

# Elevating Trial Operations: Implementing EHR to EDC Interoperability to Reduce Site Burnout and Data Entry Burden

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## Background

Cancer research sites face increasing clinical trial complexity amid persistent staffing constraints. Manual transcription of clinical data from Electronic Health Records (EHRs) into Electronic Data Capture (EDC) systems remains a major source of operational inefficiency, contributing to data quality issues, delayed timelines, and significant coordinator burnout. As trial demands grow, EHR-to-EDC interoperability has emerged as a promising strategy to streamline workflows and strengthen data integrity; however, successful implementation requires coordinated technical, operational, and organizational change.

Goals:

- Provide a practical, evidence-informed framework for implementing EHR-to-EDC interoperability
- Support cancer centers navigating complex research environments

## Solutions & Methods

This work-in-progress leverages real-world implementation experiences from cancer research sites that have deployed EHR-to-EDC solutions. Methods include structured case studies and facilitated discussion focused on the following domains:

### Selection Strategy:

- Built into existing workflows
- Study volume availability
- Single- vs multi-vendor approaches

### Approval and Governance:

- Engagement of IT, compliance, research leadership, and operational stakeholders

### Implementation and Change Management:

- Site preparation
- Workflow redesign
- Training models
- Ongoing support structures

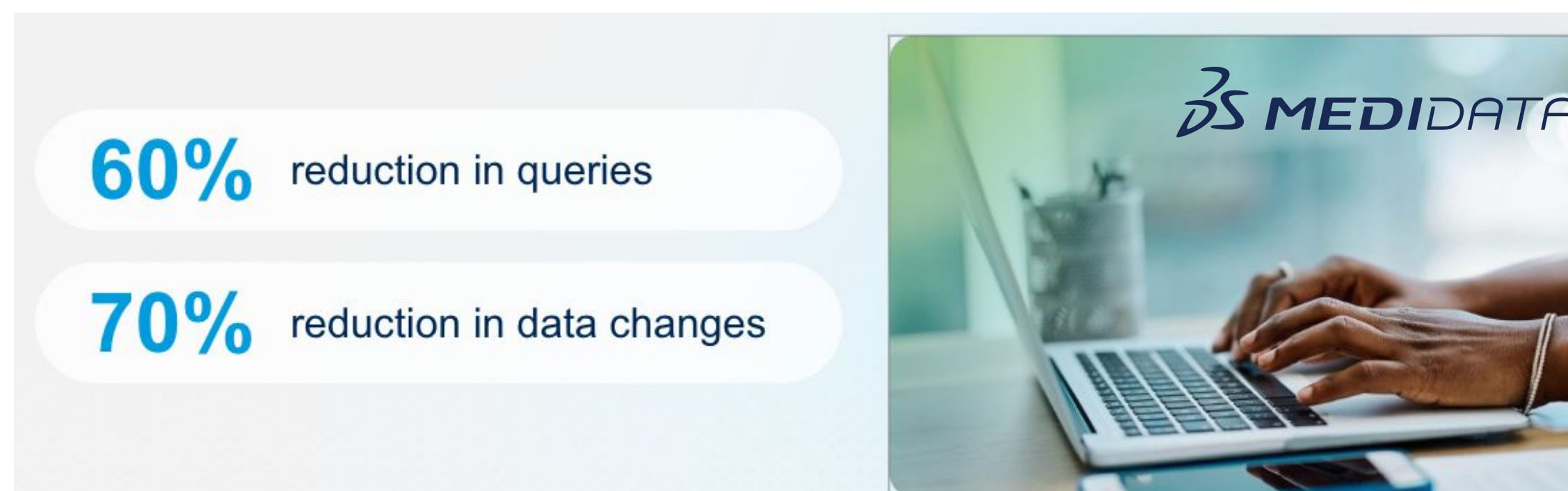
### Measurement:

- Data quality
- Query reduction & data correction reduction
- Workflow efficiency
- Staff satisfaction



## Analysis & Impact

An analysis across 3 sites in a phase II/III oncology study demonstrated that implementing an EHR-integrated workflow (**Medidata Health Record Connect**) resulted in a:



*\*Comparison of manual data entry (2022) versus EHR integrated workflow (2025, Medidata Health Record Connect) at UCLA, Moffitt Cancer Institute, and University of Utah Huntsman Cancer Institute*

Preliminary outcomes show meaningful operational improvements, including reduced manual entry, improved consistency, and decreased site burden.

### Lessons Learned:

- Cross-functional collaboration is key to success
- Proactive change management is critical
- Automation improves data integrity while reducing staff burden
- Tools that optimize for fitting into existing workflows tend to gain better adoption

### Future Directions:

- Expansion to unstructured EHR data sources
- Predictive analytics for feasibility and pre-screening
- Harmonized research ecosystem integration

## Contributors

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