



# **Evidence- Based Marketing**

**Rethinking how we approach  
measurement in marketing**

# About Us



- Chief Marketing Officer, North Shore–LIJ Health System, NY
- Began career as a bank auditor
- Credo: Question Everything!
- Advice: "You've got to be very careful if you don't know where you're going because you might not get there." (Yogi Berra)

- AVP, Digital Marketing Strategy North Shore–LIJ Health System, NY
- Degree in mathematics (used to be a math teacher)
- Advice: "If you don't want to measure, don't worry: your successor will." (me)





# OUR Enterprise

North Shore-LIJ is the region's largest integrated health system, providing a full continuum of care, insuring the community's health and advancing the fields of medical research and education.

400+ ambulatory & physician practices

17 hospitals

North Shore-LIJ CareConnect Insurance Company

3 skilled nursing facilities

Home care, long-term care and hospice care services

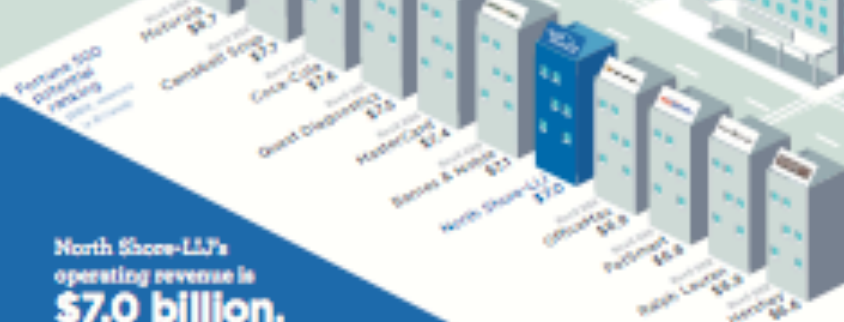
Center for Learning and Innovation

Hofstra North Shore-LIJ School of Medicine

Feinstein Institute for Medical Research

North Shore-LIJ has over 2,600 employed physicians,

placing us among the largest medical groups in the country.



North Shore-LIJ's operating revenue is **\$7.0 billion.**

If we were a public corporation, this would place us #364 in the Fortune 500 rankings.

Each year, North Shore-LIJ has more than 4 million patient contacts, which would fill Citi Field Stadium more than 95 times.



---

# People don't get hospital marketing

# Our colleagues...

---

“Those TV commercials saying ‘I got my cancer care at X hospital’ are a shame, definitely wasteful.”

- Chief Academic Officer, \$3B Health System

# The media...

---

“Nearly every hospital has a banner out front saying they’re a ‘top hospital’ for something in some rating system...those ratings have become more important for hospital marketing than for actually helping patients find the best care.”

– The NY Times, Jul 27, 2013

# The media...

---

“Judging by the number and scope of advertising campaigns, hospitals must be in fierce competition for patients, which is interesting when you remember they are charities..”

– Michigan Live, Feb 10, 2013

# Our associations are trying to help...



MEASURE	DEFINITION	HEALTH GRADES	THE JOINT COMMISSION	THE STATE COMMISSION	THE LEAPFROG GROUP	NIAGARA COALITION	NYSDOH	TRUVEN	U.S. NEWS & WORLD REPORT
Complete Methodology Transparency	Is the complete methodology available, enabling consumers to replicate and analyze internally?	1/4	1/2	3/4	1/2	1/2	1/2	1/2	1/2
Risk Adjustment	Is a statistical model applied to the data that adjusts for significant differences in patient illness severity?	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Exclusion or Process Measures	Are there measures that rate key process steps or contributors to the end result?	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Are there measures of the end result in addition to services provided?		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
How often are the most current data used?		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Are measures NSF approved and/or aligned with measures such as HCAHPS?		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Are random data points gathered from the users and beneficiaries?		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Are results allowed to review the report prior to its correct potential presentation?		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
GRADE		D	A	B	C	C	A	D	D

HANYS' EVALUATION	REPORT CARD
★★★	THE JOINT COMMISSION QUALITY CHECK Latest report as of April 2013 website, 2013 user guide
★★★	DOH HOSPITAL-ACQUIRED INFECTION REPORT Latest report as of September 2012
★★★	CMS HOSPITAL COMPARE Latest report as of April 2012
★★★	DOH HOSPITAL PROFILE QUALITY SECTION Latest report as of July 2012
★★	NIAGARA HEALTH QUALITY COALITION NEW YORK STATE HOSPITAL REPORT CARD Latest report as of 2012
★	LEAPFROG HOSPITAL SAFETY SCORE Latest report as of October 2012
★	TRUVEN HEALTH ANALYTICS 100 TOP HOSPITALS Latest report as of February 2012
★	HEALTHGRADES AMERICA'S BEST HOSPITALS Latest report as of 2012
★	CONSUMER REPORTS HOSPITAL SAFETY RATINGS Latest report as of November 2012
★	U.S. NEWS AND WORLD REPORT Latest report as of July 2012

Healthcare Association  
of New York State

The image shows the iconic dome of the United States Capitol building in Washington, D.C. The dome is a large, white, neoclassical structure with a prominent central lantern. The building's facade, featuring classical columns, is visible at the bottom. The sky is a clear, light blue. The text is overlaid on the right side of the image.

**...as is our government.**

- ACA/Healthcare reform
- Implementing ACOs
- Public reporting of data
- Tightening reimbursements

# Patients are expecting more from us...

---

- 50% of patients believe that texts, emails or health-related apps could help them avoid a health problem
- 25% do not feel that their healthcare provider is accessible when they have questions or concerns
- 68% say their doctor has never sent them a text or email for appointment reminders, discharge information, electronic health info, etc.

# ...in ways we're not ready.

## Patients willing to engage



**75%** of patients are willing to go online to view their medical records

**76%** of patients are willing to go online to view test results



**65%** of patients want appointment reminders via e-mail



**62%** of patients want to correspond online with their primary physician about their health

## Provider systems lag



**41%** of physicians have EMR systems capable of giving patients timely access to this information



**44%** of physicians have EMR systems that provide guideline-based follow-up or screening reminders



**46%** of physicians have EMR systems capable of communicating patient-specific information to help patients make decisions about their health

Source: Optum Institute/Harris Interactive Multi-Stakeholder Health Care Environment Survey, June 2012.

"Meaningful Consumer Engagement" whitepaper,  
Optum Institute, Nov 2012

# Our bosses have higher demands...

---

- Being asked to do more with less
- Budgets are tightening
- There's not enough time
- There's not enough training

# ...particularly with new tools.

---

- Only 27% of exec's believe social media is strategic priority
  - **Jive Social Business Index Survey**
- 59% of marketers use social media 6 hours or more/week this year over last
  - **Social Media Marketing Industry Report**

**And physicians expect more...**

---



**...but can you  
blame them?**



It's the nature of their work



# The evolution of care

---



**Intuitive  
medicine**

Dependent heavily upon the skill & judgment  
of capable physicians (i.e. the “art”)

# Intuitive medicine

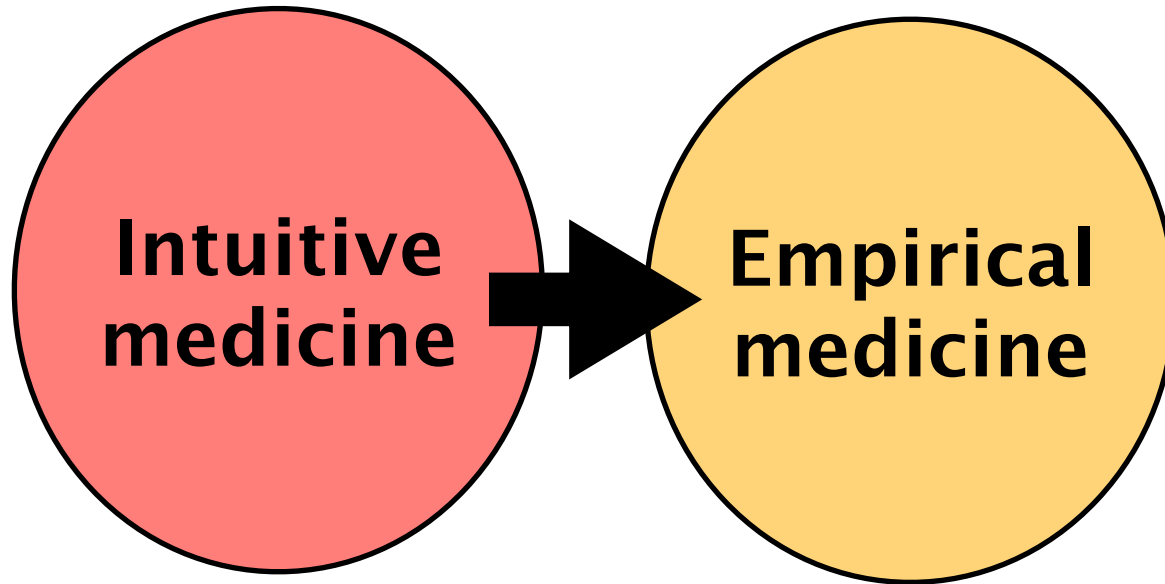
“...medicine practitioner who uses their self described intuitive abilities to find the cause of a physical or emotional condition.”

– Wikipedia



# The evolution of care

---



Pattern recognition and correlations between actions & outcomes are consistent (i.e. the “craft”)

*Dr. Batty's*



*For Your Health*  
**ASTHMA CIGARETTES**

SINCE 1882

*For the temporary relief of  
paroxysms of asthma*

EFFECTIVELY TREATS:

ASTHMA, HAY FEVER, FOUL BREATH  
ALL DISEASES OF THE THROAT,  
HEAD COLDS, CANKER SOURS  
BRONCHIAL IRRITATIONS

NOT RECOMMENDED FOR CHILDREN UNDER 6.

## Empirical medicine

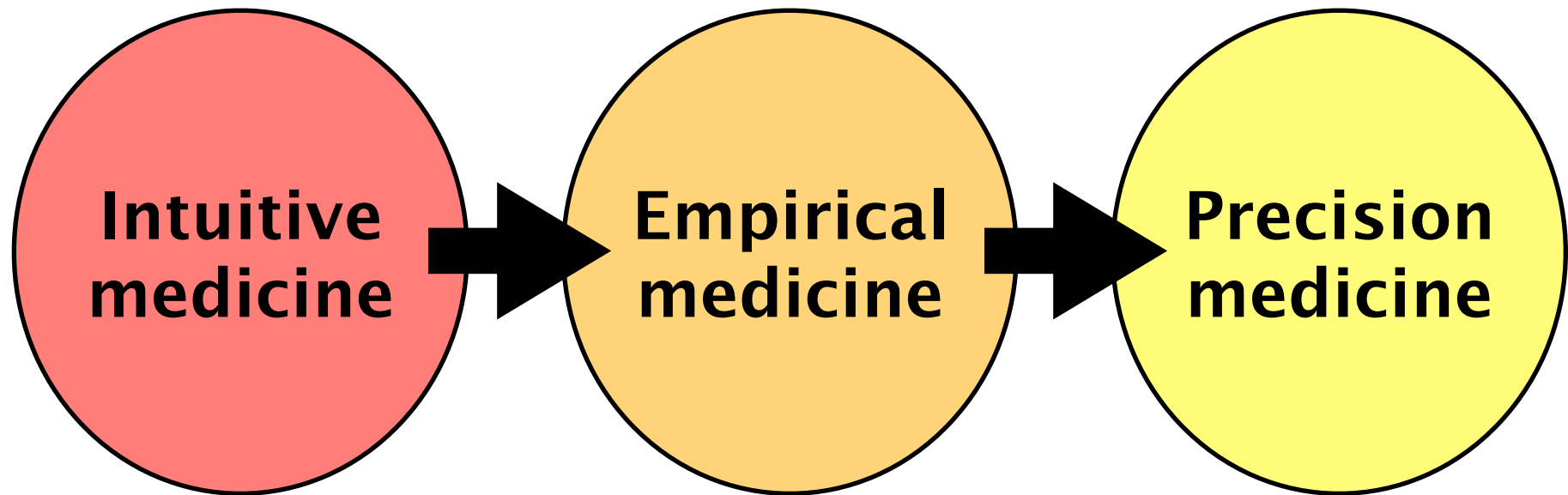
“a medical treatment... derived from practical experience or observation, survey or common use.

The term is also used when treatment is started before a diagnosis is confirmed”

– Wikipedia

# The evolution of care

---



Precisely diagnosed, and can be treated with rules-based therapies (i.e. the “science”)



# Precision medicine

“the tailoring of medical treatment to the individual characteristics of each patient...

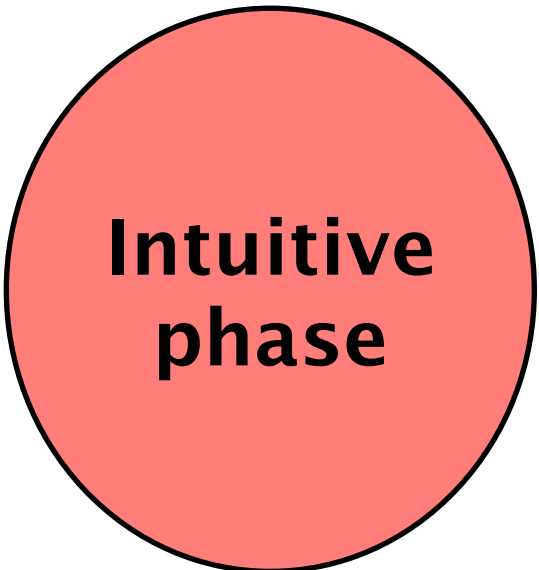
‘precision’ is being used to mean both ‘accurate’ and ‘precise’ in the scientific method.”

– NCBI (National Center for Biotechnology Information)

# Evidence-based medicine

# Is communications evolving?

---



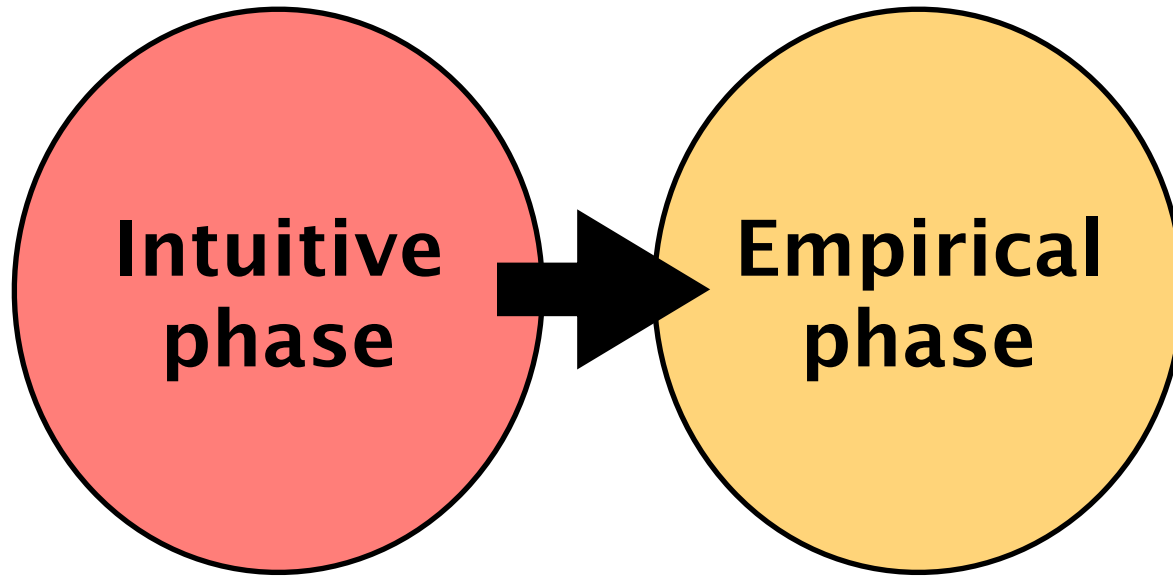
**Intuitive  
phase**

Dependent heavily upon the intuitive  
skill & judgment of capable marketers

(and physicians?!?)

# Is communications evolving?

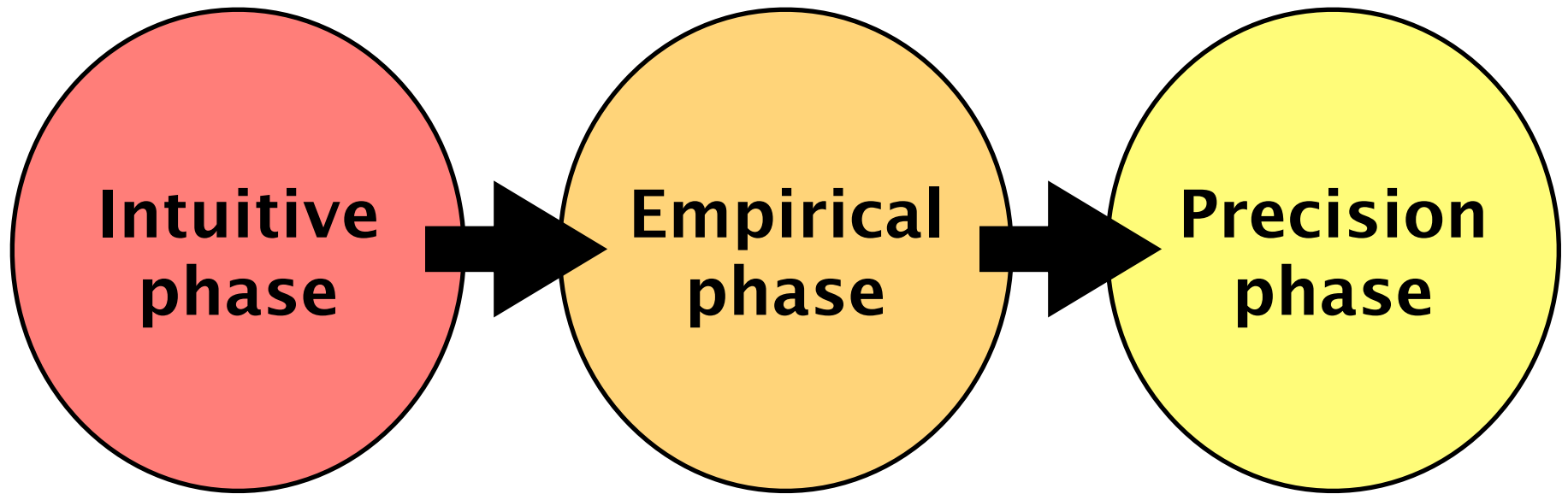
---



Arguably, where most of our marketing currently resides – measurement of campaigns, response rates, etc.

# Is communications evolving?

---



In order to move to precision marketing, we need to enhance our measurement strategies.



# Evidence- Based Marketing

# Where is our evidence?

---

## Key Performance Indicators (KPIs):

- Performance measurements that define success
- Quantitative, practical, directional and actionable

## Four Types:

- Consumption/Engagement
- Activity
- Leads
- Utilization

# Consumption/Engagement metrics

---

- Impressions
- Page Views
- Followers/Fans
- Newsletter Subscribers
- Social media conversations
- PR stories



# Activity metrics

---



- Clicks
- Calls
- Info Requests
- Downloads
- Re-tweet(s)
- Reposting(s)
- References
- Pingbacks
- Citations

# Lead metrics

---

- Screenings
- HRA's
- Appointments
- Attendance
  - Events
  - Conferences
  - Fairs
- Participation
  - Walks
  - Runs
- Benefactors



# Utilization metrics

---

## Return On Investment



- Hospital Admissions
- Ambulatory Volumes
- Diagnostic Volumes
- Market Share
- Revenue
- Contribution Margin
- Acquisition Costs
- ROI

# Everything has a KPI

Type of marketing	Types of measurement	Online Advertising	Cost	Types of measurement
Apps	Downloads Usage CTA Devices Geo		Keywords	Licks/RT's/shares Opens/clicks Geo Demographic Conversation Views Click throughs Friend/Fan/Follow Sentiment Comments Share of voice Patient sat
Website Traffic	Hits/Unique Source Time on Page # pages/visit Bounce Visitor flows Heatmaps Geo Device Patient satisf Keywords On-page sea Form usage Content usage Conversions A/B testing		Impressions Conversion CPC Ad placement network View completion Geo Demographic A/B testing	% of views Embeds/shares Like Comments Subscribers Cost # of plays Device Click-throughs
Surveys/Focus Groups	What they th Sentiment Attitude Preference Awareness Trends # taken/usag	Email	# sent Subscribe Unsubscribe Open CTR Shares SPAM Demographic Geo HTML/plain text Email client A/B testing	Calls/emails Call duration Types of inquiries Demographics Types of inquiries Referring page Abandonment rate Geography A/B testing Referral service Demographics Geography Referral source Attendance Previous attended Payment Certification/completion Surveys/feedback Social shares
Cost/Effort (time)	Hours # of people Salary Vendor costs Tickets/buys Opportunity			
"Traditional" Media Spend	Cost of ads Vehicles (me Frequency Type of medi Call to action			

# Matching KPIs to goals

---

Marketing Objective	Goal	KPIs
Branding	To promote a new service line institute	<ul style="list-style-type: none"><li>● Consumption/Engagement</li><li>● Activity</li><li>● Leads</li></ul>
Growth	To drive people to attend a seminar	<ul style="list-style-type: none"><li>● Activity</li><li>● Leads</li><li>● Utilization</li></ul>
Engagement	Share health info on Facebook & blogs	<ul style="list-style-type: none"><li>● Consumption/Engagement</li><li>● Activity</li><li>● Utilization</li></ul>

# Example 1: In-person seminar promotion

03/08/2013 - 05/02/2013 | H = HITS R = REGISTRATIONS C = CONVERSIONS

Landing page for:	03/15 - 03/28			03/29 - 04/05			04/06 - 04/11			04/12 - 04/18			04/19 - 04/25			04/26 - 05/02			05/03 - 05/09			TOTAL	
	H	R	C	H	R	C	H	R	C	H	R	C	H	R	C	H	R	C	H	R	C	H	R
Print Ad	41	16	39%	1	0	0%	6	3	50%	2	0	0%	11	1	9%	0	0	0%	23	1	4%	84	21
Direct Mail	18	6	33%	0	0	-	1	0	0	0	0	0	1	0	0%	0	0	0%	0	0	0%	20	6
Subway	41	14	34%	2	1	50%	11	2	18%	12	1	8%	2	2	100%	0	0	0%	14	5	36%	82	25
SEO/SEM	89	-	-	47	-	-	64	-	-	112	-	-	130	-	-	167	-	-	285	-	-		
<b>SEO/SEM/SOCIAL</b>	First Two Weeks															Last Two Weeks							
Paid Search - Eruptr	39	1	3%	26	2	8%	56	1	2%	89	1	1%	89	1	1%	105	1	1%	211	3	1%	615	10
Organic	50	11	22%	21	1	5%	8	1	13%	23	0	0%	41	1	2%	62	0	0%	74	1	1%	279	15
Social	12	0	0%	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	0	12	0
<b>Total Hits/Registrations</b>	<b>201</b>	<b>48</b>	<b>24%</b>	<b>50</b>	<b>4</b>	<b>8%</b>	<b>82</b>	<b>7</b>	<b>9%</b>	<b>126</b>	<b>2</b>	<b>2%</b>	<b>144</b>	<b>5</b>	<b>3%</b>	<b>167</b>	<b>1</b>	<b>1%</b>	<b>322</b>	<b>10</b>	<b>3%</b>	<b>1092</b>	<b>77</b>

- Promoting orthopedic seminars
- Response rate from various tactics
- Measured registrations/conversions

# Example 2: Online Imaging appointments

---

Here are the numbers for our Syosset Imaging PPC campaign for the first two weeks of June.

**Hits from our PPC campaign:**

Total PPC Visitors: 86

% of new visitors: 82.56%

Average visit duration: 23 seconds

Bounce rate: 90.70%

**Calls resulting from this clicks:**

Total Calls: 31

Calls Answered: 29

Unanswered: 2

Calls lasting < 1 min: 3

Calls lasting 1-2 mins: 6

Calls lasting 2-5 mins: 16

Calls lasting 5 mins+: 6

Average duration of these calls: 3.5

- Driving Imaging registrations
- PPC traffic to drive phone calls
- Reviewed calls for appointment requests
- Yielded CPA (cost-per-acquisition) information

# Example 2: Real-time course correction

"I thought it didn't matter  
where I go for my mammogram."



Precision  
Leads to  
Diagnosis

Our specialty-trained radiologists interpreting mammography scan imaging even further, we offer the technology — 3D mammography (tomosynthesis) performed as a standard digital mammogram.

For more information  
855-377-34

## Northshore LIJ received a call!

### For NSLIJ - Imaging PPC from 516-341-0080

[VIEW DETAILS](#)

Called from [redacted] on Jul 15, 2013,  
11:21 AM EDT and the call lasted 16 seconds.

New Caller

Medford, NY

NSLIJ - Imaging PPC

SOURCE NAME

Landing: cr=imaging

SOURCE TYPE

888-204-8489

TRACKING NUMBER



# Still empirical

Measuring single campaigns =  
treating a single symptom

How can we move to  
evidence-based marketing?

# Marketing is evolving

Hospital



From place

Cardiac  
Oncology  
Orthopedics  
Bariatrics



...to  
procedure

Cardiac Health  
Living with Cancer  
Back Pain



...to  
problem

Patient



...to the  
individual

# Luckily, so are our tools

---

- Analytics
- Demand generation
- Marketing automation
- CRM

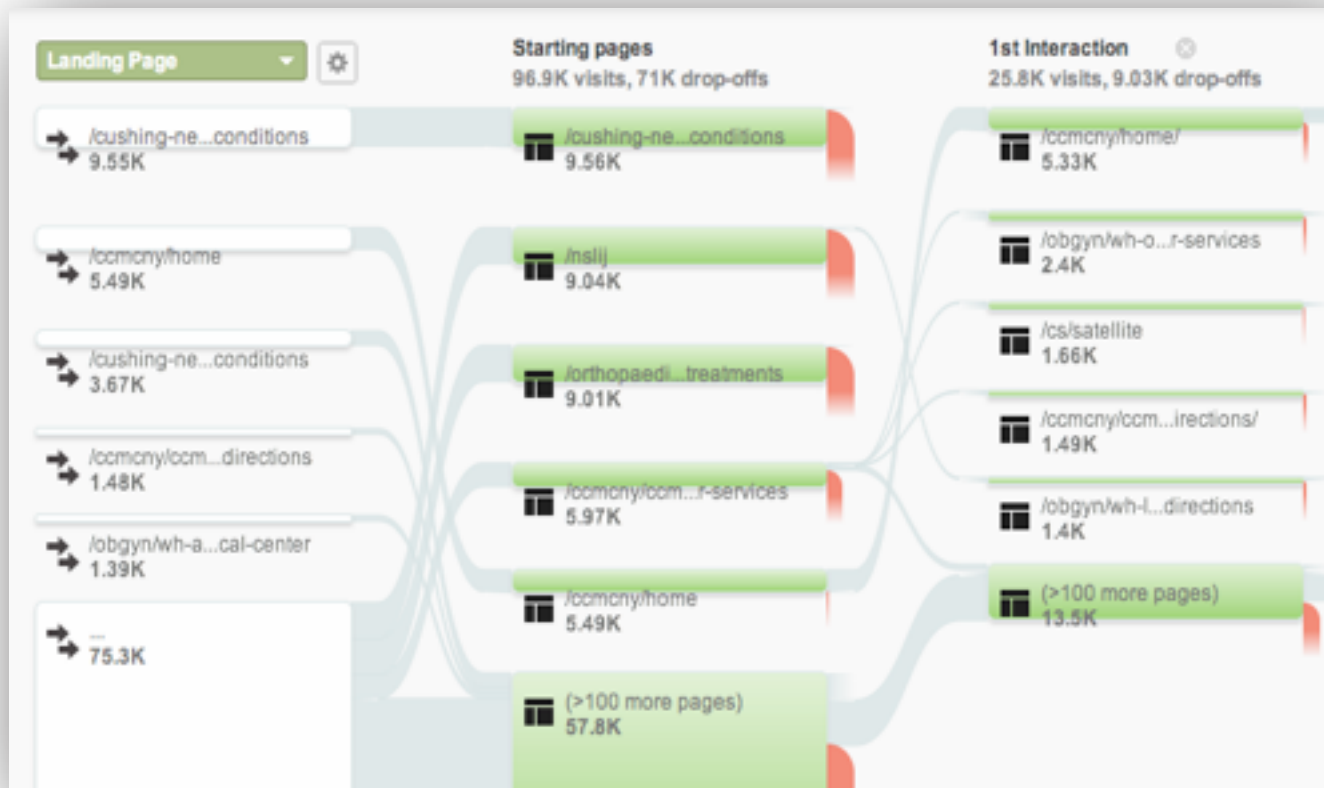


# Analytics

---

- Measuring touch-point systems:
  - Web pages/social media
  - Call center
  - Emails
  - Events
  - Admissions
  - Registrations

# Example: web analytics



- Visitor flow identifies individual user behavior
- Adding session-based identifiers (cookies)
- Driving to conversions to self-identify
- Personalizing web experience

# Demand generation

---

- Creating content designed for a specific audience at a specific phase in the patient pathway:
  - Researching
  - Decision-making
  - Post-care support

# Demand generation strategy

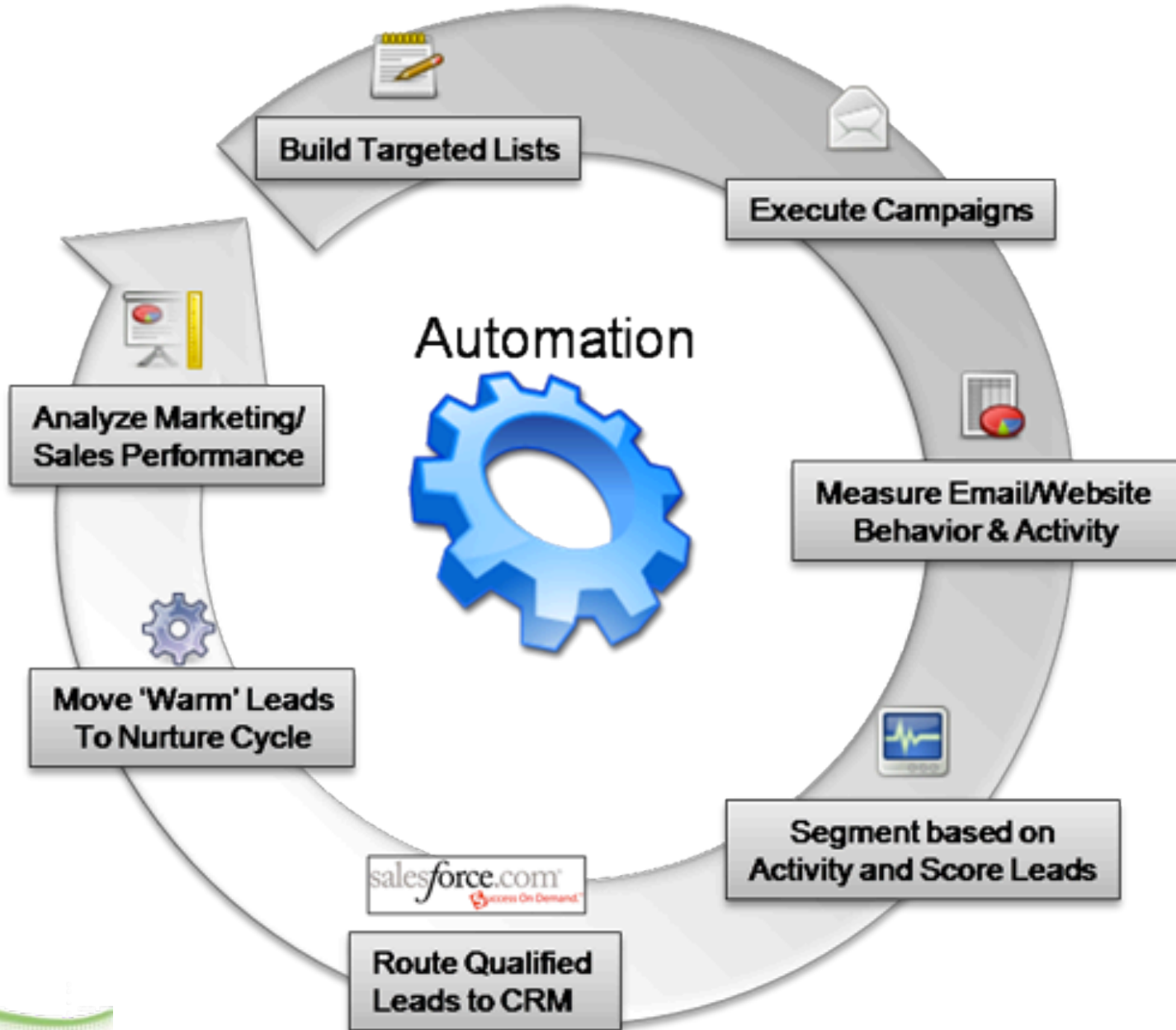


# Marketing automation

---

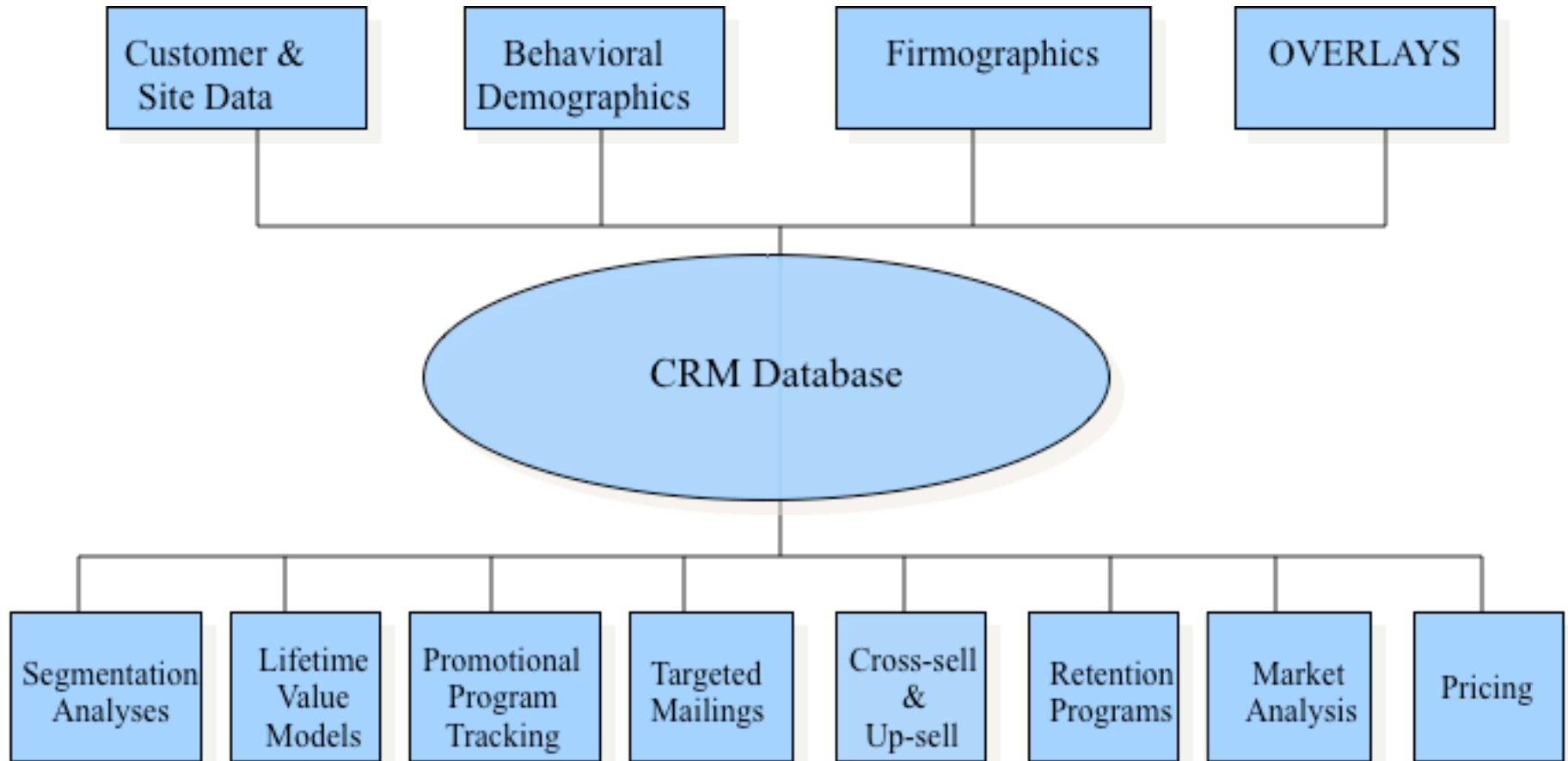
- Capturing what we know about individuals
- Capturing what behaviors they exhibit
- Personalizing communication to them (based on this knowledge)
- Software enabled
- Tasks and outcomes created via workflow
- Does NOT replace marketing

# Marketing automation



- Database containing patient data and prospects
- Propensity modeling and database targeting
- Should include physician solutions (PRM)
- Tracks encounter history and pathways that are different for different pathways and segments

# CRM (it's more than just building lists!)



# Putting it all together: Institute promotion

---

- TV/radio spots
- Print and OOH
- Heavily focused on awareness

# Website traffic provided real-time metrics:

## Overview of Web Traffic – May vs. June 2013

May 2013	June 2013
Total Visitors 9006	Visitors 9478
Mobile Visitors 4946	Mobile Visitors 5490
Unique Visitors 5817	Unique Visitors 7214
Pages/Visit 2.86	Pages/Visit 2.23
Avg. Visit Duration 3:11	Avg. Visit Duration 1:44
Bounce Rate 65.94%	Bounce Rate 72.91%
Pageviews 25,752	Pageviews 21,107

- There is a slight increase in **total visitors** to our website from May to June, up nearly 500 visits. More importantly, **unique visitor** traffic increased by nearly 1400 in June.
- An increase of the visitors **came from a mobile device** in June – 58% (vs. 54% in May). This may be an overall trend that more people are visiting our website on their phones and tablets.
- The number of visitors being brought to the site via paid search activity increased in June, which impacted the **average visit duration**.
- **Overall bounce rate** increased in June – primarily due to the number of people coming from paid search (see next slide).

## Display Text Overview – June 2013

Clicks  
2,672

Budget  
\$9,000

Impressions  
257,247

CTR  
1.039%

CPC  
\$3.37

### TOP DISPLAY SITES

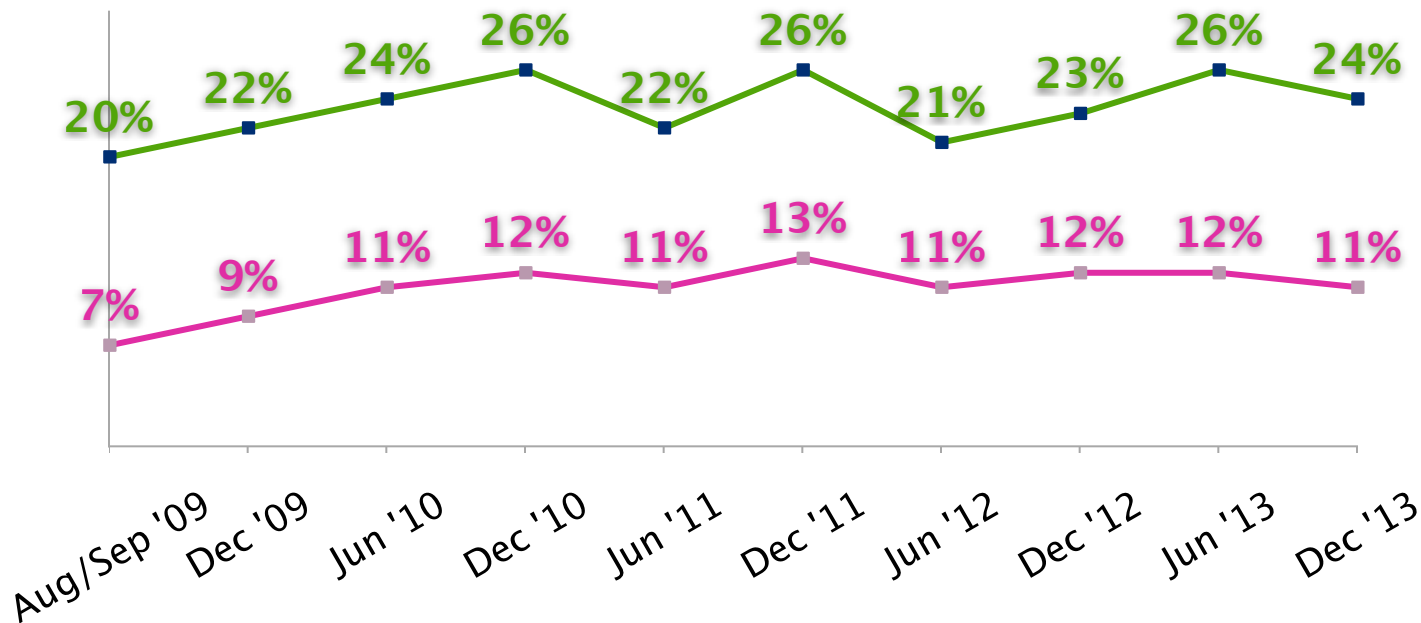
answers.com  
wikihow.com  
accuweather.com  
ehow.com  
about.com  
weather.com  
godvine.com  
drugs.com  
livestrong.com  
nytimes.com  
vitals.com  
thefreedictionary.com  
rightdiagnosis.com

- “Display search” represents search ads placed **semantically on particular websites and targeted websites that allow text-based ads**
- Performance of Display Search resulted in **higher than average click-through rate** for similar ad campaigns run for other hospitals

- Organic & referred traffic
- PPC performance
- Yielding actionable data

# Market research shared other insights

## Summary of Unaided Awareness of North Shore-LIJ Hospitals (Net)



	Aug/ Sep '09	Dec '09	Jun '10	Dec '10	Jun '11	Dec '11	Jun '12	Dec '12	Jun '13	Dec '13
	%	%	%	%	%	%	%	%	%	%
North Shore-LIJ (Net)	20	22	24	26	22	26	21	23	26	24
Competitor B	19	20	16	18	19	25	19	17	20	14
Competitor C	9	10	10	8	9	9	8	11	10	10

Q: When you think of hospitals or hospital systems that provide outstanding medical care and treatment (in the greater New York area/across the US), what one hospital or hospital system first comes to mind?

# Surveys yielded unexpected results

---

## Summary of Aided Awareness of Cancer Institute and North Shore–LIJ System:

- Total Awareness of the Cancer Institute **fell** from 48% to 41%.
- Total Awareness of the overall Health System **grew** from 74% to 83%

Q: Have you heard of North Shore–LIJ Health System/North Shore–LIJ Cancer Institute?

# Condition-specific tactics yielded results

The Breast HRA was launched on October 7, 2013 and ended February 3, 2014<sup>i</sup>. However, since the database is only updated through December 30, 2013, the data is limited to that period. The HRA garnered 374 completed profiles from launch through December 30, 2013 (See chart1A).

**Chart 1A –Through December 30, 2013**

HRA	Total Profiles Completed	Driven by paid Search	Driven Organically	*Total Spend	Spend per paid Profile
Breast	374	195	179	\$31,145	\$159.72

\* Includes paid advertising and cost of HRA

Of the 374 completed profiles, 110 individuals were identified as 'at risk' and 30 or 27% made an appointment to see a health care professional at NS LIJ Health System (See chart 1B).

**Chart 1B-Through December 30, 2103**

	Completed	At Risk	At Risk %	Patients	Total Charges	Projected Payments	*Spend	Return on spend (ROS)
Breast	374	110	29%	30	\$134,391	\$44,349	\$31,145	1.42X

\*Includes paid advertising and cost of HRA

The full charge /payment capture is not fully accounted for as the process is a long one and the latest CRM database update is as of December 30, 2013. However, we currently have billed for \$135K or a multiple of 4.32 times our program spend. The median number of encounters is seven and the average time between visits is approximately 15 days with a standard deviation of about 14 days. Thus we are still in the beginning phase of the waterfall, especially considering that billing and payments further lag visits (see Chart 1C). It is estimated that we are 50% through the cycle and project that this cohort group will incur a total of 270K in charges and 89K in payments by cycle end<sup>ii</sup>.

# Overall outcomes:

---

- Brand marketing campaigns can work – but not in the way we think
- Campaign accrued brand equity to health system – but not the institute
- Much harder to use mass marketing to promote treatments
- Demand generation tactics around specific conditions yielded downstream results

Therefore, we changed our approach

# Internalizing measurement

---

- Goals & success measures before tactics
- Focus on “what you could”  
not “what you can”
- Involve the entire team
- Assign responsibilities
- Be open and honest about your results

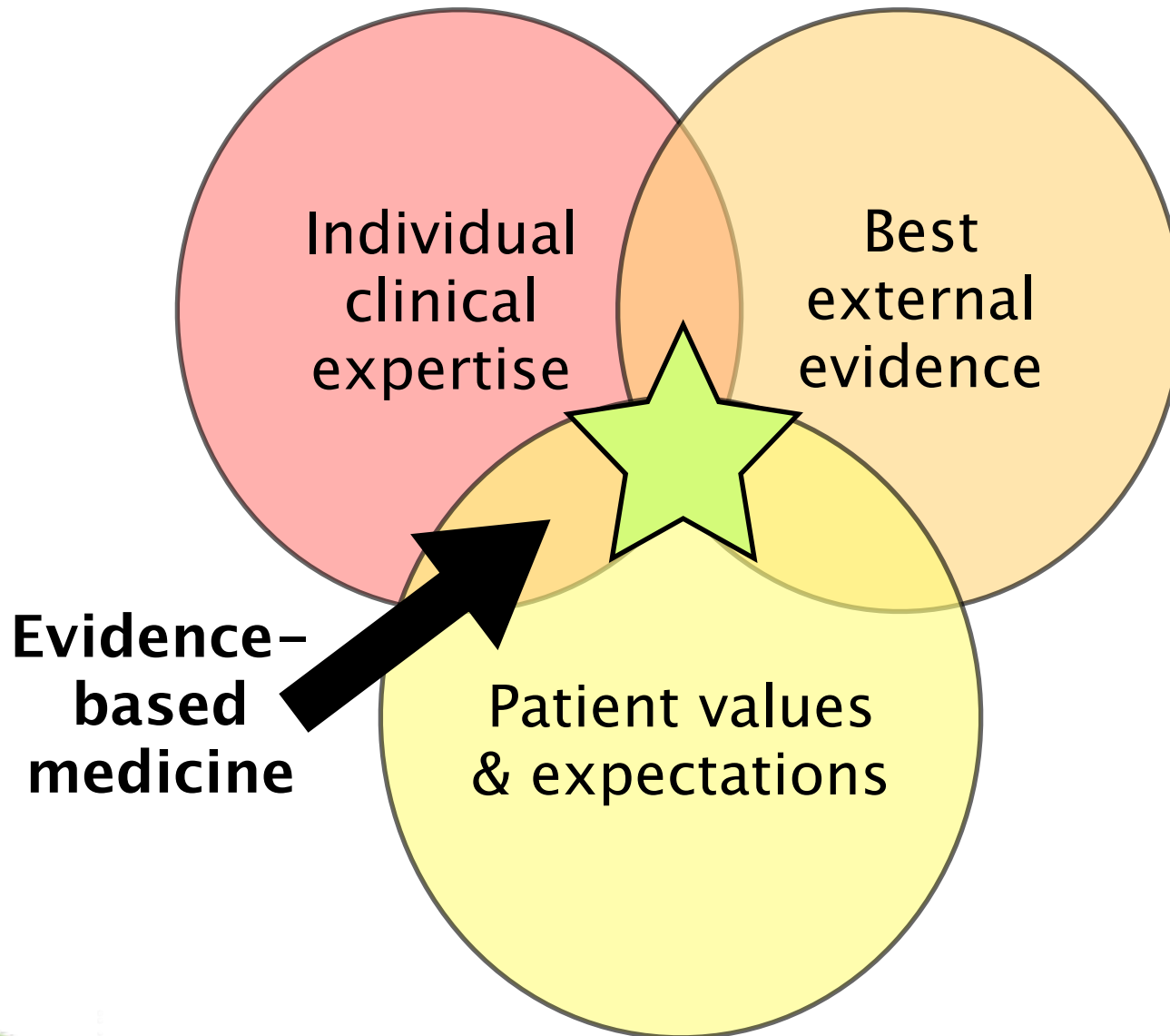
# Building the discipline

---

- Take baseline measurements
- Identify your gaps
- Don't be afraid of math
- Use measurement to improve and change
- Report frequently – quarterly, monthly, weekly, daily...and even hourly
- Spend 1 hour a week on measurement...and then more

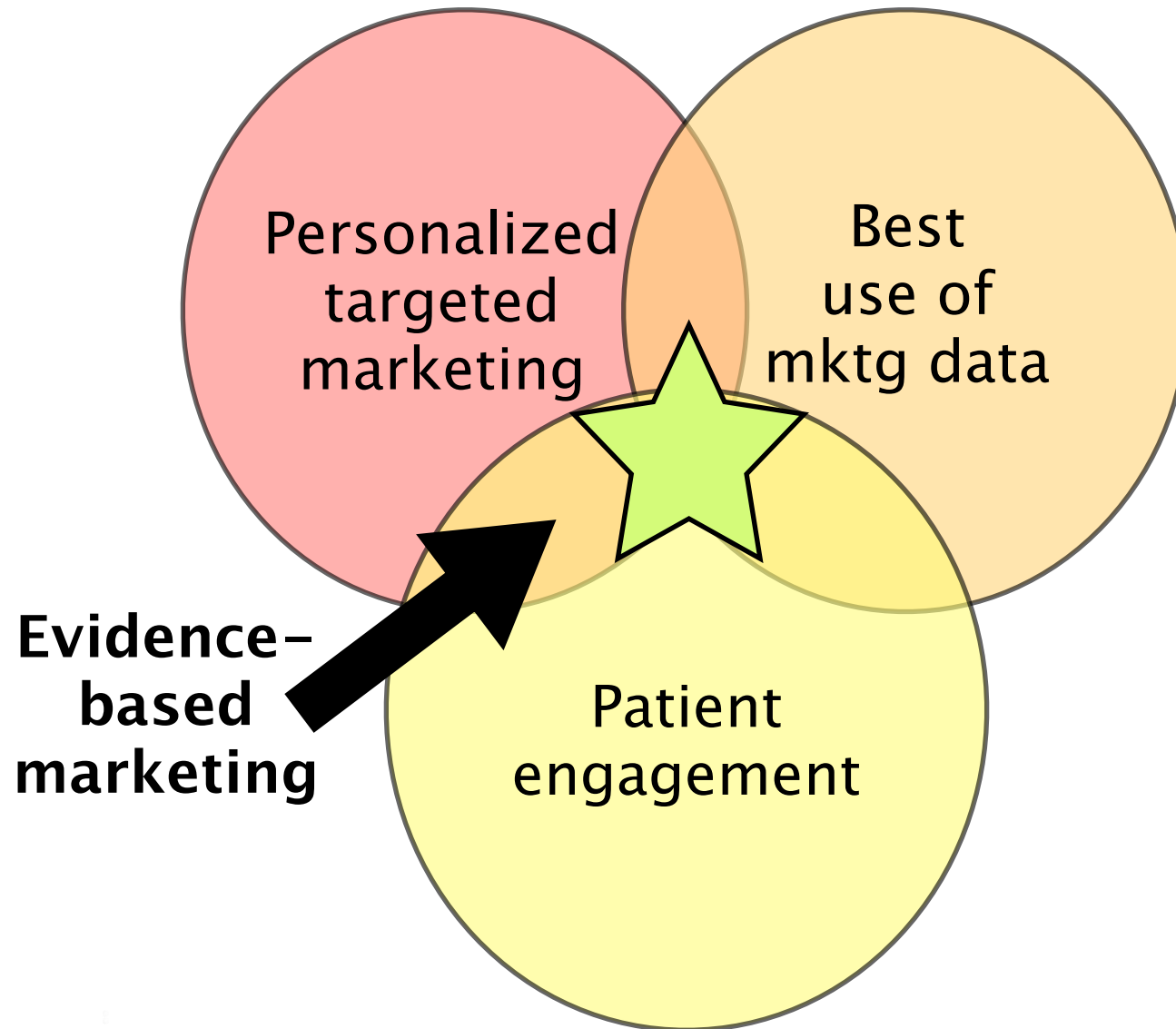
# Evidence-based medicine

---



# Evidence-based marketing

---



---

# Questions?