Who uses what? Service users at UIC's Center for Clinical and Translational Science

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RESEARCH QUESTIONS

As part of the multiyear evaluation of the Center for Clinical and Translational Science (CCTS) at the University of Illinois at Chicago (UIC), we are interested in the services provided by CCTS cores and the change in service provision over time. Our questions include the following:

1. What are the characteristics of the user community for each core?
2. How have the user communities and service provision changed over time?
3. To what extent are user communities integrated across cores?

METHODS

Data for this analysis come from a service utilization database developed from paper and electronic data provided by each service core. Users were defined as persons receiving services from one or more CCTS cores between January 2007 and August 2010. Since 2008 was prior to the receipt of funding, these service records may not be complete. Network analysis was conducted in UCINet software, and network maps were developing with ORA network visualization software.

CHARACTERISTICS OF THE CCTS USER COMMUNITY

A breakdown of service utilization by user type and core can be found in Table 1. It summarizes user data from four cores in 2008, six cores and a pilot grant program in 2009, and seven cores, administration, and a pilot grant program in 2010. Overall, cores reported that 972 users accessed CCTS services during the three years studied.

1. Faculty are the largest user group across all the cores, representing about half of the user total in 2008 and 2009 and dropping to about one third in 2010. Staff users are the second largest group comprising about one third of the total across cores in each of the three years. Students, post-docs, and community affiliates make up the remaining portion of the user community.
2. Each core serves a mixture of user types with the exception of the pilot grant program (PILOT) and Regulatory Support and Advocacy (RSAC), which primarily provides services to faculty.
3. Students and post-docs primarily utilize services from Novel Translational and Collaborative Studies (NOVEL) and Translational Technologies and Resources Core (TTRC). In 2010, 80% of students served by CCTS overall and 76% of post-docs were served by one of these two cores.
4. The only core that reported serving community affiliates is Community Engagement and Research Core (CERC), which reported serving two members of the community in 2009 and 26 in 2010.

Table 1. User Data, 2008–2009, by Type of User and Core

Number of Users by Type of User by Core (2008)										
Type of User	ADMIN	BI	CERC	DAC	NOVEL	PILOT	REACH	RSAC	TTRC	Total
Community Affiliate	---	---	---	---	---	---	---	---	---	---
Faculty	---	---	---	24	---	---	9	8	23	64
Postdoc	---	---	---	2	---	---	0	0	11	13
Staff	---	---	---	23	---	---	14	3	21	61
Student	---	---	---	4	---	---	1	1	17	23
Other/Unclassified	---	---	---	1	---	---	2	0	2	5
Grand Total	---	---	---	54	---	---	26	12	74	166
Number of Users by Type of User by Core (2009)										
Type of User	ADMIN	BI	CERC	DAC	NOVEL	PILOT	REACH	RSAC	TTRC	Total
Community Affiliate	---	0	2	0	---	0	0	0	0	2
Faculty	---	4	0	36	---	19	23	27	38	147
Postdoc	---	0	0	1	---	0	2	0	8	11
Staff	---	0	1	38	---	0	31	11	13	94
Student	---	0	1	13	---	0	2	1	12	29
Other/Unclassified	---	0	0	1	---	0	10	1	3	15
Grand Total	---	4	4	89	---	19	68	40	74	298
Number of Users by Type of User by Core (2010)										
Type of User	ADMIN	BI	CERC	DAC	NOVEL	PILOT	REACH	RSAC	TTRC	Total
Community Affiliate	0	0	26	0	0	0	0	0	0	26
Faculty	15	6	4	14	19	18	39	13	35	163
Postdoc	1	3	1	1	6	0	2	0	16	30
Staff	39	7	5	17	15	0	26	3	23	135
Student	3	1	3	2	35	0	8	1	29	82
Other/Unclassified	2	5	1	4	1	2	58	0	1	74
Total by Core	60	22	40	38	76	20	133	17	104	510

Table 2 shows the different types of services utilized from each core from 2008-2010.

1. There is some overlap in service types provided by CCTS cores. The most overlap is seen in consultative services that are provided by Bioinformatics (BI), CERC, Design and Analysis Core (DAC), and RSAC in 2010. Also, users attended seminars given by NOVEL, REACH, and TTRC and administrative services from administration (ADMIN) and RSAC. Funding services were provided by both TTRC and through the pilot grant program.
2. Table 2 also illustrates the evolution of services by CCTS overall as every core except for DAC added services to their portfolio over time.

Table 2. Types of Services Utilized, by Core and Year

	Service Type		
Core	2008	2009	2010
ADMIN	---	---	Administrative Support
BI	---	Consultation	Consultation
	---	Data Management	Data Management
	---	---	Seminars
	---	---	Data Analysis
CERC	---	Consultation	Consultation
	---	---	Presentation
DAC	Research Support	Research Support	Research Support
	Study Design	Study Design	Study Design
	Consultation	Consultation	Consultation
	Data Analysis	Data Analysis	Data Analysis
	Data Management	Data Management	---
	Workshops	---	---
	Protocol assessment	---	---
NOVEL	---	---	Seminars
PILOT	---	Funding	Funding
REACH	Seminars	Seminars	Seminars
	Mentoring	Mentoring	Mentoring
	Courses	Courses	Courses
	Educational Programs	Educational Programs	Educational Programs
		Workshops	Workshops
RSAC	Consultation	Consultation	Consultation
	Administrative Support	Administrative Support	Administrative Support
	Record Review	Record Review	Record Review
	---	Protocol Assessment	Protocol assessment
TTRC	Seminars	Seminars	Seminars
	Funding	Funding	Funding

Figures 1–3 are network graphs depicting service utilization by CCTS cores over time. Each line on the graph represents service provided to a user. The color of the lines depicts the type of user (see legend). The map was developed using a spring embedded layout algorithm, meaning that the core node is positioned nearest the core with which it has the most users in common.

1. The primary finding from analysis of user networks is that there is little overlap in user communities between cores. The number of those using services from multiple cores is about 5% across all three years (8 of 166 in 2008, 19 of 298 users in 2009, 24 of 508 users in 2010).
2. As shown by its position roughly in the middle of each graph, REACH is the core with the most overlap in service users with other cores (18 users in common in 2010). Excluding REACH users, only five CCTS users utilized the services of more than one core in 2010.
3. The maps also reinforce previous findings regarding the evolution of CCTS by illustrating the emergence of additional core services each year: BI and PILOT began tracking users in 2009 and Administration and CERC in 2010.
4. The maps also illustrate the diversity in the user community at the UIC CCTS, showing that each core serves more than one type of user.

Figure 1.

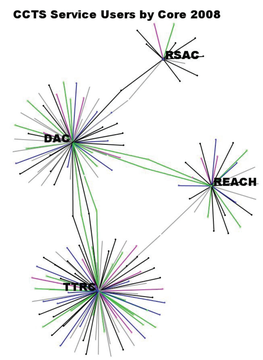


Figure 2.

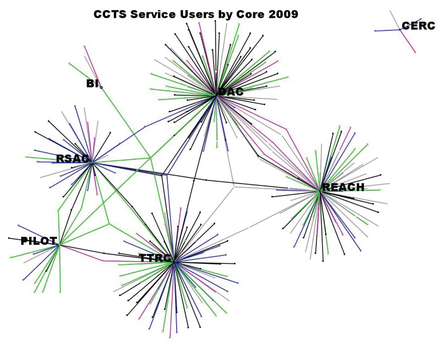
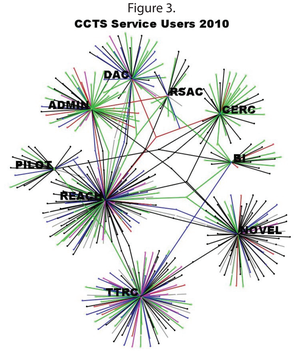


Figure 3.



Key to Figures

Black	Faculty
Green	Staff
Blue	Students
Purple	Post-docs
Gray	Other/Unclassified

KEY FINDINGS FOR FUTURE EVALUATION

By tracking the type of UIC CCTS users over time, we are able to assess CCTS growth and outreach and identify opportunities for future outreach and activities. Below we list some potential opportunities for CCTS cores as they seek to expand their services or reach a more diverse set of users:

1. Post-docs make up a relatively small proportion of users of CCTS core services and are primarily served by two cores (NOVEL and RSAC). This may point to an opportunity for the CCTS to target this group through services or outreach to ensure that more researchers on campus are engaged in clinical and translational activities.
2. CERC is the only core serving community affiliates. Other cores might consider partnering with community affiliates or providing services to community affiliates, as appropriate.
3. There is some indication that faculty users, though making up the majority of users in many cores, may not remain the primary users over time. It is possible that this trend is explained by (1) CCTS cores reaching out to nonfaculty users including staff, students, and post-docs; (2) faculty using core services and then directing students and junior researchers to the CCTS; and (3) increased awareness on campus about CCTS opportunities for multiple types of users.
4. Students have been relatively consistent users of TTRC services and began using NOVEL this past year but are less likely to be receiving other types of core services. This presents an opportunity for the other cores to develop services, courses, or lectures targeting them.
5. Consultation, seminars, administrative services, and funding are activities that cut across multiple cores. To the extent that there is commonality among these offerings across cores, there is an opportunity to eliminate redundancy in offerings, leverage resources, and/or share key learnings about conducting these activities in a clinical and translational setting.
6. Most users only access one CCTS service per year. This may be a point of opportunity for CCTS, particularly for cores other than REACH, because these users are already familiar with CCTS services and have shown some interest in clinical and translational research.

LIMITATION

Because of the lag between the initiation of service provision and the development of systems to capture service provision data for each core, there may be underreporting of service utilization. In addition to the conclusions stated above, this research could be used to further assess whether service provision matches initial expectations by comparing this data to the logic models.

Acknowledgments

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