

### BACKGROUND

The Hispanic Alliance for Clinical and Translational Research (Alliance) seeks to develop and support an integrated, island-wide program focused on clinical and translational research across Puerto Rico. To support the implementation of strategies to successfully accomplish the Alliance objective, the Tracking and Evaluation Core (TEC) conducted the “User Experience and Satisfaction Survey” to explore experiences with the Alliance resources and support among users. This assessment was targeted to those investigators and their research team supported from September 2020 to May 2021. An anonymous online survey that took approximately 10 minutes to complete was administered via REDCap platform.

A total of 274 individuals were invited by email to participate in this assessment. Data collection was from June 7<sup>th</sup>, 2021 to July 2<sup>nd</sup>, 2021, including weekly email follow-up to increase response rate. Over 1,300 email invitations were sent, and 46 (16.8%) individuals completed the survey. Data collection procedures were affected due to the shutdown of the institutional emails and internet from the UPR-MSC in June 2021. This situation impacted email invitations sent from the REDCap server located at the UPR-MSC and might have detrimentally impacted the response rate. This report summarizes the findings of this assessment by participating institutions of the Alliance.

### PARTICIPANT PROFILE

Most respondents were affiliated with the UPR-MSC (81.4%; Table 1). The largest group surveyed had an academic rank of Professor (23.8%) and Associate Professor (19.0%) and hold a PhD (37.2%) and MD (30.2%).

**Table 1.** Respondents Profile

Characteristic	n (%)
<b>Main Institution Affiliation (n=43)</b>	
UPR Medical Sciences Campus	35 (81.5)
Ponce Health Sciences University	3 (6.9)
Universidad Central del Caribe	2 (4.7)
San Juan Bautista School of Medicine	1 (2.3)
UPR Comprehensive Cancer Center	1 (2.3)
Pediatric Hospital	1 (2.3)
<b>Academic Level (n=42)</b>	
Professor	10 (23.8)
Associate Professor	8 (19.1)
Assistant Professor	3 (7.1)
Adjunct Professor	1 (2.4)
Investigator/Researcher	8 (19.0)
Study/Research Coordinator	8 (19.0)
Resident’s Coach	1 (2.4)
Laboratory Technician	1 (2.4)
Graduate Student	2 (4.8)
<b>Highest Academic Degree (n=43)</b>	
PhD	16 (37.2)
MD	13 (30.2)
DrPH	4 (9.3)
BS	3 (7.0)
MS	3 (7.0)
MPH	2 (4.7)
PsyD	1 (2.3)
MSN	1 (2.3)



## ALLIANCE USERS EXPERIENCE

The 76.1% (n=35) of respondents received support from the Alliance resources during September 2020 and May 2021 (Table 2). Most users (74.3%) were highly satisfied with the process for requesting Alliance services (Table 2). However, they identified the length of the review process, the required documents, and limited integration between the Alliance and the institutional regulatory authorities, as areas for improvement for the process to access Alliance resources and support (Figure 3).

**Table 2.** Alliance Use and Request Service Satisfaction by Respondent Institution

	Alliance Participating Institution n (%)			
	Overall (n=46)	UPR-MSC (n=35)	PHSU (n=3)	UCC (n=2)
<b>Use of Alliance Support or Resources</b>				
Yes	35 (76.1)	26 (74.3)	1 (33.3)	2 (100.0)
No	11 (23.9)	9 (25.7)	2 (66.7)	-
	Overall (n=35)	UPR-MSC (n=26)	PHSU (n=1)	UCC (n=2)
<b>Satisfaction with the Alliance Request Services Process</b>				
Very Satisfied	26 (74.3)	19 (73.1)	1 (100)	-
Satisfied	7 (20.0)	5 (19.2)	-	-
Neutral	-	-	-	-
Unsatisfied	1 (2.9)	1 (3.8)	-	-
Very Unsatisfied	1 (2.9)	1 (3.8)	-	2 (100.0)

The Biostatistics, Epidemiology, and Research Design (BERD) Core was the most used Alliance unit for overall respondents, representing 40.0% of them. For the UPR-MSC users, Biomedical Informatics, Bioinformatics, and Cyberinfrastructure Enhancement (BiBEC) and Clinical Research Resources and Facilities (CRRF) were the two Cores most used representing 42.3% of the respondents from this institution, respectively. The Technologies and Resources for Research Core Laboratories (TRRCL) was used for all PHSU respondents and the Professional Development Core (PDC) for all UCC users (Table 3).

**Table 3.** Alliance Cores Utilization by Respondent Institution

Alliance Core	Alliance User n (%)			
	Overall (n=35)	UPR-MSC (n=26)	PHSU (n=1)	UCC (n=2)
Administrative Core (AC)	9 (25.7)	6 (23.1)	-	1 (50.0)
Biostatistics, Epidemiology, and Research Design Core (BERD)	21 (40.0)	10 (38.5)	-	1 (50.0)
Biomedical Informatics, Bioinformatics, and Cyberinfrastructure Enhancement (BiBEC)	12 (34.3)	11 (42.3)	-	-
Community Engagement and Outreach Core (CoE)	4 (11.4)	3 (11.5)	-	-
Clinical Research Resources and Facilities (CRRF)	12 (34.3)	11 (42.3)	-	-
Professional Development Core (PDC)	10 (28.6)	5 (19.2)	-	2 (100.0)

**Cont. Table 3**

Alliance Core	Alliance User n (%)			
	Overall (n=35)	UPR-MSC (n=26)	PHSU (n=1)	UCC (n=2)
Pilot Projects Program (PPP)	7 (20.0)	5 (19.2)	-	1 (50.0)
Technologies and Resources for Research Core Laboratories (TRRCL)	10 (28.6)	6 (23.1)	1 (100.0)	1 (50.0)

*Note:* The overall data per row might not be equal to the sum from the three institutions because other institutions are excluded in this table.

A 5-point scale with scores ranging from 1 = Very Dissatisfied to 5= Very Satisfied was used to evaluate the satisfaction experience. The satisfaction mean score for each Core was over 4.00, which means that Alliance users were satisfied with the services and support provided (Table 4). For overall Alliance users, the highest mean score was for the Administrative Core (AC) with (M=4.89, SD=0.11). In addition, Alliance users were satisfied with the Core staff and timeliness to respond their research needs, mean scores of 4.00 or more. Similarly, the AC had the highest mean score for the Core staff and timeliness, mean scores over 4.89 (Tables 5-6). However, the Community Engagement and Outreach Core (CoE) received the lowest mean score for the timeliness (M= 3.75, SD=0.95).

**Table 4.** Satisfaction with Alliance Cores by Respondent Institution

Alliance Core	Mean (SD)			
	Overall (n=35)	UPR-MSC (n=26)	PHSU (n=1)	UCC (n=2)
Administrative Core (AC)	4.89 (0.11)	4.83 (0.41)	-	5.00 (0.00)
Biostatistics, Epidemiology, and Research Design Core (BERD)	4.36 (0.39)	4.10 (1.67)	-	5.00 (0.00)
Biomedical Informatics, Bioinformatics, and Cyberinfrastructure Enhancement (BiBEC)	4.33 (0.35)	4.36 (1.29)	-	-
Community Engagement and Outreach Core (CoE)	4.00 (1.00)	5.00 (0.00)	-	-
Clinical Research Resources and Facilities (CRRF)	4.64 (0.28)	4.60 (0.97)	-	-
Professional Development Core (PDC)	4.20 (0.33)	4.00 (0.71)	-	5.00 (0.00)
Pilot Projects Program (PPP)	4.57 (0.30)	4.40 (0.89)	-	5.00 (0.00)
Technologies and Resources for Research Core Laboratories (TRRCL)	4.70 (0.21)	4.67 (0.82)	5 (0.00)	5.00 (0.00)

*Note:* The satisfaction level was evaluated by using a 5-point scale with scores ranging from 1 = Very Dissatisfied to 5= Very Satisfied.

*“When they answer the email for [to provide] support, the proposal was already submitted”.*

-PDC user comment

*“For proposals, I recommend that always a PhD biostatistician is presented as support staff as federal funding agencies are requiring that level of education to be the key personnel”.*

-BERD user comment

**Table 5.** Satisfaction with the Alliance Core Staff by Respondent Institution

Alliance Core	Mean (SD)			
	Overall (n=35)	UPR-MSC (n=26)	PHSU (n=1)	UCC (n=2)
Administrative Core (AC)	5.00 (0.00)	5.00 (0.00)	-	5.00 (0.00)
Biostatistics, Epidemiology, and Research Design Core (BERD)	4.57 (0.29)	4.40 (1.26)	-	5.00 (0.00)
Biomedical Informatics, Bioinformatics, and Cyberinfrastructure Enhancement (BiBEC)	4.75 (0.18)	4.73 (0.65)	-	-
Community Engagement and Outreach Core (CoE)	4.00 (1.00)	5.00 (0.00)	-	-
Clinical Research Resources and Facilities (CRRF)	4.64 (0.28)	4.60 (0.97)	-	-
Professional Development Core (PDC)	4.40 (0.34)	4.40 (0.89)	-	5.00 (0.00)
Pilot Projects Program (PPP)	4.71(0.29)	4.60 (0.89)	-	5.00 (0.00)
Technologies and Resources for Research Core Laboratories (TRRCL)	4.80 (0.21)	4.67 (0.82)	5.00 (0.00)	5.00 (0.00)

*Note:* The satisfaction level was evaluated by using a 5-point scale with scores ranging from 1 = Very Dissatisfied to 5= Very Satisfied.

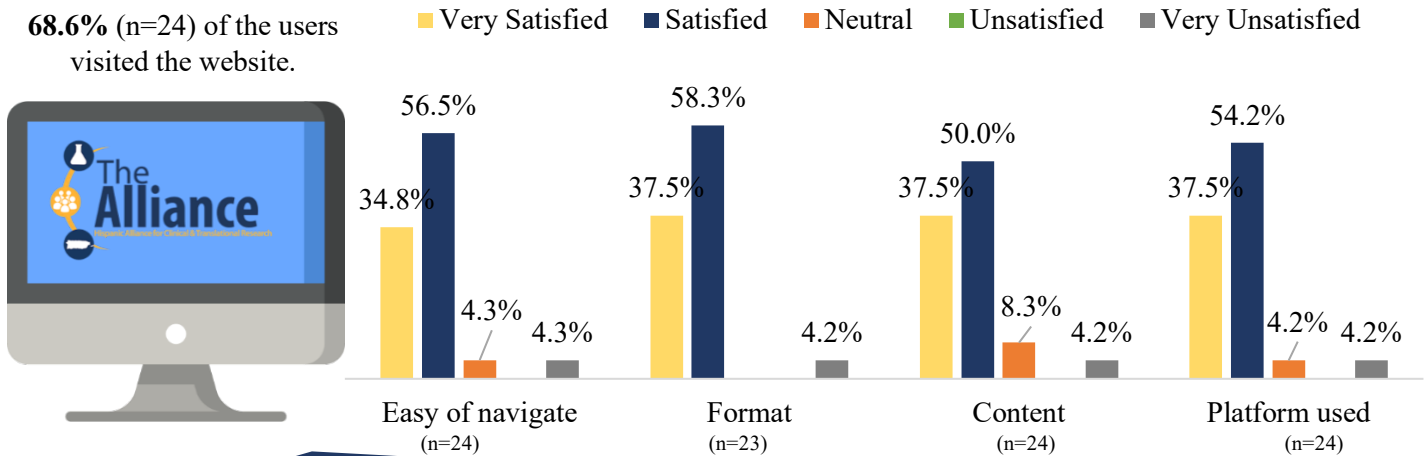
**Table 6.** Satisfaction with the Timeliness by Respondent Institution

Alliance Core	Mean (SD)			
	Overall (n=35)	UPR-MSC (n=26)	PHSU (n=1)	UCC (n=2)
Administrative Core (AC)	4.89 (0.11)	4.83 (0.41)	-	5.00 (0.00)
Biostatistics, Epidemiology, and Research Design Core (BERD)	4.50 (0.20)	4.30 (0.82)	-	5.00 (0.00)
Biomedical Informatics, Bioinformatics, and Cyberinfrastructure Enhancement (BiBEC)	4.67 (0.19)	4.64 (0.67)	-	-
Community Engagement and Outreach Core (CoE)	3.75 (0.95)	4.67 (0.58)	-	-
Clinical Research Resources and Facilities (CRRF)	4.58 (0.26)	4.55 (0.93)	-	-
Professional Development Core (PDC)	4.40 (0.43)	4.60 (0.89)	-	5.00 (0.00)
Pilot Projects Program (PPP)	4.43 (0.37)	4.20 (1.09)	-	5.00 (0.00)
Technologies and Resources for Research Core Laboratories (TRRCL)	4.80 (0.20)	4.67 (0.82)	5 (0.00)	5.00 (0.00)

*Note:* We explored the timeliness of the Core in responding to investigators research needs. The satisfaction level was evaluated by using a 5-point scale with scores ranging from 1 = Very Dissatisfied to 5= Very Satisfied.

The 68.6% of those that reporting use of Alliance resources, visited the website. More than 87.5% of them were satisfied with the format, content, platform used, and navigation experience of the Alliance website (Figure 1).

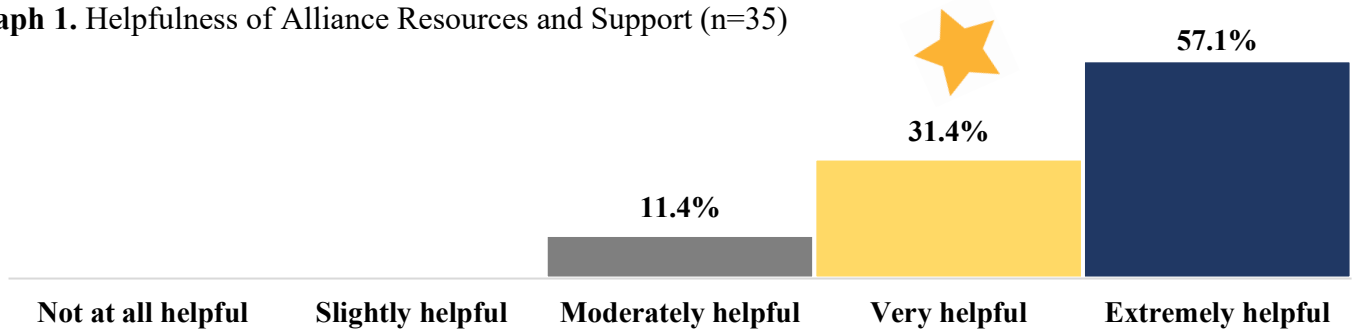
**Figure 1.** Alliance Website Experience and Satisfaction



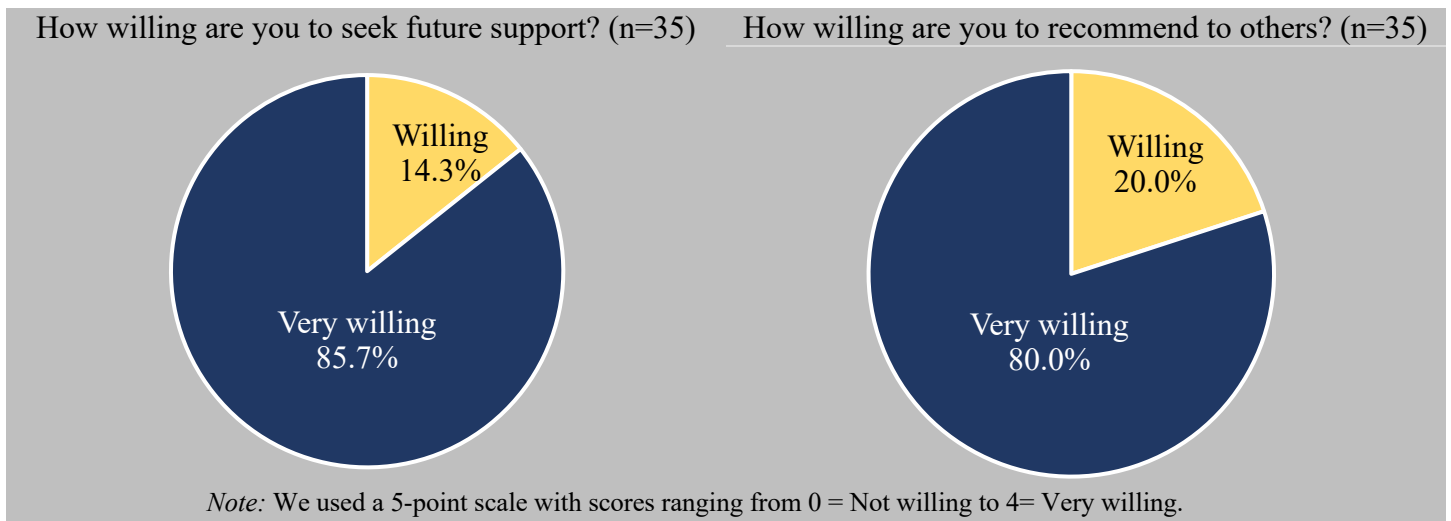
*“I found it quite easy to use. The only recommendation is that they continue to do the work of excellence and carry out continuous updates to the page.” -User Comment*

The 88.6% of users of Alliance resources and support found their experience “extremely helpful” or “very helpful” (Graph 1). In addition, all users were willing to seek future support and to recommend the Alliance resources and services to others (Figure 2). Most users (80.0%) reported that the protocols implemented in the Alliance to prevent and control COVID-19 have been adequate. In addition, all users that visited the Alliance facilities indicated that they feel safe visiting it.

**Graph 1.** Helpfulness of Alliance Resources and Support (n=35)

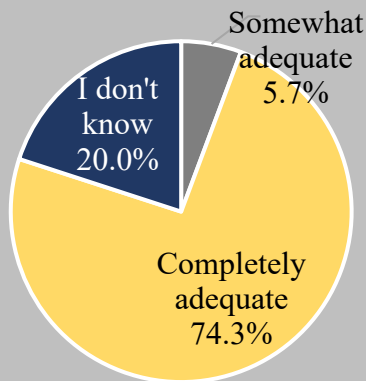


**Figure 2.** Alliance Resources and Support



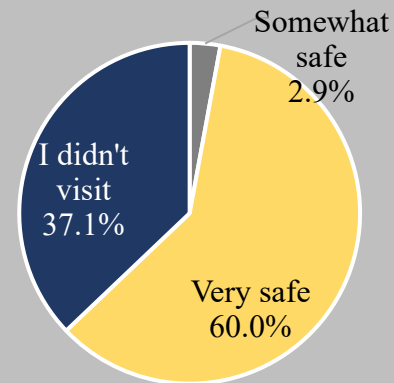
**Cont. Figure 2.**

How adequate the protocols to prevent and control COVID-19 have been? (n=35)



*Note:* The categories of the questions were: Completely inadequate; Somewhat inadequate; Somewhat adequate; Completely adequate; and I don't know.

How safe do you feel visiting the facilities? (n=35)



*Note:* The categories of the question: Not safe at all, Not very safe, Somewhat safe, Very safe, and I did not visit the Alliance facilities during September 2020 and May 2021.

**ALLIANCE USERS FEEDBACK**

Respondents identified the staff capabilities, resources and support available, timeliness, facilities, communication, and commitment of Alliance as strengths. While the process to request services, limited personnel, hours of operation, and physical space were identified as areas for improvements (Figure 3). Figure 4 includes specific recommendations from the respondents.

**Figure 3.** Strengths and Barriers of Alliance Resources and Support

**STRENGTH**

**Staff Capabilities (n=16)**

- Professionalism and desire to help of staff.
- Knowledge and skills of Alliance staff.
- Staff committed to help the coordinators (very helpful), they help me when I need something at the last minute.
- The Alliance, both administrative staff and teachers, are always willing to help. They show interest in people progressing and carrying out quality work.
- The personnel willingness to help, empathy, and clarity when explaining or answering questions
- Very friendly and approachable staff.
- Very receptive staff to evaluate, act upon and give recommendations on how to achieve researchers' goals.
- Attentive Administrative Core.
- Experienced staff.

**Resources and Support Available (n=12)**

- Free services and support are of great help for researchers and coordinators.
- Variety of research resources available for researchers.
- Diversity of support resources.
- Integration of services under one roof.
- Excellent Biostatistics support. The work is one on one, and they really help until you have the info needed for the project or paper (Naydi, Lorena, Dr. Roche, Kelvin, excellent team). Me and my graduate student feel very fortunate to be able to work with them. They greatly helped me in my proposal submission and my student in her thesis project and article.
- Training program, there is a lot of workshop and activities for professional development.
- Excellent follow up during the grant submission process.
- Accommodating special requests
- AIDS with different aspects of research.
- Listening to researcher needs.



Cont. Figure 3

**STRENGTHS**

Timeliness (n=5)	Facilities (n=3)	Communication (n=3)	Commitment (n=2)	Organization (n=2)
<ul style="list-style-type: none"> <li>•Very quick in providing services.</li> <li>•Quick answers to the emails.</li> <li>•The Alliance administration replies to emails and questions very quickly. Antonia has always been extremely helpful when I have questions and Dr. Wojna always replies to any question by email very quickly as well.</li> </ul>	<ul style="list-style-type: none"> <li>•Excellent facilities (localization, space).</li> </ul>	<ul style="list-style-type: none"> <li>•Virtual communication available.</li> <li>•High availability to schedule one-on-one meetings.</li> </ul>	<ul style="list-style-type: none"> <li>•Commitment to Investigators.</li> <li>•Commitment to data integrity.</li> </ul>	<ul style="list-style-type: none"> <li>•Organization - protocol, guidelines, samples, etc.</li> <li>•Organized.</li> </ul>

**BARRIERS**

<p><b>Request Services Process (n=8)</b></p> <ul style="list-style-type: none"> <li>•Sometimes the application procedure is very technical and not self-explanatory, so there is a learning curve. But staff is helpful on how to successfully complete the request for assistance, and this is not a limitation when a second or third request is done.</li> <li>•Staff are evaluating many projects simultaneously.</li> <li>•Lengthy review process.</li> <li>•Bureaucratic processes sometimes...to access resources.</li> <li>•Timing of notification.</li> <li>•Limited integration with institutional regulatory committees, duplication of paperwork and applications.</li> <li>•Some services take too much time to respond.</li> <li>•Lot of documentation required to make use of services.</li> </ul>	<p><b>Limited Personnel (n=4)</b></p> <ul style="list-style-type: none"> <li>•Additional dental staff needed.</li> <li>•Perhaps more personal (for technical support).</li> <li>•Promote more <b>bioinformatic services</b> and contact information of the personnel in charge that division and other services offered.</li> <li>•More personnel to help with <b>REDCap</b>.</li> </ul>	
<p><b>Hours of Operation (n=3)</b></p> <ul style="list-style-type: none"> <li>•Hours of operation.</li> <li>•Limited work hours of site.</li> </ul>	<p><b>Physical Space (n=2)</b></p> <ul style="list-style-type: none"> <li>•Limitations in terms of physical space.</li> <li>•Additional space.</li> </ul>	<p><b>Other Barriers (n=8)</b></p> <ul style="list-style-type: none"> <li>•Scope of projects supported.</li> <li>•Short deadlines for proposal submission.</li> <li>•Access to scientific editor for manuscript preparations.</li> <li>•Lots of requirements and specific characteristics to become a mentor in a project.</li> <li>•Competitiveness between different disciplines.</li> <li>•More funding for laboratory supplies.</li> <li>•Most things they do are not known by many researchers. Although I am not sure.</li> <li>•Access to the facility on a regular basis.</li> </ul>



**Figure 4.** Alliance Users' Feedback

## Suggestions

### Career Development Opportunities (n=3)

- *Explore possibilities of improving resources to start a research career.*
- *Improve on meeting the deadlines for the reviews of the proposals submitted. The workshop to write the NIH type proposal ('Arts of Grantsmanship') was unfortunately delayed, and we were hoping to use this workshop to have feedback on our R-type grant writing, but we had none. A substitute person could have taken over the course or helped so that the participants enrolled could get more direction in their grant writing.*
- *Provide different grant opportunities for nursing researchers.*



### Participants Recruitment Support (n=2)

- *Assistance for recruiting participants during the covid pandemic as it is almost impossible to recruit using the strategies we were using before the pandemics; we moved to Facebook for recruiting but still we are not getting any success.*
- *Additional Alliance research site would be an asset in other institutions part of the Consortium to facilitate enrollment in other areas of the island. They could be smaller satellite Alliance centers.*

### Off-Site Nursing Services (n=2)

- *I had planned on utilizing the off-site nursing services of the Alliance over the last year, but this was no longer possible as nursing staff wasn't available to assist with patient recruitment/ phlebotomy off-site due to the pandemic. This was a significant limitation in my ability to begin recruiting patients.*
- *Extended hours of operation such as some Saturdays or after 4-6pm during some days of the week. Curbside support or coordinated external site visits for phlebotomy for participants that are unable to visit facilities.*

### Request Services Process (n=2)

- *Linkage systems between Alliance and Medical Science Campus infrastructure (support, purchasing dept., etc.) Needs improvement in terms of agility of processes.*
- *Integration, maybe in a single platform, for submitting proposals to IRB, Biosafety, and the Alliance. One submission for all, sharing of files and committee decisions/recommendations.*

### Biostatistics Support (n=2)

- *Recommend hiring more statisticians.*
- *More biostatisticians and epidemiologist support available.*

### Virtual Meetings (n=1)

- *Better coordination of virtual meetings.*

### REDCap Support (n=1)

- *More workshops for using different components of REDCap and add personnel to support researcher in the development of surveys and in the creation of database using REDCap.*

### Collaboration Opportunities (n=1)

- *Alliance would benefit from presentations of investigator project to promote collaborations.*



## Gratitude with Alliance Resources and Support

- *Honestly, I am very happy with the help that Alliance has been providing. During the most difficult periods of the pandemic, they always showed concern with investigators and tried to help in the best possible way.*
- *Excellent resource and vital to move forward research in PR.*
- *Thank you to all the staff that has supported me through the years... Adelma, Nilda, Carola, Barbara, and the overall Nursing staff ... FOREVER GRATEFUL!*
- *Thanks for all the services provided. Excellent team!*
- *Thanks! Your support is important to meet research goals!*
- *I am grateful for all the help The Alliance has provided to investigators. Thank you for helping us.*

