

Patient Cloud and the Future of Clinical Trials

PhUSE Conference

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Product Management, Director

October 2013

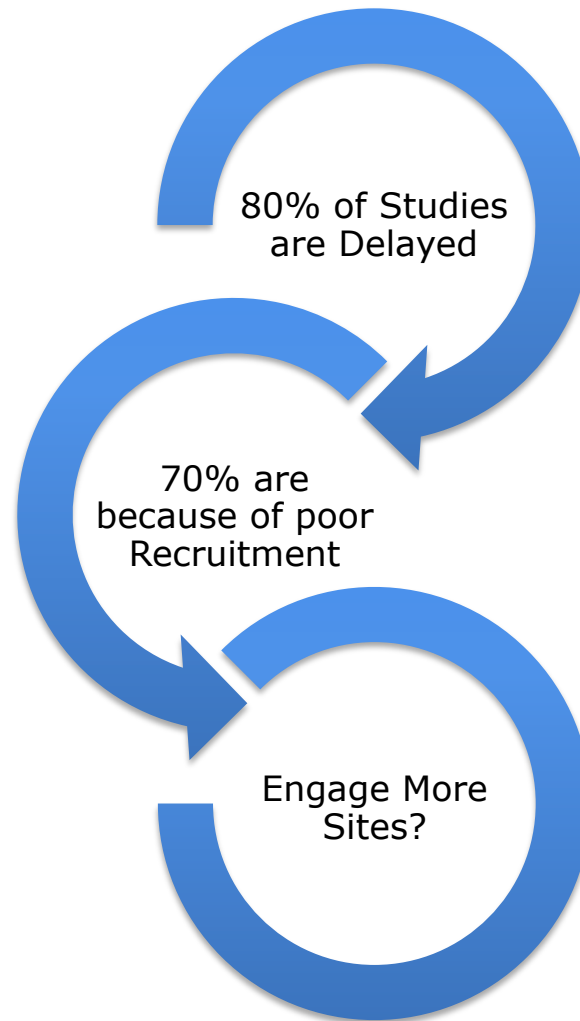
Agenda

- Introduction
- Recruitment and Sites
- Patient Cloud
- Device Trial
- Patient Engagement
- Clinical Trials of the Future

Problems

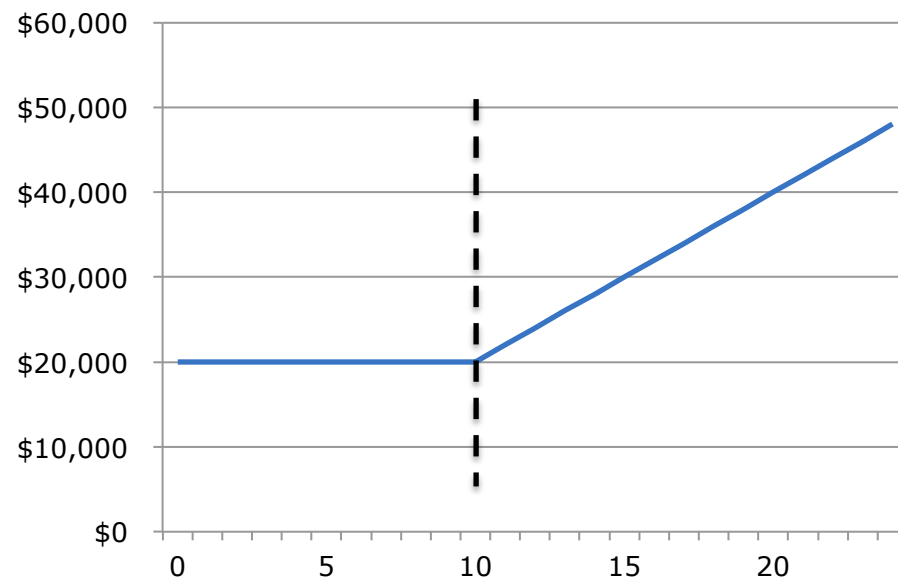


Poor Recruiting



Can't Simply Add Sites

Site Monitoring & Maintenance Costs
as a function of Patients Recruited

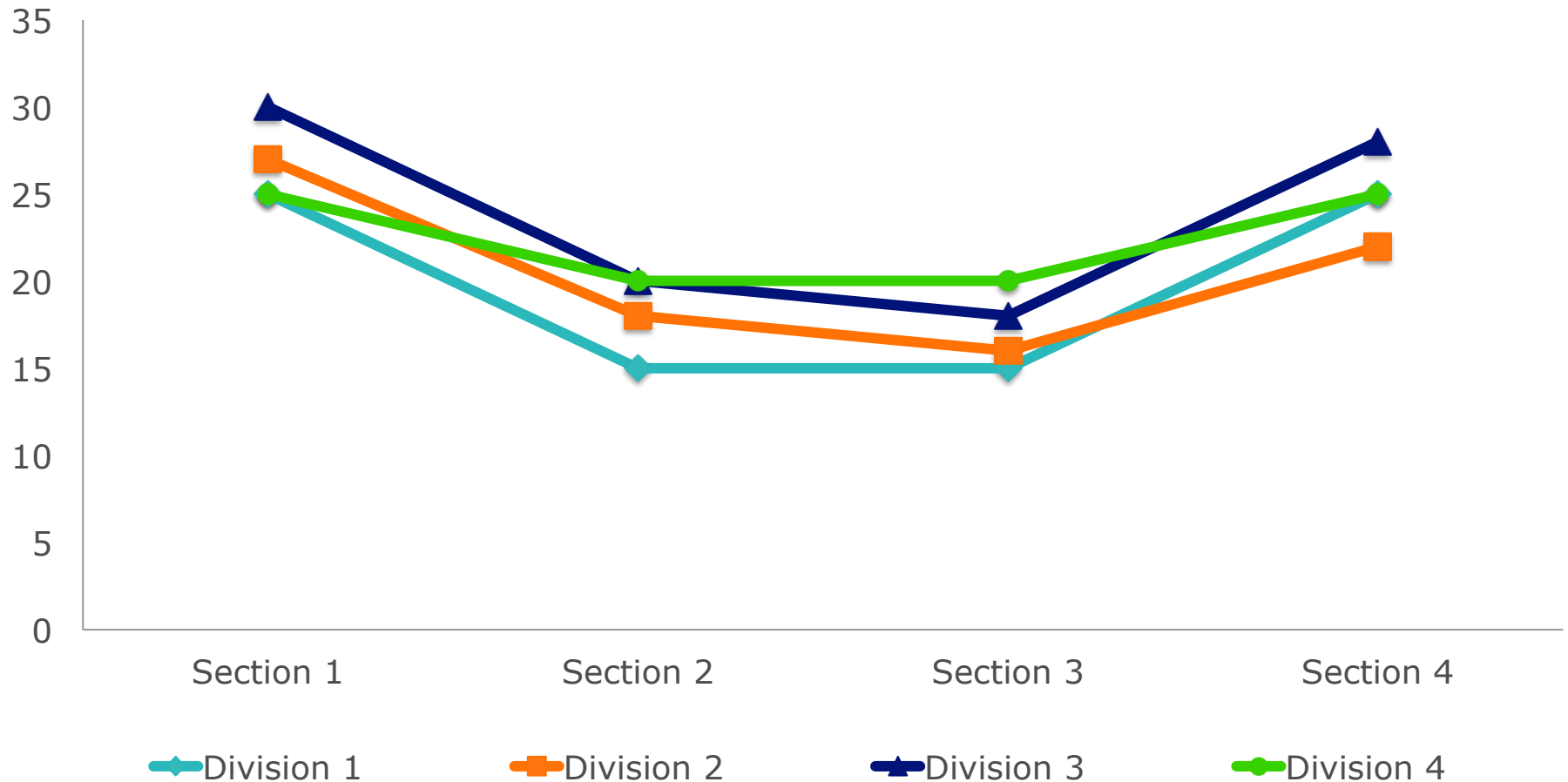


Site Monitoring and Maintenance
Costs per 100 Patients

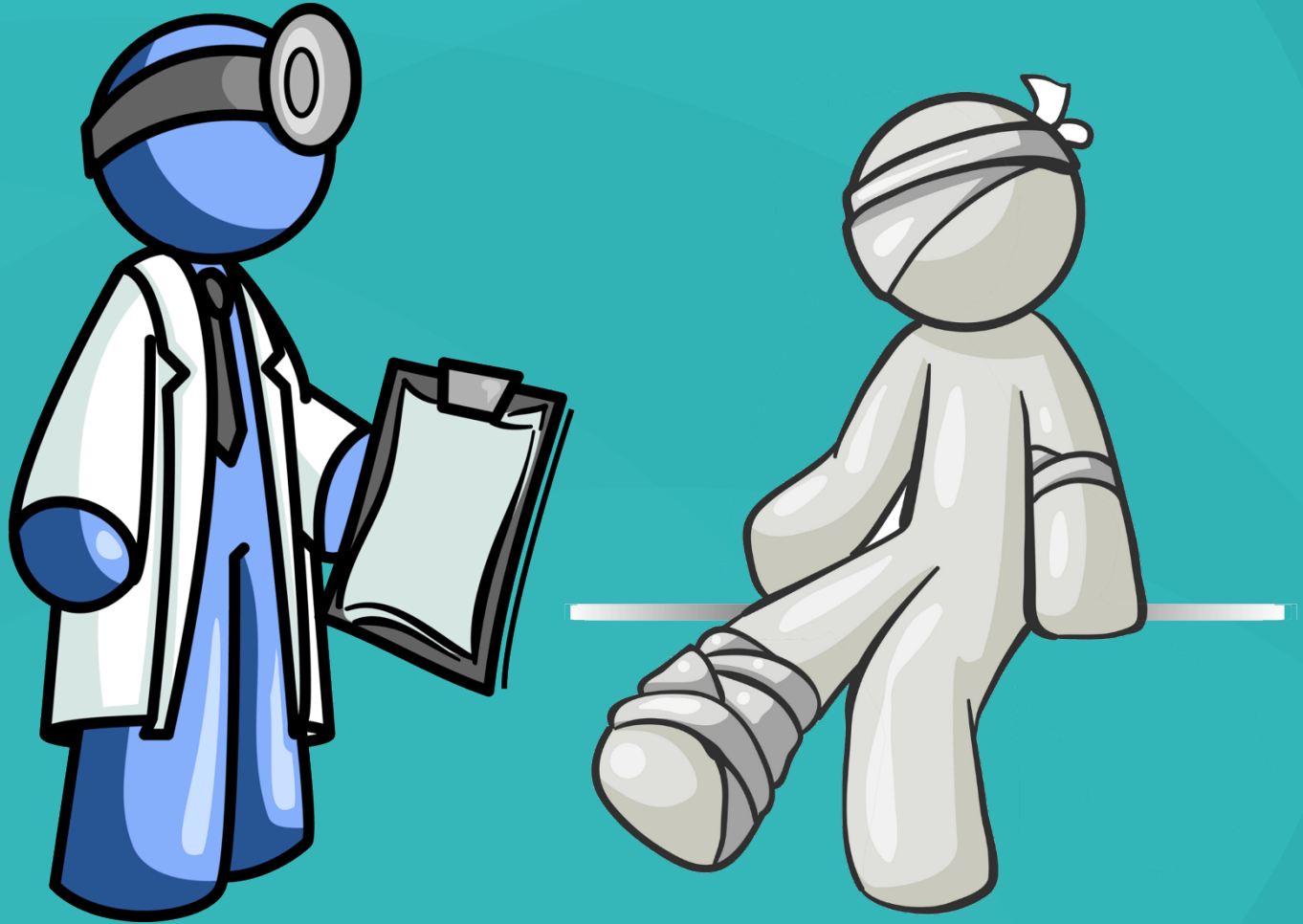
Sites	Patients/Site	Costs
5	20	\$155,000
50	2	\$1,000,000

Improving Site Performance

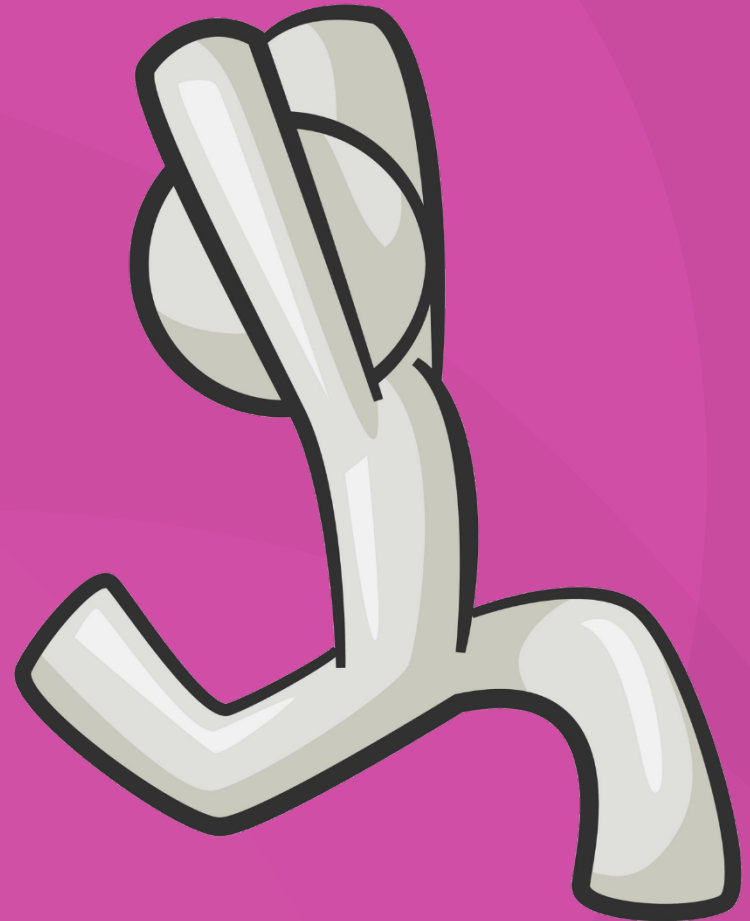
Recruitment as a function of Indicators



Today: Clinical Trials are Site-Centric

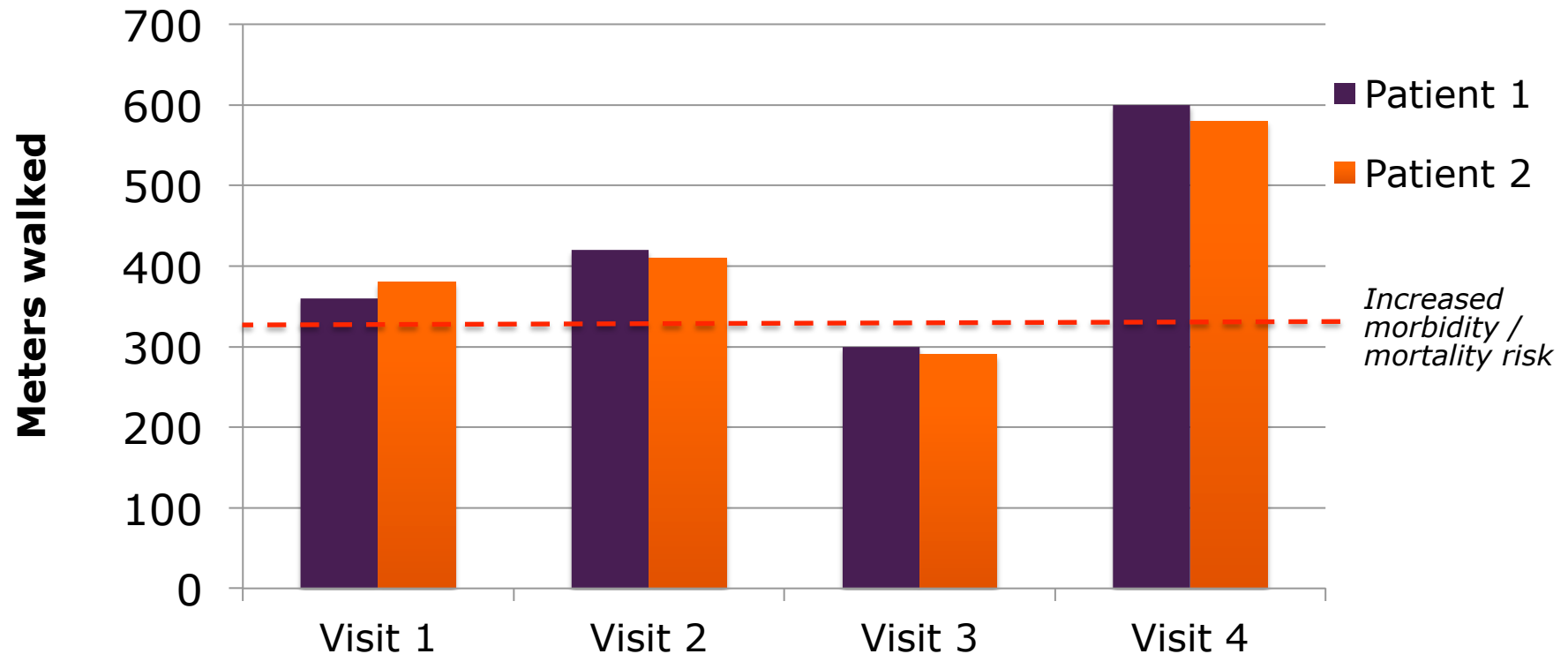


Inversion: Clinical trials are Patient-Centric (Really)



Current:
Data is captured at visit-based time points

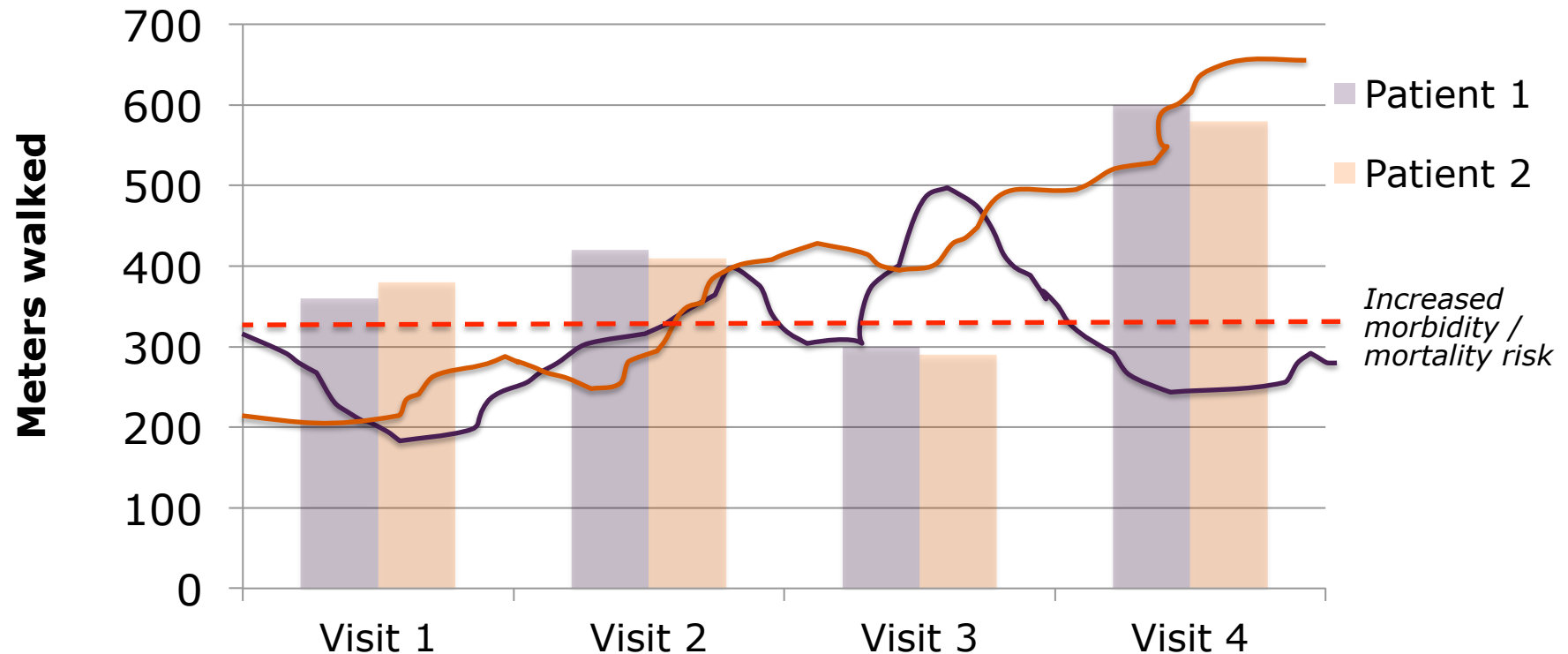
6-minute walk test data



Source: *American Journal of Respiratory and Critical Care Medicine*, 2011; The 6MWT has been found to be useful to stage severity of disease, provide information on efficacy of treatment, and predict morbidity and mortality in congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), pulmonary arterial hypertension (PAH), and idiopathic pulmonary fibrosis (IPF)

Future:
Data is captured continually

6-minute walk test data



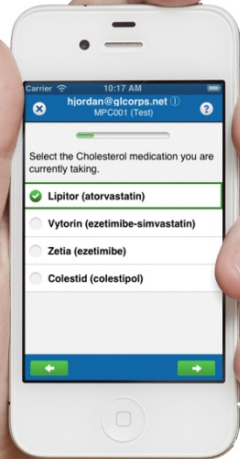
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The Medidata Patient Cloud is an iOS App

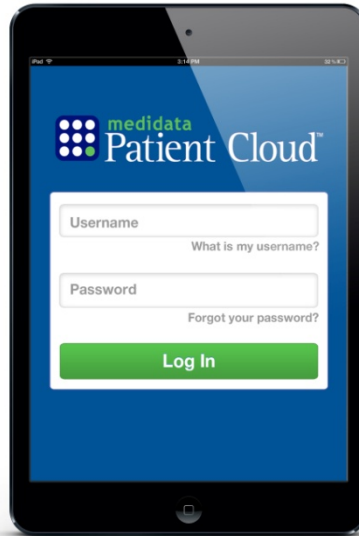
iPod Touch



iPhone



iPad Mini



iPad



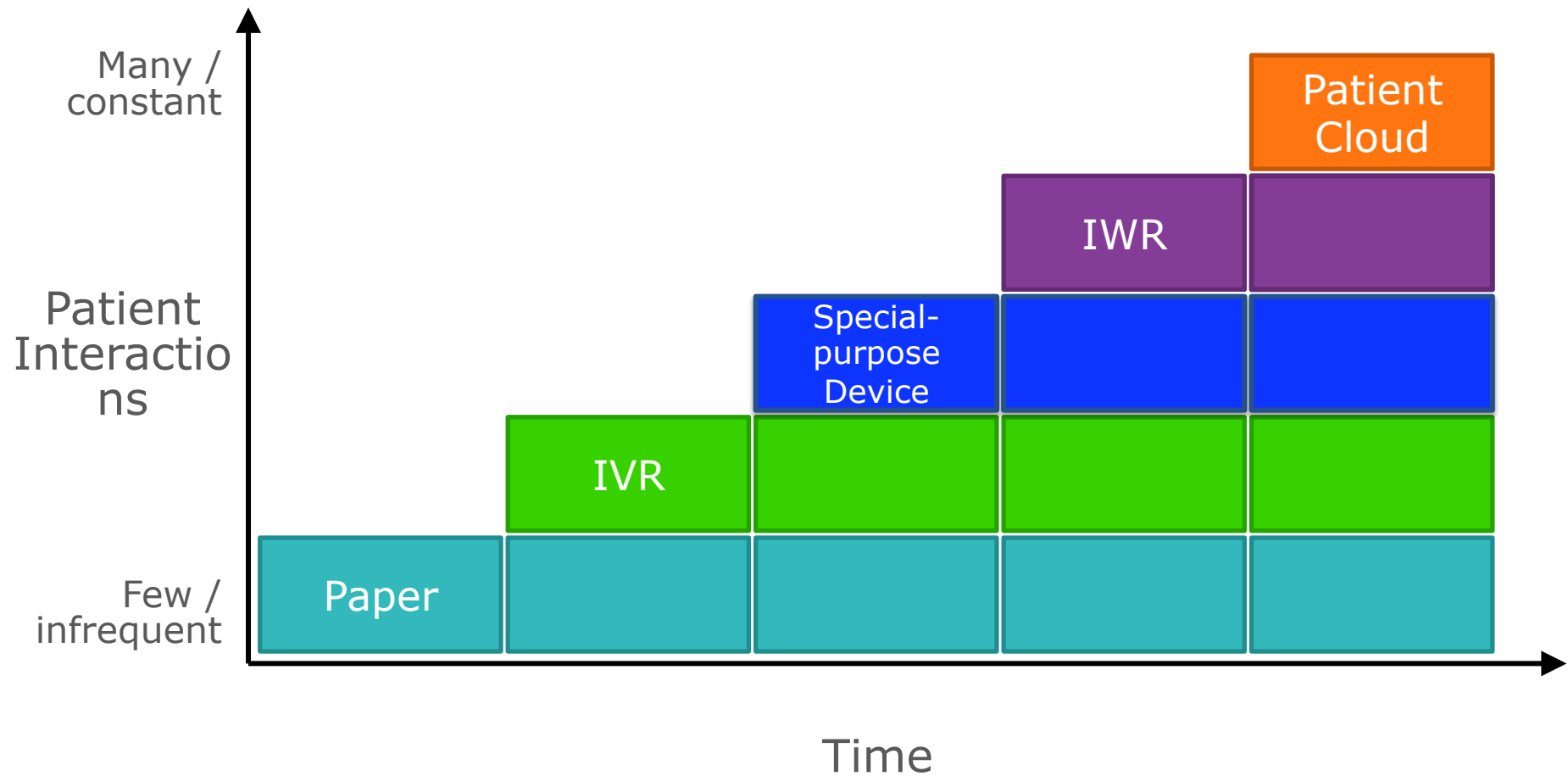
 medidata
Patient Cloud™

The Medidata Patient Cloud is an iOS App

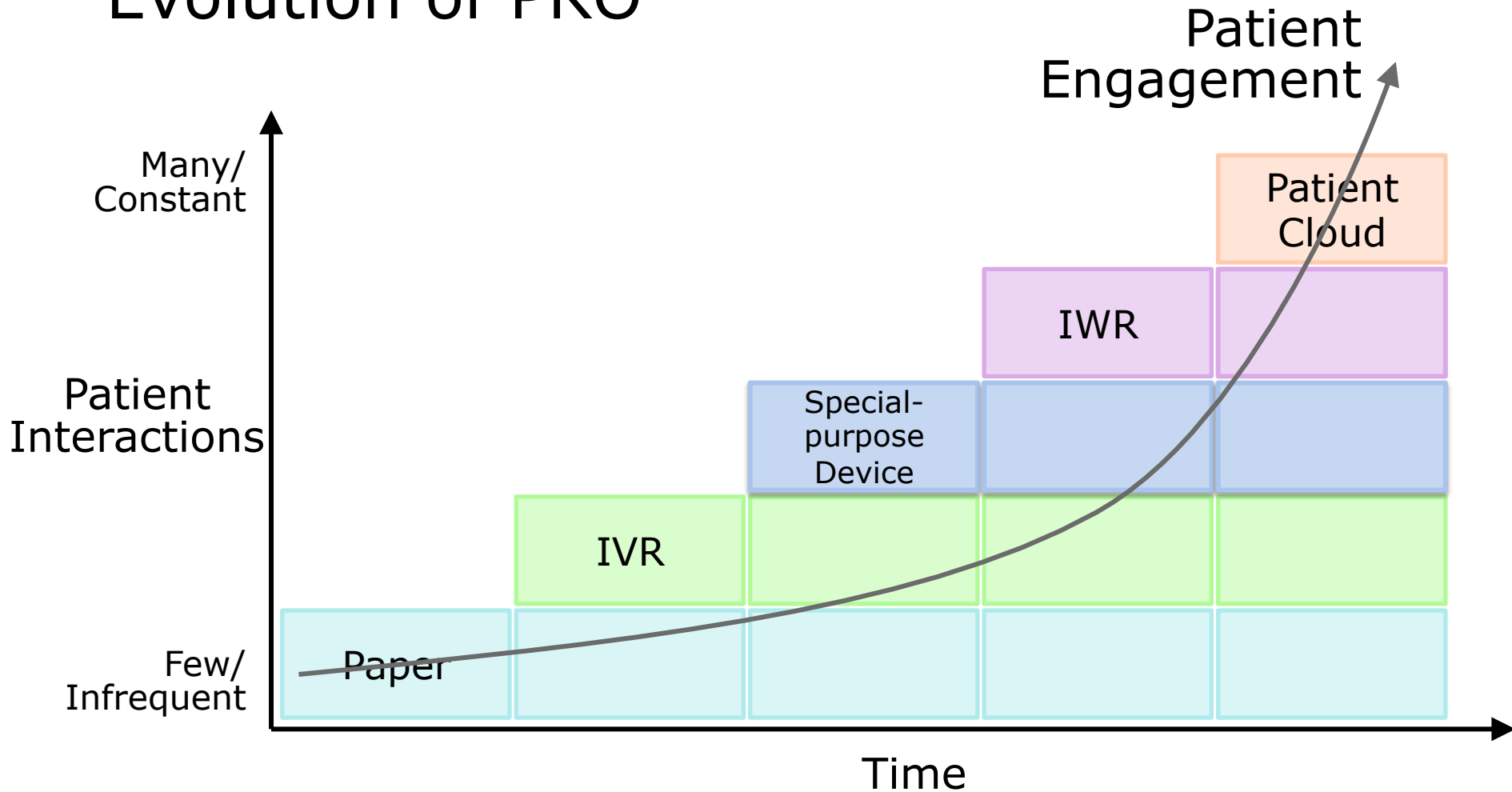


 medidata
Patient Cloud™

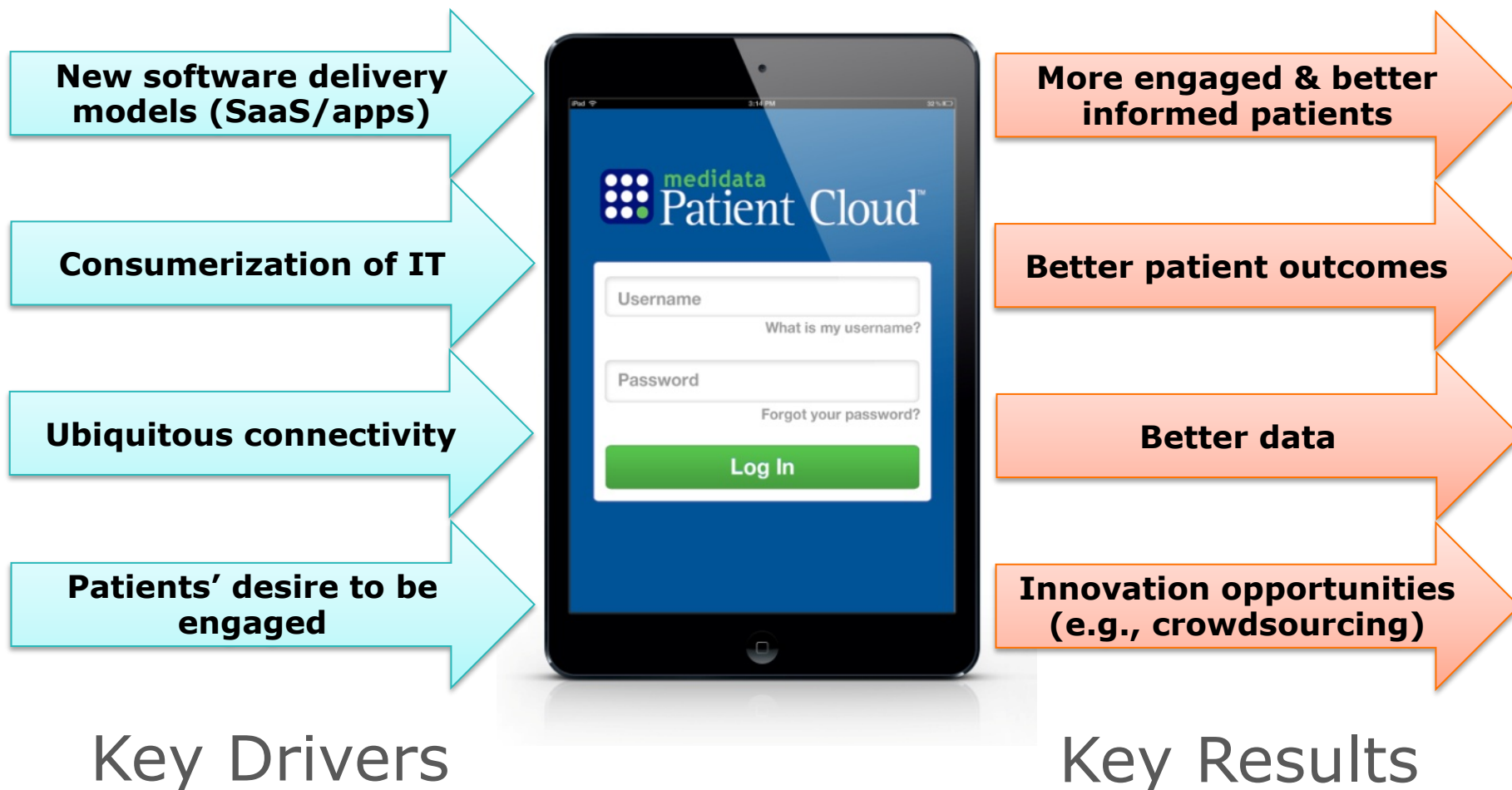
Evolution of Patient Engagement



Evolution of PRO



New Patient Experience



My Entertainment Experience

PANDORA
www.pandora.com/station/play/1142227856384036849
Kendra Morris Radio
Now Playing: Seaside by Kendra Morris on Kendra Morris
About Kendra Morris: Kendra Morris recalls singers who straddled soul and rock during the early '70s, such as Ruth Copeland and Chaka Khan, while her contemporaries included the likes of Mayer Hawthorne, Alice Russell, Alice Smith, and full bio
Similar Artists: Duffy, Rox, Amy Winehouse, Trixie Whitley

NETFLIX
Your Queue
DVD (57) Instant (235)
DVs At Home

Movie Title	Instant	Star Rating	Shipped	Est. Arrival	
1. Extraordinary Measures		★ ★ ★ ★ ☆	10/01/10	10/02/10	Report Problem
2. Twitches Too		★ ★ ★ ★ ☆	10/01/10	10/02/10	Report Problem
3. The Unit: Season 1		★ ★ ★ ★ ☆	10/01/10	10/02/10	Report Problem
4. One Crazy Summer		★ ★ ★ ★ ☆	09/27/10	09/28/10	Report Problem

DVD (52)
List Order Movie Title
1 Killers
2 Furry Vengeance
3 Repo Men
4 The Ghost Writer
5 The Unit: Season 1
6 Grease
7 Legion
8 Fringe: Season 1: Part 1
9 Fringe: Season 1: Part 2
10 Fringe: Season 1: Part 3
Killers
2010 PG-13 100 minutes
When an elite assassin marries a beautiful computer whiz after a whirlwind romance, he gives up the gun and settles down with his new bride. That is, until he learns that someone from his past has

NETFLIX
MAN ON WIRE
1h 34m PG-13 HD

My Social Experience



My Banking Experience

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CHASE ONLINE Monday, December 31, 2012

Account Activity

Print Help with this page

What can we do better?
WE'RE LISTENING

I'd like to...

- Pay bills
- Get statements
- See account notices
- See more choices

Details for TOTAL CHECKING (...866)

Pay Bills Paperless Options Stop Payment on a Check Chase Mobile

Details for TOTAL CHECKING (...866)

Present Balance \$364.67

Available Balance \$364.67

Overdraft Features [Show details](#)

Transaction Results (1 - 32) for TOTAL CHECKING (...866)

Next

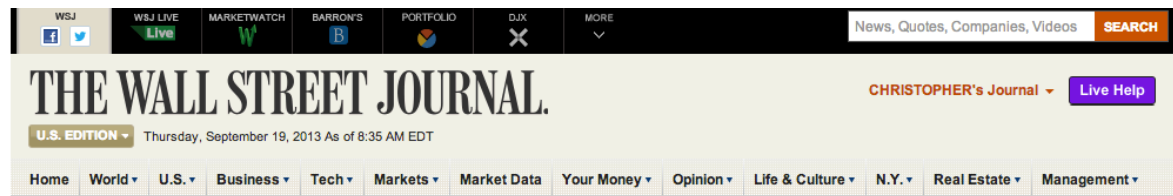
All Transactions Show Search Transactions

Date	Type	Description	Debit	Credit	Balance
Pending	ACH Debit	CHECK N GO LISA MARY VINT MGO	\$300.00		
Pending	Misc. Debit	POS DEBIT 43854 CLINTON ST INDO CA	\$17.01		
Pending	Misc. Debit	POS DEBIT REDBOX DVD RENTAL OAKBROOK ILL	\$5.17		
Pending	Misc. Debit	POS DEBIT JACKSON LIGOUR AND FOOD INDO CA	\$16.48		
Pending	Misc. Debit	POS DEBIT RATE AID CORP INDO CA	\$8.01		
Pending	Misc. Debit	POS DEBIT RATE AID			
Pending	Misc. Debit	POS DEBIT EL TAP			
Pending	Misc. Debit	POS DEBIT KODAK			
Pending	Misc. Debit	POS DEBIT CHIPOTL			

Secure https://



Future: ...is now



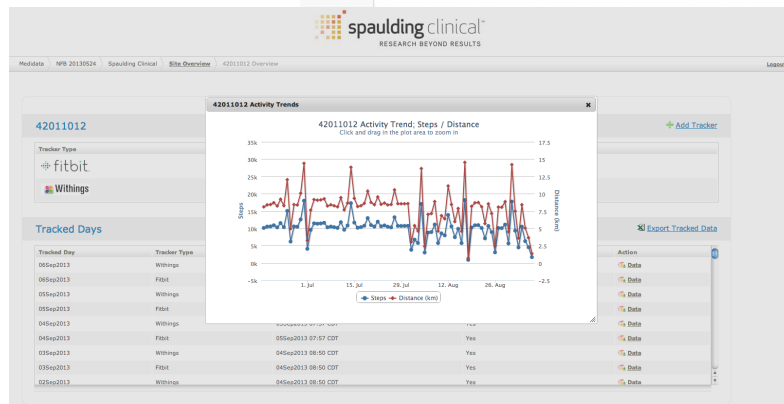
PRESS RELEASE | September 19, 2013, 8:35 a.m. ET

Medidata Launches Novel Study of Technology-Enabled Patient Engagement on Changing Health Outcomes in Diabetes Community



TRACKER

DATE	WEIGHT	PATIENT/NAME	PAT. RATIO	PAT/AMOUNT
SEP 2013 11 02*	87.4 KG*	82.475 KG*	19.30*	16.8 KG*
SEP 2013 18 08*	86.7 KG*	76.889 KG*	22.00*	21.7 KG*
SEP 2013 25 15*	86.2 KG*	76.584 KG*	22.34*	22.1 KG*
SEP 2013 08 10*	KG	KG	KG	KG
SEP 2013 08 10*	100.0 KG	77.289 KG	25.17	23.3 KG
SEP 2013 21 14*	86.4 KG	76.122 KG	21.80	21.8 KG
SEP 2013 21 14*	86.2 KG*	60.888 KG*	6.36*	5.5 KG*
AUG 2013 23 18*	87.4 KG*	91.138 KG*	11.12*	10.8 KG*
AUG 2013 23 18*	87.4 KG*	91.138 KG*	6.52*	6.4 KG*
AUG 2013 23 18*	86.4 KG*	76.879 KG*	22.20*	20.1 KG*
AUG 2013 23 18*	86.2 KG*	82.107 KG*	19.36*	18.1 KG*
SEP 2013 23 18*	86.1 KG*	79.475 KG*	18.78*	18.4 KG*
SEP 2013 23 18*	86.4 KG*	86.707 KG*	17.76*	17.6 KG*
SEP 2013 23 18*	KG*	KG*	KG*	KG*
SEP 2013 23 18*	86.2 KG*	91.281 KG*	7.28*	6.9 KG*
SEP 2013 23 18*	87.4 KG*	90.388 KG*	7.48*	7.2 KG*
SEP 2013 23 18*	KG*	KG*	KG*	KG*
SEP 2013 23 18*	KG*	KG*	KG*	KG*
SEP 2013 23 18*	86.4 KG*	79.882 KG*	22.73*	22.4 KG*
SEP 2013 23 18*	86.4 KG*	82.367 KG*	18.00*	16.7 KG*



Trials of the future will have better design, be more patient-centric, and have far less reliance on sites



Today

Design

- Studies grow larger and more expensive as they progress through phase III

Patient management

- Clinical trials are site-centric
- Depth of subject data decreases as therapy progresses through trial stages
- Limit real-world encroachment on clinical trials

Sites

- High fixed cost to initiate sites



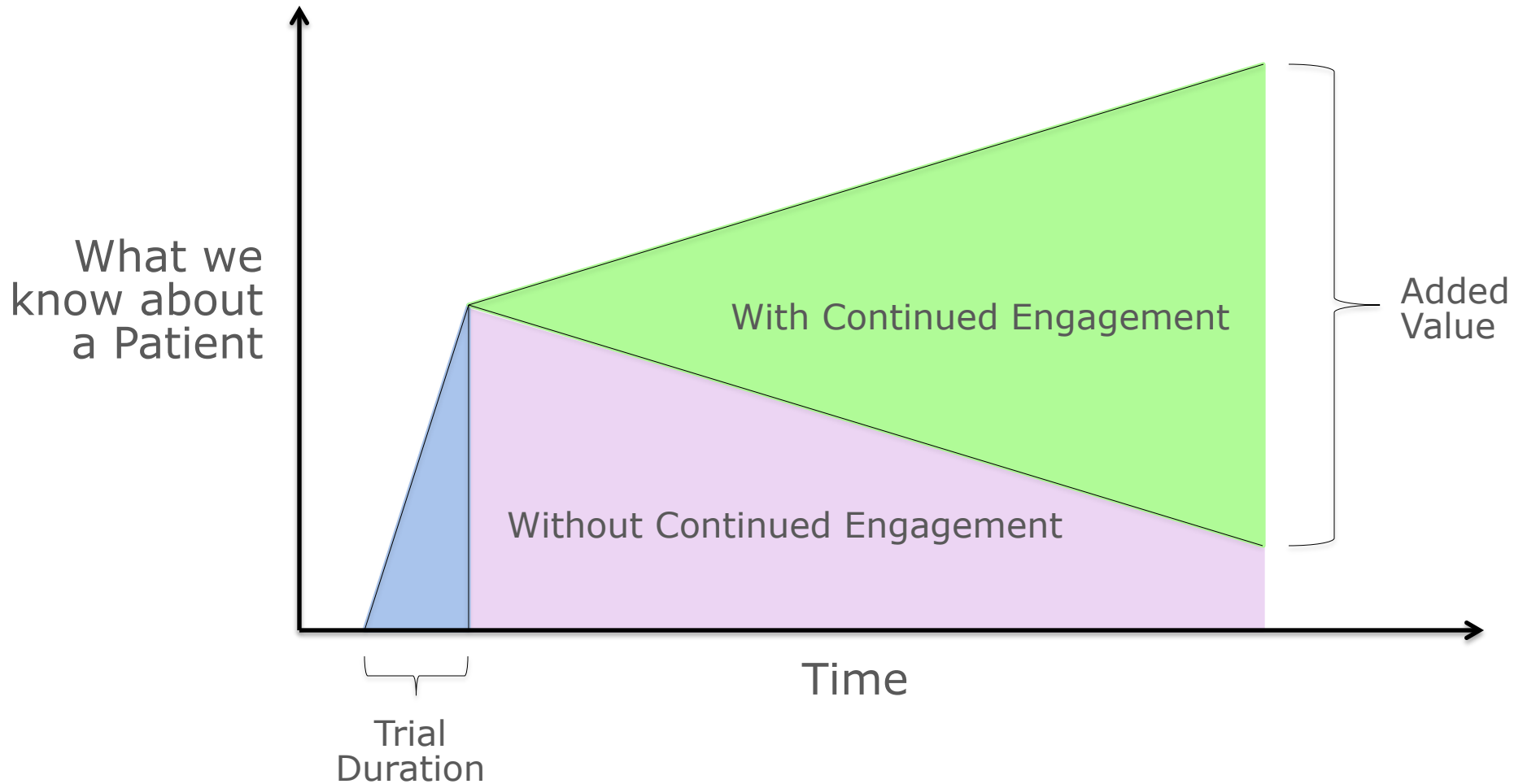
Future

- Adaptive trial designs will enable **small, targeted phase III trials**
- Clinical trials are **patient-centric (continuous data capture, reduced patient burden)**
- **Depth of subject data expands** through all phases due to incorporation of new sources
- **Embrace real-world complications** in clinical trials through better data / analytical techniques
- **Zero incremental cost to initiate sites** that have run trials in the past; enables vast site expansion and **faster recruitment**

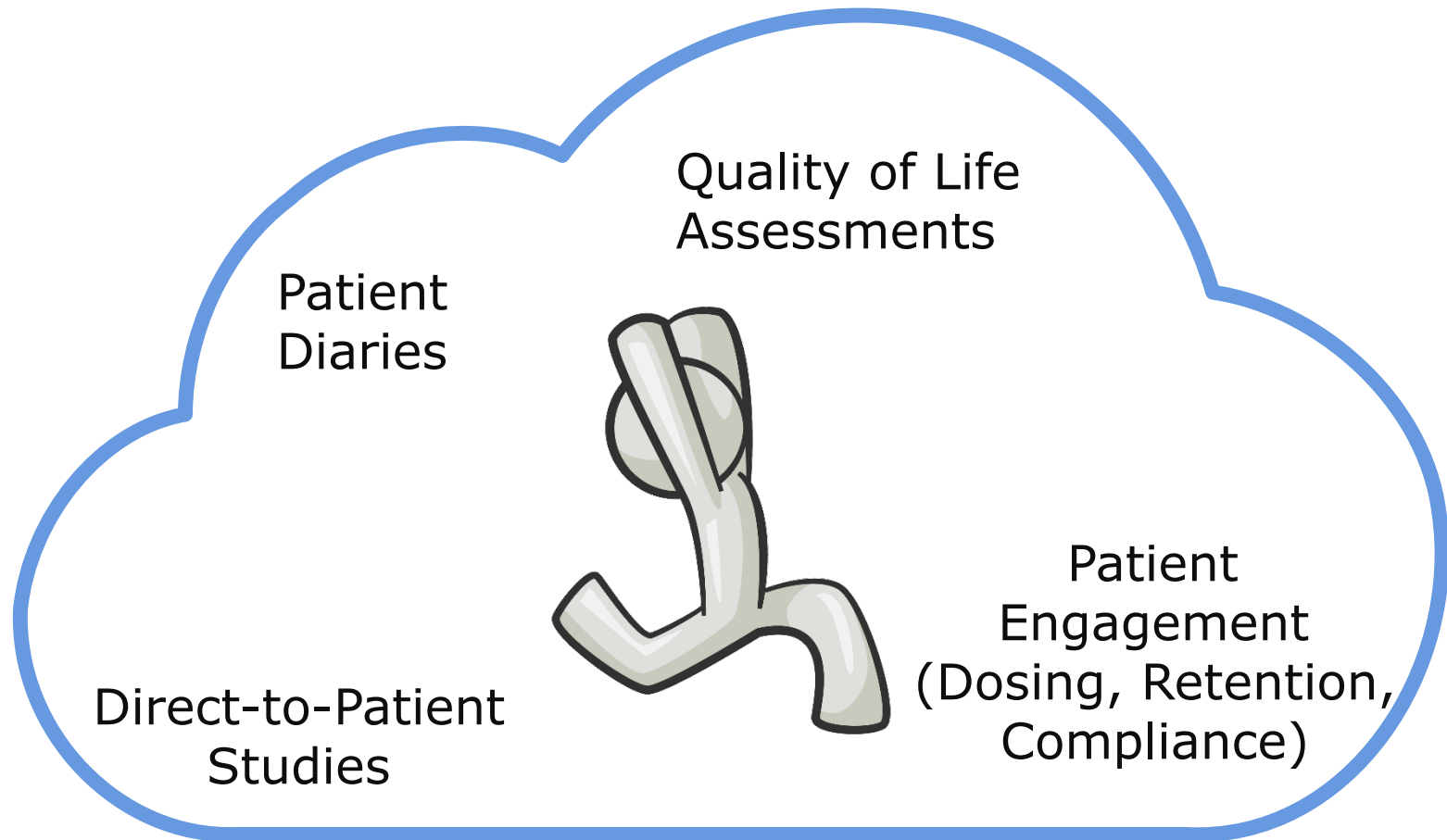
New Patient Experience

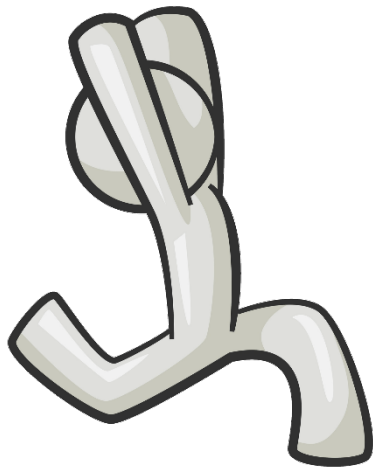
Patient Cloud	Old World
Ability to share experiences at will	Periodic, prescriptive touch points
Sense of community w/ PI, peers	Limited role/value
Powerful, technology-enabled interactions	Limited technology investment / commitment
Holistic experience across treatment, feedback & behavior	Feedback only
A real sense of purpose	Limited ability to contribute

Benefits of Engagement



Patient Centric Studies





Thank you!