



# Use of an Interactive Data Dashboard to Monitor Studies for Large Multi-Center Trials

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# Inner-City Asthma Consortium (ICAC)

- NIH-funded, multi-center clinical research consortium
- Rho serves as the Statistical and Clinical Coordinating Center
- 9 studies
- 10 sites across the U.S.
- ~4000 participants enrolled in past and current studies
- >10,000,000 data points collected

# Our Challenge

- Massive volume of data
- Scattered across sources
- Time consuming

# Traditional Monitoring Method

Study Overview									
	BO	CH	DA	DE	DT	NY	WA	CI	Total
<b>Recruitment</b>									
Recruited (Call Complete)	161	135	129	147	207	187	127	187	1280
Eligible (Agreed to Screening)	100	111	99	110	165	113	114	125	937
% eligible of recruited	62%	82%	77%	75%	80%	60%	90%	67%	73%
<b>Screening</b>									
Screened	58	74	66	94	116	94	101	86	689
% eligible of total recruited	23%	36%	37%	37%	27%	29%	52%	27%	32%
% eligible of total screened	64%	65%	73%	59%	47%	59%	65%	59%	60%
Completed in the last week	0	0	0	0	0	0	0	0	0
Scheduled Screenings (within next week)	0	0	0	0	0	0	0	0	0
Weekly Screening Rate	0.4	0.6	0.5	0.7	0.9	0.7	0.7	0.7	0.9
Last 4 Weeks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Assumption of Care</b>									
Completed	36	44	46	51	49	48	63	45	382
% eligible of total recruited	22%	33%	36%	35%	24%	26%	50%	24%	30%
% eligible of total screened	62%	59%	70%	54%	42%	51%	62%	52%	55%
Scheduled AOC (within next week)	0	0	0	0	0	0	0	0	0
Weekly Completion Rate	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.4	3.2
Last 4 Weeks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
<b>Visit 4 (Randomization)</b>									
Completed	30	27	31	38	35	28	50	32	271
% eligible of total recruited	19%	20%	24%	26%	17%	15%	39%	17%	21%
% eligible of total screened	52%	36%	47%	40%	30%	30%	50%	37%	39%
% eligible of total aoc	83%	60%	67%	73%	67%	57%	79%	70%	70%
Scheduled Visit 4 (within next week)	0	0	0	0	0	0	0	0	0
Weekly Completion Rate	0.3	0.3	0.3	0.4	0.4	0.3	0.5	0.3	2.8
Last 4 Weeks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
<b>Enrollment</b>									
Enrolled	30	27	31	38	35	28	50	32	271
Q2	13	8	9	12	12	11	20	9	94
Q4	17	19	22	26	23	17	30	23	177
Dosing Steps									
Steps 2-4	18	16	21	28	17	16	33	22	171
Step 5	12	11	10	10	18	12	17	10	100
<b>Study Progress</b>									
Active	0	0	0	0	0	0	0	0	0
Treatment	0	0	0	0	0	0	0	0	0
Follow-up	0	0	0	0	0	0	0	0	0
Completed Study	22	23	27	36	27	25	43	25	228
Deactivated	8	4	4	2	8	3	7	7	43

# There has to be a better way...

## Inner City Asthma Consortium

Data as of 23 May 2012

HOME

APIC

BioCSI2

Epigenetics

Microbiota

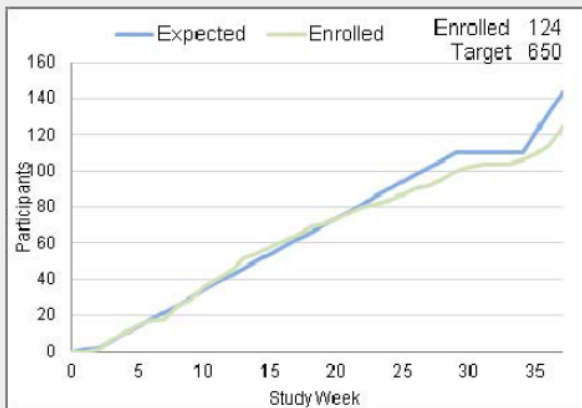
PROSE

RACR

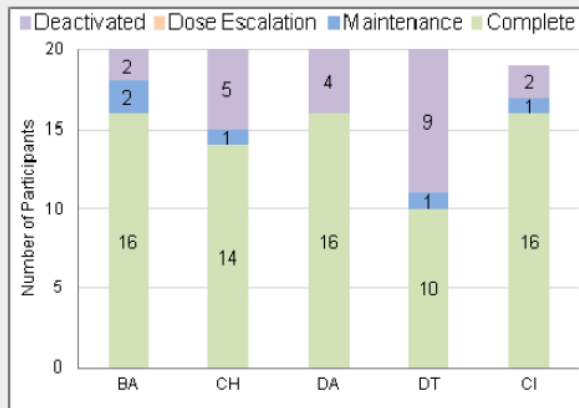
SCITCO

URECA

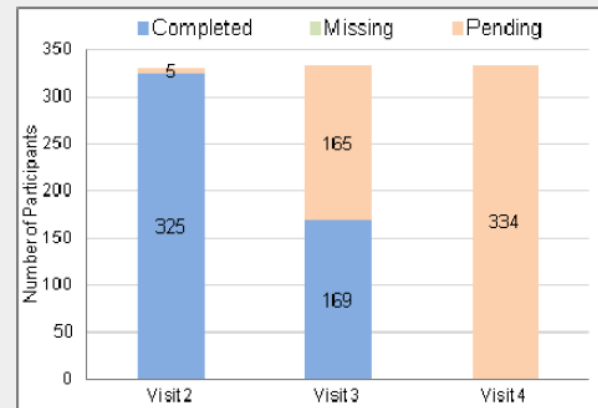
### APIC Enrollment



### BioCSI2 Study Progress



### PROSE Study Progress



### Announcements

#### Study Updates

CH, CI, DA, DE, DT, NY have IRB approval-PROSE protocol 16-May-12  
3.0

#### Meetings

SC Meeting - Washington (Location TBD) Sep 19-20, 2012  
AAAAI - San Antonio (Location TBD) Feb 22-26, 2013

### Study Enrollment by Site

	Closeout		Follow-up		Enrollment		
	Epi	SCITCO	URECA	BioCSI2	RACR	APIC	PROSE
BA		11	165	20	158	3	
BO	55		146		127	31	43
CH				20	255		38
CI				19		1	39
DA	10			20	188		44
DE	42				185	25	46
DT	10			20	261	6	41
NY	37		120		264	30	45
SL			178				
WA	46				194	28	49
Total	200	11	609	99	1632	124	345
Target	200	10	550	99		650	533

### Manuscripts and Conferences

#### Manuscript Activity

24 Published | 3 Submitted | 12 In Progress | 3 On Hold

#### Priority Manuscripts

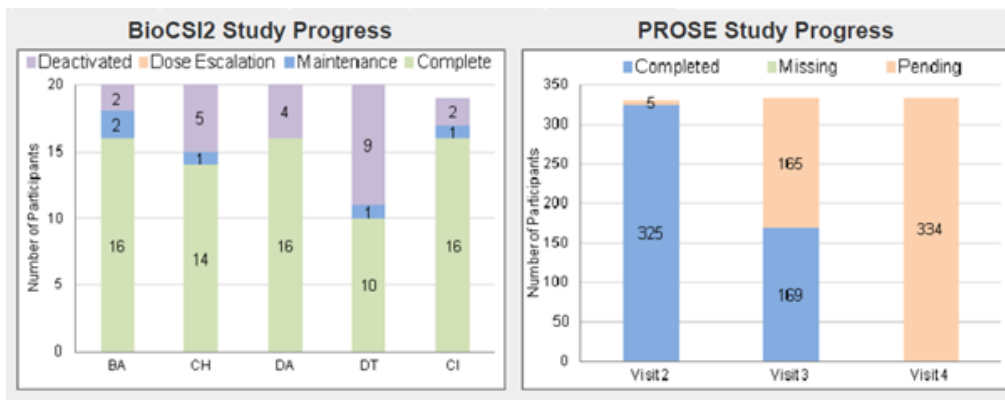
Study	Short Title	Status
Multiple	MS38 Cockroach SLIT - R. Wood	Analysis complete
URECA	MS43 3yr Outcomes - R. Wood	Analysis in progress
Epi	Epigenetics - D. Schwartz	MP to be submitted
Micro	Allergy, Asthma, & House Dust - H. Boushey	MP to be submitted
ICATA	MS47 ICATA Mechanistic - R. Gruchalla	MP submitted to PPC

#### Upcoming Conferences

ATS	San Francisco - May 18-23, 2012	Posters/Presentations: 2
SCT	Miami - May 20-23, 2012	Posters/Presentations: 1

# This is great, but...

- Static
- Lack of drill-down
- Cumbersome update process
- Cluttered



# The Solution

**Create an interactive data dashboard**

# Behind the Scenes

## Select Data

Select a dataset from the dropdown menu or upload a new dataset.

Study A Events

Add New Dataset

## Set Options

### Filter Out

Refine data before it is used in the chart

None

Main Category Required

Category to determine bars

site

### Subcategory

Subcategory to make stacked bars

None

### Subsetter

Dropdown menu to subset data in chart

None

label

### width

Absolute width of the chart in pixels

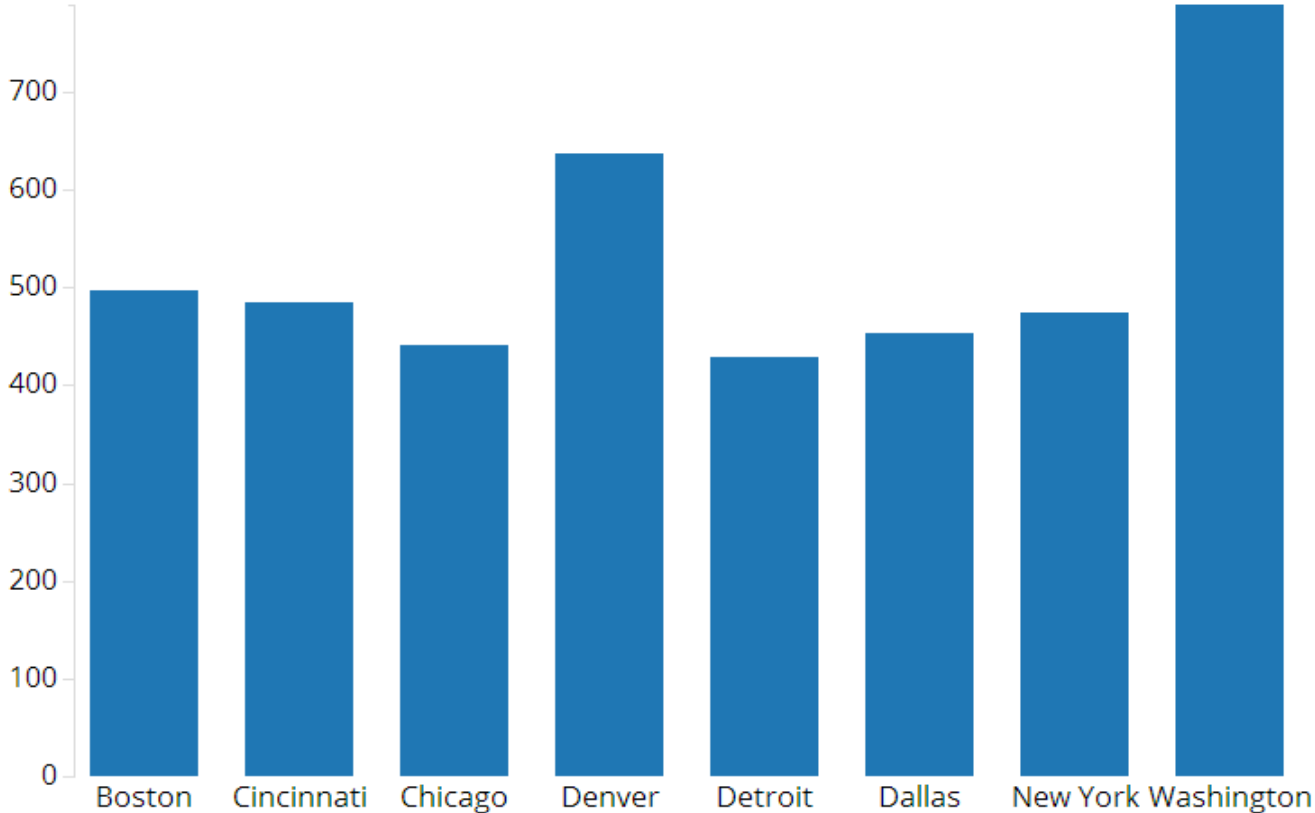
### height

Absolute height of the chart in pixels

### max width

Maximum width of the chart in pixels

800



Send to Dashboard

# The Value

- One, easy to access location
- Easy to digest
- Simple customization

# Future Enhancements

- Role based dashboard
- Cross study graphics

# Technical Details

- Programmed in HTML and JavaScript
- Interactivity comes from a JavaScript library called “D3” or Data Driven Documents

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Questions

Comments

Discussion

Contact us with questions:

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