

## Updated Needs Assessment Survey of Clinical and Translational Researchers in Rhode Island

A Report by the Tracking and Evaluation Core of Advance-CTR [link](#)

Report date: October 2022

### Abstract

At the start of the Advance-CTR program in 2016 an online survey was conducted to assess the barriers to research that investigators experience at their institutions, and to determine the types of services that would be most beneficial. Advance-CTR began a second five-year funding period in August 2021, which provided the impetus for a follow up needs assessment survey to reassess researchers' views about their experiences and needs for research support. Approximately 750 RI-based clinical and translational researchers were solicited to participate in the new survey, and 200 responded. Overall, 43% reported being either somewhat satisfied or extremely satisfied with their institution's overall efforts at supporting clinical and translational research, while 36% were dissatisfied. The most frequently occurring research barriers existing "to a great extent" involved protected time for research (42% of respondents), grant administration support (38%), and inter-institutional agreements to facilitate research collaborations (37%). As compared with our previous survey, fewer respondents reported facing substantial barriers to securing pilot project funding, finding support for proposal development, and obtaining statistical consultations. Overall, respondents indicated a high level of interest in the consult services, trainings, webinar topics and other resources provided by Advance-CTR; yet the survey also revealed a need for better awareness of these offerings. The results of this survey are being shared with administrative leaders from Advance-CTR partner institutions and are being applied to enhance the effectiveness of the Advance-CTR program.

## Introduction

In 2016 Advance-CTR received an Institutional Development Award from the National Institute of General Medical Sciences to support and accelerate clinical and translational research (CTR) in Rhode Island.<sup>1</sup> This multi-institutional collaborative includes Brown University (administrative home site), Care New England, Lifespan, The Providence VA Healthcare Systems, The Rhode Island Quality Institute, and The University of Rhode Island. Advance-CTR's mission is to support Rhode Island investigators through funding, research resources and services, and professional development offerings that fuel discoveries and collaborations that are responsive to the health priorities of Rhode Island's diverse communities.

Advance-CTR has the following specific aims:

1. To support the enhancement of infrastructure and human resources required to address clinical and translational research needs in Rhode Island.
2. To strengthen clinical and translational research that addresses the broad spectrum of health challenges faced by populations in Rhode Island.
3. To foster and coordinate collaboration in clinical and translational research across our partner institutions in Rhode Island and with other institutions in the IDeA-CTR network.

At the start of the Advance-CTR program in 2016, the program's Tracking and Evaluation core conducted an online survey to determine the types of services and resources needed by our clinical and translational researchers. We asked about the barriers to research experienced at their institutions, the types of services that would be most beneficial, and preferences for format and venues for educational offerings. The results of the survey informed the design of Advance-CTR's services and pilot grant programs, while also providing a status report on the research environments at RI institutions. The survey's findings were published in the RI Medical Journal<sup>2</sup> and were also distributed to leadership of the research divisions of Advance-CTR partner institutions. The full report is available [here](#).

Advance-CTR began a second five-year funding period in August 2021. Our new phase includes a new core addressing community engagement and outreach (replacing a core for clinical research support), additional expertise to assist researchers in conducting qualitative research and implementation science, and heightened focus on determining the impacts of Advance-CTR on RI health priorities and disparities. The new funding cycle and program offerings provided the impetus for a follow up survey to check in with researchers about their current needs and experiences. The results of this survey were shared with administrative leaders from Advance-CTR partner institutions and are being applied to enhance the effectiveness of the Advance-CTR program.

## Methods

Approximately 750 RI-based clinical and translational researchers have used Advance-CTR resources. These researchers were solicited for this follow-up needs assessment survey. Recruitment began in October 2021. Users of Advance-CTR services, awardees, mentors, committee members, and seminar attendees received a solicitation email requesting their participation in the survey. The survey was also promoted by the Advance-CTR e-newsletter. Reminder messages were sent in subsequent weeks. A second phase of recruitment began one month after the initial email solicitation, which asked department chairs and other Advance-CTR “champions” to forward the survey request to their colleagues. In January 2022 we made a last effort to bolster participation by enlisting the help of senior researchers from units that had a low response rate. The survey closed in February 2022.

This report presents the following survey results:

- I. Researchers’ satisfaction with institutional support for clinical and translational research
- II. Perspectives on barriers to conducting research
- III. Interest in and awareness of services and trainings provided by Advance-CTR

Demographic data collected included the respondent’s academic rank and level of research experience, faculty type (academic, clinical, research professor), sex, and whether the respondent identified as a member of an under-represented group (using the NIH definition, <https://diversity.nih.gov/about-us/population-underrepresented>). We also asked respondents to identify their institution, division and research specialization. The survey was anonymous, and we also made efforts to protect the identity of respondents by omitting very small subgroups and certain affiliations from the tables and figures. Most response items used ordinal scales, however we included an open-ended item to obtain qualitative responses about research barriers experienced by survey participants.

This report presents the overall results across Advance-CTR partner sites (excluding the RI Quality Institute which assumes a different project role). We conclude with some general comments about the results and our efforts to respond to the survey’s findings.

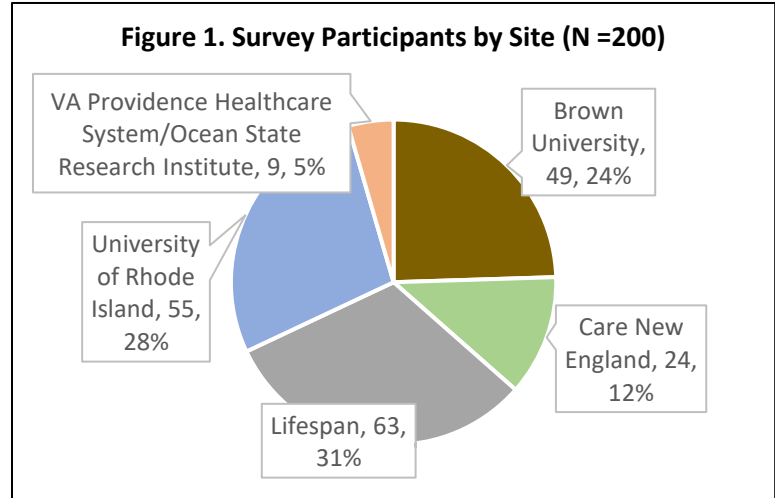
We used chi square tests to assess the statistical significance of changes in respondents’ perceptions of research barriers at their institutions. We did not assess the statistical significance of differences for other items due to small subgroups and because we felt that the reported frequencies and percentages were sufficiently informative. The survey instrument and protocol, including informed consent language, were approved the URI Institutional Review Board.

## Results

### Response Rate and Demographics

Of approximately 750 researchers solicited, 200 people consented to participate and indicated their primary affiliation (~27% response rate). Representation across Advance-CTR sites is portrayed in Figure 1.

Table 1 lists the demographics of survey participants. Overall, participants were 57% female and 94% were neither Black, Hispanic, Alaskan Native or Pacific Islander. Seventeen percent of respondents identified as a member of an under-represented group.



New Investigators comprised 47% of respondents, while established investigators and senior investigators represented 22% and 19% of respondents, respectively. Overall, most respondents identified as either academic or research faculty (78%). Demographics of survey respondents are presented in Table 1. below.

<b>Table 1. Characteristics of Survey Respondents*</b>	<b>N</b>	<b>%</b>
<u>Sex</u>		
Woman	114	57
Man	66	33
Prefer not to answer	21	10
<u>Race/ethnicity</u>		
Not Black, Hispanic, Alaskan Native, Pacific Islander	189	94
Black, Hispanic, Alaskan Native or Pacific Islander	11	6
<u>Do you identify as a member of an underrepresented group?</u>		
No / not sure	148	74
Yes	34	17
<u>Do you consider yourself to be a:</u>		
New Investigator	94	47
Established Investigator	43	22
Senior Investigator	38	19
<u>What is your primary role?</u>		
Academic faculty	86	43
Research faculty	69	35
Clinical faculty	28	14

\*Some subgroups omitted due to small cell sizes and/or missingness

Respondents' Satisfaction with Institutional Efforts to Support Clinical and Translational Research

The figure below reveals mixed views pertaining to researcher satisfaction with institutional efforts to support clinical and translational research. Forty-three percent of respondents reported being either somewhat satisfied or extremely satisfied, while 36% were dissatisfied with their institution's efforts to support clinical and translational research.

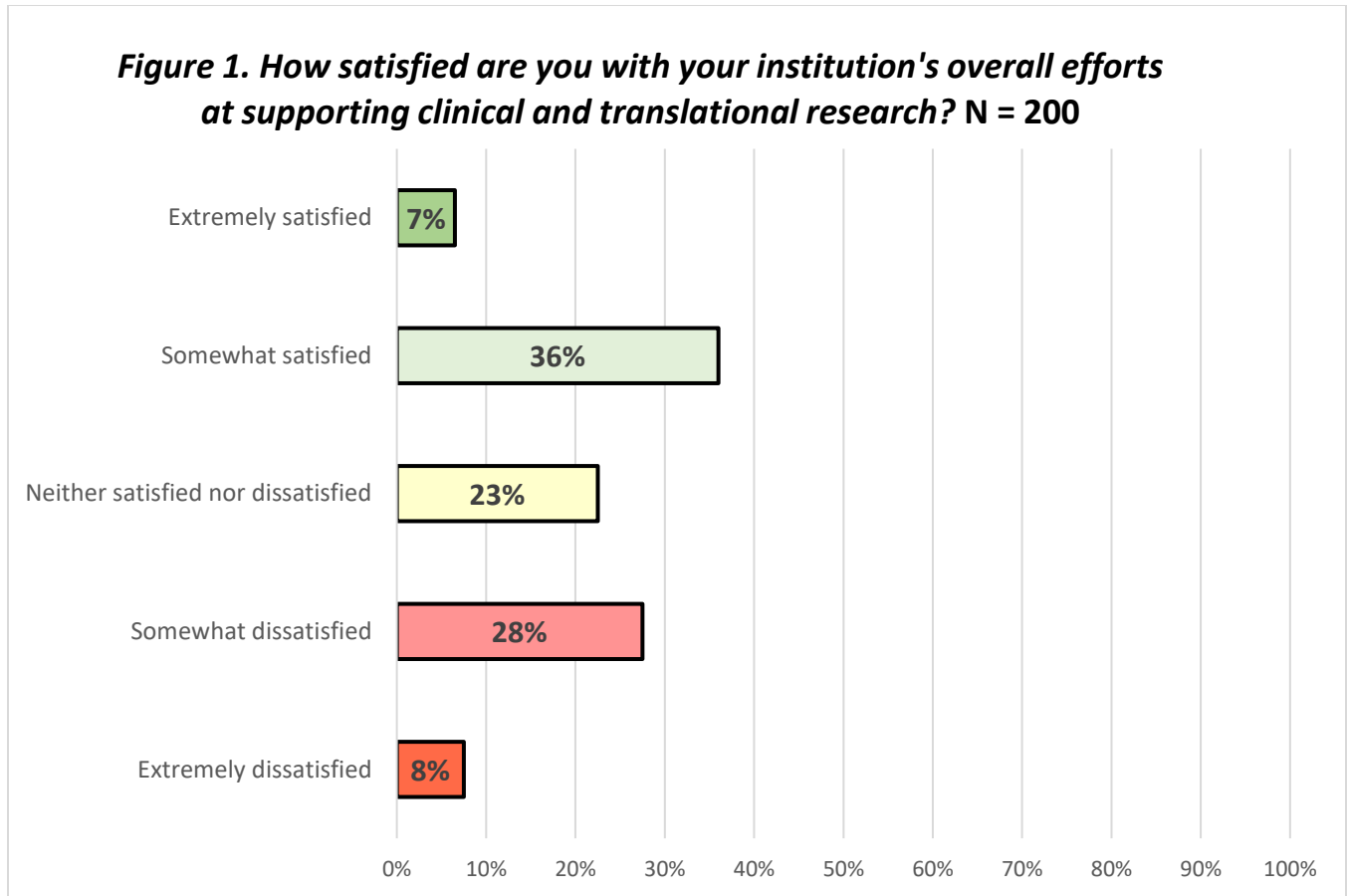
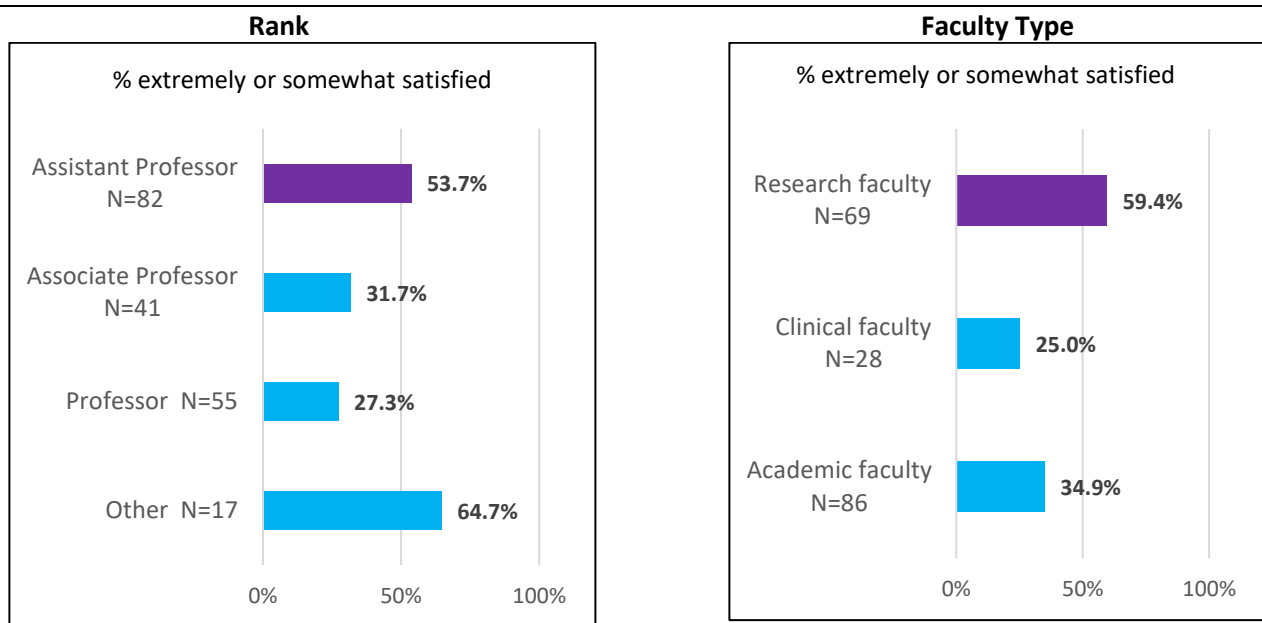


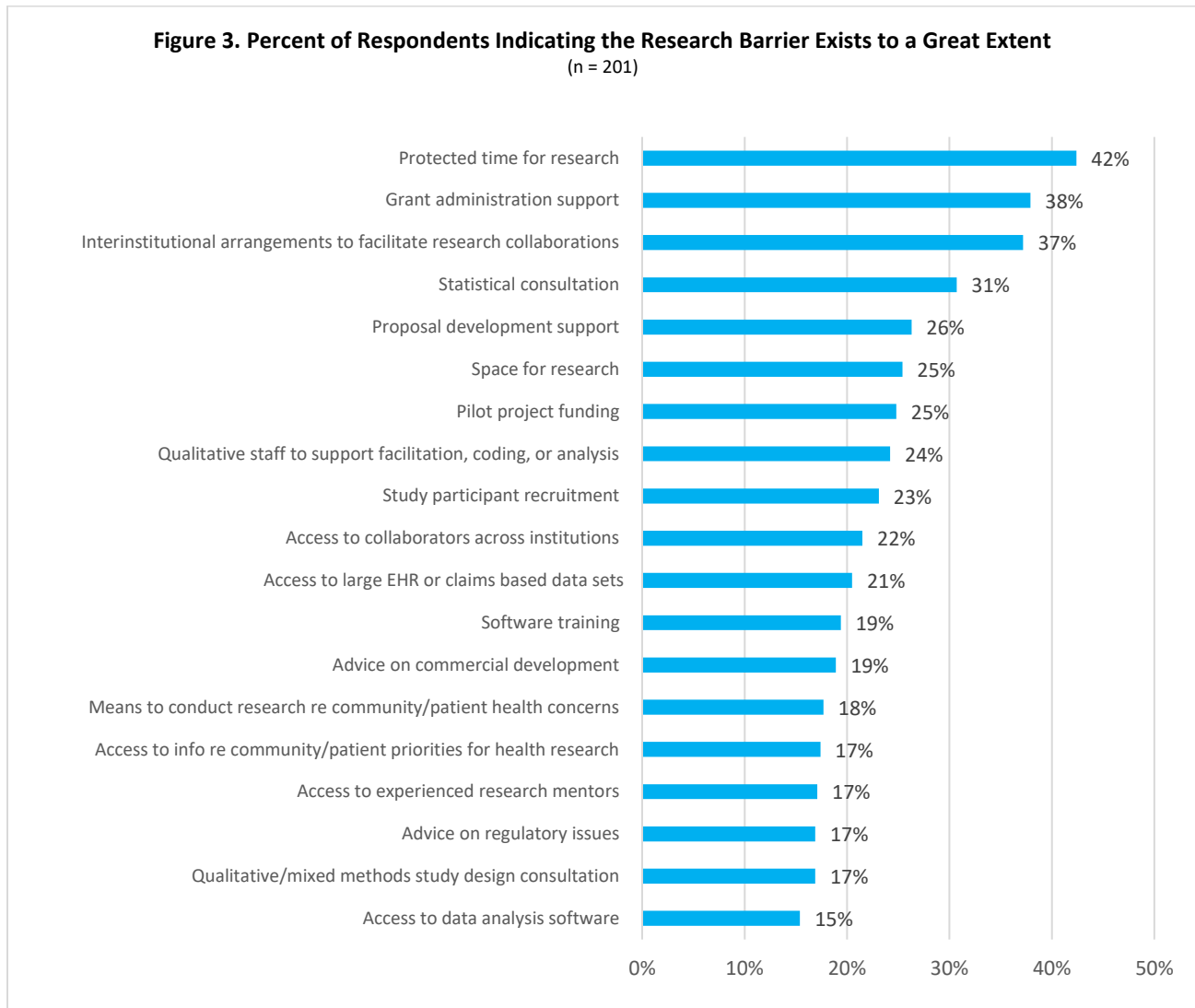
Figure 2 below presents the percent of respondents who reported being either "Extremely Satisfied" or "Somewhat Satisfied" with their institution's overall efforts at supporting clinical and translational research. Assistant professors were more frequently satisfied than higher ranking respondents, and research faculty were more frequently satisfied than clinical and academic faculty.

**Figure 2. Satisfaction with Institutional Support: Results by Faculty Rank and Type**

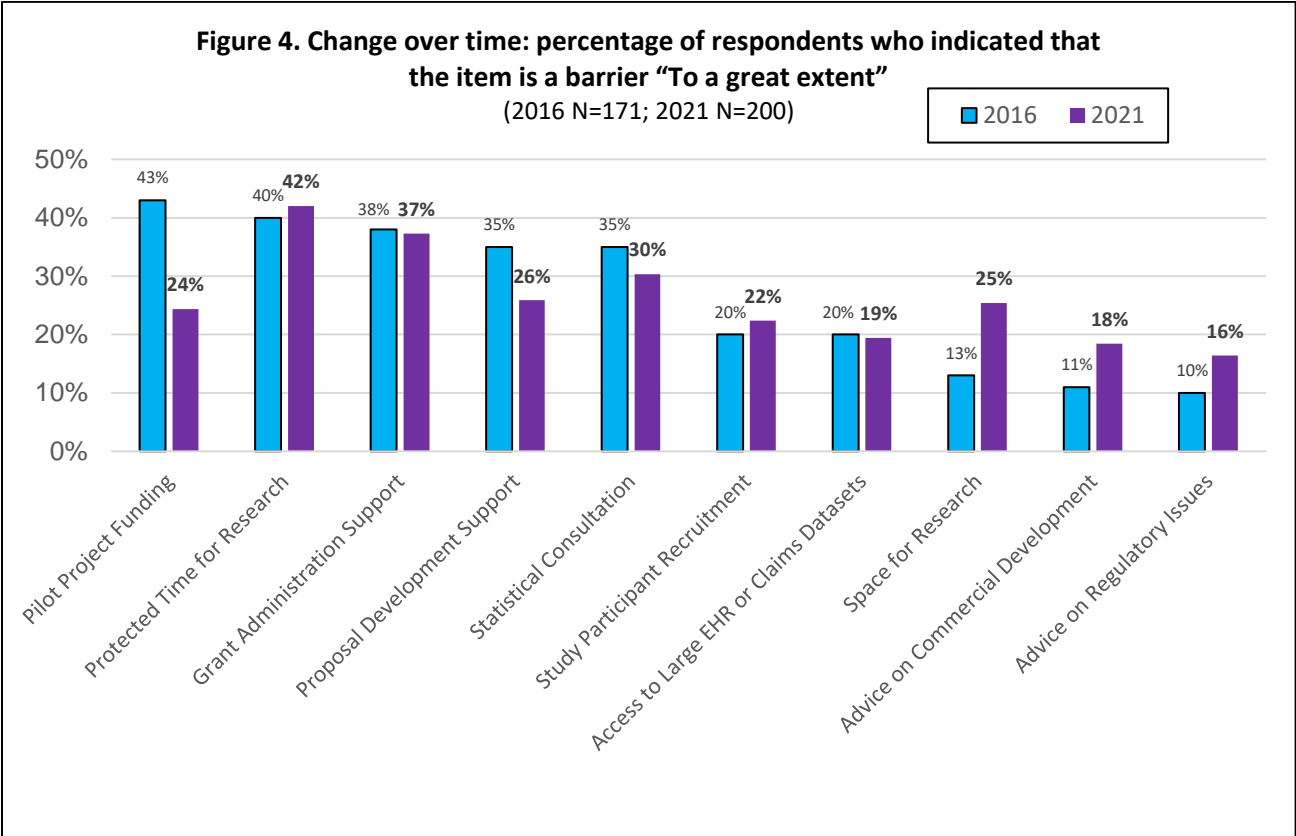


## Barriers to Conducting Clinical and Translational Research

We asked respondents to rate 19 research-related barriers according to their experiences at their institution, as existing “to no extent”, “to some extent,” or “to a great extent.” Figure 3 lists the percentage of respondents who indicated that the barrier exists “to a great extent.” Protected time for research, grant administration support, and inter-institutional arrangements were the most frequently reported barriers occurring to a great extent, by 42%, 38% and 37% of respondents, respectively.



We also compared investigators’ perceptions of research barriers with the results from our initial needs assessment survey (Figure 4). Respondents indicated a lack of sufficient protected time for research and inadequate grant administration support as the most prevalent barriers cited in the 2021 survey. The percentage of respondents who indicated that these aspects were barriers “to a great extent” was essentially the same in 2016 and 2021. However, we observed a reduction in several barriers that are being addressed by Advance-CTR’s programs, including a lack of pilot funding, proposal development support and statistical consultation. Space for research was the barrier that increased most dramatically, as nearly twice as many respondents considered this to be a barrier in 2021 as compared with 2016.



P < 0.05 for the following items: Pilot Project Funding; Proposal Development Support; Space for Research; Advice on Commercial Development

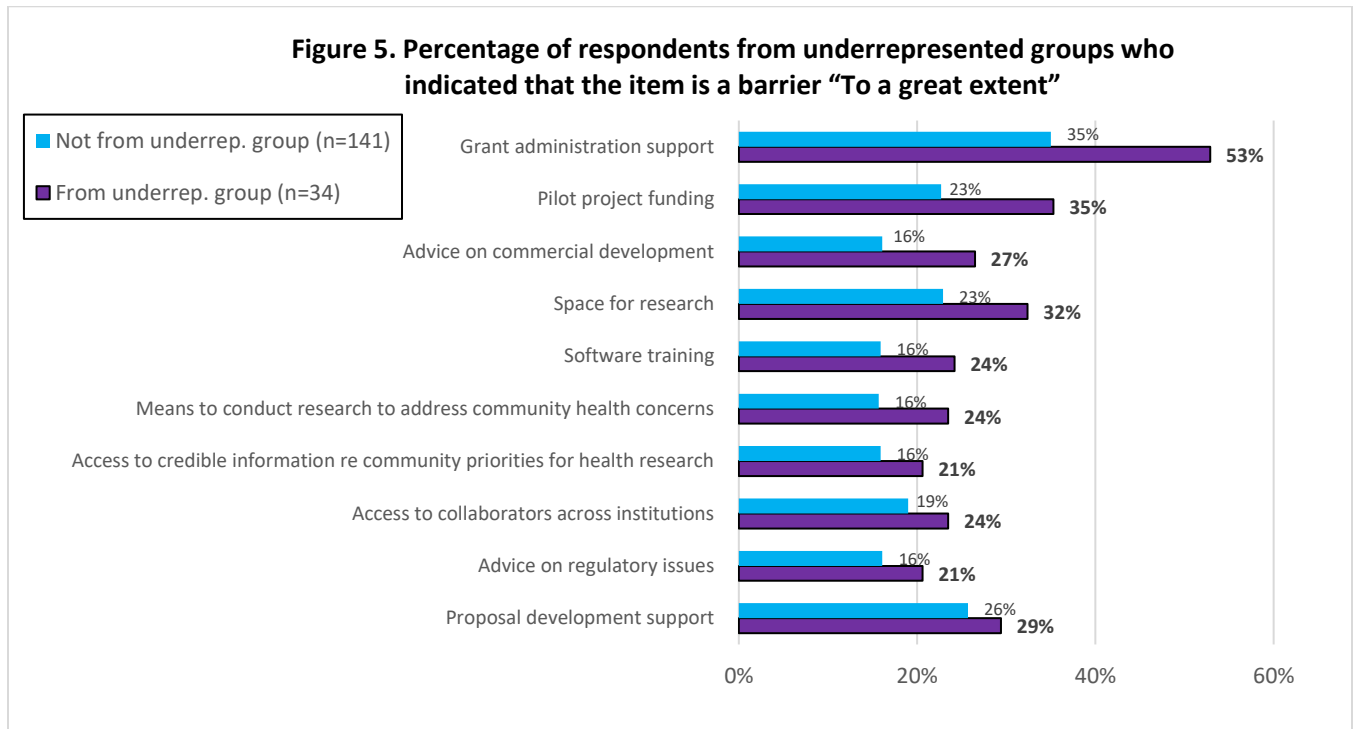


## Views of Respondents from Underrepresented Groups

We also examined research barriers among respondents who indicated they belong to an underrepresented group. For this designation we used the [NIH definition](#) of researchers who are underrepresented in the biomedical, clinical, behavioral, and social sciences:

- Individual from one or more of the following **racial and ethnic groups** (Blacks or African Americans, Hispanics or Latinos, American Indians, Alaska Natives, Native Hawaiians, and other Pacific Islanders)
- Individual with **disability** including people with but not limited to: a physical or mental impairment that substantially limits one or more major life activities of such individual
- Individual from **disadvantaged backgrounds** (defined as those who meet two or more of the following) including but not limited to people who have/had/are/were:
  - Homeless
  - In the foster care system
  - Eligible for Federal Free and Reduced Lunch Program
  - No parents or legal guardians who completed a bachelor’s degree
  - Eligible for Federal Pell grants
  - Received support from the Special Supplemental Nutrition Program for Women, Infants and Children
  - Grew up in one of the following areas: a) a U.S. rural area, or b) a Centers for Medicare and Medicaid Services-designated Low-Income and Health Professional Shortage Areas

Figure 5 displays the barriers to research that were rated higher by underrepresented respondents, listed in order of magnitude of difference. Due to small subgroup sizes, we have not included comparisons by particular categories (e.g. race/ethnicity).



Not listed in Figure 5 are results for barriers having small or no difference among underrepresented groups, which included protected time for research, access to mentors, statistical consultation, study participant recruitment, access to electronic health records and large claims datasets, and data analysis software.

### Desired Research Services and Trainings

We asked respondents to indicate their level of interest in and awareness of a range of research support mechanisms and resources offered by Advance-CTR.

Figure 6a lists these results for topics related to grants.

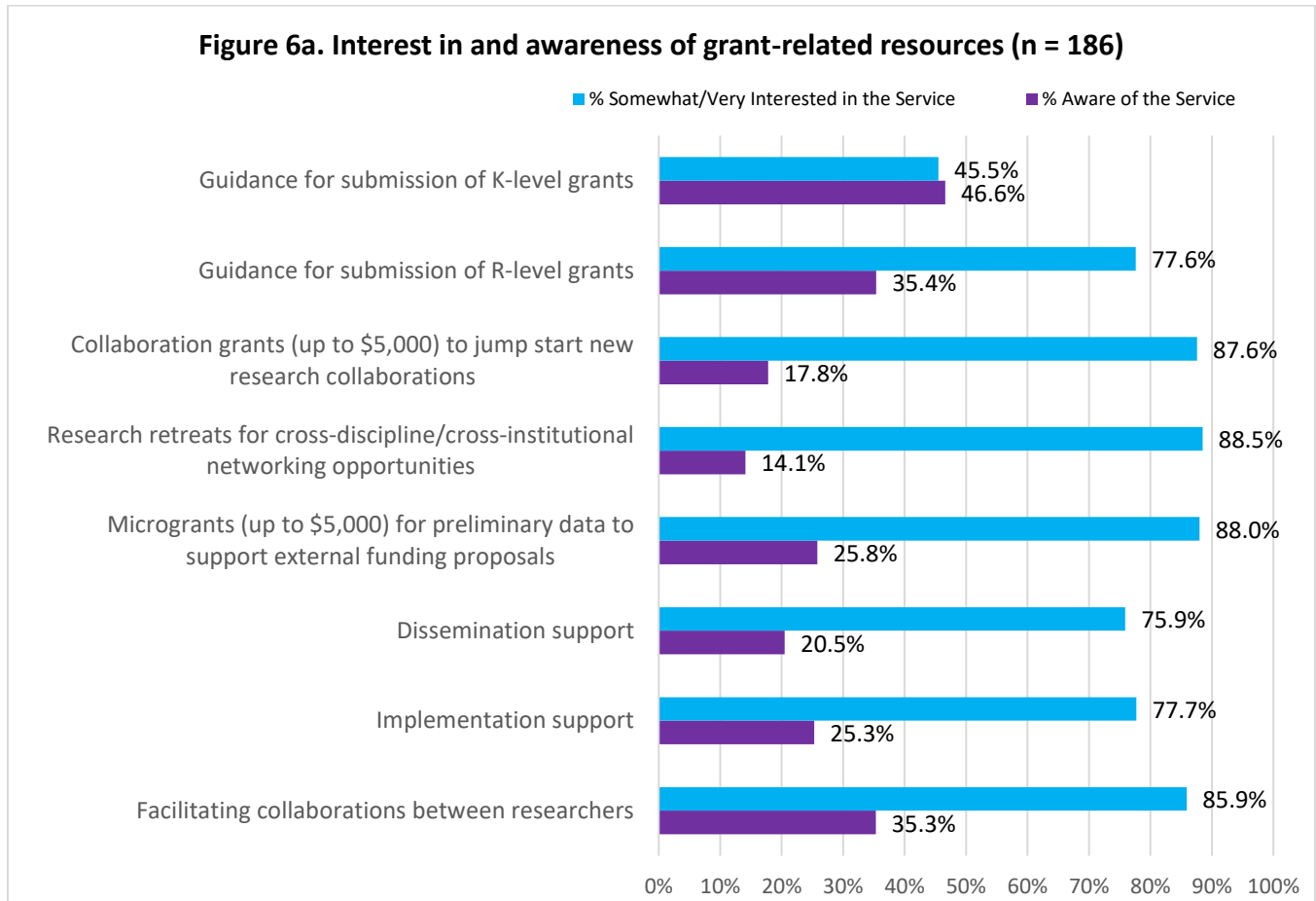


Figure 6b presents respondents' interest in and awareness of research support mechanisms and resources related to research services.

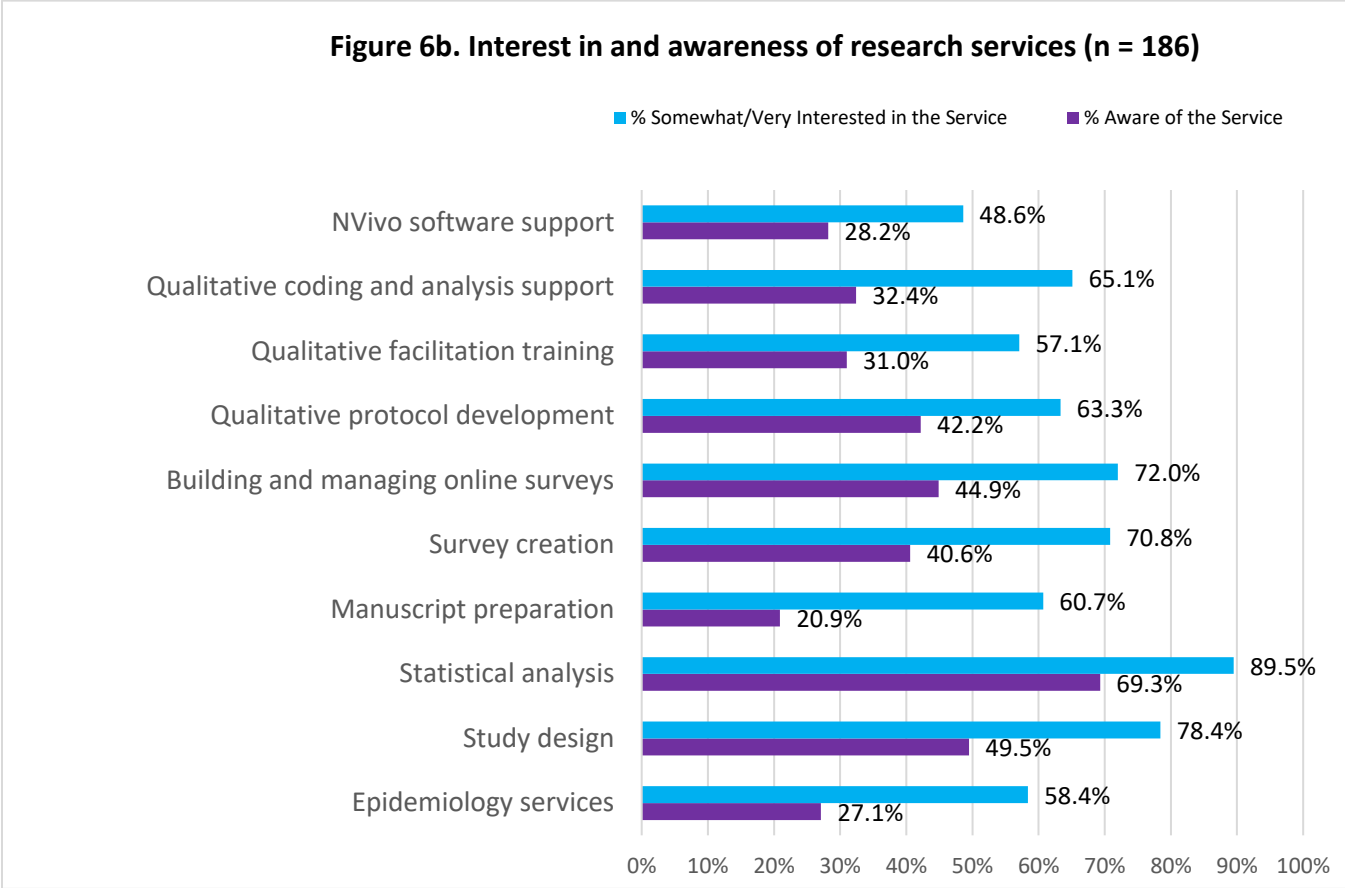
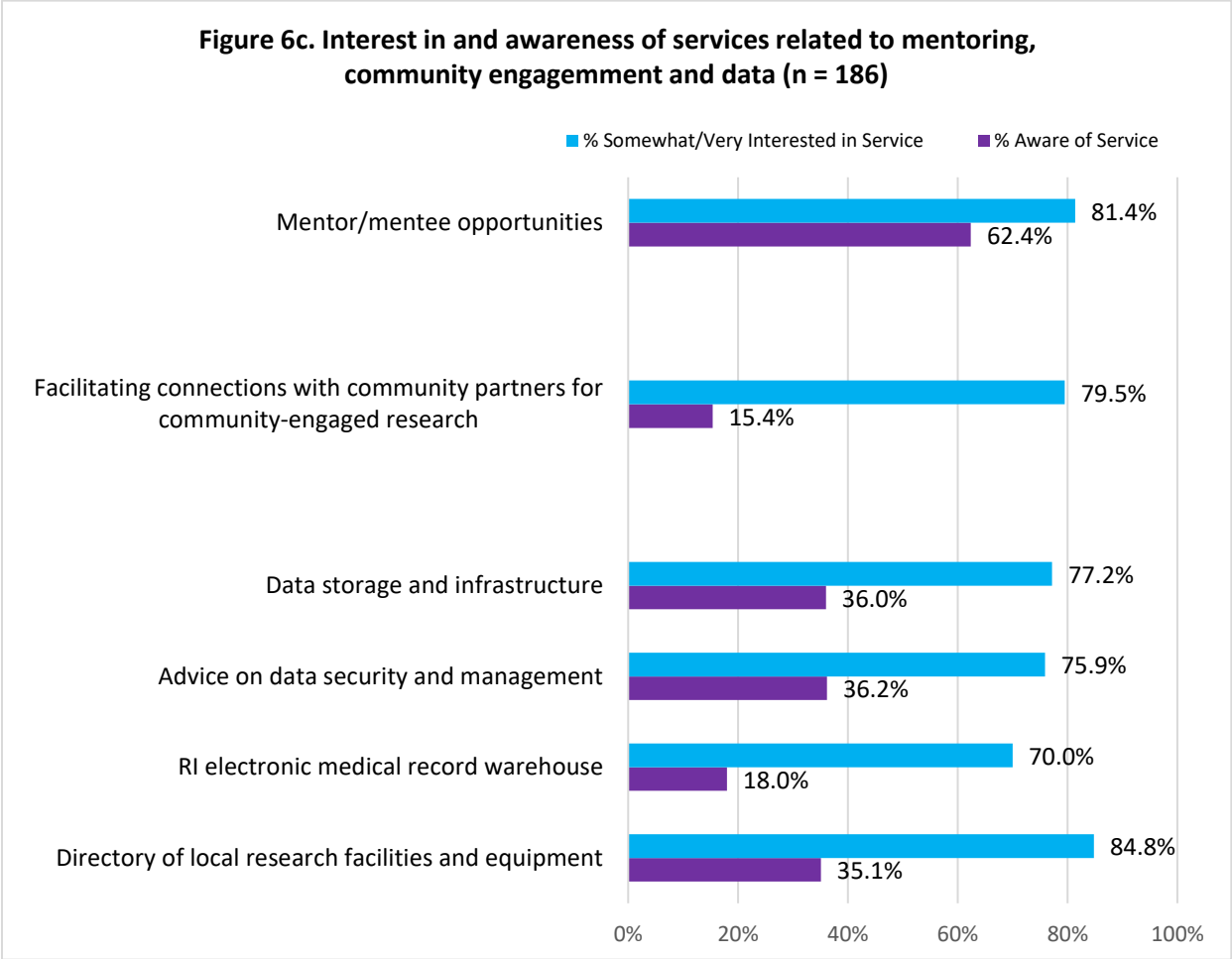
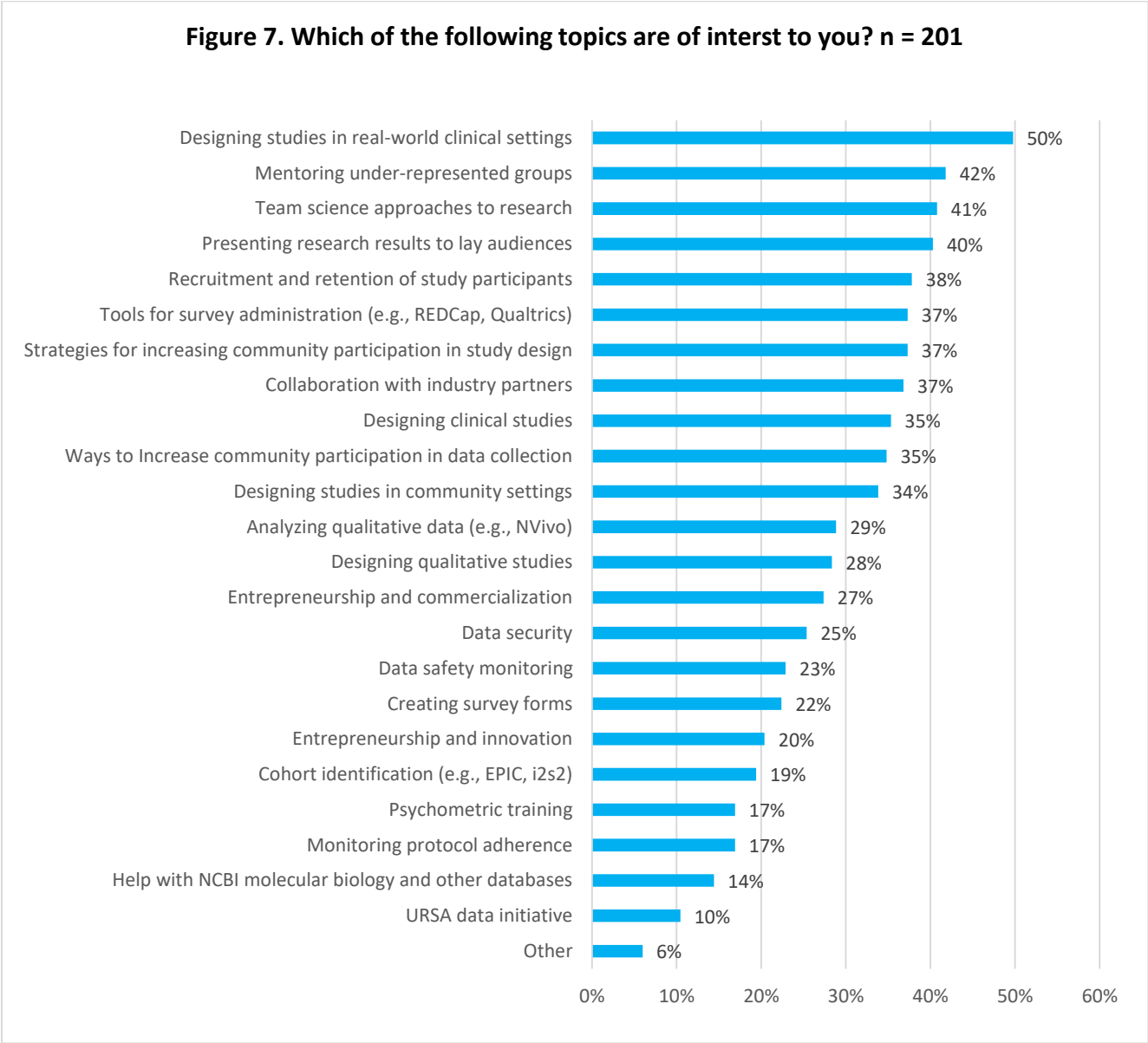


Figure 6c presents respondents' interest in and awareness of research support mechanisms and resources related to mentoring, community engagement, and data-related topics.



We also asked survey participants about webinar topics of interest. The leading topics of interest were designing studies in real-world clinical settings, mentoring underrepresented groups, and team science approaches to research.

**Figure 7. Which of the following topics are of interest to you? n = 201**



Summary of respondents’ comments

The survey also included an open-ended item that provided participants with the opportunity to share comments and suggestions. Several themes emerged, which included a need for more effective inter-institutional collaboration, enhancing communication and expediency of efficiency of IRB review, and support to successfully engage communities. Respondents also provided a range of comments pertaining to various aspects of pre- and post-award administrative support. The most prevalent themes varied by institution, and we provided each institution with all comments provided by respondents from their institution.

## Discussion

This survey finds substantial improvements in several aspects of research support during the past 5 years. Advance-CTR contributed to these successes by providing more than 1,000 research service consultations, funding for 85 investigators, and numerous seminars, trainings and workshops for hundreds of individuals.

This survey found reductions in the percentage of respondents who reported facing substantial barriers to securing pilot project funding, finding support for proposal development, and obtaining statistical consultations. These barriers are being addressed by Advance-CTR resources. However, less than half of researchers overall are satisfied with their institution's efforts at supporting clinical and translational research. Lowest rates of satisfaction exist among higher-ranking faculty, perhaps due to the additional needs for support that larger-scale studies require. Clinical faculty and academic faculty reported lower rates of satisfaction than research faculty.

Other notable findings include:

- The top three barriers occurring to a great extent involved protected time for research (42% of respondents), grant administration support (38%), and inter-institutional agreements to facilitate research collaborations (37%).
- Twenty-five percent of respondents identified a lack of space for their research as a barrier existing to a great extent, while only 13% indicated this was a barrier in the 2016 survey.
- Respondents who identify as a member of an underrepresented group more frequently reported experiencing several types of research barriers as compared with respondents who did not indicate they were from an underrepresented group. These barriers included items related to grant administration support, access to pilot project funding, advice on commercial development and space for research.
- Respondents in general indicated a high level of interest in the consult services, trainings, webinar topics and other resources provided by Advance-CTR. The survey also revealed the need to improve awareness of these offerings.

The results of this survey are being shared in several ways. This version of the report provides broad highlights of our findings and is being shared publicly. However, the results for many survey items varied by institution. We have highlighted these findings in institution-specific reports that were delivered to administrative leaders from Advance-CTR partner institutions. In subsequent communications these leaders conveyed their appreciation for the information provided by survey participants and indicated that the insights provided by this survey are valuable to their efforts to improve. Additionally, Advance-CTR convenes an Internal Advisory Committee (IAC) comprised of research administrators, Deans, and other representatives from each member institution. This IAC has an integral role in working to mitigate barriers to clinical and translational research that exist within and across Advance-CTR partner institutions.

Advance-CTR is always interested to hear investigators' suggestions for how the program can be improved. We continually assess satisfaction with our services and trainings, and strongly encourage researchers to complete the surveys that accompany our services and trainings. Additionally, individual feedback is always welcome, and should be directed to core directors, program administrators or leadership as applicable (see contact information at the Advance-CTR website <https://AdvanceCTR.Brown.edu/about-us/leadership>).

*Questions about this report should be directed to Professor Stephen Kogut, Advance-CTR Director of Tracking and Evaluation (SKogut@URI.edu).*

## References

1. Institutional Development Award Number U54GM115677 from the National Institute of General Medical Sciences of the National Institutes of Health.
2. Willey C, Fede J, Stevenson J, Hayward A, Kogut S, Fournier H, Padbury J. Clinical and Translational Research in Rhode Island: Results of a Needs Assessment Survey. *R I Med J.* 2018 Feb 2;101(1):21-25. PMID: 29393306.