



Online Study Monitoring for Large Multi-Center Trials via a Data Dashboard

Ryan Bailey
Rho, Inc.

The Challenge of Managing Large NIH Networks

- Number of multicenter networks is growing
- Managing these networks is increasingly difficult
- Senior management is struggling to stay informed

We need to provide a “snapshot” view of the current status of the entire network

Inner City Asthma Consortium (ICAC)

- NIH-funded, multi-center research program
- By the numbers
 - 8 active studies
 - 10 clinical centers
 - 3500 participants
- Rho serves as the Coordinating Center

As a Coordinating Center...

we monitor, analyze, store, and provide

massive amounts of information

concerning every aspect of every study

The Dilemma

Our tools are...

robust
detailed critical
comprehensive
state-of-the-art thorough
powerful
vital

The Dilemma

But...

Study Leadership does not use them

Why?

Excessive information

Complex hierarchical design

+ Tedious navigation

We ask too much of our end users

The Solution: A Better Tool

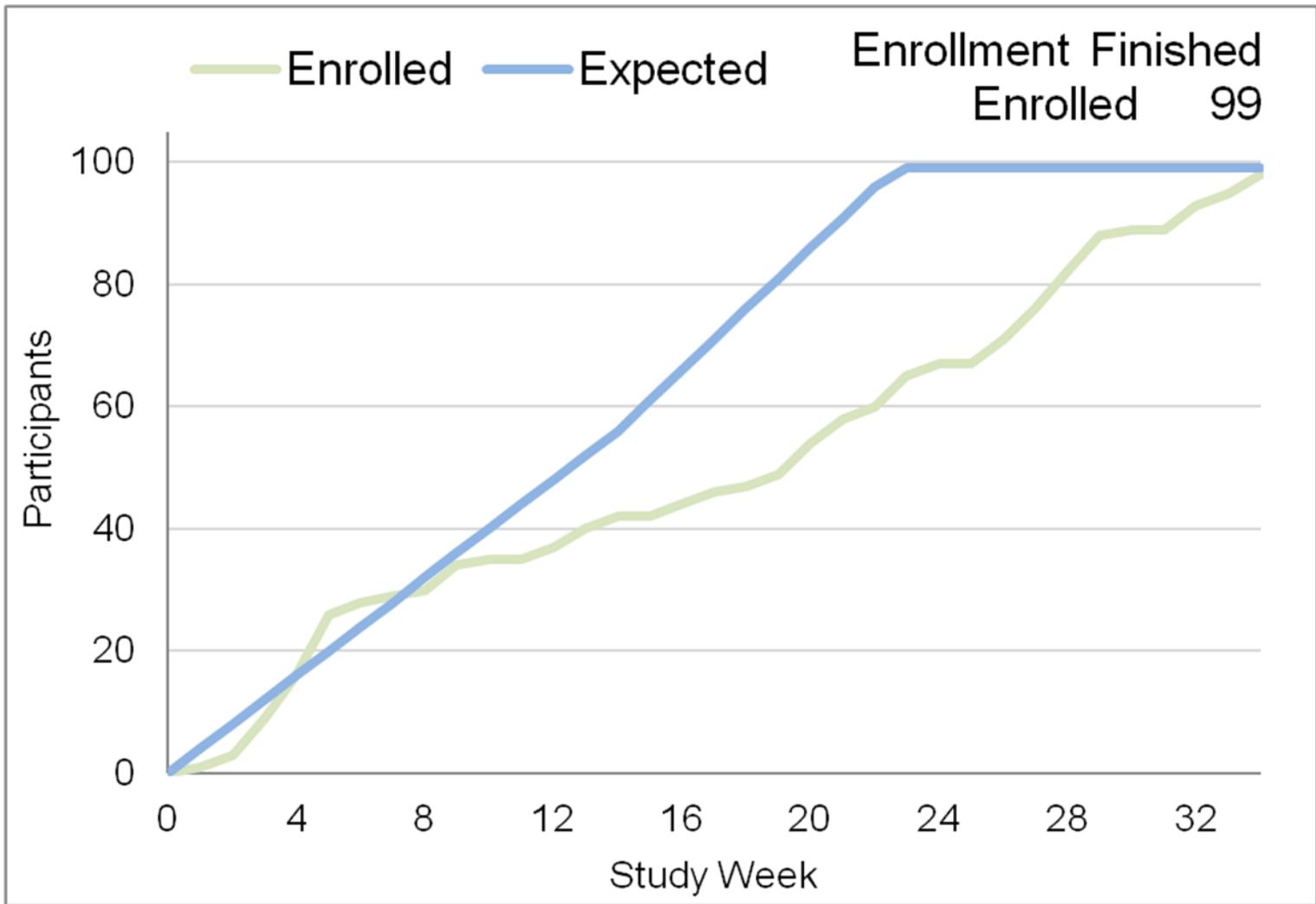
Dashboard

The Solution: A Better Tool



What Does That Mean for Us?

- Summarize critical study information
- Display information on a single page
- Emphasize graphics over text



HOME

Study A

Study B

Study C

Study D

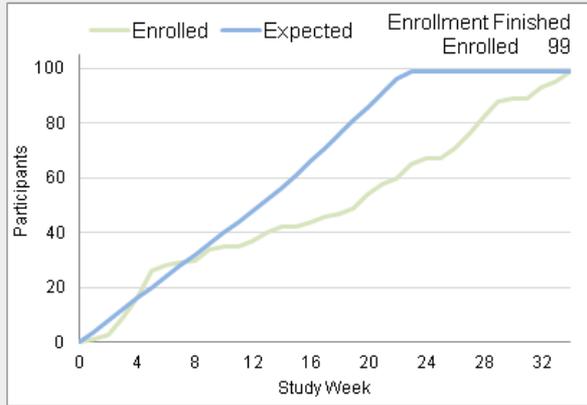
Study E

Study F

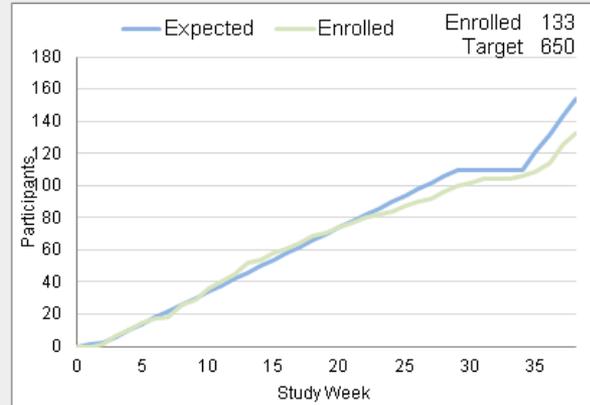
Study G

Study H

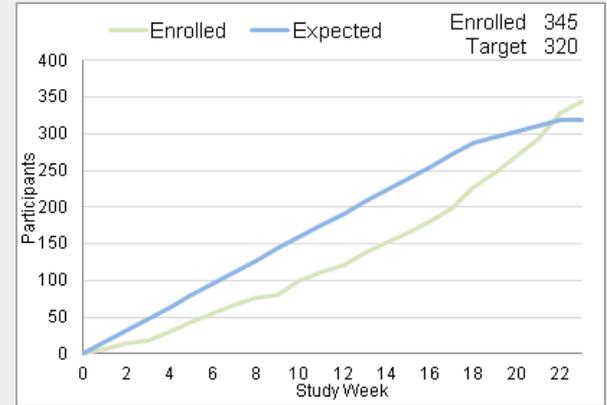
Study B Enrollment



Study A Enrollment



Study E Enrollment



	Closeout		Follow-up		Enrollment		
	StudyC	StudyG	StudyH	StudyB	StudyF	StudyA	StudyE
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Site2	55		146		127	31	43
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Site6	42				185	25	46
Site7	10			20	261	6	41
Site8	37		120		264	30	45
Site9			178				
Site10	46				194	28	49
Total	200	11	609	99	1633	133	345
Target	200	10	550	99		650	533

HOME

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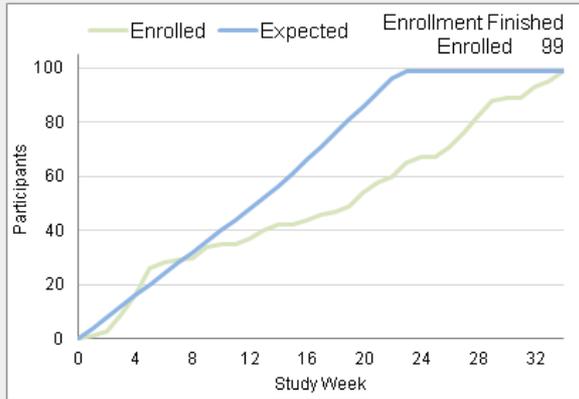
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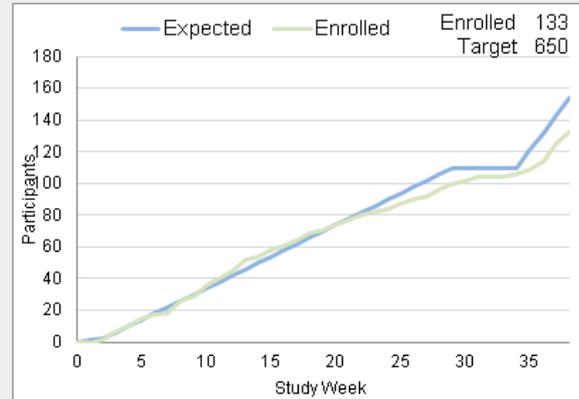
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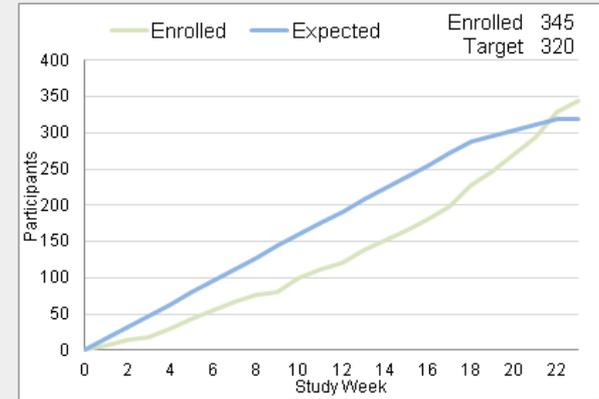
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Meetings

SC Meeting - Washington (Location TBD)	Aug 13-14, 2012
DSMB Meeting	Oct 25-26, 2012

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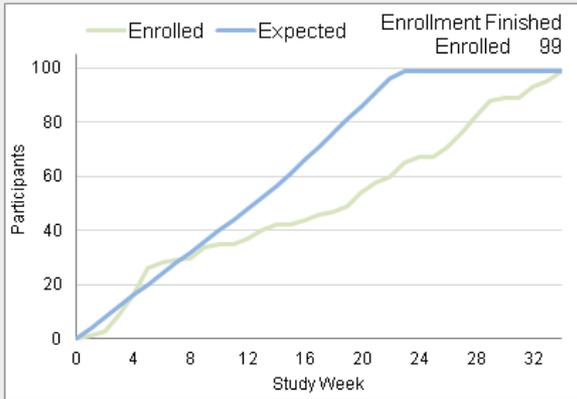
[Study E](#)

[Study F](#)

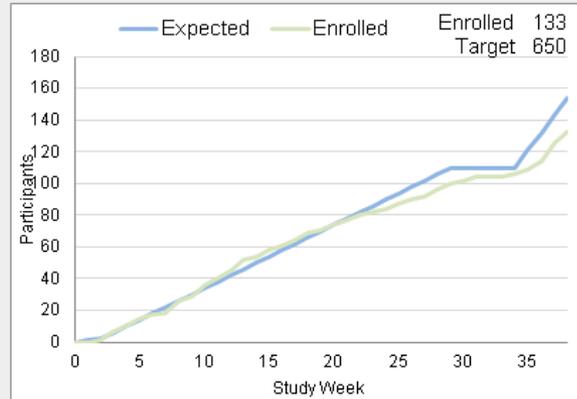
[Study G](#)

[Study H](#)

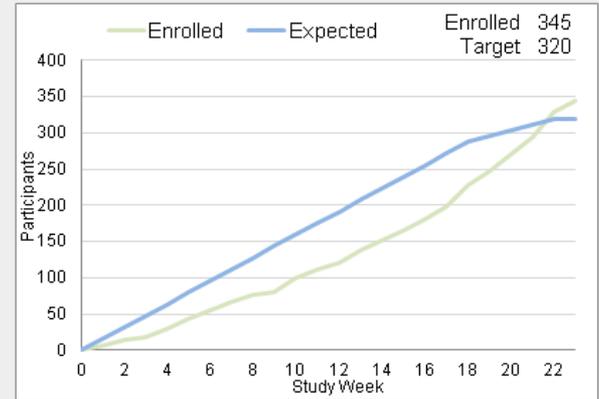
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Manuscript Activity

24 Published

3 Submitted

12 In Progress

3 On Hold

Priority Manuscripts

Study	Short Title	Status
Multiple	MS34 Allergen SLIT - J. Doe	Analysis complete
Study H	MS50 3yr Outcomes - J. Doe	Analysis in progress
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Study G	MS48 Allergy Mechanistic - W. Churchill	MP submitted to PPC

Upcoming Conferences

SCT

Miami - May 20-23, 2012

Posters/Presentations: 1

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Study B

Study C

Study D

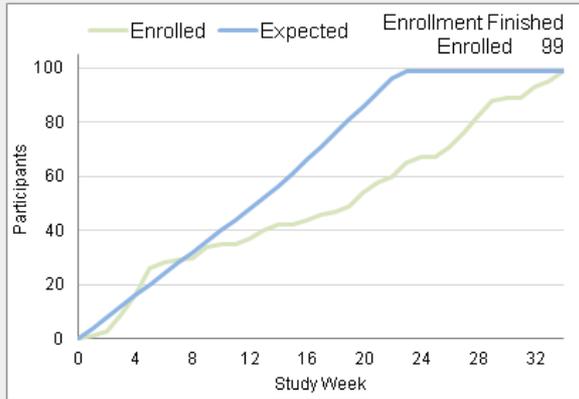
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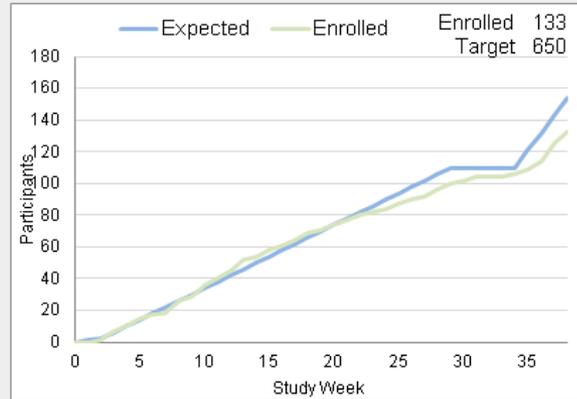
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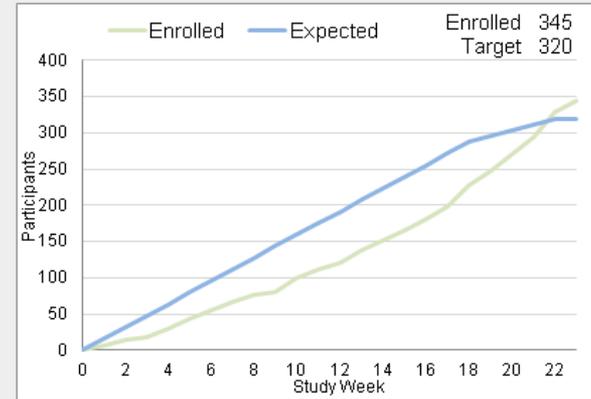
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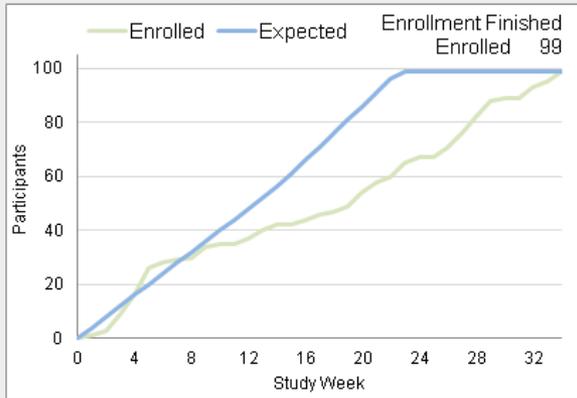
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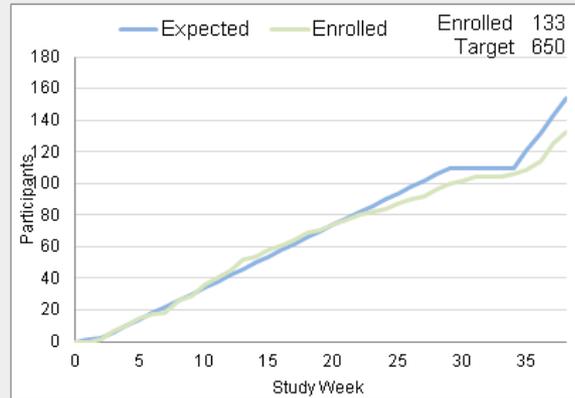
SCT	Miami - May 20-23, 2012	Posters/Presentations: 1
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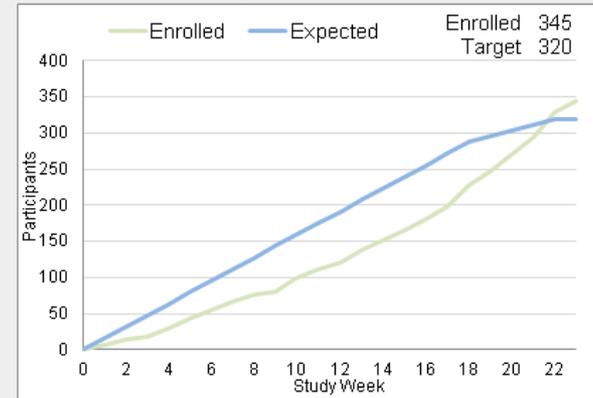
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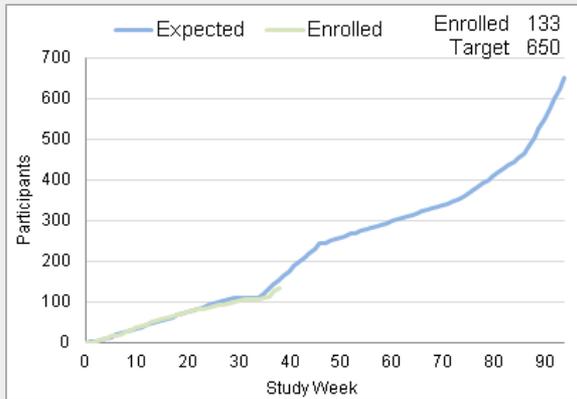
Study E

Study F

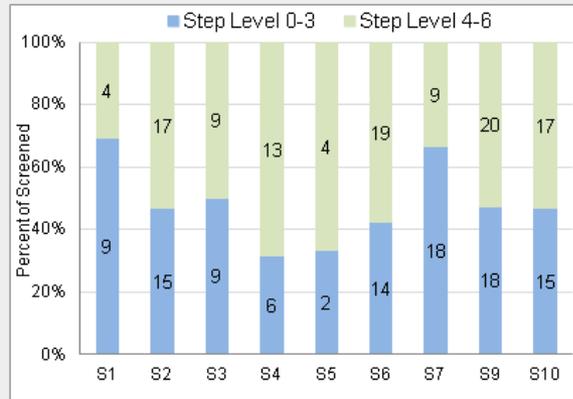
Study G

Study H

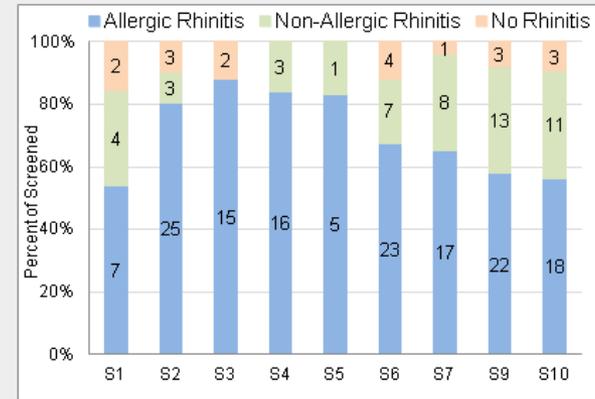
Enrollment



Treatment Levels at Screening



Rhinitis Status

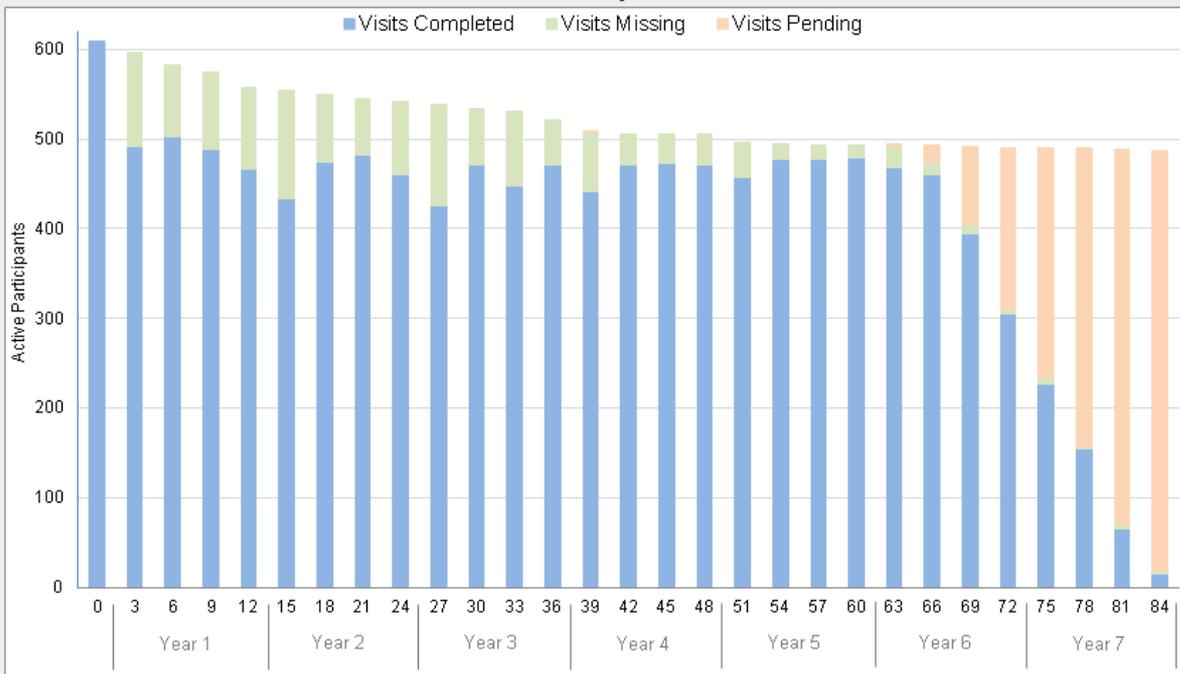


Full Status Report

	Site1	Site2	Site3	Site4	Site5	Site6	Site7	Site9	Site10	Total
Recruited (Call Complete)	30	37	28	21	41	43	45	74	49	368
Eligible (Agreed to Screening)	28	33	26	14	36	36	42	43	41	299
% Eligible of Recruited	93%	89%	93%	67%	88%	84%	93%	58%	84%	81%
Screening Visits Complete	14	33	18	6	34	28	39	36	21	229
Eligible at Screening	10	32	15	6	33	27	38	32	19	212
% Eligible at Screening	71%	97%	83%	100%	97%	96%	97%	89%	90%	93%
Enrollment Visits Complete	5	32	6	0	29	7	37	31	3	150
Failed Eligibility at Enrollment	0	1	0	0	4	1	7	3	0	16
Enrolled	5	31	6	0	25	6	30	28	2	133
Expected to Date	10	30	9	6	26	6	30	26	6	154

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Visit Completion



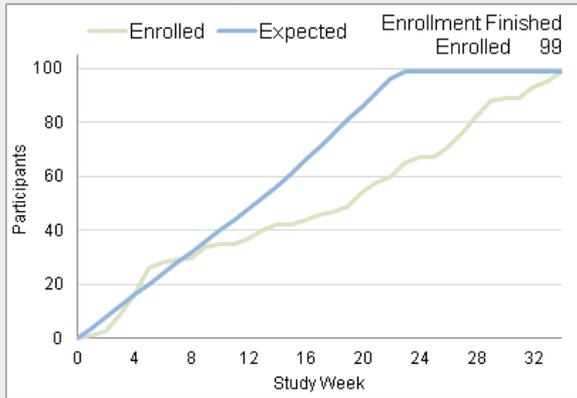
Full Status Report	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Percent Retention	91%	89%	86%	83%	81%	80%	80%
Percent Visits Completed	84%	84%	86%	92%	95%	83%	24%

Recent Missed Events

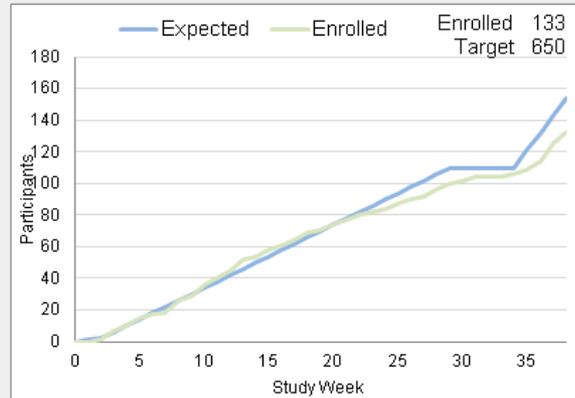
	Site1	Site2	Site8	Site9	Total
63-Month Calls Occurred	141	108	93	126	468
Missed	3	4	1	15	23
Missed % of Active	2.1%	3.6%	1.1%	10.6%	4.7%
66-Month Calls Occurred	140	101	93	126	460
Missed	3	8	1	2	14
Missed % of Active	2.1%	7.3%	1.1%	1.6%	3.0%
69-Month Calls Occurred	128	83	74	109	394
Missed	4	4	1	3	12
Missed % of Active	3.0%	4.6%	1.3%	2.7%	3.0%
72-Month Visits Occurred	97	64	63	81	305
Missed	1	1	0	1	3
Missed % of Active	1.0%	1.5%	0.0%	1.2%	1.0%
75-Month Calls Occurred	86	36	41	64	227
Missed	3	2	0	2	7
Missed % of Active	3.4%	5.3%	0.0%	3.0%	3.0%
78-Month Calls Occurred	59	25	25	45	154
Missed	2	0	0	1	3
Missed % of Active	3.3%	0.0%	0.0%	2.2%	1.9%
81-Month Visits Occurred	18	12	16	19	65
Missed	4	0	0	1	5
Missed % of Active	18.2%	0.0%	0.0%	5.0%	7.1%
84-Month Visits Occurred	4	1	8	3	16
Missed	2	0	0	0	2
Missed % of Active	33.3%	0.0%	0.0%	0.0%	11.1%
Overall Missed % Ages 5-7	2.9%	4.1%	0.6%	4.5%	3.1%

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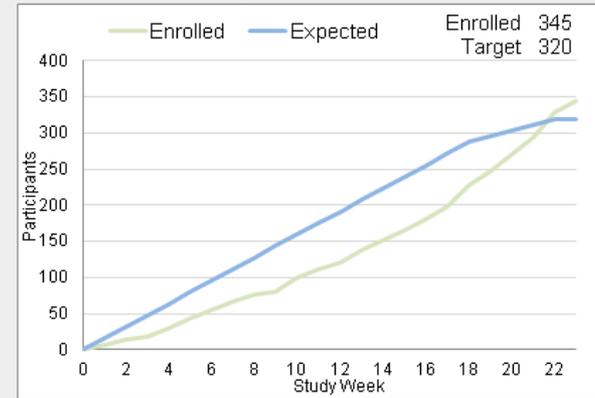
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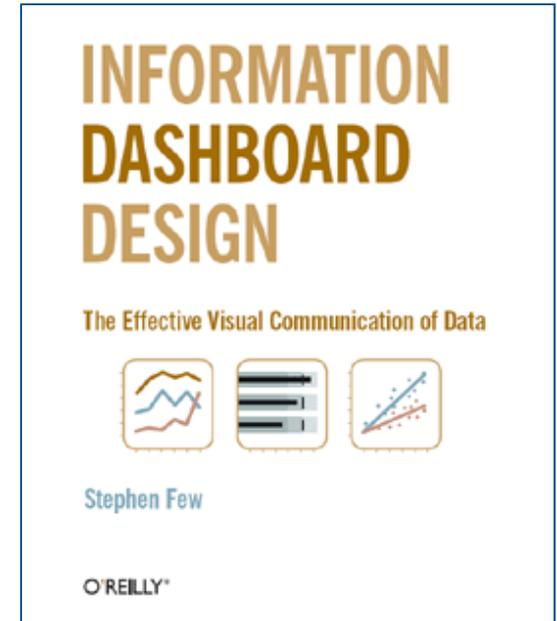
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How to Create Your Own

- Do Your Research
 - Dashboards
 - Information visualization
 - Web design
 - Color theory
- Determine whether to build or buy
- Follow good web-design principles
 - Design with end user in mind
 - Finish designing before programming



Acknowledgments

- Laurie McLeod
- Jeremy Wildfire
- Katy Jaffee
- William Taylor
- Tee Bahnson
- Rich Budrevich
- Cynthia Visness, PhD
- Herman Mitchell, PhD
- Samuel Arbes, PhD

Questions

Comments

Discussion