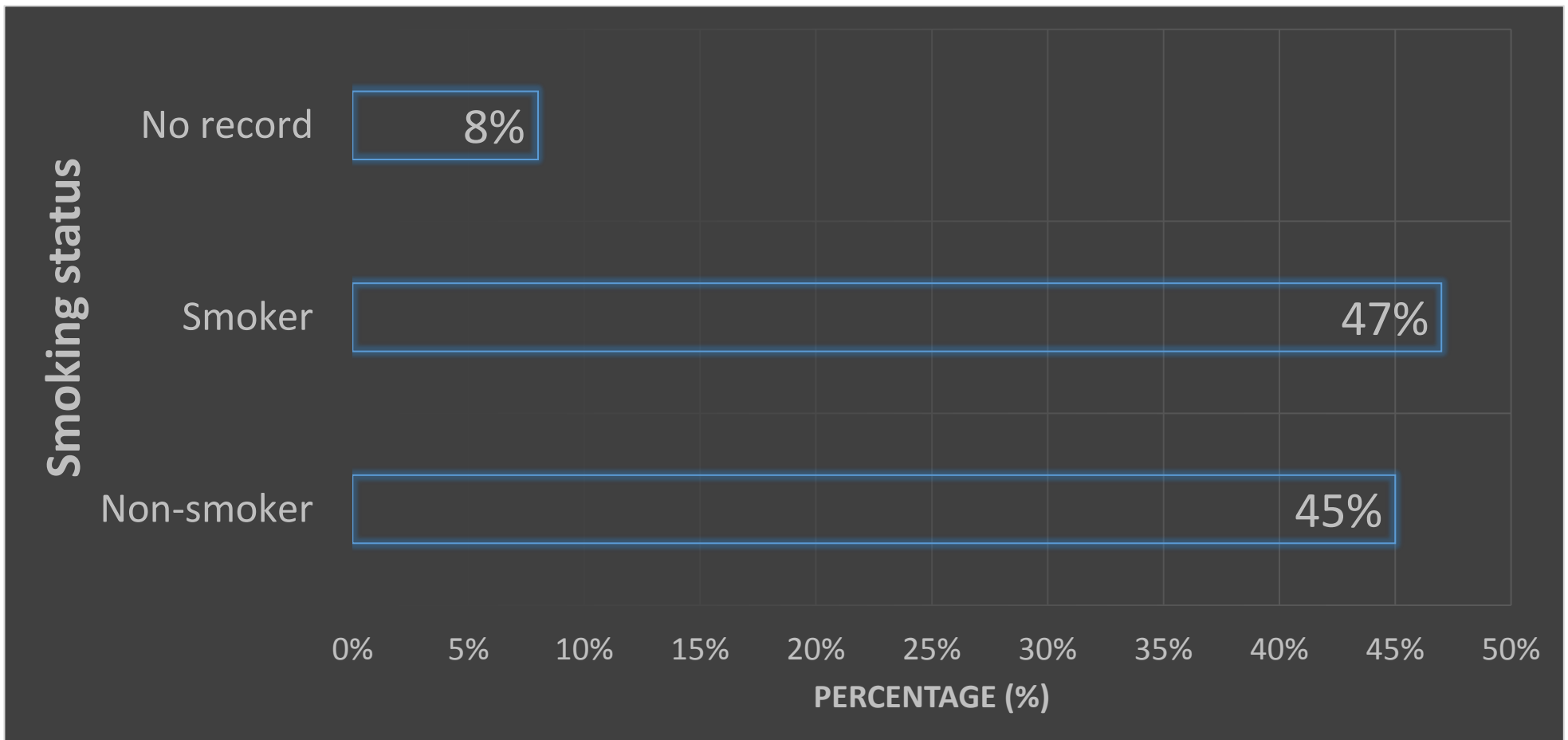### Figure 1: History of smoking

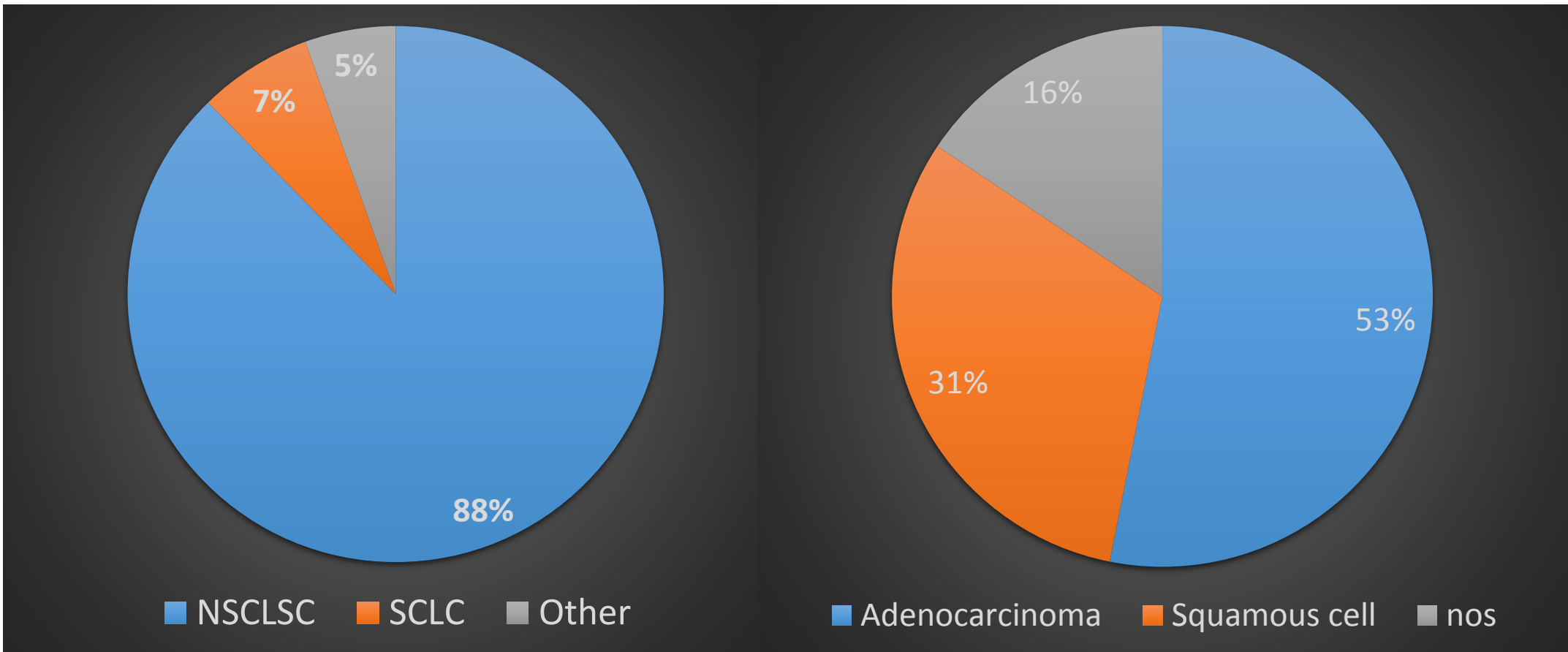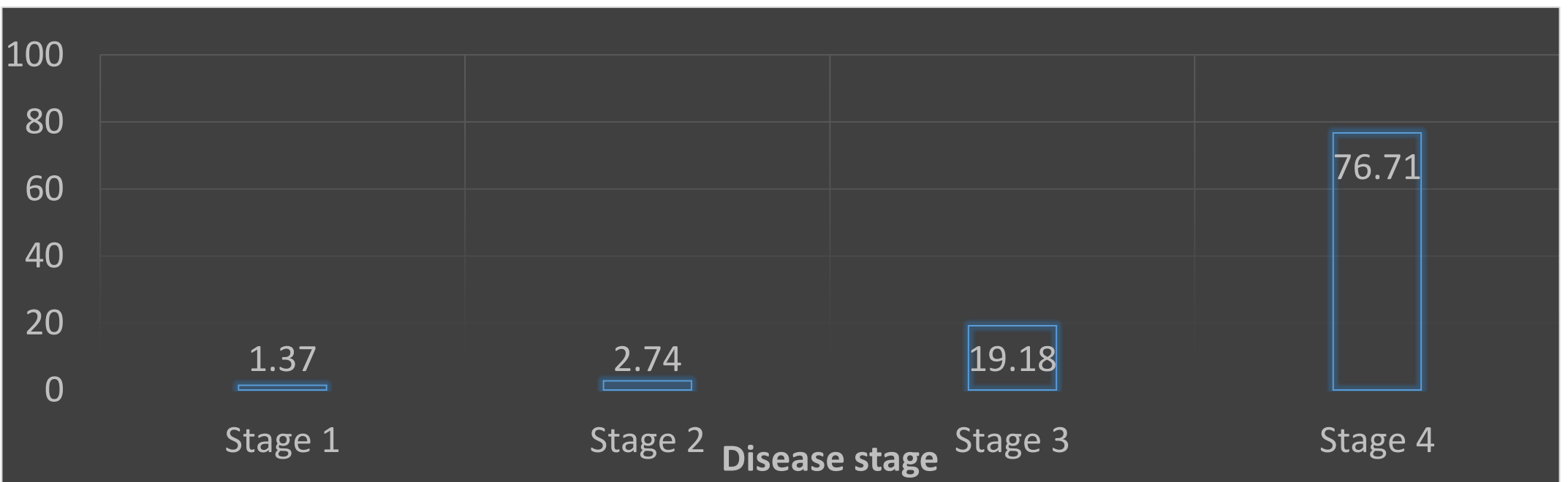### Figure 2: Histopathological classification

Figure 3: Clinical stage at diagnosis

Conclusion

- Most of the lung cancer patients were diagnosed with metastatic adenocarcinoma with no history of smoking.
- Other significant risk factors include HIV infection, indoor pollution and occupational exposure.

References

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