University of Southern California • Children's Hospital Los Angeles

SCCTSI SOUTHERN CALIFORNIA CLINICAL AND TRANSLATIONAL SCIENCE INSTITUTE

*Translating Science into Solutions for Better Health*


# Southern California Clinical and Translational Science Institute

# **Scientific Achievement Survey Summary**

2025

Prepared By:

**Nicole Maccalla, Saira Shah, Nicki Apaydin, Ivy Hoang**

# DIRECTORS' **MESSAGE**

As we look back at our impact over the past year, we wanted to thank you for your support of our services and resources. We have added new service offerings, as well as continued to innovate in key areas such as data science, healthcare delivery science and workforce development, education, and training.

Our goal is simple – to translate science into solutions for better health. To achieve this, we are thrilled to report we assisted 559 investigators from 16 schools at USC and CHLA in 2025. These projects have catalyzed clinical and community-based research in our neighborhoods, our city, county, and globally. Enclosed, you will find just a few of our highlights, which would not have been possible without the hard work and expert advice of our CTSI staff and faculty who provide services, resources, education and funding to assist researchers at USC and CHLA in every phase of their clinical and community-based work. We look forward to serving you in the future and sharing in your success.

**Thomas Buchanan, MD**
SC CTSI Director and Principal Investigator

**Michele Kipke, PhD**
SC CTSI Co-Director and Community Engagement Director

# OUR IMPACT

## I. 2025 SC CTSI Accomplishments

### A. Program and Operational Highlights

In 2025, SC CTSI expanded its service offerings, training infrastructure, research support programs, community engagement initiatives, and informatics resources. The Institute delivered 790 consultations, demonstrating sustained demand for clinical and translational research support. Workforce Development launched the SC CTSI Learning Network, an open-access learning platform featuring more than 20 courses tailored to principal investigators, co-investigators, research staff, and community members. The SC CTSI Seminar Series reached more than 1,300 attendees, while two Regulatory Science symposia engaged 188 clinical research professionals. Additional initiatives included CTSI Horizons, a nine-session BERD grant development program, and a monthly lunch-and-learn series for clinical research professionals.

SC CTSI also strengthened collaboration and community engagement. Six Team Building Vouchers supported projects spanning clinical and community research, including schoolyard greening and environmental health. New Team Science Seminars and the inaugural Team Science Celebration promoted collaboration and recognized successful research teams. The Health System Innovation Award program expanded to Children's Hospital Los Angeles, supporting three interdisciplinary projects focused on care transitions, burn patient education, and patient-provider communication. Community Engagement delivered 76 workshops, 10 train-the-trainer programs, and a diabetes management program to nine cohorts, reaching approximately 2,000 participants. SC CTSI also partnered with the Los Angeles County Healthy Schools program to train parents to promote important health topics within schools. Expert consultations facilitated through Hollywood, Health & Society and SC CTSI helped inform accurate medical and public health storylines on The Pitt and other television programs.

Quality and process-improvement activities included expanding the Quality by Design program to 29 studies. Early findings showed a 36% reduction in the average duration of no-cost extensions among participating pilot studies compared with historical controls. SC CTSI also introduced an enhanced proposal and protocol development framework through which five translational science projects received coordinated support in Quality by Design, project management, team science, evaluation, and dissemination and implementation.

Data science advancements included enhancements to USC's Enterprise Data Warehouse, implementation of EMERSE for clinical note searches, upgrades to i2b2, and automated compliance checks for research data access. SC CTSI also launched Trial Tracker and began developing a patient-messaging system to help clinicians and researchers share clinical trial opportunities directly with patients.

# OUR IMPACT

SC CTSI remained active in the national CTSA network through cross-hub collaboration and development of the IMPACT Guide, which aligns workforce program planning, implementation, and evaluation with clinical and translational science principles. Together, these accomplishments strengthened SC CTSI's capacity to support rigorous research, multidisciplinary collaboration, community partnership, and the efficient translation of discoveries into improved health.

**B. Selected SC CTSI News and Research Highlights**

The following news stories highlight selected SC CTSI programs, tools, partnerships, and supported research that advanced clinical and translational science in 2025.

- New Publication Highlights Application of RE-AIM Framework to Evaluate Effects of Community Engagement Work
- Minimally Invasive Lung Surgery Safer for Frail Patients
- SC CTSI Supports Researchers Assessing the Health Toll of LA Firestorms
- Gaps in Teen Opioid Prescriptions After Surgery Reveal a Path Forward
- Former KL2 Awardees Expose Disparities in Access to Life-Altering Brain Treatment
- New Web-Based Tool Allows Researchers to Track Participant Recruitment and Retention
- Hormonal Disorder Tied to Brain Changes That May Drive Childhood Obesity
- Research Paper on SC CTSI's Community Health Worker Training Published in Frontiers in Public Health
- SC CTSI Statistician Helps Reveal Key Biomechanical Factors in Elbow Pitching Injuries
- USC Study Aims to Improve Deep Brain Stimulation Results for Parkinson's Without Cognitive Side Effects
- USC Researchers' Study on a Potential Mortality Marker Could Help Improve Treatments for Children With Devastating Respiratory Syndrome

**C. KL2 Highlights**

In 2025, the SC CTSI KL2 Mentored Career Development Program welcomed a new cohort of scholars advancing clinical and translational research. The program supports early-career investigators through structured mentorship, protected research time, career development, and multidisciplinary collaboration.

One highlighted scholar is Dr. Janet Choi, a Cohort 16 KL2 awardee whose research focuses on hearing loss, healthy aging, and access to hearing healthcare. Through the KL2 program, Dr. Choi is strengthening her research direction, mentorship team, and long-term path toward improving patient care through research.

# OUR IMPACT

**D. Workforce Development and Training**

SC CTSI Workforce Development provides training and educational resources for investigators, research staff, trainees, and community partners engaged in clinical and translational research. Offerings are organized by role and research focus, including clinical research, healthcare delivery science, and community-engaged research. Resources cover study design, clinical trial quality and regulatory requirements, research ethics, mentor and mentee training, team science, community advisory board development, community health worker education, and tools to strengthen collaboration and research capacity.

**II. 2025 Scientific Achievement Survey Results**

The SC CTSI 2025 Scientific Achievement Survey assessed the productivity and research impact of investigators served by the SC CTSI in the last three years (2023-2025) or funded by the SC CTSI in the last five years (2021-2025).

The response rate for the survey was 19% (n=135 total respondents).

# KEY FINDINGS

- 57 investigators reported **96 unique publications** that were related to their SC CTSI-supported research in 2025.
- Investigators reported **follow-on funding** (i.e., new grant awards) totaling approximately **$50.7 million** across **40 newly funded grants.**
- More than half of responding investigators (53%) **shared their SC CTSI-supported research with scientific audiences** through presentations, reports, and other formats beyond peer-reviewed publications.
- **One new patent** was validated in 2025.
- The most commonly reported broader outcomes were **community and/or public health outcomes (45%)**, followed by **clinical and/or medical outcomes (24%).**
- Investigators had accomplishments in **89% (17 of 19) of SC CTSI's Translational Science Priority Areas.** The top five represented areas were Health Services Research, Impact on Clinical Practice, Chronic Health Issues, Pediatric Health Research, and Translational Science.
- **Eighty-eight percent of investigators reported that SC CTSI contributed to achieving their research goals.** Challenges reported by investigators who had not yet achieved their goals included:
  - Ongoing or early-stage research
  - Funding challenges affecting progress
  - Limited time and competing priorities
  - Need for improved communication or engagement

## IA. Survey Methods and Limitations

Detailed information regarding survey development, contact list creation, survey administration, response rate calculations, analytic procedures, survey modifications, and study limitations is provided in Appendix A.1a.

## B. Academic Outcomes

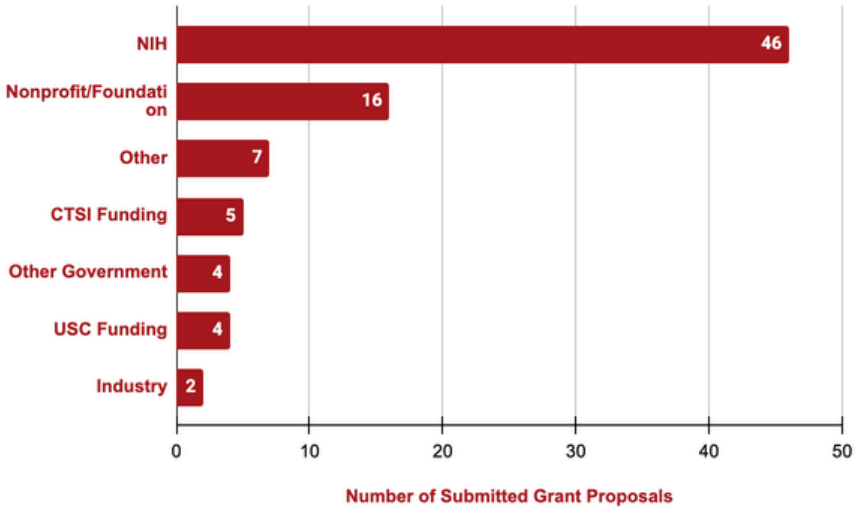
### 1. Publications

A total of **57 investigators** reported peer-reviewed publications related to CTSI-supported research in 2025, representing **96** new CTSI-related publications (see Table 1 in Appendix A.2).

### 2. Grant Submissions

In total, **49 investigators reported that SC CTSI services contributed to one or more grant proposals submitted in 2025.** Collectively, investigators reported 84 proposals. NIH was the most frequently reported target funding source, accounting for 55% (n=46) of submitted proposals (see Figure 1 below and Table 3 in Appendix A.3).

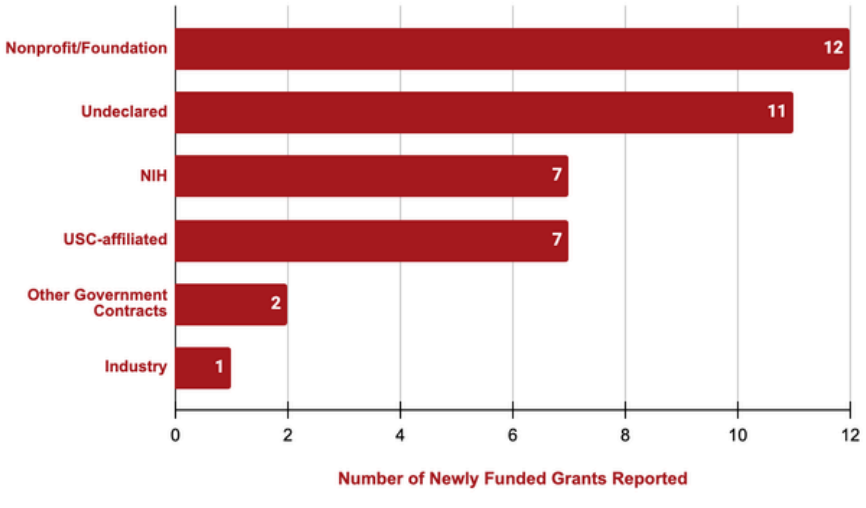
**Figure 1. Reported Target Sources for Grant Proposals Submitted in 2025 (n=84 proposals)**




### 3. Grant Awards

Overall, **23 investigators** reported that SC CTSI services contributed to **40 newly funded grants** in 2025, totaling approximately **$50.7 million**. By number of grants, funding sources included nonprofit organizations and foundations **(30%; n=12)**, NIH **(18%; n=7)**, USC-affiliated funding **(18%; n=7)**, other government contracts **(5%; n=2)**, and industry **(2%; n=1)**. Funding source was undeclared for **27% (n=11)** of the grants. Award amounts ranged from **$9,400 to $25,000,000** (see Figure 2 and Appendix A.3).

**Figure 2. Funding Sources for Newly Funded Grants Reported in 2025 (n=40 grants)**




*Note. USC-affiliated includes USC Funding and CTSI Funding.*

### 4. Intellectual Property Outcomes

Investigators were asked whether SC CTSI services contributed to any intellectual property outcomes in 2025. Overall, **3 investigators** reported intellectual property outcomes associated with SC CTSI support. Review of the USC Stevens database confirmed that **one patent filing was validated in 2025**. (see Appendix A.4 for further details).

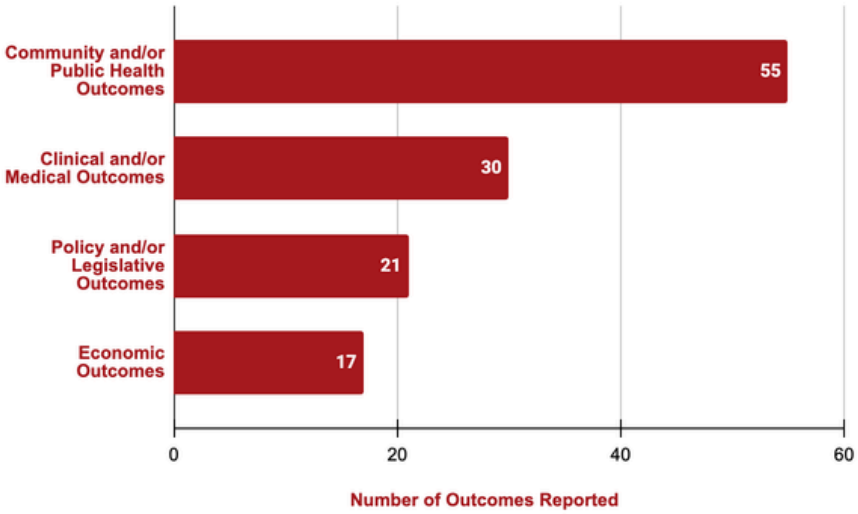
## C. Path to Real-World Impact

### 1. Broader Outcomes Derived from the Translational Science Benefits Model (TSBM)

Investigators were asked to indicate (checkbox) whether the SC CTSI services they received contributed to any or all of the following broader outcomes: 1) clinical and/or medical outcomes; 2) community and/or public health outcomes; 3) economic outcomes; and 4) policy and/or legislative outcomes. These four outcome categories are drawn from the Translational Science Benefits Model (TSBM).

Overall, investigators reported broader outcomes across multiple translational impact categories (n=123 total outcomes). The most commonly reported outcomes were **community and/or public health outcomes (45%; n=55),** followed by **clinical and/or medical outcomes (24%; n=30). Policy and/or legislative outcomes accounted for 17% (n=21)** of reported outcomes, while **economic outcomes represented 14% (n=17).** Consistent with previous survey findings, the majority of reported impacts were concentrated in areas directly related to improvements in health, healthcare delivery, and public health practice, with comparatively fewer outcomes reported in economic and policy domains (see Figure 3 below).

**Figure 3. Real-World Outcomes Reported Across TSBM Domains (n=123 total outcomes)**



Of the broader outcome categories reported **(*n*=123 total outcomes)**, not all investigators provided a description of the outcome achieved within each category. Based on survey data, **80% (*n*=24 of 30)** of investigators described their clinical and/or medical outcomes, **89% (*n*=49 of 55)** described their community and/or public health outcomes, **59% (*n*=10 of 17)** described their economic outcomes, and **81% (*n*=17 of 21)** described their policy and/or legislative outcomes. See Appendix A.5a for a list of all responses.

The EI team separately reviewed and coded investigators' open-ended descriptions of broader outcomes using the TSBM's 30 indicators as predefined codes. Descriptions that did not clearly demonstrate broader impact or lacked sufficient detail were categorized as "Unknown" (n=50). These open-ended coding results are separate from Figures 4–7.

Figures 4-7 summarize item-level responses to the TSBM measure. For each indicator, respondents rated the likelihood that a benefit had occurred or could occur using a five-point scale ranging from "Absolutely Not" to "Absolutely Yes." The figures present the percentage of respondents who selected "Potentially Yes," "Probably Yes," or "Absolutely Yes." Missing responses were excluded from the item-specific denominators.

## 2. Translational Science Measurement

The 2025 survey incorporated two measures of translational science impact: the Translational Science Benefits Model (TSBM), which assesses downstream real-world impacts across clinical, community, economic, and policy domains, and the Hallmarks of a Translational Scientist scale, which assesses intermediate translational science behaviors aligned with NCATS principles.

### a. Translational Science Benefits Model (TSBM)

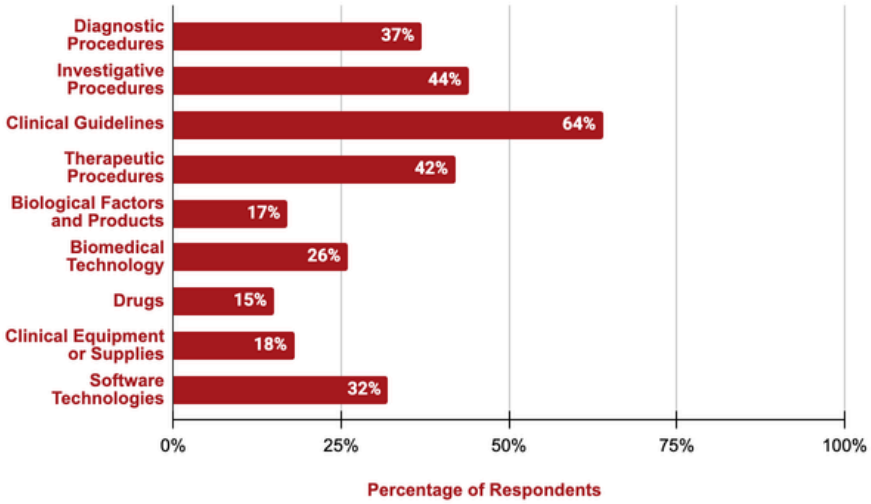
TSBM findings supported previous evidence of construct validity, with **27 of 30 items aligning with their intended domains.** Community and public health benefits had the highest average domain score, while clinical and medical, economic, and policy and legislative benefits had lower average scores, suggesting that many downstream impacts remain emerging or require longer timeframes to achieve.

### b. Hallmarks of a Translational Scientist

The Hallmarks scale demonstrated a stable three-factor structure encompassing Quality by Design, Planning, and Collaboration. Exploratory factor analysis supported the theoretical model, with **18 of 20 items aligning with their intended domains.** The scale demonstrated strong internal consistency across subdomains (Cronbach's α=0.76–0.93) and excellent overall reliability (α=0.94). Response patterns were concentrated in the mid-range, indicating no ceiling effects and suggesting opportunities for growth in collaboration, quality-focused research design, and intentional planning for downstream impact. See Appendix A.5b for full factor loadings.

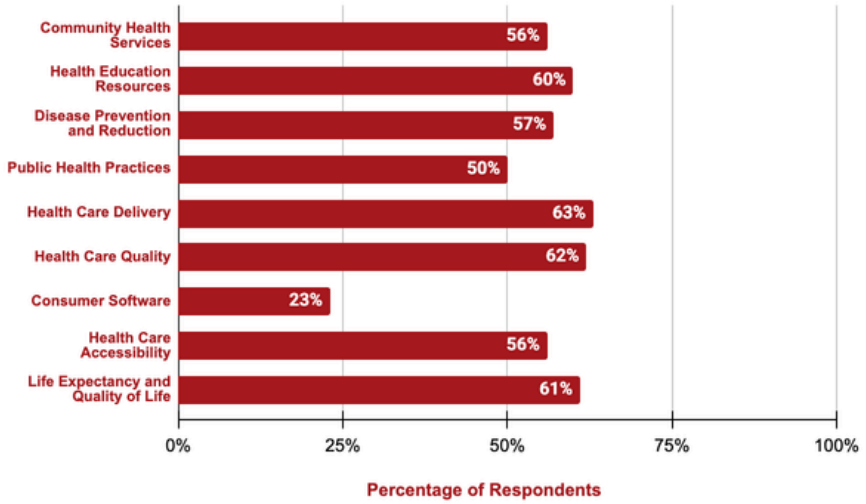
Together, the TSBM and Hallmarks measures allow SC CTSI to assess translational science progress across the research lifecycle, from intermediate behaviors and research capacity to measurable real-world outcomes.

**Figure 4. Clinical and Medical Outcome Indicators Reported by Investigators**



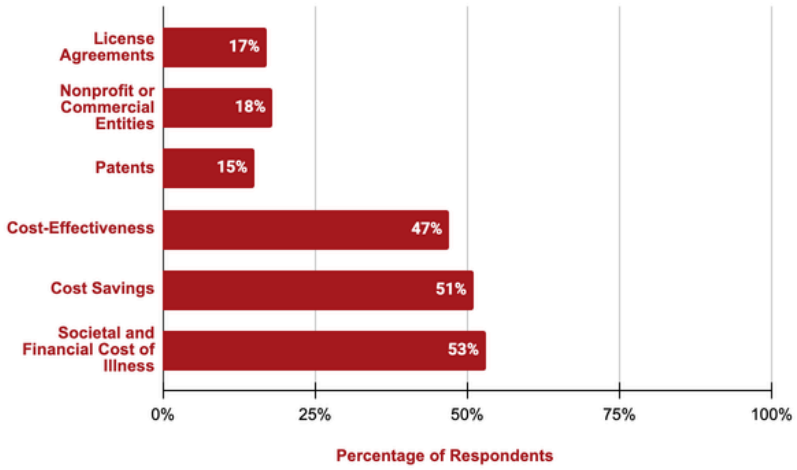

*Note. Percentages represent respondents selecting Potentially Yes, Probably Yes, or Absolutely Yes. Missing responses were excluded.*

**Figure 5. Community and Public Health Outcome Indicators Reported by Investigators**



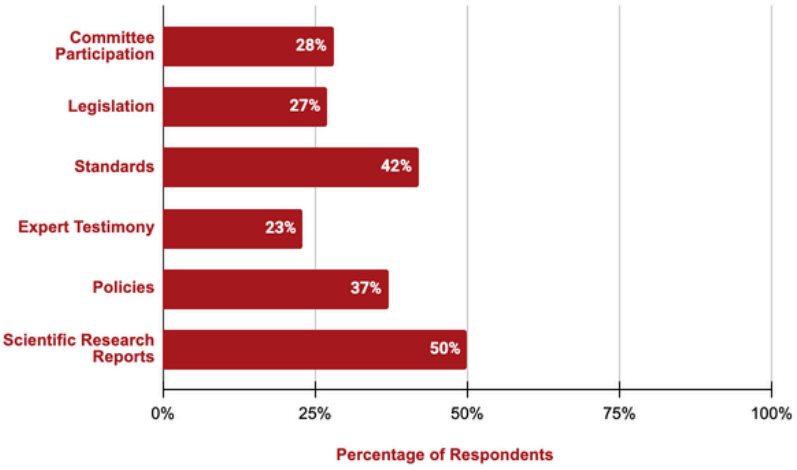

*Note. Percentages represent respondents selecting Potentially Yes, Probably Yes, or Absolutely Yes. Missing responses were excluded.*

**Figure 6. Economic Outcome Indicators Reported by Investigators**




*Note. Percentages represent respondents selecting Potentially Yes, Probably Yes, or Absolutely Yes. Missing responses were excluded.*

**Figure 7. Policy and Legislative Outcome Indicators Reported by Investigators**

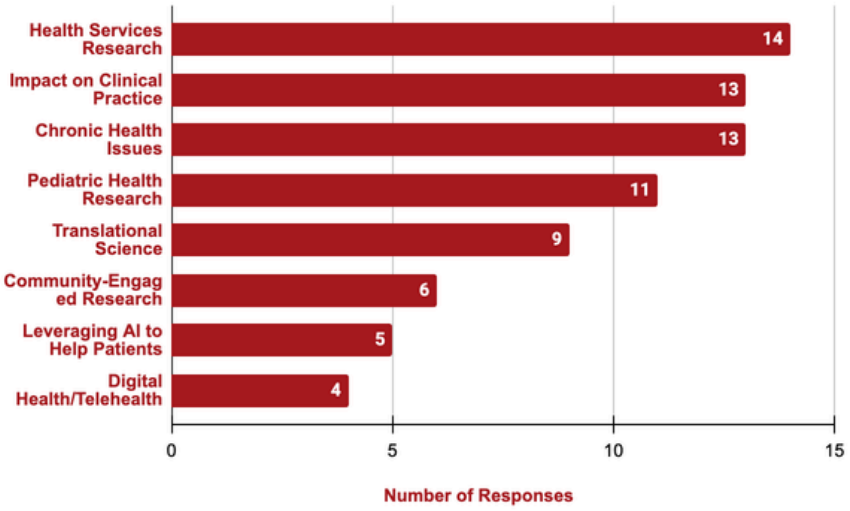



*Note. Percentages represent respondents selecting Potentially Yes, Probably Yes, or Absolutely Yes. Missing responses were excluded.*

### 3. SC CTSI Translational Science Priority Areas

Investigators were asked to indicate whether they had accomplishments across key research and practice areas. A total of 75 responses were reviewed and categorized. The most represented areas were **Health Services Research (n=14), Impact on Clinical Practice (n=13), and Chronic Health Issues (n=13), followed by Pediatric Health Research (n=11) and Translational Science (n=9)**. Additional areas included Community-Engaged Research (n=6), Leveraging AI to Help Patients (n=5), and Digital Health/Telehealth (n=4). See Figure 8 below and Appendix A.6 for a list of all responses.

**Figure 8. Accomplishments Reported Across SC CTSI Translational Science Priority Areas (n=75)**




### 4. Other Outcomes and Success Stories

Investigators were asked to indicate whether the SC CTSI services they received contributed to any additional success stories or outcomes. Overall, **10 investigators reported that SC CTSI contributed to other success stories or outcomes**. Of these, 7 investigators provided descriptive responses. Reported outcomes included large-scale data-supported studies, development of new research collaborations and grant applications, recognition through awards, dissemination through media and public platforms, and establishment of community partnerships. These findings suggest that, beyond traditional research outputs, SC CTSI services contribute to broader investigator success, including research advancement, collaboration, and professional recognition.

## D. **Disseminating Our Success**

### 1. Sharing of Findings with the Scientific Community

Investigators were asked to indicate (yes/no) whether they shared their research findings with the scientific community through means other than peer-reviewed manuscripts (e.g., conference presentation, book chapter, report). Of the 116 investigators who provided a response, **53% (n=61) reported that they shared their findings with the scientific community through other means.** Of these, 61 investigators provided citations of their dissemination activities (see Table 1 in Appendix A.7 for a list of all responses).

### 2. Sharing of Findings with the Non-Scientific Community

Investigators were also asked to indicate (yes/no) whether they shared their research findings with the non-scientific community through means other than peer-reviewed manuscripts (e.g., letters to their study participants, social media, press release, blog, policy brief). Of the 109 investigators who provided a response, 17% (n=19) reported that they did share their findings with the non-scientific community. Of these, **19 investigators reported disseminating their research findings to audiences such as patients, study participants and families, industry advocates, city and government employees, and community organizations** through approaches including newsletters, social media, blogs, podcasts, media interviews, videos, town halls, webinars, and partnerships with community organizations (see Table 2 in Appendix A.7 for a list of all responses).

**Figure 9. Dissemination of Research Findings by Audience Type**

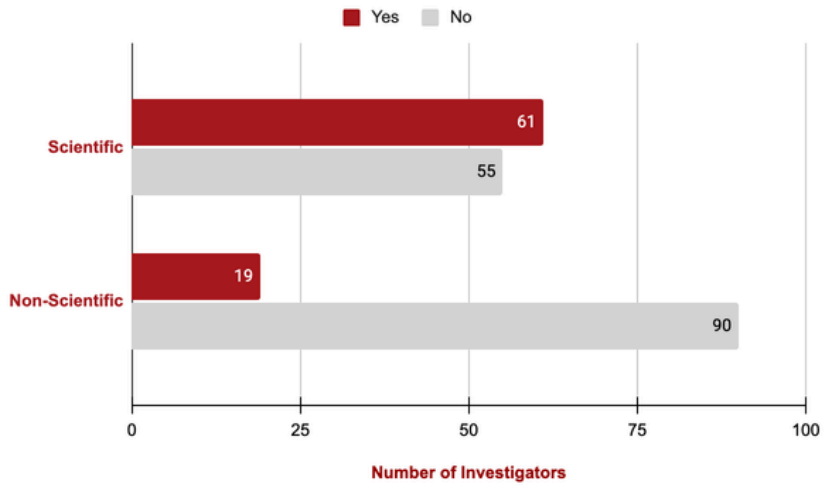
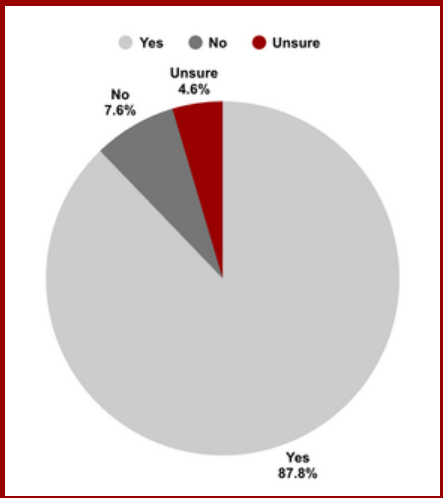



**Figure 10. Did SC CTSI Help Investigators Achieve Their Research Goals? (n=131)**




## E. Achievement of Research Goals

### 1. Did SC CTSI help investigators achieve their research goals?

**Overall, 88% of investigators (115 of 131) reported that SC CTSI helped them achieve their research goals;** 8% (10 of 131) reported that SC CTSI did not help; and 5% (6 of 131) reported that they were unsure. Of those who reported that SC CTSI was not helpful or were unsure, investigators cited ongoing or still-developing research, funding challenges, lack of direct CTSI funding during the reporting period, and limited research time or communication needs as reasons.

## F. Voices from Investigators

*"I would not have had the knowledge, resources, or skills to engage in this process if I had not engaged in the CTBI certificate program and the MCD-CTS training program."*

*"I find that this CTS point-of-view has influenced my overall research and scholarly activities."*

*"SC CTSI's faculty mentorship and peer collaboration were essential in strengthening my methodology, supporting my K23 implementation, and guiding me through preparing and submitting my first R01."*

*"SC CTSI assisted in several grant applications in the past year that led to successful funding amidst a challenging funding landscape in science. I am very appreciative to the members of the biostatistic core for their collaboration on these applications!"*

*"SC-CTSI has been absolutely essential to my development as a surgeon-scientist and to the very existence of my research program. The protected time from the MCD-CTS program and support from the SC-CTSI Pilot Award gave me the foundation to build a research program on hearing and cognitive aging, while the exceptional biostatistical guidance from Dr. Wendy Mack and the CTSI team has been indispensable to the rigor and success of my work."*

*"CTSI support has been pivotal to my success! The SC CTSI Pilot Award enabled us to collect essential preliminary data for my first NIH proposal as Principal Investigator. The team-building seminars also strengthened my leadership and collaboration skills, making me a more effective member of any research team."*

*Acknowledgements*

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*This 2025 Annual Report was prepared by the SC CTSI Evaluation & Improvement (EI) Core. The report reflects the contributions of SC CTSI investigators, trainees, community partners, core group faculty and staff, and the many individuals who participated in SC CTSI-supported research activities during 2025.*

*We thank the investigators who completed the Scientific Achievement Survey and shared information regarding their research productivity, funding, dissemination activities, translational science accomplishments, and real-world impacts. We also thank SC CTSI core groups, USC and CHLA leadership, community partners, research personnel, and study participants whose contributions continue to advance translational science and improve health outcomes across Southern California and beyond.*

Appendices




# MORE **ABOUT US**

We seek to promote better health for our patients and our communities through research and education. Join us as we continue our mission to improve clinical care and health outcomes through cutting-edge research.

Click here to read about our services and resources. (Interactive PDF on desktop)

Phone
**(323) 442-CTSA (2872)**

Email
**CRS@SC-ctsi.org**

Website
**https://sc-ctsi.org/**

Office Address
**2250 Alcazar Street, CSC 200**
**Los Angeles, CA 90033**