COLUMBIA UNIVERSITY | MAILMAN SCHOOL of PUBLIC HEALTH EPIDEMIOLOGY

Herbert Irving Comprehensive Cancer Center (HICCC) Database Shared Resource

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BACKGROUND

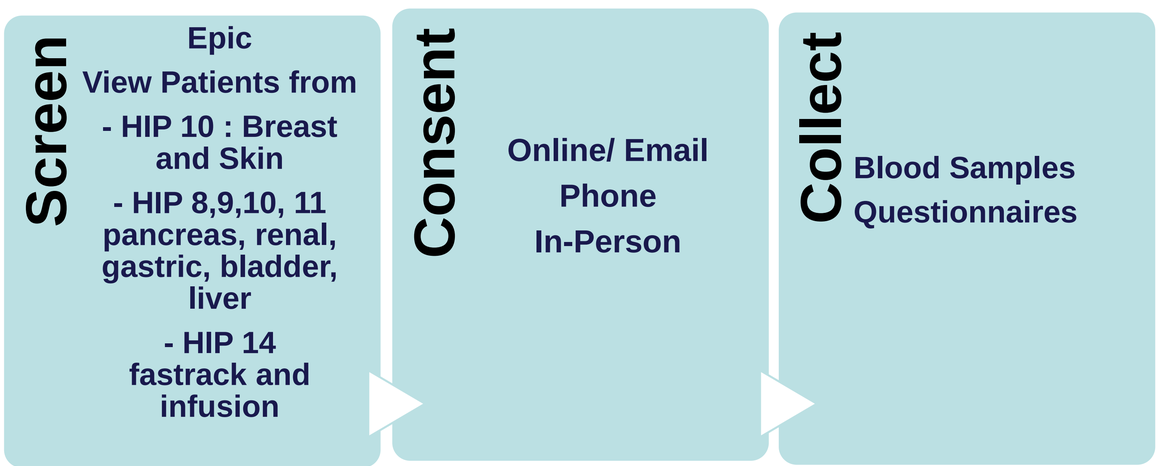
Cancer is a chronic disease and second leading cause of death in the US. In 2022, globally, 20 million cancer cases and 9.7 million deaths occurred[1]. Approximately 1 in 5 people[1] develop cancer in their lifetime; research has shown that in general, people of color are diagnosed at later stage than non -Hispanic whites[2].

STUDY AIMS

The DBSR is a Herbert Irving Comprehensive Cancer Center (HICCC) shared resource that aims to build and maintain a repository of human biological samples, clinical data and epidemiologic data called the DISCover Study to further advance cancer research, all while protecting the confidentiality of participants. DBSR also implements ancillary cancer related observational studies.

APPROACH

Eligible patients, those who are high at risk of cancer or have had a past or recurrent diagnosis, are contacted to consent to the DISCover Study and if eligible, ancillary studies. If participant consents, orders for blood or saliva are placed; samples are then delivered to laboratories for processing and storage. Electronic databases are used to store patient data (e.g., informed consents, questionnaires).



STUDENT CONTRIBUTION

1. Consented and enrolled patients in English and Spanish
2. Entered data from Spanish questionnaires
3. Maintained proper documentation of consents, refusals, re-approaches and biospecimen collections in a secure electronic database.
4. Learned how to search for key terms and read data from the electronic health record

REFERENCES

1. World Health Organization. (2024, February 1). *Global cancer burden growing, amidst mounting need for services*. World Health Organization. https://www.who.int/news/item/01-02-2024-global-cancer-burden-growing--amidst-mounting-need-for-services#:~:text=In%202022%2C%20there%20were%20an,women%20die%20from%20the%20disease.

2. Michelle Tong, Latoya Hill. "Racial Disparities in Cancer Outcomes, Screening, and Treatment." *KFF*, 3 Feb. 2022, www.kff.org/racial-equity-and-health-policy/issue-brief/racial-disparities-in-cancer-outcomes-screening-and-treatment/.

IMPLEMENTATION

Figure 1:

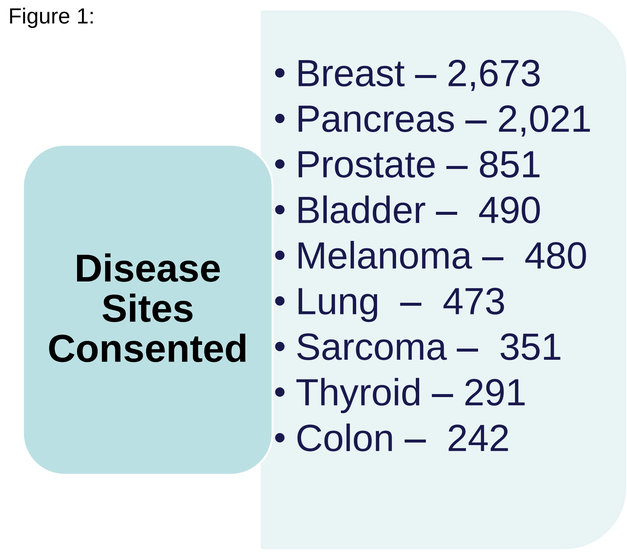


Figure 1: A list of some of the most common disease sites consented from 2014-2024.

Figure 2:

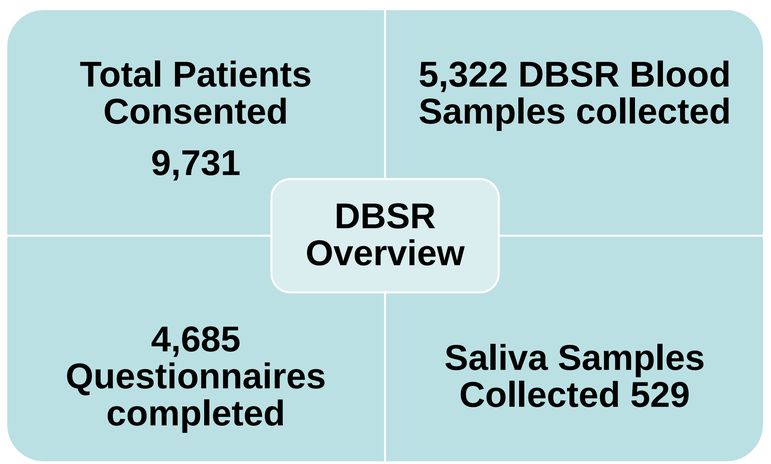


Figure 2: The overall the total amount of patients, questionnaires, and biospecimen samples collected for DBSR 2014-2023.

NEXT STEPS

The collection and storage of data and samples can be utilized to support cancer research. Individual investigators can submit applications to access the data.

CONCLUSION

DBSR aims to decrease cancer mortality and morbidity of cancer through supporting research initiatives in diverse populations.

EXAMPLES OF HOW I APPLIED COMPETENCIES

Competency	I applied it by. . .
Appraise epidemiological literature in a critically defined problem using advanced bibliographical and informatics resources for purposes of evaluation, summary, and translation.	Conducting literature searches on topics regarding cancer and its impact on various populations.
Apply appropriate epidemiologic and statistical measures to generate, calculate, and draw valid inferences from public health data	Utilize the electronic health record, CISOR, SAS ,and excel to generate and calculate cancer cases recruited in the DBSR. Ie. Between the years 2014-2024 the sites with the most consents were breast 2,761, GI upper 2,341, and GU 1,658