

Implementing a Novel Centralized Education Leadership Model to Strengthen Clinical Research Workforce Development and Training Infrastructure

A. Pissey Keo, E. Bentlyewski, F. Brogan

Herbert Irving Comprehensive Cancer Center, Columbia University Irving Medical Center

1. Background

Academic cancer centers face increasing demands to build and sustain a skilled clinical research workforce while maintaining consistency in onboarding, professional development, and institutional knowledge transfer. Historically, training efforts have been decentralized, resulting in variability in staff preparedness, limited structured mentorship, and challenges in establishing transparent pathways for professional growth. To address these gaps, the Herbert Irving Comprehensive Cancer Center (HICCC) implemented a clinical research education and training manager role embedded within clinical research operations. This model introduces a dedicated education leadership structure aimed at enhancing workforce development, strengthening organizational learning, and creating scalable training infrastructure aligned with institutional priorities.

2. Goals

The initiative seeks to implement a sustainable, centralized education framework that supports workforce enhancement across the clinical research continuum. Primary objectives include:

- Standardizing onboarding practices to improve early-stage integration and reduce time-to-proficiency
- Establishing transparent and competency-based pathways for career advancement
- Strengthening mentorship and professional development opportunities for new and existing staff
- Expanding educational programming that engages patients, community members, staff, and faculty in dialogue around clinical trials
- Enhancing institutional capacity through scalable training models and collaborative learning environments

3. Solutions and Methods

Using an implementation-focused approach, several workforce-centered initiatives were developed and implemented:

- **Onboarding Training Program for New Hires:** Design and facilitation of a structured, multi-week onboarding curriculum delivered multiple times annually, integrating foundational education, peer learning, and operational orientation
- **New Hire Support Groups:** Creation of facilitated support groups to provide mentorship and collect real-time feedback on onboarding experiences, enabling iterative program refinement and responsive workforce planning
- **Competency-Based Promotional Checklists:** Development of standardized promotional readiness checklists introducing objective metrics to advancement review processes and supporting transparent career progression
- **Centralized Resource Infrastructure:** Implementation of a comprehensive digital resource library to improve accessibility to training materials, institutional tools, and guidance, supporting staff throughout their first year
- **Institutional Education and Engagement Programming:** Organization and oversight of educational initiatives such as HICCC Clinical Trials Day, convening patients, community

members, staff, and faculty to explore diverse perspectives on clinical research and promote shared learning

- **Pipeline Development and National Training Initiatives:** Oversight of internship programming and continued leadership of the nationally recognized HICCC Clinical Trials Training Program, extending workforce education beyond institutional boundaries

4. Outcomes

Workforce feedback collected through new hire support cohorts has informed iterative program enhancements and strengthened alignment between education initiatives and operational needs. Feedback collected through new hire support groups informed ongoing program changes including implementation of expanded resource library and standardized onboarding structure across all disease-based teams. Institutional education events have increased cross-stakeholder engagement in clinical research learning environments. Ongoing evaluation efforts aim to assess impact on workforce engagement, onboarding experience, and professional development participation across the clinical research enterprise.

5. Lessons Learned and Future Directions

Early implementation highlighted several challenges, including balancing operational role responsibilities with time for education, meeting the needs of different teams within a standardized training model, and expanding programs while maintaining individualized support.

However, a centralized education leadership role within clinical research operations has demonstrated feasibility as a scalable workforce innovation model. Lessons learned emphasize the importance of ongoing program design informed by participant feedback, transparent advancement pathways, and inclusive educational spaces that extend beyond staff to include faculty, patients, and community stakeholders. Future directions include expanding onboarding cycles, strengthening evaluation metrics, and disseminating this centralized education framework as a model for workforce development within academic clinical research settings.