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Cancer Registration in Pakistan: a Reality Check

For all cancers combined, the PubMed search using the terms 'population-based cancer registries in Pakistan' and 'Karachi Cancer Registry' retrieved recent publications discussed below. The report on Lahore as part of the Punjab Cancer Registry has been published in various articles between 2010 and 2019, with the most recent one comprising the entire 10-year period.^[1-4] Further, the Karachi Cancer Registry, revived recently, has published its 2017-2019 data.^[5] In addition, the Dow Diagnostic Research and Reference Laboratory, the largest government-run laboratory in Karachi, has reported its results from 2010 to 2019 and 2010 to 2015.^[6,7] In 2011, Dr Yasmin Bhurgri presented the cancer survival estimates for the 1995-1999 population representing the Karachi South district, one of the five districts of Karachi.^[8] In 2004, Dr Bhurgri also indicated the need for establishing a national cancer registry after publishing a paper on large-scale pathology-based data from the Karachi division in 2002, the first report from Karachi (1995-1997) in 2000 and another report (1995-1996) in 1999.^[9-12] It is written in the aforementioned 2002 paper that the results reported could reflect the population-based cancer data. Further, in 2003, a publication from Lahore presented the institution-based data over 5 years, from 1997 to 2001.^[13] Moreover, the reports published between 2002 and 2006 by Dr Bhurgri on cancer in Larkana, Hyderabad and Quetta are largely pathology based.^[14-16]

Further, a web search on cancer registration in Pakistan showed additional results. The search showed the results of the hospital-based or institutional cancer registries for the Shaukat Khanum Memorial Cancer Hospital and Research Centre registry, online since 2004.^[17] Another one is the Pakistan Atomic Energy Commission's (PAEC) extensive cancer registry report covering the period between 2015 and 2019 over two volumes, based on cancer cases registered in its 17 cancer hospitals in the country.^[18,19] One of the PAEC's hospitals, the Institute of Nuclear Medicine and Oncology in Lahore, has published two separate reports covering 1984-2014 and 1984-2011, in 2018 and 2014, respectively.^[20,21] Yet another PAEC hospital, known as the Karachi Institute of Radiotherapy and Nuclear Medicine, published its 8-year institutional report in 2009.^[22]

As for the National Cancer Registry established by the Health Research Institute (HRI), Islamabad, formerly the Pakistan Health Research Council, the online HRI report shows that this registry has collected information from eight centres and has presented the frequencies for the top 10 cancers in Pakistan over 2015-2016.^[23] However, it is questionable if it represents the results for the country as a whole. The healthcare facilities mentioned in this report are limited; therefore, cancer registration data are likely of low quality in terms of comparability, validity, timeliness and completeness. With more stakeholders included in this program, there could be an improvement in data quality in due course of time.

It was also noticed during the web search that reports on cases recorded at two big hospitals in the country, the Aga Khan University Hospital in Karachi and Shifa International Hospital, Islamabad, were not available online.

It has been challenging to record cancer cases diagnosed in a defined community in a specified period in Pakistan. Beyond that, capturing the data on deaths and computing cancer-specific mortality is even more complex and needs an aggressive approach to deal with the issue.^[24] The International Agency for Research on Cancer has used the data from the aforementioned population-based registries to provide the cancer estimates for Pakistan.^[25] However, we need to do additional, extensive work to capture the information and assess the disease burden in the country accurately. We can take this forward by establishing registries at the district level, managed by the locally trained workforce but overseen by more experienced staff in a central, coordinating office. We need to galvanise public health so that a new direction best prepares the country to face a future that renders adequate availability of the resources to tackle the morbidity associated with this disease.

REFERENCES

- Badar F, Mahmood S. Cancer in Lahore, Pakistan, 2010-2019: An incidence study. BMJ Open 2021;11:2010-9.
- Badar F, Mahmood S, Mahmood MT, Masood M, Tanvir I, Chughtai OR, *et al*. Cancer epidemiology in Lahore, Pakistan 2010-2015. J Coll Physicians Surg Pak 2020;30:113-22.
- Badar F, Mahmood S. Epidemiology of cancers in Lahore, Pakistan, among children, adolescents and adults, 2010-2012: A cross-sectional study part 2. BMJ Open 2017;7:1-16.
- Badar F, Mahmood S, Yusuf MA, Sultan F. Epidemiology of cancers in Lahore, Pakistan, 2010-2012: A cross-sectional study. BMJ Open 2016;6:2010-2.
- Pervez S, Jabbar AA, Haider G, Ashraf S, Qureshi MA, Lateef F, et al. Karachi cancer registry (KCR): Agestandardized incidence rate by age-group and gender in a Mega city of Pakistan. Asian Pac J Cancer Prev 2020;21:3251-8.
- Qureshi MA, Mirza T, Khan S, Sikandar B, Zahid M, Aftab M, et al. Cancer patterns in Karachi (all districts), Pakistan: First results (2010-2015) from a pathologybased cancer registry of the largest government-run diagnostic and reference center of Karachi. Cancer Epidemiol 2016;44:114-22.
- Qureshi MA, Khan S, Sharafat S, Quraishy MS. Common Cancers in Karachi, Pakistan: 2010-2019 cancer data from the Dow cancer registry. Pakistan J Med Sci 2020;21:3251-8.
- 8. Bhurgri Y. Cancer survival in South Karachi, Pakistan, 1995-1999. IARC Sci Publ 2011;162:143-6.
- 9. Bhurgri Y, Hasan SH, Pervez S, Kayani N, Hussainy AS,

Muzaffar S, *et al.* Large-scale pathology-based cancer data a reflection of population-based cancer data. Pathol Oncol Res 2002;8:62-7.

- Bhurgri Y. Karachi cancer registry data implications for the national cancer control program of Pakistan. Asian Pacific J Cancer Prev 2004;5:77-82.
- Bhurgri Y, Bhurgri A, Hassan SH, DMP. Cancer incidence in Karachi, Pakistan: First results from Karachi Cancer Registry. Int J Cancer 2000;85:325-9
- Bhurgri Y, Bhurgri A, Rahim A, Bhutto K, Pinjani PK, Usman A, *et al*. The pattern of malignancies in Karachi (1995 to 1996). J Pak Med Assoc 1999;49:157-61.
- 13. Aziz Z, Sana S, Saeed S, Akram M. Institution based tumor registry from Punjab: Five year data based analysis. J Pak Med Assoc 2003;53:350-3.
- Bhurgri Y, Pervez S, Kayani N, Bhurgri A, Usman A, Bashir I, et al. Cancer profile of Larkana, Pakistan (2000-2002). Asian Pac J Cancer Prev 2006;7:518-21.
- Yasmin B, Asif B, Shahid P, Mishaal B, Naila K, Rashida A, et al. Cancer profile of Hyderabad, Pakistan 1998-2002. Asian Pac J Cancer Prev 2005;6:474-80.
- Bhurgri Y, Pervez S, Usman A, Khan JA, Bhurgri A, Kasi Q, et al. Cancer patterns in Quetta (1998-1999). J Pak Med Assoc 2002;52:560-5.
- Shaukat Khanum Cancer Registry. Lahore. Available from: https://shaukatkhanum.org.pk/health-careprofessionals-researchers/cancer-statistics/skmcancer-registry. [Last accessed on 2022 Apr 07].
- Sohaib M, Shafiq A. PAEC Cancer Registry Report 2018 and 2019. Islamabad. Available from: https://paec.gov.pk/Documents/Medical/PAECR_ report_2018-19.pdf. [Last accessed on 2022 Apr 07].
- Sohaib M, Shafiq A. PAEC's Annual Cancer Registry Report 2015-2017. Islamabad. Available from: https://paec.gov.pk/Documents/Medical/PAECR_ report_2015-17.pdf. [Last accessed on 2022 Apr 07].
- 20. Masood A, Masood K, Hussain M, Ali W, Riaz M, Alauddin Z, *et al*. Thirty years cancer incidence data for Lahore, Pakistan: Trends and patterns 1984-2014. Asian Pac J Cancer Prev 2018;19:709-17.
- 21. Masood K, Zafar T, Zafar J. Registry management. J Regist Manag 2014;41:85-90.
- 22. Hanif M, Zaidi P, Kamal S, Hameed A. Institutionbased cancer incidence in a local population in Pakistan: Nine-year data analysis. Asian Pac J Cancer Prev 2009;10:227-30.
- 23. Government of Pakistan. Cancer Registry. Health Research Institute (HRI). Available from: https:// phrc.org.pk/cancer-registry.html [Last accessed on 2022 Feb 10].

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- 24. Badar F. Setting-up a death registry. J Ayub Med Coll Abbottabad 2019;31:138.
- 25. World Health Organization. International Agency for Research on Cancer WHO. Pakistan, Globocan 2020. Geneva: Cancer Today, World Health Organization; 2021. Available from: https://gco.iarc.fr/today/data/ factsheets/populations/586-pakistan-fact-sheets.pdf [Last accessed on 2022 Apr 07].

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