

REDCap Town Hall

Scientific Computing and Data

April 25, 2025

Introduction: Team Members



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Agenda

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- Plans for Next Six Months
- REDCap and 21 CFR* 11 Implementation and Compliance
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Accomplishments Over the Past Six Months

REDCap Users and Projects

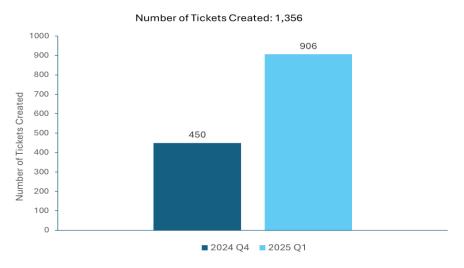
	As of end of Oct 2024	As of end of March 2025
Total # of user accounts	21,100	23,001
Active* # users	3,579	3,719
Total # projects (including archived projects)	6,532**	21,270
Active # projects	3,125	2,957
Active* projects by type:	3,125	2,957
Faculty Practice Associates (FPA) Operations	37	39
Hospital Operations	571	567
Medical Student Project	69	110
Quality Improvement	788	691
Research	1,660	1,550

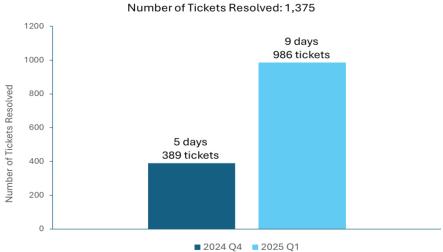
^{*}Logged in/accessed in the past 6 months

^{**} Not including archived projects

REDCap Support Tickets

Metrics Nov 1, 2024 – April 1, 2025





Ticket Breakdown	Fall 2024	%	Spring 2025	%
Support: Project Specific Questions	964	42	478	35
Support: Account Login	754	32	465	34
Support: Review/Approve Project Changes	360	16	292	22
Support: Non-Project Specific Questions	99	4	60	4
Maintenance: Technical Support	95	4	56	4
Project Build and Clinical Data Pull	38	2	5	0

- 2,322 tickets created between 3/1/24-11/1/24
 - 300+ tickets/month
- 1,356 tickets created in between 11/1/24-4/1/25
 - 250+ tickets/month

Major Accomplishments Since November 2024

- Upgraded REDCap from version 14.0.29 to 15.0.12
 - Security fixes
 - 13 bug fixes
 - Improvements:
 - Enhanced e-Consent Framework and PDF Snapshot Functionality
 - The minimum required PHP (Hypertext Preprocessor) version is now PHP 8.0.2
 - More survey-specific status indicators are available
 - New methods exist in the Online Designer for modifying an instrument's label and unique instrument name
 - Randomization optimization to make it quicker and less intensive on the database
- Collected 720 publications enabled by REDCap (spanning 2017-2025)
- Completed 2024 REDCap chargeback collections
- 102 Digital Concierge one-to-one interactions and 1,375 service desk requests

Engaged with 729 REDCap Users

November 2024-March 2025

Date	Event	Event Details	Participants
11/11/2024	REDCap Town Hall	This session covers; Stats, updates for past 6 months and planned activities for upcoming six months.	142
11/12/2024	REDCap Advanced Training	The session covers: Project setup, surveys, obtaining data, longitudinal studies, managing users, project life cycle and data management.	158
02/28/2025	REDCap API training	This session covers: About the API, current user statistics, updated policies and standards, API usage policy and API request workflow.	146
03/7/2025	REDCap Essentials	The session covers: REDCap account management for internal and external collaborators, development vs production, project ownership and user rights, orphaned projects and transferring ownership.	123
03/14/2025	REDCap Advanced Training	The session covers: Project setup, surveys, obtaining data, longitudinal studies, managing users, project life cycle and data management.	160
		TOTAL	729

REDCap System Maintenance: 99.5% uptime November 2024-March 2025

Planned:

• 6 planned downtimes for 42 total hours for network switch upgrade, application upgrade to 15.0.12, operating system patching and operating system upgrade from Ubuntu 20.04 to 22.04

Unplanned:

- One 2 minutes (on 1/31/25), one 6 minutes (on 11/08/24), two 8 minutes (on 03/06/25 and 03/07/25) and one 19 minutes unplanned interruptions (on 02/07/25)
 - Caused by DTP unplanned outages, REDCap cron conflicts, and database unplanned maintenance
- To make our systems even more reliable:
 - In Q2 we are migrating to MySQL Enterprise cluster version with more advanced monitoring and backup tools (REDCap Quality Assurance environment is currently under User Acceptance Test)
 - In Q2 we will continue to implement the API usage policy agreements that all API users need to acknowledge
 - We will be enforcing the API policy within the next quarter

Plans for the Next Six Months

Plans for the Next Six Months

- Complete REDCap Production MySQL Enterprise cluster upgrade (2025 Q2)
- Upgrade REDCap application to the latest Long Term Support version 15.0.12+
- Al & Automation for REDCap Ticket and User Support

User-Facing: Self-Service Automation Tool

- Reinstates suspended accounts
- Unlocks locked REDCap projects
- Operates 24/7 no wait time

Benefits:

- Reduces admin ticket volume by 20–30%
- Improves resolution time from hours to minutes
- Increases user satisfaction with instant support

Internal: Al Assistant for REDCap Administrators

- Retrieves solutions based on historical tickets
- Provides consistent, accurate responses
- Supports onboarding with smart knowledge lookup

Benefits:

- Cuts research and response time
- Boosts consistency across team responses
- Preserves institutional knowledge long-term

Reminder: Policy for Deleting Unpaid REDCap Projects

- 106 projects were deleted by users between "2024-11-01" and "2025-04-01"
- 69 projects were locked due to no payment between "2024-11-01" and "2025-04-01"
- In addition, we have locked 1,736 unused projects (no activity since 2024)
- The process is:
 - We will notify the PIs and project users monthly if the project is unpaid for 9 months after the trial period or one year after the project creation date
 - We will communicate to the PIs and project users of the impending project deletion
 - We will delete the project at the one-year mark from the project creation date

REDCap and 21 CFR 11 Implementation and Compliance

Working Towards 21 CFR* Part 11 Compliance/Validation

- Current Status: there is a Strategic Plan being developed by the Clinical Trials Working Group (consisting of Dr. Debra Berg, Dr. Emilia Bagiella, Dr. Deepak Bhatt, Dr. Annetine Gelijns, Dr. Monica Kraft, Dr. Mark Lebwohl, Dr. Alan Moskowitz, Dr. Marshall Posner, Dr. Phyllis Schnepf and Dr. Rosalind Wright)
- Reviewed website to ensure we are clear that REDCap is currently not CFR 21 Part 11 compliant

*CFR = Code of Federal Regulations

REDCap Application Programming Interface (API) Usage and Policy

REDCap API Usage and Policy

- Current Status: there were training sessions / town halls to discuss the new API policy
- Number of people who participated in town halls:
 146
- Number of Current API Tokens issued: 1,014 (compared to 819 as of November 2024)
- Next Steps:
 - The API policy will be published on the website, and we will be monitoring for feedback and issues
 - Testing API code will commence in Q2

REDCap Token and Application Programming Interface (API) Use Process and Policy 1.1 Scientific Computing and Data Icahn School of Medicine at Mount Sinai February 07, 2025

Mount Sinai's <u>REDCap</u> instance enables users to request <u>REDCap</u> data using their own code via <u>REDCap</u> API calls. This policy is intended to ensure a reliable and responsive <u>REDCap</u> experience for all users.

The process and policy are as follows:

- Raise a JIRA Ticket at https://scicomp.mssm.edu/jira/servicedesk/customer/portal/9 to request an API Token
 - <u>REDCap</u> Admin will provide a link to fill out the Registration Form. Please complete the request form at https://redcap.mountsinai.org/redcap/surveys/? s=FHWC9FWAAEL9RREP.
 - Provide justification for the token, including any feature requests.
 - Please note: REDCap API tokens are user and project specific.
 - Attest and signoff to best practices and this policy
 - Attestation and signoff to best practices and policy must be agreed to annually.
 - Absence of attestation and signoff will result in API tokens being revoked.
 - A token will only be issued upon user agreement to this process and policy.
- 2. Consider reusing existing code from these sites:
 - https://github.com/d3b-center/d3b-redcap-api-python
 - https://redcap-tools.github.io/PvCap/
 - https://cran.r-project.org/web/packages/REDCapR/
 - https://github.com/nutterb/redcapAPI
- Develop your code using best practices:
 - https://www.utsouthwestern.edu/edumedia/edufiles/about_us/admin_offices/academi c_information_services/redcap/best-practices-apis.pdf
 - Connect to the REDCap API using Python, R, Java, and other languages here: https://confluence.research.cchmc.org/display/CCTSTRED/REDCap+API+Examples
 - Multiple API requests must be limited to no more than 3 per minute.
 - If API requests return significant data (> 500 kilobytes) or require significant calculation (for instance, joining multiple datasets) use a more conservative rate of no more than 1 query every 5 minutes.
 - Use sleep functions in languages such as R and Python to pause your script between API requests.
- Test user-developed API request code in the REDCap QA environment
 - After completing the Registration Form, please sign up in REDCap QA with your network id and password.

2024 Survey Results

2024 REDCap Survey Results

We asked 2 summary questions:

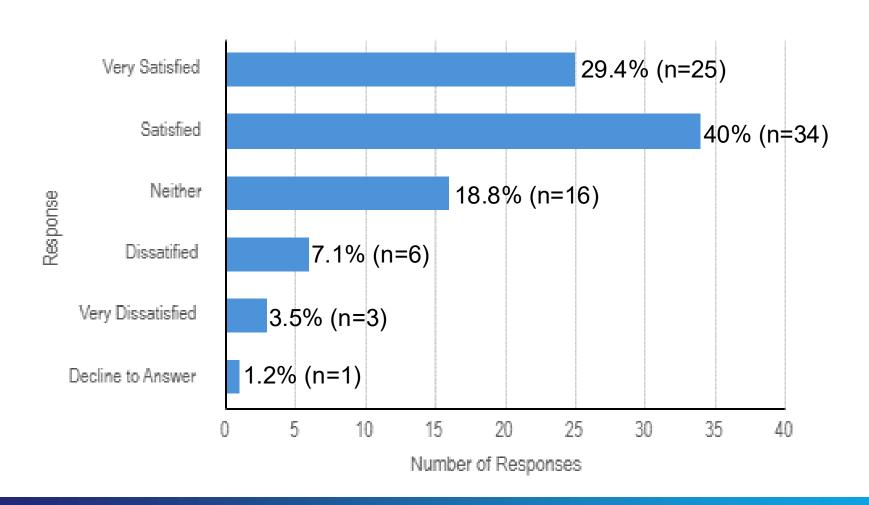
Q1: How satisfied are you with the REDCap installation at Mount Sinai?

Q2: How would you rate your satisfaction with REDCap support?

We received 85 responses and 79 comments from 3,185 active users in Jan 2025 (3.0% response rate).

2024 Survey Results Question 1

Q1: How satisfied are you with the REDCap installation at Mount Sinai?



User satisfaction(>=Satisfied)

2024: 69%

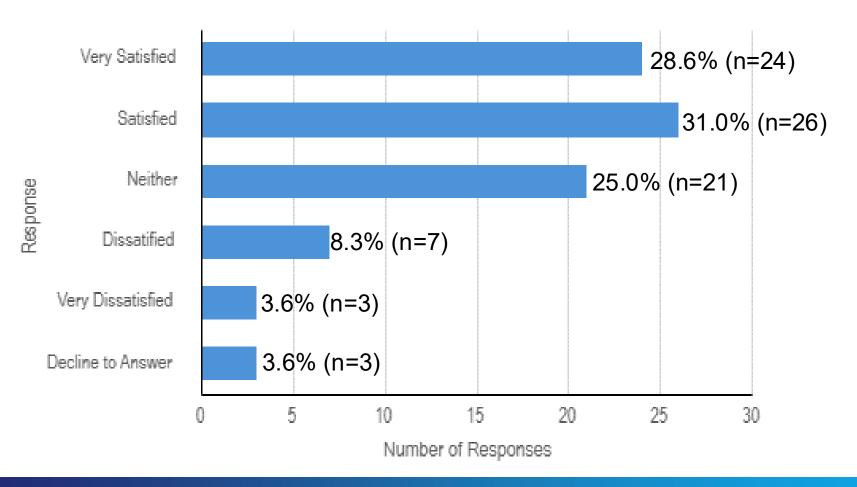
2023: 81%

2022: 85%

2021: 77%

2024 Survey Results Question 2

Q2: How would you rate your satisfaction with REDCap support?



User satisfaction(>=Satisfied)

2024: 60%

2023: 72%

2022: 71%

2021: 68%



Thank You

Appendix



2024 REDCap Survey Results

Appendix We asked 3 additional questions:

Q3: What suggestions do you have for improving Mount Sinai's REDCap installation?

Q4: What suggestions do you have for improving Mount Sinai's REDCap support?

Q5: Please provide any additional comments.

We received 85 responses and 79 comments from 3,185 active users in Jan 2025 (3.0% response rate).

2024 Survey Results Question 3

Theme	Comment	Response
Compliments	None the improvements to the De-identification system are great. I am very satisfied with the installation. There's always room for improvement.	•Thank you for the positive comments. We are constantly looking to get feedback and improve our services so please reach out if you have suggestions.
Cost	Make it free. So many study teams resort to using Excel because of the cost. Cost is prohibitive for unfunded projects, which has forced us to minimize REDCap use and prioritize other platforms.	•Currently, researchers are not billed for the first three months of their study using REDCap. After 3 months, researchers will be required to pay. For more information about the billing, please visit our website here: https://labs.icahn.mssm.edu/minervalab/rds/about-redcap/ .
Date / Time Features	•Add the "today" function to automate surveys on a time schedule relative to the current date.	•We will investigate if there are features that might do this in REDCap.
Two-Factor Authentication	The two-factor authentication is a challenge. Outlook sends you a number to enter the pop-up message for the authenticator app. That is easier than getting the number and having to enter it into REDCap. The two-step verification is very inconvenient. Less authentication. Also, the two-factor authentication that was recently implemented is super annoying. Do not like the two-step verification. The two-factor authentication is becoming redundant. I believe going back to directly logging on works better and faster. Remove dual authentication.	•To protect your data and research, comply with various regulations, and meet best practice standards, we're required to implement two factor authentication. If there are upgrades to the two-factor authentication process that streamlines the process, we will incorporate them where possible.

Theme	Comment	Response
Service Support / Emails	•I got several of the same emails. From office hours to platform down, to publication requests. •Support seems inconsistent and it's hard to get someone who understands REDCap and can help with issues. I've had a good experience working with Kate during Digital Concierge. I would like to see more [Digital] Concierge options so I can get expert help in a timely manner. •I'd suggest making the guidelines for REDcap installation available to all, provide training in the advanced features, and also make sure staff are available to respond to questions. •The payments are confusing and it's not clear how to pay. Please provide information. Please provide training specific to REDCap at Mount Sinai. •Simpler user guides.	•We are constantly reviewing our email policies and procedures for efficiencies and will consider streamlining communication where possible. •We are also investigating how we can improve our support services and will explore making Digital Concierge more effective. If you need immediate support, please contact us at redcap-support@mssm.edu. •Additionally, we frequently evaluate our training material and will investigate ways to simply and streamline our user guides. •With regard to guidance documents, we are working on providing clearer guidance and will share step-by-step instructions on how to make payments. Additionally, we will explore options for offering specific training to ensure users have the support they need.
Epic Data Extraction	•Better EPIC clinical data pull integration - has not worked for our team yet. Could you offer a session?	•Please contact us directly and we will support your work, you can contact us here redcap-support@mssm.edu .
Downtime	Mount Sinai needs to do a better job and make sure REDCap doesn't go down for days without previous notice. New features and less downtime. Too many outages	•We are investigating outages and performance issues. We have recently implemented a new API policy which should reduce service demands and improve performance.

Theme	Comment	Response
Application Programming Interface (API)	•I think the process of applying for API key is unclear, restrictive, long and difficult. There's a lot of restrictions that I didn't expect. Based on my experience from Vanderbilt, where REDCap was first created, we should be able to enable our own API key in each REDCap database.	•We are in the process of implementing a new policy pertaining to API usage, and we will update the REDCap website with new, easy-to-access policies soon. •Additionally, the REDCap application has been upgraded (from current version LTS 14.0.29 to LTS 15.0.11) on 2/25/2025. Users can request API tokens as required. •We provided a REDCap API Town Hall on Feb 28, 2025, which can be viewed here, and should provide more information on API usage: https://labs.icahn.mssm.edu/minervalab/rds/about-redcap/ .
CFR 21 Part 11	Validate REDCap to be Part 11 compliant. Can we do 21 CFR for research studies? How can you do 21 CFR consent in REDCap? I'd like training on CFR and FDA consents. It's okay, it could be better. I'd like training on CFR and FDA consents. CFR compliance.	•We are currently planning to make our REDCap service CFR 21 Part 11 compliant and hope to update the website soon when we have more details https://labs.icahn.mssm.edu/minervalab/rds/about-redcap/ .
Add-ons	•There are add-ons that would be helpful. Knowing what the process is to request the installation of an add-on would be helpful. •Add more third-party modules so that more functionalities can be implemented in REDCap. •[Concerning add-ons and software] I would like to know: when is next update? What are the new features? How do new features work in REDCap? Can we use API in REDCap? Why can't the API be used in REDCap? How secure is REDCap?	•Please email us (redcap-support@mssm.edu) directly if you would like a particular add-on installed. Please note that you can absolutely use the API (see above), and that REDCap is generally very secure, however, we are in the process of implementing CFR 21 Part 11 compliance (see above), and it is up to researchers to ensure their projects are configured in a secure fashion.

Theme	Comment	Response
Performance and Features	Data exports, reports, and stats work super slowly. Sometimes, it takes me longer to log in, particularly when I have not used it since I am not the point person for REDCap of our team. It is also difficult to add external collaborators who you may want to have access to projects. I feel that in general REDCap is still too laborious. The need is to make it more automated. Malso, It can't use alerts in REDCap project anymore for same reason Improve the layout for better navigation when using different applications, study arms, and dat instruments. A way to confirm the patient responds to emails without the need to login in REDCap. Please have a larger data cap for automated email alerts about survey completion. We have surveys that need to send large PDFs and those do not get generated. Thank you.	*Performance Issues: thank you for highlighting the performance issues, and we will look into them. We are implementing a new API policy and a new server cluster which should help increase overall performance. *Making REDCap Less Labor-Intensive: while REDCap is designed for robust data collection, we recognize that some tasks can feel manual. Here are a few ways to reduce effort and automate processes: *Auto-Validation & Smart Fields: use calculated fields, branching logic, and real-time data checks to minimize manual entry. *Automated Survey Distribution: the Survey Invitation Scheduler can send reminders and follow-ups without manual intervention. *API & External Modules: if you're moving data between systems, our team can help explore integrations to automate transfers. *Data Quality Rules: set up automated checks to flag inconsistencies early. *If certain tasks feel repetitive, we'd be happy to meet and review your setup—sometimes, small tweaks in form design or reporting can save significant time. *Mobile App & On-the-Go Access: we agree that the REDCap Mobile App could offer a smoother experience. While Vanderbilt (REDCap's developer) continues to enhance mobile functionality, the web-based version remains mobile-friendly for surveys and basic data entry. If you're encountering specific limitations, let us know, and we can relay feedback to the REDCap consortium and explore workarounds. Our Mt. Sinai REDCap Support team is here to assist with optimizing your projects for efficiency, exploring automation tools tailored to your workflow, and troubleshooting mobile access issues. *REDCap Alerts Issues: we will investigate what might be causing this issue and will revert back to you as soon as possible. *Confirming Study Email Responses: currently, there is not a way to confirm if a user responds to emails without logging into REDCap that we know of. If you know of a plugin or feature, we could make use of please let us know and we can investigate it. *E-Mail Data Cap Issue: thank you for the feedb

Theme	Comment	Response
Autosave Feature	•have regular auto-save, or less "safeguards" which cause REDCap to exit without saving data - this has happened to me multiple times and is massively inconvenient e.g. "cannot save due to multiple tabs being open" and then exits without saving at all.	•This is a known issue with REDCap, and if there are any updates or changes to the code base that addresses this issue, we will investigate implementing them.
Multilingual Features	•Spanish translation not working •I can't use the language module and it's impacting the research projects. It's a must-have.	•We will investigate the issues with the language module and related features in REDCap and resolve any issues as soon as possible.

2024 Survey Results Question 4

Q4: What suggestions do you have for improving Mount Sinai's REDCap support?

Theme	Comment	Response
Compliments	 None, you guys do a wonderful job. None, the team has always been very receptive to helping front end users. Bring more people like Cate REDCap support. None, excellent support I am very satisfied. Recently, my urgent request to reactivate my suspended account was immediately fulfilled. I wasn't sure why my account was suspended. I am grateful for the REDCap support's online open office hours and suggest that they are maintained as is or expanded. 	•Thank you for the positive comments. We are constantly looking to get feedback and improve our services so please reach out if you have suggestions.
Training / External Collaborators	 Improved workflow for onboarding external researchers. Provide classes for assistants so they can learn how to set up REDCap (you may already do this, and I may just not have realized it). more training tools for creating complex reports. more support for external account users/external collaborators. 	•We will investigate making more online content available to easily onboard external researchers, creating complex reports, and providing support to assistants to set up REDCap. In the meantime, there are some guides available on the Vanderbilt REDCap site which may be of assistance here: https://projectredcap.org/resources/videos/ .
Two-Factor Authentication	•Remove two step verification or make it optional.	•To protect your data and research, comply with various regulations, and meet best practice standards, we're required to implement two factor authentication. If there are upgrades to the two-factor authentication process that streamlines the process, we will incorporate them.

Q4: What suggestions do you have for improving Mount Sinai's REDCap support?

Theme	Comment	Response
Service-related	 Support ticket responses sometimes are vague and require further clarification. As a recent (in the last month) they have been getting better. Faster turnaround/more staff. You cannot make additional design changes while changes are still pending; this can be very difficult. in have attended some in-person support sessions where i am told to submit a ticket - would be nice to trouble shoot live as that is why I'm joining the session other times is helpful. Expanding the support team would help reduce long wait times for assistance with our requests. Better support, maybe just understanding better features of REDCap so they can help us with our research projects. The staff is good but slow to respond. Some are better than others, so it depends on who you get if you want an answer. Also, they seem to want to get you to figure it out on your own when it's complicated. I feel like it's not as good as before, I'm not sure if it's due to staffing or just lack of concern for customer support. Inconsistent support. Responsive staff with REDCap experience and knowledge are needed. I Ido not like that sometimes when you go to Digital Concierge, they don't answer your questions and tell you to raise a ticket. I didn't join to be told to raise a ticket. I joined to get help. I have experienced a long wait time from support or no response at all I think it would be best to answer in a timely matter. REDCap email support is inconsistent. I've had to wait weeks sometimes for answers. I usually go to Digital Concierge when I don't receive a reply in a few days. Chatbot or chat hours to send questions in addition to office hours. 	•We are investigating ways to improve our support and services, including creating FAQs, identifying common themes, and improving our support workflows.
Website-Related	•Maybe more information and training about new features and how best to use REDCap for research studies, the information on the website is not kept up-to-date and some links are broken. Also, sometimes they send too many emails. It's not good.	•We are currently in the process of redeveloping our website, please check here https://labs.icahn.mssm.edu/minervalab/rds/about-redcap/ for updates. As mentioned above, we will investigate streamlining our email communication to make it more effective.

2024 Survey Results Question 5

Q5: Please provide any additional comments.

Theme	Comment	Response
Compliments	•Thank you for the support. REDCap is a wonderful resource to have as an employee at Mount Sinai, I appreciate the patience and guidance I received, especially from Catherine! •My team is grateful for all the great REDCap support we receive. •Cate has always gone above and beyond when helping me with REDCap issues. She truly takes ownership of the ticket and provides excellent service. Cate has helped me numerous times troubleshoot complex REDCap project issues. Thank you, Cate! •I do not always have this great experience, but I think his name was Savas Sevil. He stayed with me for a long time as we both tried to figure out my question. We decided I need to bring in the person who created the REDCap for us. I don't always get Mr. Sevil, but I wish I could. •The weekly office hours are really helpful. •I like using REDCap and hope to see service improvements. •Jing and Cate helped me with my REDCap projects. •Cate helped me during Digital Concierge and she's very knowledgeable.	•Thank you for the positive comments. We are constantly looking to get feedback and improve our services so please reach out if you have suggestions.
Multilingual Features	•Fix language glitch that occurred when you started making everything more "secure" We need to be able to switch languages	•We are currently investigating issues related to the language features and hope to resolve them soon.

Q5: Please provide any additional comments.

Theme	Comment	Response
User Features	•Still not a super-user-friendly application. They could do better. •Since I don't use REDCap frequently, I find it not too intuitive to navigate. Could this be streamlined? A co-worker tried using the "Form" platform. It was a piece of cake.	•We stay current with REDCap upgrades and interface improvements, and if there are new, more user-friendly versions of REDCap we will make sure to upgrade as soon as possible. If there are specific changes you would like to see, please contact us at redcap-support@mssm.edu. Please note that some REDCap features are "hard coded" and we may not be able to modify them.
Service-Related	Please organize payments based on the IRB study number or even better, a grant number, not by REDCap project, as it is often necessary to split one study into multiple REDCap projects (e.g. surveys cannot be connected to consent forms). PEDCap is a good service, but the payment system needs to work. Digital Concierge is a nice option but not enough time to get questions answered. It would be nice to have at least 15-20 minutes per person. The email support is slow and sometimes people don't respond. Please update the project verification survey when copying projects to remove the requirement to provide the email address of the PI or clinical trial director. It is redundant and irrelevant when "Quality Improvement" is selected and the survey is not related to research. In my case, there is no PI's email to provide. I understand the limitation of data storage space, but in my opinion, REDCap should be free for our Academic Research Organization, so we can utilize REDCap for multi-site clinical trial management (day to day site management), in addition to participant data. It makes sense to limit how many inactive and small databases that employees use as playground, but please consider giving a discount to actual working teams so we can utilize REDCap to do great work.	Organizing Payments: we appreciate your suggestion regarding payment organization. We understand that studies may span multiple REDCap projects, and we will evaluate the method of linking payments to IRB study numbers or grant numbers instead. Your input is valuable, and we will work towards a system that better aligns with research workflows. Payments System: thank you for your feedback. We are actively working on improvements to make the process more efficient and user-friendly. Project Verification Survey: we will investigate streamlining this process. Digital Concierge: we are reviewing comments concerning training resources and the Digital Concierge service, as well as creating better online support material (the Mount Sinai REDCap website currently being redeveloped, please check here in the near future for updates: https://labs.icahn.mssm.edu/minervalab/rds/about-redcap/) which might help researchers are not billed for the first three months of their study on REDCap. After 3 months, researchers will be required to pay. For more information about the billing, please visit our website here: https://labs.icahn.mssm.edu/minervalab/rds/about-redcap/ .