ANNUAL CANCER REGISTRY REPORT-2022: SHAUKAT KHANUM MEMORIAL CANCER HOSPITAL & RESEARCH CENTRE, PAKISTAN

Shahid Mahmood, Raqib Faraz, Aneel Yousaf, Ain ul Quader, Hina Asif, Adna Atif, Natasha Perveen, Roma Tanveer, Azam Hussain, Ayesha Zafar, Faiza Kiran, Usman Amin, Sabeera Iqbal, and Farhana Badar

CANCER STATISTICS

This report includes patients who were registered at Shaukat Khanum Memorial Trust (SKMT)-affiliated centres and filed into the Hospital Information System. These comprise the hospitals (the Shaukat Khanum Memorial Cancer Hospital and Research Centre (SKMCH&RC) and associated centres.

Distribution of neoplasms

In one year, from January 1, 2022, to December 31, 2022, a total of 8,284 new neoplasms were registered at the SKMT facilities in Pakistan. Of those, 3,528 (42.6%) and 4756 (57.4%) patients were male. 905 tumours (10.9%) were diagnosed in children, compared to 7,379 (89.1%) tumours in adults. Patients who were 18 years of age or younger were classified as children, and those who were older than 18 were classified as adults. The stratification of cases by age group and behaviour is shown in Table 1.

Table 1. Distribution of neoplasms by behaviour and age group, SKMCH&RC, January 1, 2022, to December 31, 2022

Behaviour	Age group	Registered patients (7,891)	Reported neoplasm♣ (8,284)
Malignant♦	Adults	6,403	6,496
	Pediatrics	882	885
	Total	7,285	7,381
Benign$^{\epsilon}$ and uncertain behaviour	Adults	778	883
	Pediatrics	20	20
	Total	798	903

♣ The difference in the number of registered patients and reported neoplasms is attributed to multiple malignancies and benign neoplasms diagnosed in 96 and 105 patients, respectively. Further, 192 patients had both malignant and benign neoplasms simultaneously.

♦ Cases with behaviour codes /3 and /2 are considered malignant cases.

$^{\epsilon}$ Cases with behaviour codes /0 and /1 are considered benign and with uncertain behaviour, respectively.

¥ According to the Facility Oncology Revised Data Standards (FORDS), revised for 2004, Class of Case 00-20 are analytical cases and included in treatment and survival analysis, whereas Class 30-33 are non-analytical cases, usually not included in routine treatment or survival statistics.
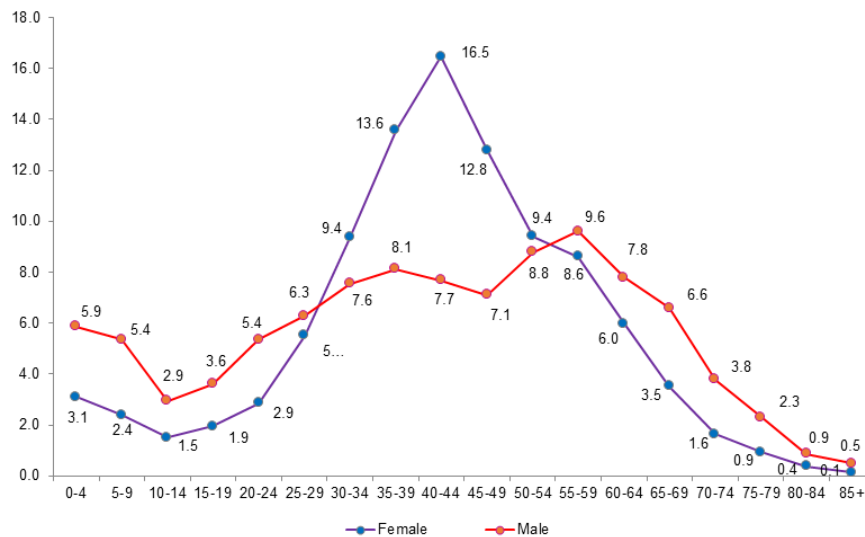
Class of Case

Between January 1, 2022, and December 31, 2022, 7,381 malignant cases were registered at the SKMT facilities in Pakistan. Of those, 7,222 (97.8%) were analytical cases, and 159 (2.2%) were non-analytical cases.

Distribution of malignancies

In the year 2022, a total of 7,381 malignancies were registered at the SKMT facilities in Pakistan. Of those, 3,363 were seen among males and 4,018 were seen among females.

Figure 1. Distribution of malignancies by sex and age group (N=7,381), SKMCH&RC, January 1, 2022, to December 31, 2022

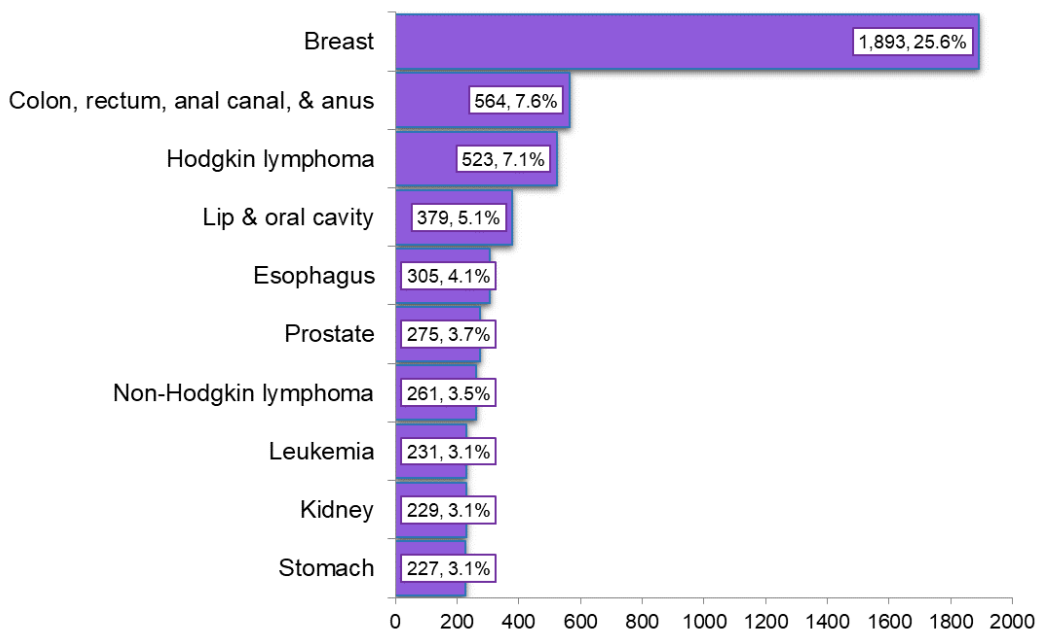Data Source: Cancer Registry & Clinical Data Management, SKMCH&RC

Demographics

Table 2. Distribution of malignancies (N=7,381) according to the geographic area of residence of the patients, SKMCH&RC, January 1, 2022, to December 31, 2022

Region	Malignancies N=7,381)	Percent
Punjab	4143	56.1
Khyber Pakhtunkhwa (includes FATA[1])	1,856	25.1
Sindh	150	2.0
Balochistan	80	1.1
Federal Capital	64	0.9
Gilgit-Baltistan	19	0.3
Azad Jammu and Kashmir	58	0.8
Afghanistan	1003	13.6
Other countries	8	0.1
Total	**7,381**	**100.0**

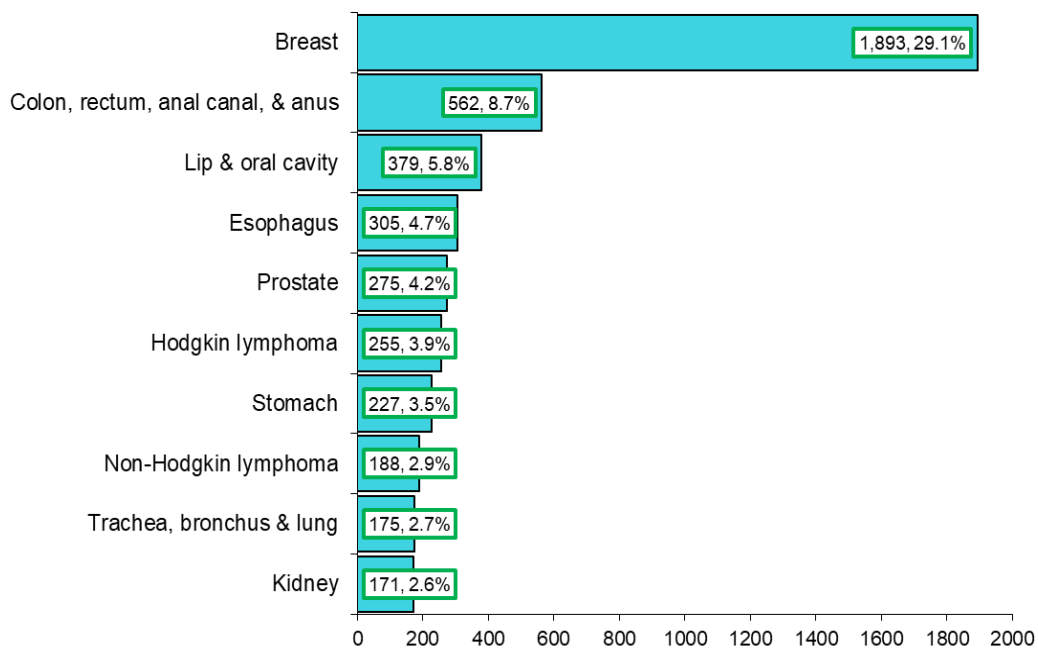[1] The administrative unit of FATA was included in the province of Khyber Pakhtunkhwa on May 28, 2018

Top ten cancers

Figure 2. Top 10 malignancies among all age groups, both sexes combined (N=7,381), SKMCH&RC, January 1, 2022, to December 31, 2022
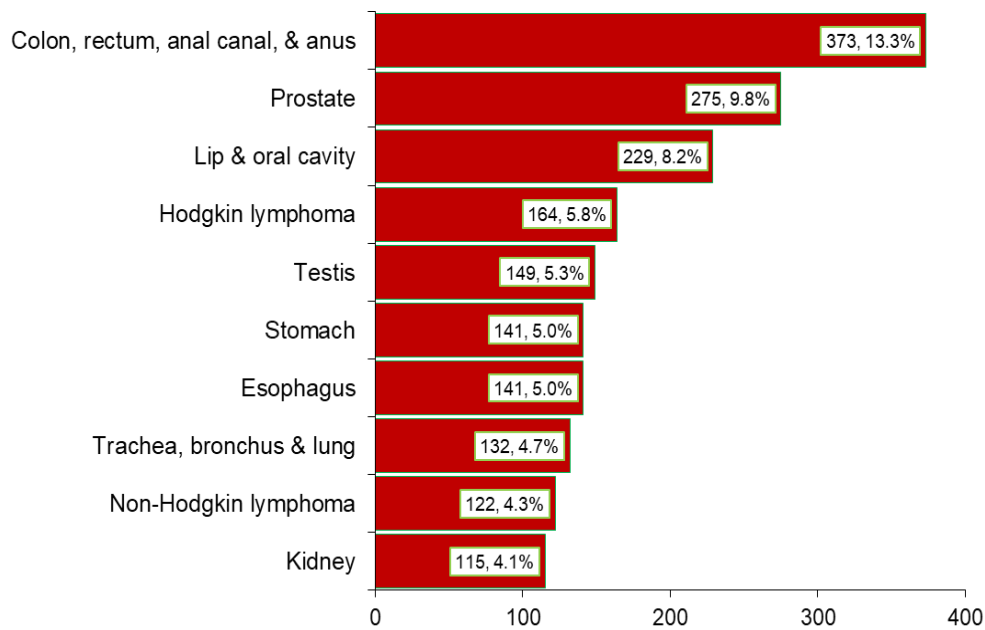

Data Source: Cancer Registry & Clinical Data Management, SKMCH&RC

Figure 3. Top 10 malignancies among adults (> 18 years (N=6,496)), both sexes combined, SKMCH&RC, January 1, 2022, to December 31, 2022
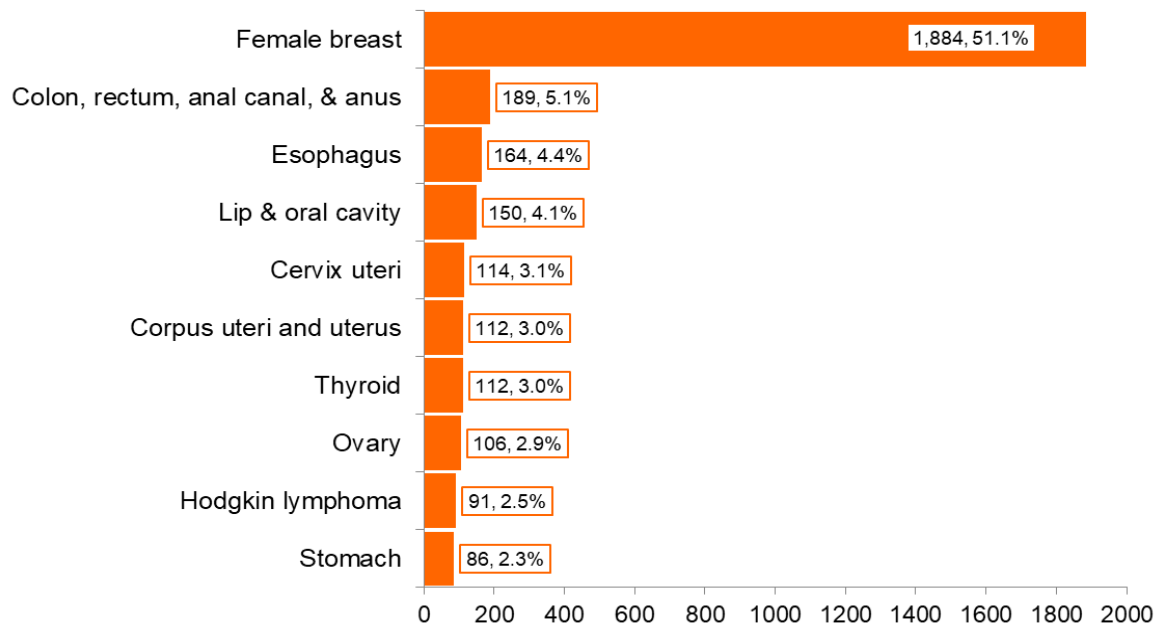

Data Source: Cancer Registry & Clinical Data Management, SKMCH&RC

Figure 4. Top 10 malignancies among adult males (> 18 years (N=2,808)), SKMCH&RC, January 1, 2022, to December 31, 2022
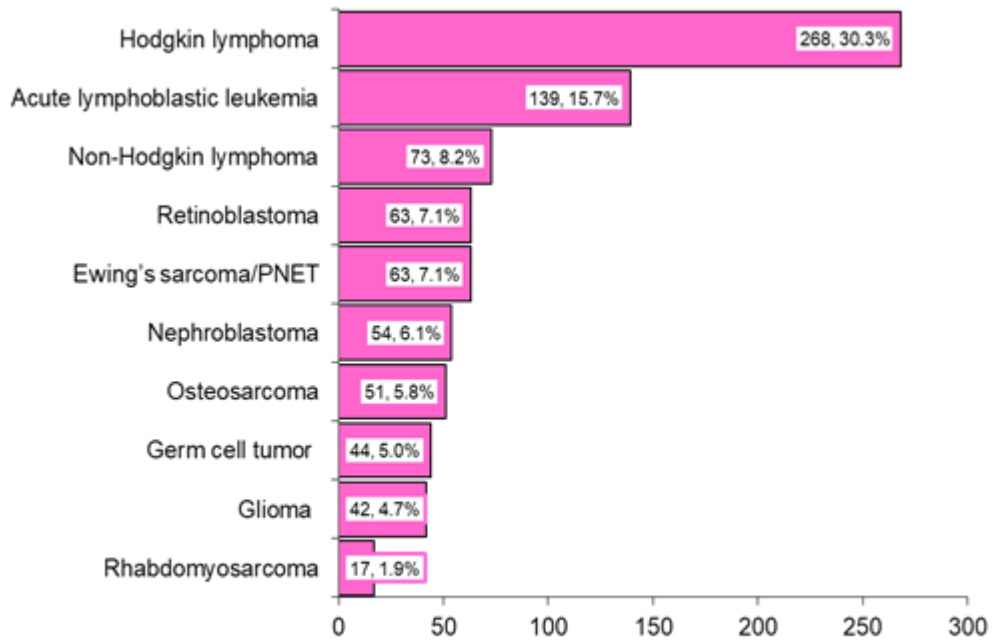

Data Source: Cancer Registry & Clinical Data Management, SKMCH&RC

Figure 5. Top 10 malignancies among adult females (> 18 years (N=3,688)), SKMCH&RC, January 1, 2022, to December 31, 2022

Data Source: Cancer Registry & Clinical Data Management, SKMCH&RC

Figure 6. Top 10 malignancies in children (</= 18 years (N=885)), SKMCH&RC, January 1, 2022, to December 31, 2022. Classification of childhood cancers is based on tumour morphology using the ICD-O-3 coding scheme for childhood cancers.

Data Source: Cancer Registry & Clinical Data Management, SKMCH&RC

Staging

Table 3. Distribution of cancers by the TNM staging method of analytical cancer patients (N=7,222) at SKMCH&RC, January 1, 2022, to December 31, 2022

AJCC Stage	Count	Percentage
Stage 0	78	1.1
Stage I	1005	13.9
Stage II	2013	27.9
Stage III	1,890	26.2
Stage IV	1,240	17.2
Unstageable	273	3.8
AJCC stage not defined	723	10.0
Total	**7222**	**100.0**

An amendment was made on October 31, 2023. A shorter version of the report has been published.

Cancer Registry and Clinical Data Management section

Shaukat Khanum Memorial Cancer Hospital and Research Centre, Lahore, Pakistan