*Category: Clinical Research and Access Through a Catchment Lens – Work in Progress – Staff*

**Using Multi-Source Data Integration to Identify Gaps in Clinical Trial and Treatment Access Across Regional Research Sites**

T. DuBois, C. McNair

*Sidney Kimmel Comprehensive Cancer Center at Jefferson*

**1. Background**

Access to diagnostic and treatment services is a key component of the cancer care continuum and is closely tied to patient outcomes. National Cancer Institute (NCI)-Designated Cancer Centers are required to demonstrate service to their catchment area, including the provision of treatment and clinical trial opportunities. For comprehensive cancer centers with multiple hospitals, regional research sites (RRS) can support strategies to expand access closer to where patients live. However, RRS vary in their patient populations, service capacity, and clinical focus, which may create both opportunities and disparities in access. Understanding how RRS are currently being used, and how they could be leveraged more strategically, is essential for optimizing care delivery.

**2. Goals**

This analysis uses administrative and clinical data from the Sidney Kimmel Comprehensive Cancer Center (SKCCC), including tumor site, encounter dates and types, clinical trial availability and accruals, and patient demographics. Data related to facility characteristics are provided by cancer center leadership. Data from the Office of Community Outreach and Engagement provide information on ongoing engagement practices. Population-level demographic and health risk data come from the American Community Survey and the Behavioral Risk Factor Surveillance System.

**3. Solutions and Methods**

A two-step floating catchment area analysis with distance decay weights is used to identify the theoretical service area and accessibility level for each RRS. Patient utilization and flow patterns are examined to determine where individuals receive care, including instances of bypassing closer RRS or underutilizing services. Facility characteristics include the number and specialty of oncologists, available equipment, and infusion capacity are used to characterize the service capabilities of each RRS. Additionally, RRS profiles categorize RRS by population risk, patient mix, service capacity, and clinical focus. The synthesis of findings on access, utilization, and RRS capacity informs the development of a conceptual framework.

**4. Outcomes**

Comparing theoretical and realized access reveals underserved geographic areas, overburdened RRS, and potential misalignment between population needs and service locations. A framework has been developed to better understand what factors should be considered when assessing the current function and planning future extensions of cancer RRS services. Finally, an interactive dashboard is developed for use by cancer center leadership to aid in strategic planning, RRS development, and trial placement decisions.

**5. Lessons Learned and Future Directions**

By comparing where access should be sufficient to where care is being delivered, cancer center leadership is able to prioritize outreach, support navigation efforts, guide clinical trial expansion strategies, and plan capital investment. Findings help identify how regional RRS can be most effectively leveraged to reduce geographic disparities and enhance equitable cancer care across the catchment area. Leadership at SKCCC will leverage these findings and the interactive dashboard to support strategic

planning efforts, while the framework for considering current function and potential extensions of RRS can support cancer centers nationwide.