National Dissemination and Implementation of Clinical Informatics Tools: Using Real-Time Feedback to Support a Learning System

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The ACT Network
Powered by NCATS CTSA Program

Accrual to Clinical Trials (ACT) Network

The Accrual to Clinical Trials (ACT) Network – a HIPAA-compliant tool for querying de-identified electronic health record data – includes 57 CTSA academic medical research centers (contributing 100+ million patient records). With ACT, researchers explore and validate cohort feasibility for multi-site clinical studies in real time, from their desktops. Scaling up this research technology across health institutions requires adaptive engagement strategies to account for diverse contexts and preferences. (See QR code on lower right)

Study Goals

- Assess the perceived need for products like ACT
- Learn how ACT is currently being used
- Learn about satisfaction with ACT
- Qualitative assessment of perception of value (rather than aiming for representative sampling)
- Aimed at ACT site leads, administrators, data stewards (not end users)

Study Design

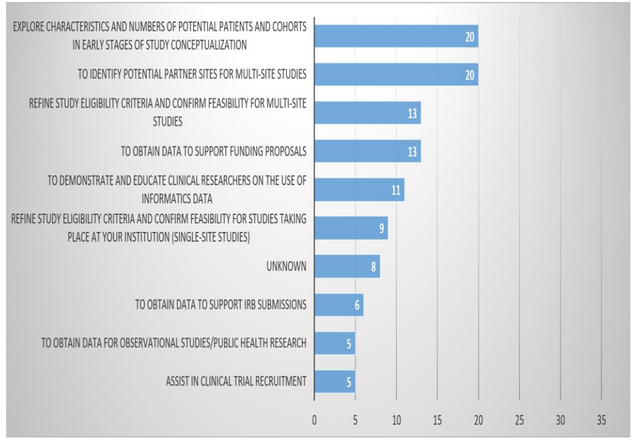
- Web-based survey
- Data collection Feb-April 2020 (Piloted Nov-Dec 2019)
- Approved by Columbia University IRB

Study Participants

- Targeted at n=57 institutions
- To ensure confidentiality, respondents were not required to disclose institution
- Total of 43 respondents (39 main survey respondents and 4 pilots)
- More than one person could respond per institution
- 23 institutions were reported; 9 did not report institution name
  - Range is thus 23-32 unique institutions
  - Response rate range:
    40% (23/57) – 56% (32/57)

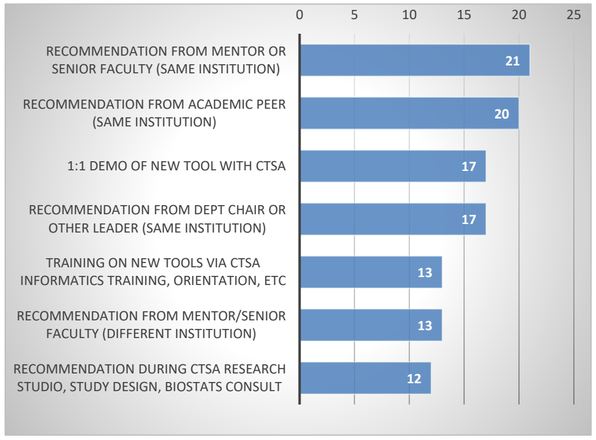
Which clinical and translational science tasks does ACT currently perform at your institution? Check all that apply.

Number of respondents checking yes. Total responses to the question: 37



Which methods influence whether a researcher tries a new clinical informatics tool? Check all that apply.

Number of respondents strongly agreeing. Total responses: 34



ACT Sites:
University of Buffalo | UL1TR001412
University of Southern California | UL1TR001855
University of Miami | UL1TR002736
Kansas | UL1TR002366
Weill Cornell | UL1TR000457
University of New Mexico | UL1TR001449
UT Houston | UI1TR003167
University of Illinois Chicago | U24TR002260
University of Washington | U24TR002260
Tufts University | UL1TR002544
University of Michigan | U24TR002260
Wake Forest | UI1TR001420
Scripps | U24TR002260
Dartmouth | UI1TR001086
University of Rochester | U24TR002260
University of Virginia | U24TR00260
Case Western | UI1TR002548
UT Medical Branch | UI1TR001439
Boston University Clinical & Translational Science Institute | 1UL1 TR001430
Clinical and Translational Science Institute at Children's National | UL1 TR001876
Colorado Clinical and Translational Sciences Institute | UL1 TR002535
Columbia University Irving Institute for Clinical and Translational Research | UL1 TR001873
Duke University Clinical & Translational Science Institute | UL1 TR002553
Georgia Clinical & Translational Science Alliance | UL1 TR002378
Harvard Clinical and Translational Science Center | UL 1TR002541
Indiana Clinical and Translational Sciences Institute | UL1 TR002529
Johns Hopkins Institute for Clinical and Translational Research | UL1 TR001079
Mayo Clinic Center for Clinical and Translational Science | UL1 TR002377
North Carolina Translational and Clinical Sciences Institute | UL1 TR002489
Northwestern University Clinical and Translational Sciences Institute | UL1 TR001422
NYU Langone Health Clinical and Translational Science Institute | UL1 TR001445
Oregon Clinical & Translational Research Institute | UL1 TR002369
South Carolina Clinical and Translational Research Institute | UL1 TR001450
University of Wisconsin Madison | UL1TR002373
University of Utah | UI1TR002538
Penn State | UI1TR002014
University of Massachusetts | UL1TR001453
Stanford Center for Clinical and Translational Research and Education | UL1 TR001085
University of Alabama at Birmingham Center for Clinical and Translational Science | UL1TR001417
University of Arkansas for Medical Sciences Translational Research Institute | UL1 TR000039
UC Davis Clinical and Translational Science Center | UL1 TR001860
UC Irvine Institute for Clinical and Translational Science | UL1 TR001414
UCLA Clinical and Translational Science Institute | UL1TR001881
UCSD Altman Clinical and Translational Research Institute | UL1 TR001442
UCSF Clinical & Translational Science Institute | UL1 TR001872
University of Cincinnati Center for Clinical and Translational Science and Training | 5UL1 TR001425-04
University of Florida Clinical and Translational Science Institute | UL1 TR001427
University of Kentucky Center for Clinical and Translational Science | UL1 TR001998
University of Minnesota Clinical and Translational Science Institute | UL1 TR002494
University of Pittsburgh Clinical and Translational Science Institute | UL1 TR001857
UT Health San Antonio Institute for Integration of Medicine and Science | UL1 TR002645
UT Southwestern Center for Translational Medicine | UL1 TR001105
Vanderbilt Institute for Clinical and Translational Research | 3UL1 TR002243
Washington University Institute of Clinical and Translational Sciences | UL1 TR002345
Virginia Commonwealth University

Implications for D&I Research

- Clinical informatics tools, like the nationally-disseminated ACT Network, enable iterative cohort discovery and site identification. Thus, they support a learning clinical and translational research system at CTSA institutions.
- Trial and adoption of new clinical informatics tools appear to be heavily influenced by social proof and referrals (at the peer, mentor, and departmental levels). Future dissemination should actively incorporate these strategies and cultivate these relationships as part of the designing-for-dissemination process.
- Having established dissemination channels, ACT is partnering with other entities (e.g. the National Center for Data to Health (CD2H) to leverage its dissemination learning to accelerate future implementation of clinical informatics knowledge, including findings from the NCATS-supported National COVID Cohort Collaborative (N3C)..

Poster Presentation
13h Annual Conference on the Science of Dissemination and Implementation in Health, Dec. 15-17, 2020, Washington, D.C.

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