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# Connecting with Physicians Online

Searching for Answers  
Google/Hall & Partners  
U.S., Nov 2009

# Background

Demonstrates how physicians use the internet and search in their clinical practices.

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## Research Objectives:

- Understand how physicians use the Internet in clinical practices
- Outline how physicians use search
- Determine the impact of online searches
- Evaluate physicians perceptions of the Internet



# Two Part Study Methodology

**Vendor:** Hall & Partners

**Survey field dates:** May 20, 2009 – June 8, 2009

**Number of Interviews:** 411 physicians (PCP/GP, Endo, Cardio and Psych) completed an online survey, including embedded internet search exercises

**In order to qualify for the survey, a respondent had to:**

- Reside in the United States
- Be in practice 2 – 30 years
- Spend at least 75% of their time in direct patient care
- See a minimum of
  - 75 patients/week for PCPs/GPs/Endo/Cardio
  - 50 patients/week for Psychiatrists



\* PCPs/GPs n=104, Endocrinologists n=103, Cardiologists n=101, Psychiatrists n=103

# Patient Scenario Task Explained

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## Task Intro

- Present a few clinical scenarios, which will require you to research using the Internet
  - Scenarios are intended to mimic actual situations that you may experience
- 

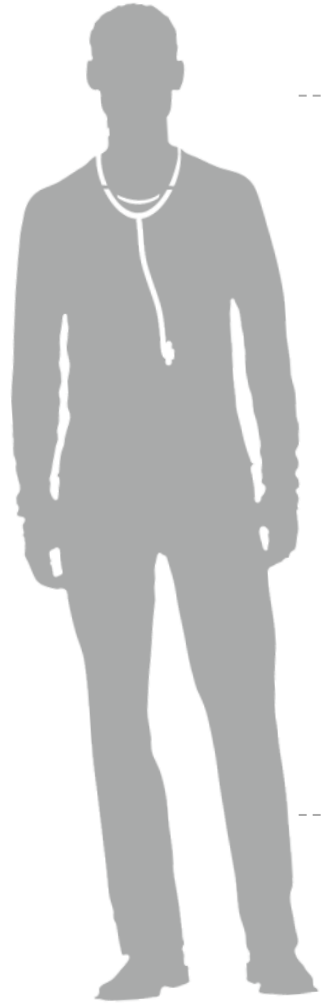
## Task Explained

- Read each scenario and proceed with your research
  - Spend the same amount of time researching that you normally do for a clinical situation
  - Continue to research until you feel satisfied that you have found the necessary information
  - Assume you have never come across the scenarios before and are researching for the first time
- 

## Tasks Monitored

- Activities will be tracked within the survey environment
  - Online activity will be kept confidential and will only be used for research purposes
-

# Patient Scenario Task: Medication Question



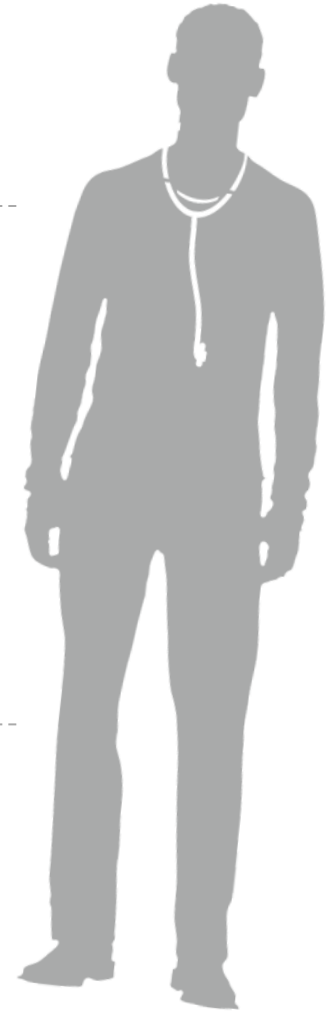
**Psychiatrist**

You want to know if your patient suffering from bi-polar disorder should be switched from a newer-generation anti-epileptic medication to an older generation anti-epileptic medication. Specifically, you want to compare the trade-offs between safety risks and efficacy given the recent black box warning about suicidal ideation in newer generation anti-epileptic drugs.

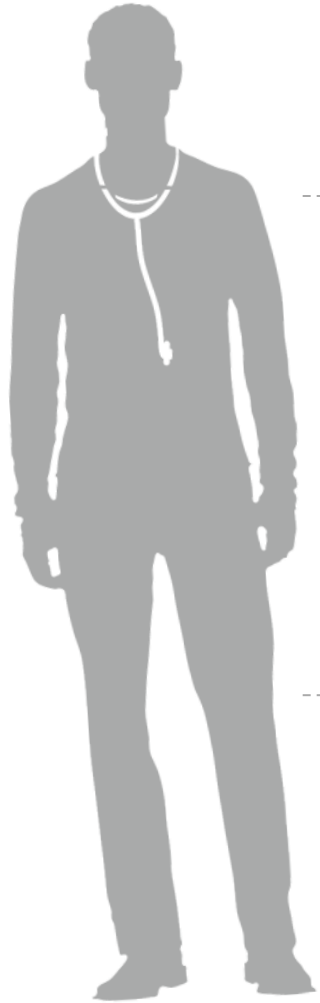
# Patient Scenario Task: Diagnosis Situation

PCP

You want to know the current diagnostic criteria for PMDD. The reason is that a 25 year old is asking for the birth control medication by brand name, which she heard may also help alleviate the severe emotional symptoms she typically experiences around her period.



# Patient Scenario Task: Symptom Research

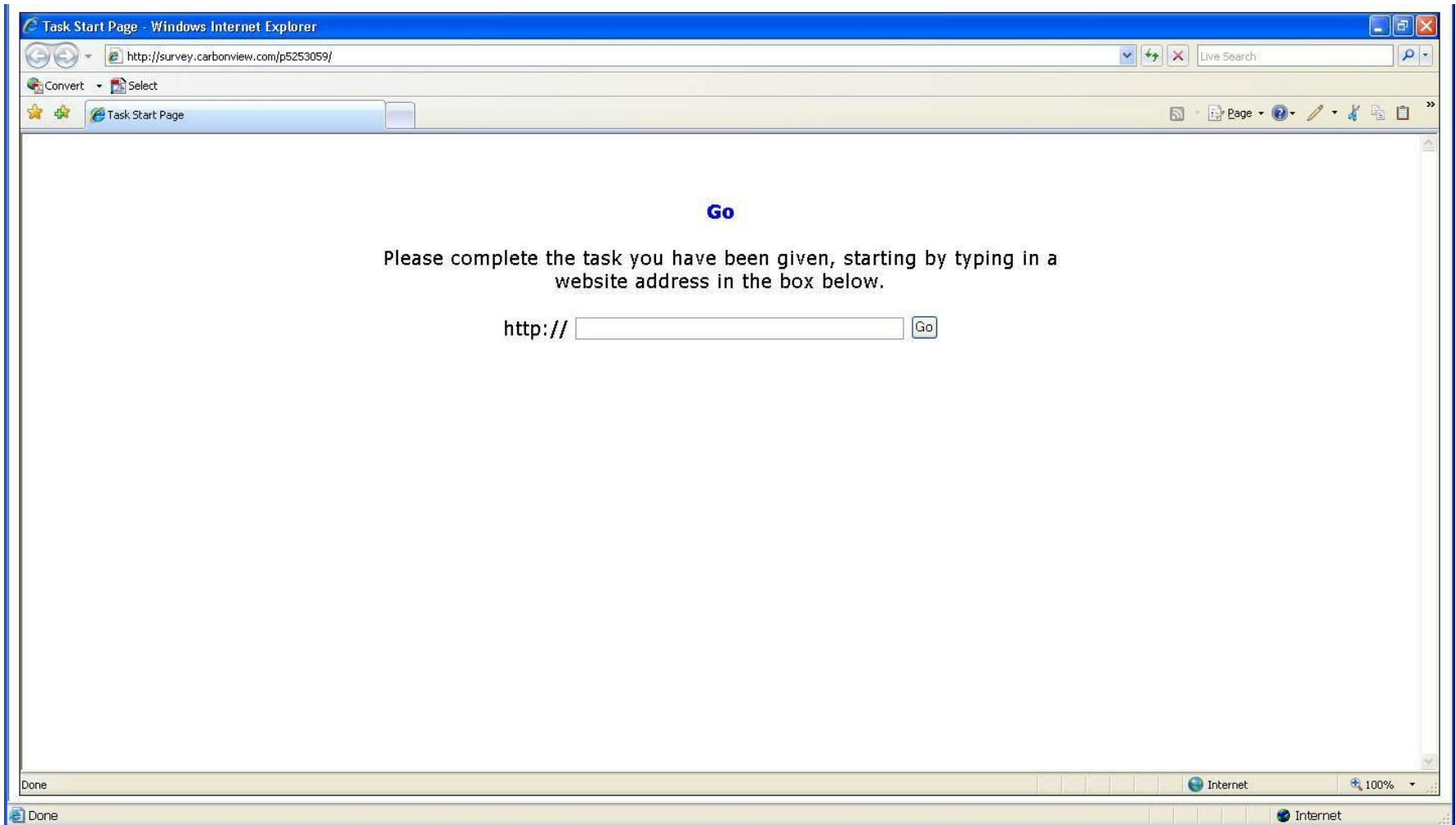


**Cardiologist**

You want to learn more about the clinical implications of the ACCORD study in order to minimize the CVD risk for your patients with type 2 diabetes.



# Patient Scenario Research Task Start Page



The screenshot shows a Windows Internet Explorer browser window. The title bar reads "Task Start Page - Windows Internet Explorer". The address bar contains the URL "http://survey.carbonview.com/p5253059/". Below the address bar, there are buttons for "Convert" and "Select". The main content area of the browser displays the following text:

**Go**

Please complete the task you have been given, starting by typing in a website address in the box below.

http://

The status bar at the bottom of the browser window shows "Done" on the left and "Internet" on the right, along with a zoom level of "100%".

# The Digital Physician

## **1** Internet Overview: The Internet is Integral to Practice

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## **2** Search Overview: Search is Core to Online Clinical Research

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## **3** Conclusions and Recommendations

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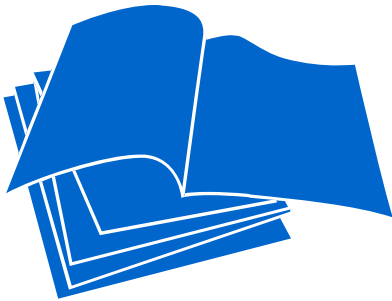
# **1. The Internet is Critical to Clinical Practice**

# The Internet Is the Top Health Resource



**86%**

of physicians have used the Internet to gather health, medical, or prescription drug information



The Internet ***far exceeds*** the following resources for gathering health, medical, or prescription drug information:

- **Training – 78%**
- **Peer Reviews Journals – 77%**
- **Pharmaceutical sales representatives – 77%**
- **Colleagues – 67%**
- Books – 56%
- Health-related organization/association – 54%
- Magazines – 35%
- Video/DVDs – 20%

# Physicians Access the Internet Across Locations

## Places Used to Access the Internet for Medical Information



**92%**

in office/clinical setting



**88%**

at home



**59%**

on a mobile  
device



**21%**

in patient exam room

# Most Physicians Access the Internet Daily

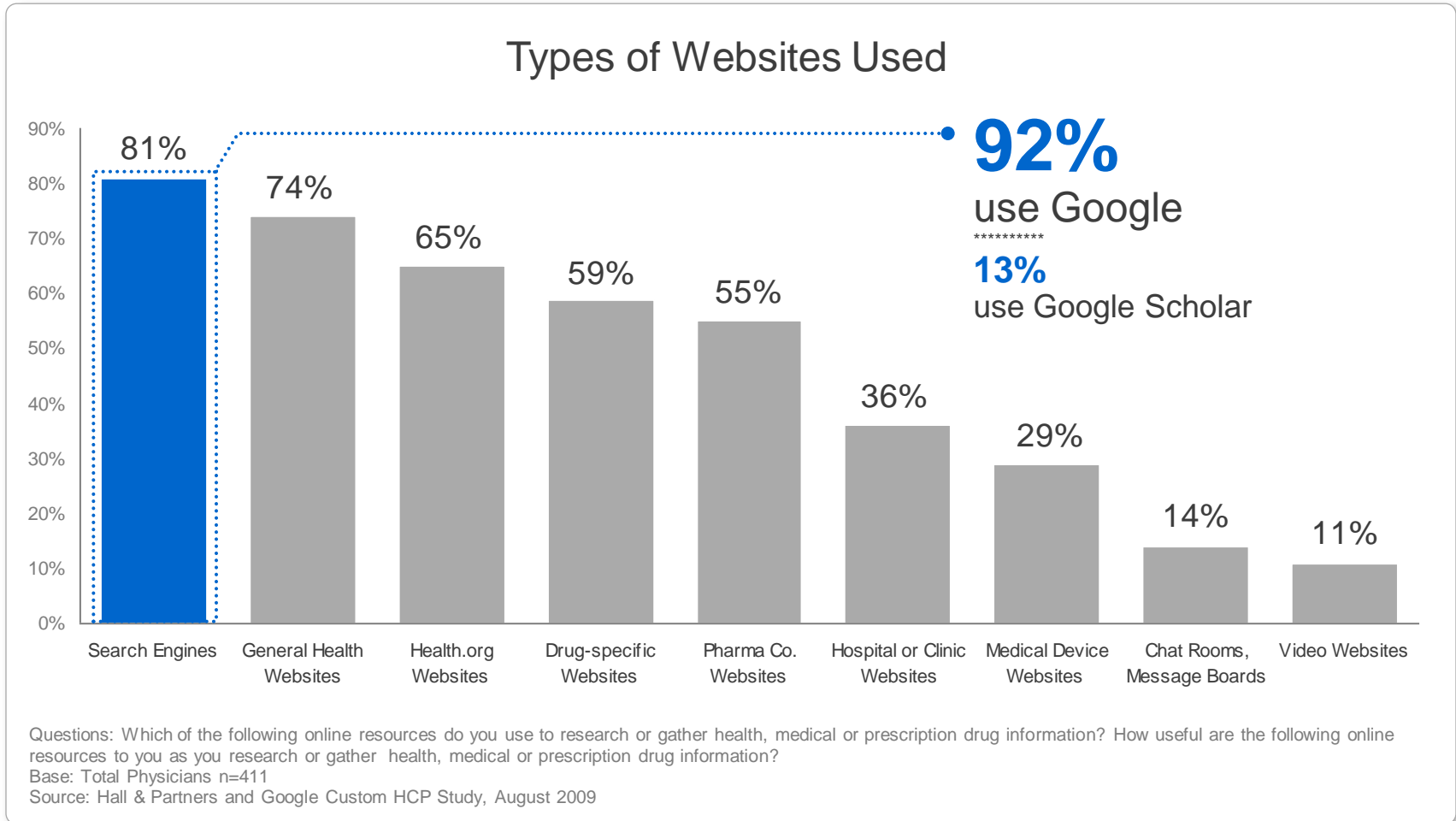


Questions: Which of the following best describe how often you use the internet in your clinical practice to gather health medical or prescription drug information?  
Approximately how many times per week do use search engines to research clinical information?

Base: Total Physicians n=411

Source: Hall & Partners and Google Custom HCP Study, August 2009

# Search Engines are the Top Online Resource



# Physicians Look for Info on Variety of Topics

## Reasons for Conducting Online Research



### Patient/ Conditions

General condition information	75%
Information for patients	61%
Information to aid diagnosis	53%



### Drug/Treatments

Specific drug information	77%
Treatment side effects	68%
Drug safety information	66%
New medications	64%
Contraindications	59%
Medication in development	45%
Clinical trial information	45%

Question: For which of the following reasons do you use the internet to research health, medical or prescription drug information?

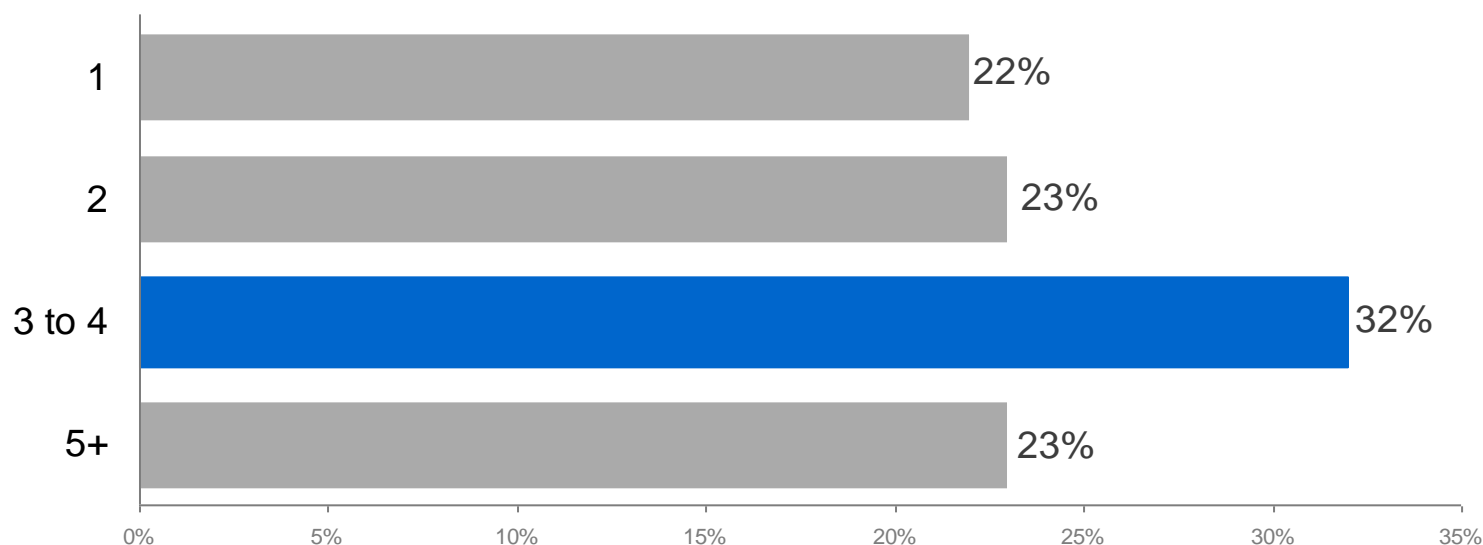
Base: Total Physicians n=411

Source: Hall & Partners and Google Custom HCP Study, August 2009



# Physicians Research on Multiple Sites

Number of Unique Websites Visited During Patient Research Task



Base: Physicians who used websites n=389

Source: Hall & Partners and Google Custom HCP Study, August 2009

# Physicians Research Further on Websites

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**Home**

**Research**

**Migraine and cardiovascular disease**

Migraine is associated with a doubled risk of ischaemic stroke, which is only apparent among people who have migraine with aura. Results of this study also suggest a higher risk among women, and the risk is further magnified for people with migraine who were younger than 45 years of age, and women who used oral contraceptives. The researchers did not find an overall association between any migraine and myocardial infarction or death due to cardiovascular disease. [Editorialist Elizabeth Loder](#) says that patients should be treated aggressively for modifiable cardiovascular risk factors.

**News**

**Doctors warn of dangers of allowing media access to reports in family court cases**

Seventeen organisations that represent doctors, lawyers, social workers, and children have banded together to fight UK government plans to allow the media access to medical and welfare reports in family court cases. They say that the plans threaten doctor-patient confidentiality; may breach the United Nations convention on the rights of the child and the right to privacy in the European human rights convention; and threaten substantial further harm to children who are already at risk.

Other news published on 28 October:

- Lack of palliative care causes unnecessary suffering for India's terminally ill people
- Plugging gaps in China's hepatitis B prevention would be cost effective

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- Current print issue
- Rapid responses
- Pandemic flu

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- A flea-market hunter-gatherer
- Can a conscience dictate?
- Mandelson's distemper
- Respiratory medicine
- Are men more dishonest than women?
- Richard Lehman's journal blog

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powered by ePROCATES

**Get Answers NOW**

**CLICK HERE**

to find out more about this new clinical resource that quickly delivers highly relevant diagnosis and treatment guidance at the point of care.

**REQUEST A FREE TRIAL**



**36%**  
Read the Page and  
Returned to Search

**34%**  
Clicked Further  
into the Site

# Physicians Take Action as a Result of Online Research

## Frequency of Actions Taken as a Result of Online Research

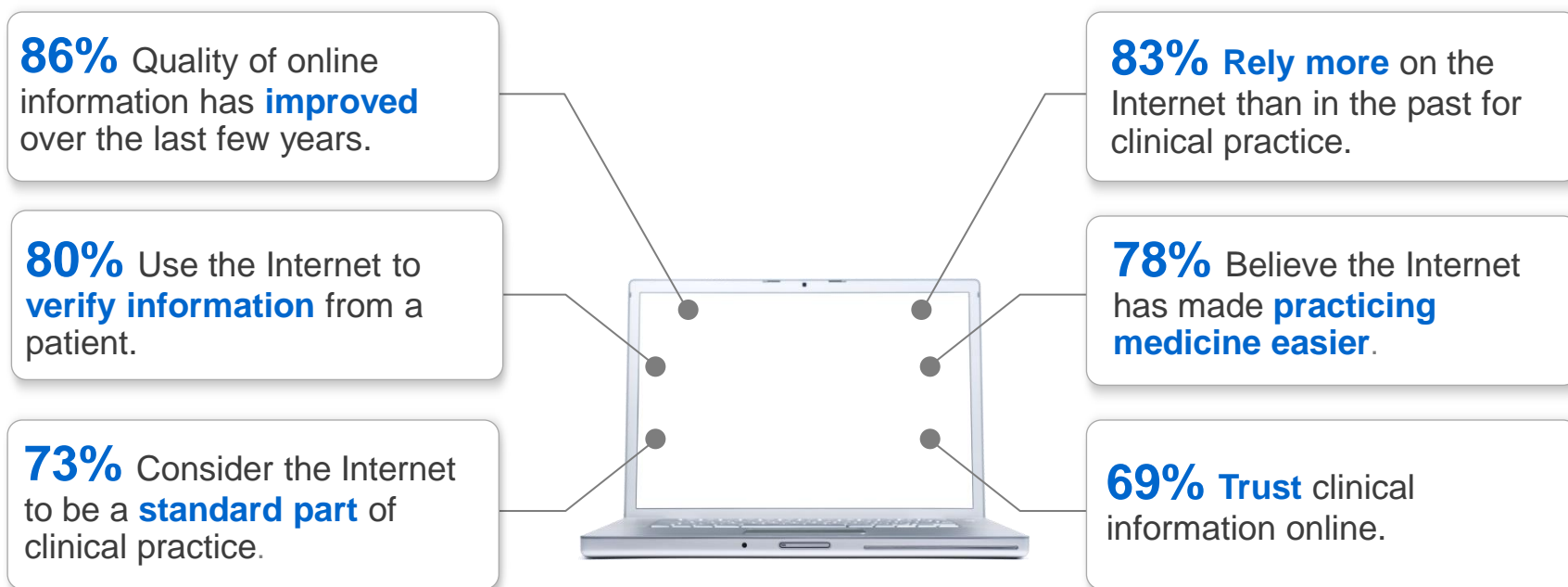
	Physicians
Conduct further research myself	48%
Print out information or direct a patient to a website to learn more	45%
Recommend a patient change behavior or habits (e.g., lifestyle)	38%
Recommend further tests based on symptoms	32%
<b>Make a change in a patient's medication</b>	<b>31%</b>
<b>Initiate treatment (e.g., write a prescription for a new course of treatment)</b>	<b>30%</b>
Ask another colleague for his/her opinion	28%
Request more information about a product or medication	25%

Question: How often do you take the following actions as a result of gathering clinical information online? Top 2 box (always /often).

Base: Total Physicians n=411

Source: Hall & Partners and Google Custom HCP Study, August 2009

# Physicians Believe the Internet is a Benefit

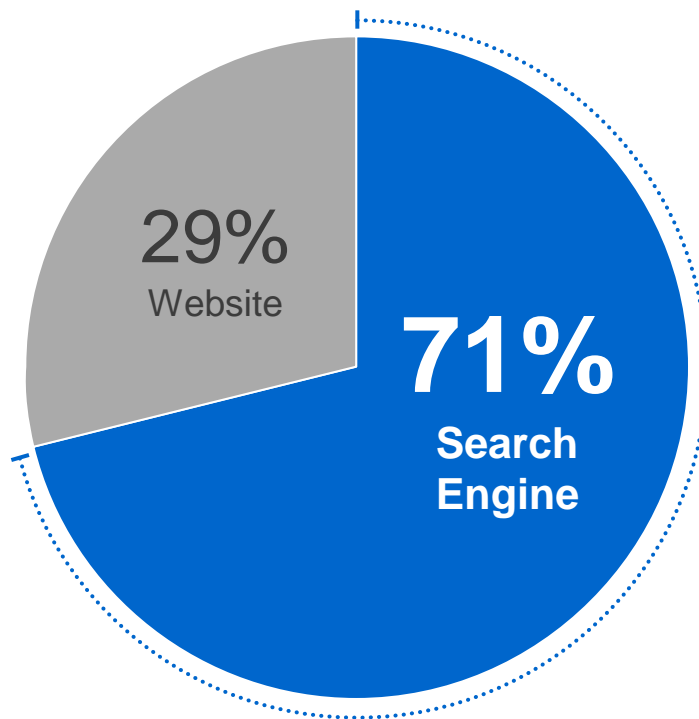




## **2. Search is Core to Online Clinical Research**

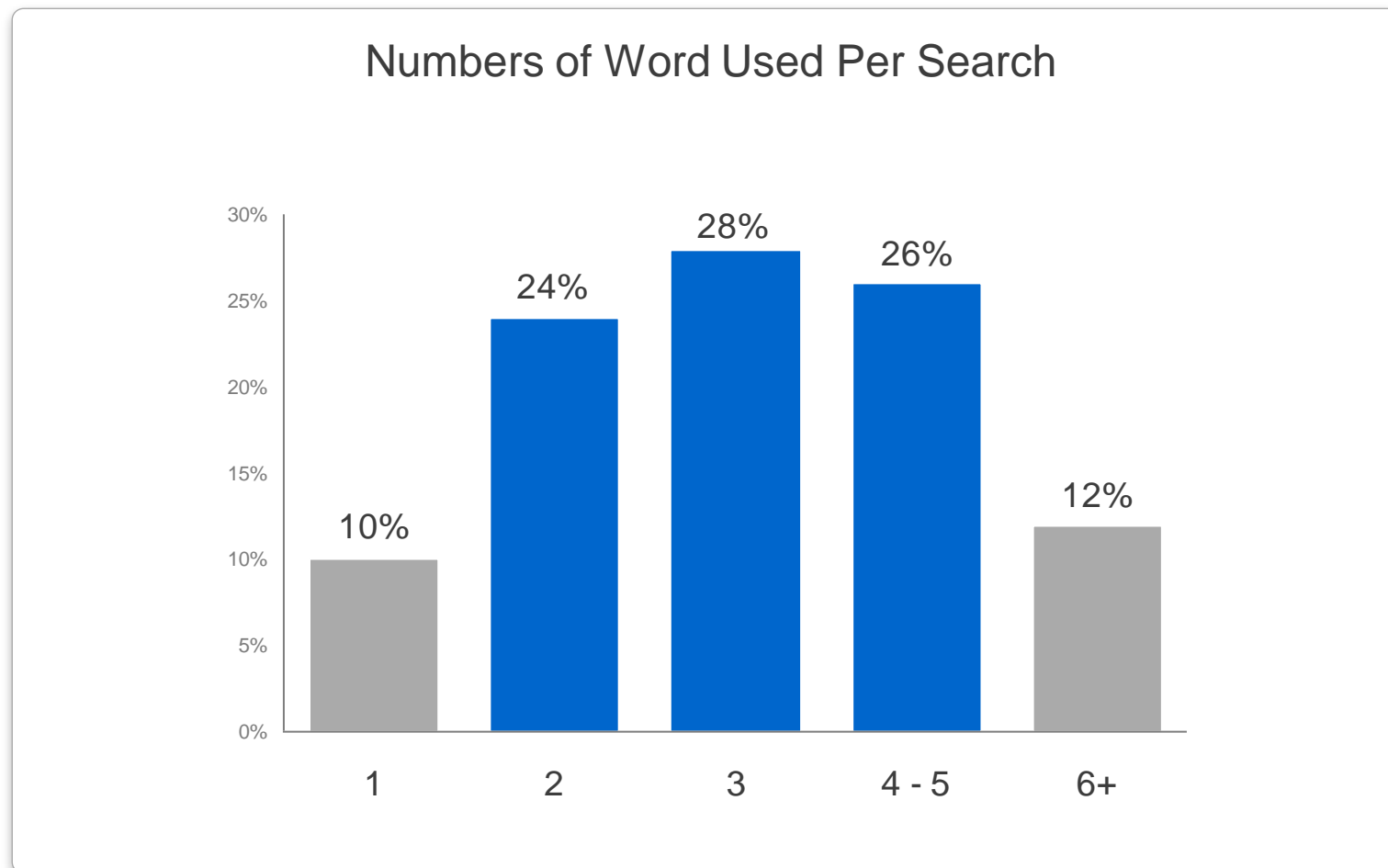
# Physicians Start with Search

How Physicians Start Patient Research



\*Note: 'Where search starts' includes what the 1st step was that respondents took when executing the task. 'Total search engine use overall' includes the use of search engines overall, across scenarios and searches  
Base: Total Physicians n=411, Physicians who use a search engine n=294  
Source: Hall & Partners and Google Custom HCP Study, August 2009

# Physicians Search on Multiple Words



Base: Physicians who use a search engine n=294

Source: Hall & Partners and Google Custom HCP Study, August 2009

# One-Third of Physicians Search on Branded Meds

## Types of Search Terms Physicians Use



**57%**

Conditions

*e.g., cardiovascular disease,  
post traumatic stress disorder*



**36%**

Treatments / Trials

*e.g., diabetes type II treatment,  
antiplatelet therapy trials*



**33%**

Branded Medication

*e.g., Boniva,  
Pristiq*

Base: Physicians who use a search engine n=294

Source: Hall & Partners and Google Custom HCP Study, August 2009



# Physicians Typically Conduct 1 – 2 Searches

Number of Searches Made During Patient Research Task

**64%** Conduct 1 search

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**21%** Conduct 2 searches

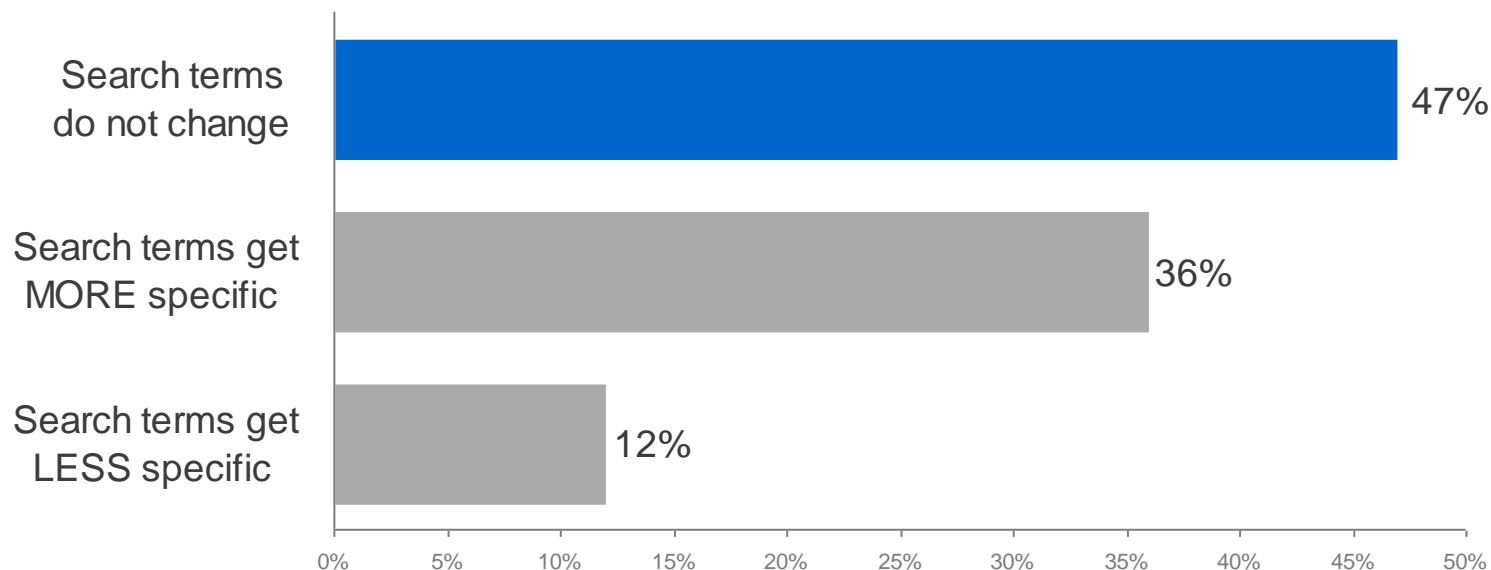
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**15%** Conduct 3+ searches



# Almost Half Don't Change Search Terms While Searching

## Physicians Who Conduct Multiple Searches

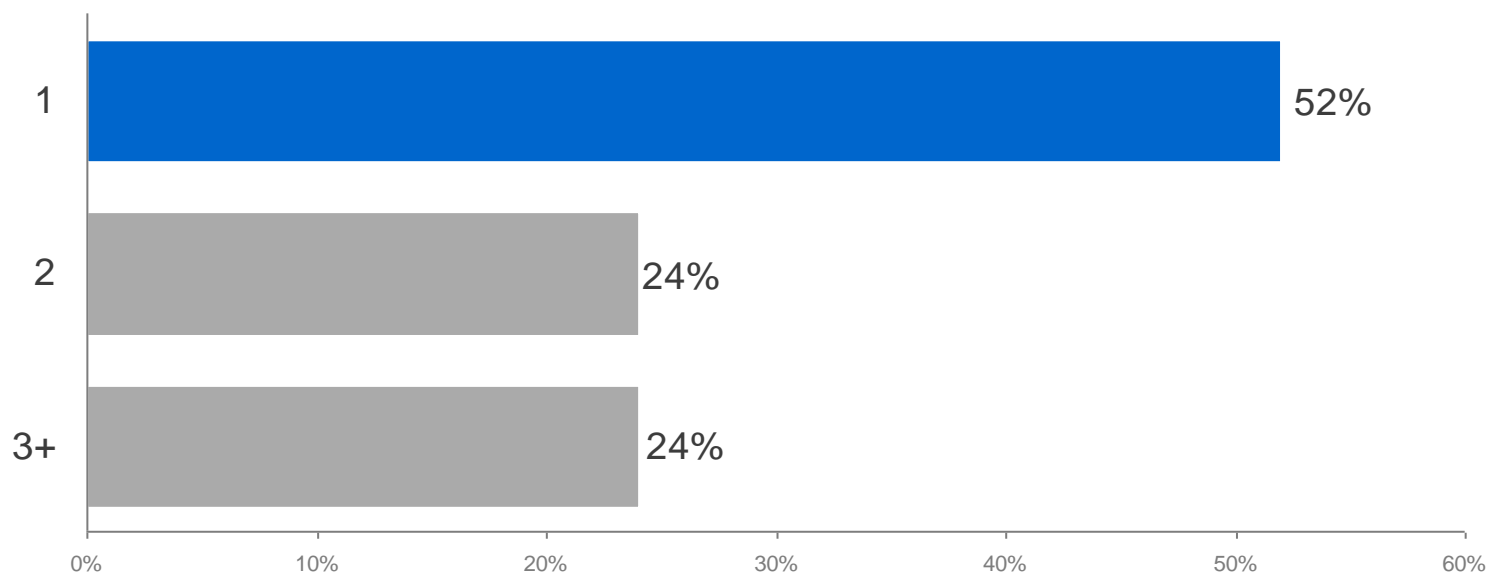


Base: Physicians who use a search engine n=105

Source: Hall & Partners and Google Custom HCP Study, August 2009

# Physicians Find Answers Quickly

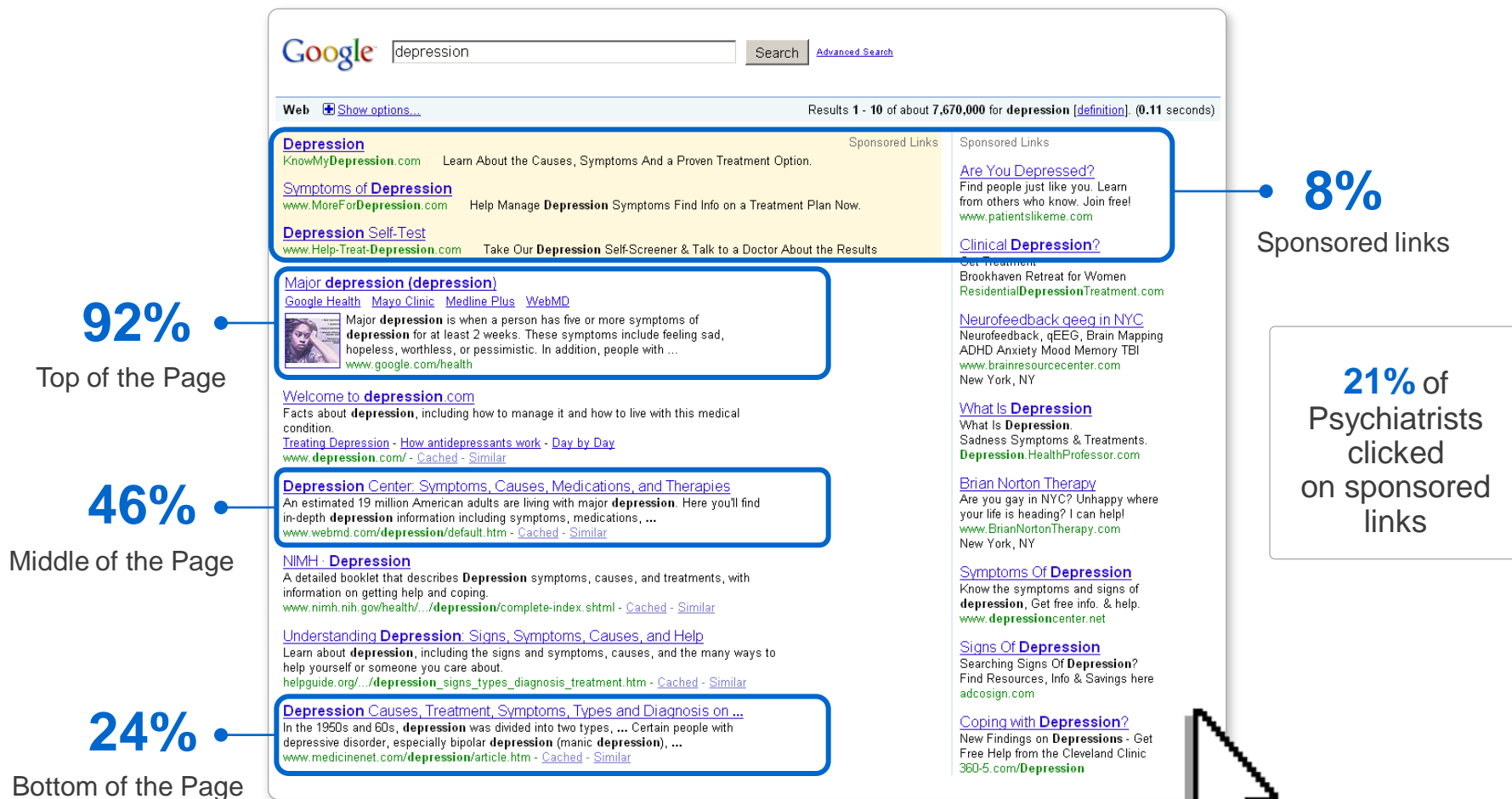
Number of Search Pages Viewed



Base: Physicians who use a search engine n=294  
Source: Hall & Partners and Google Custom HCP Study, August 2009

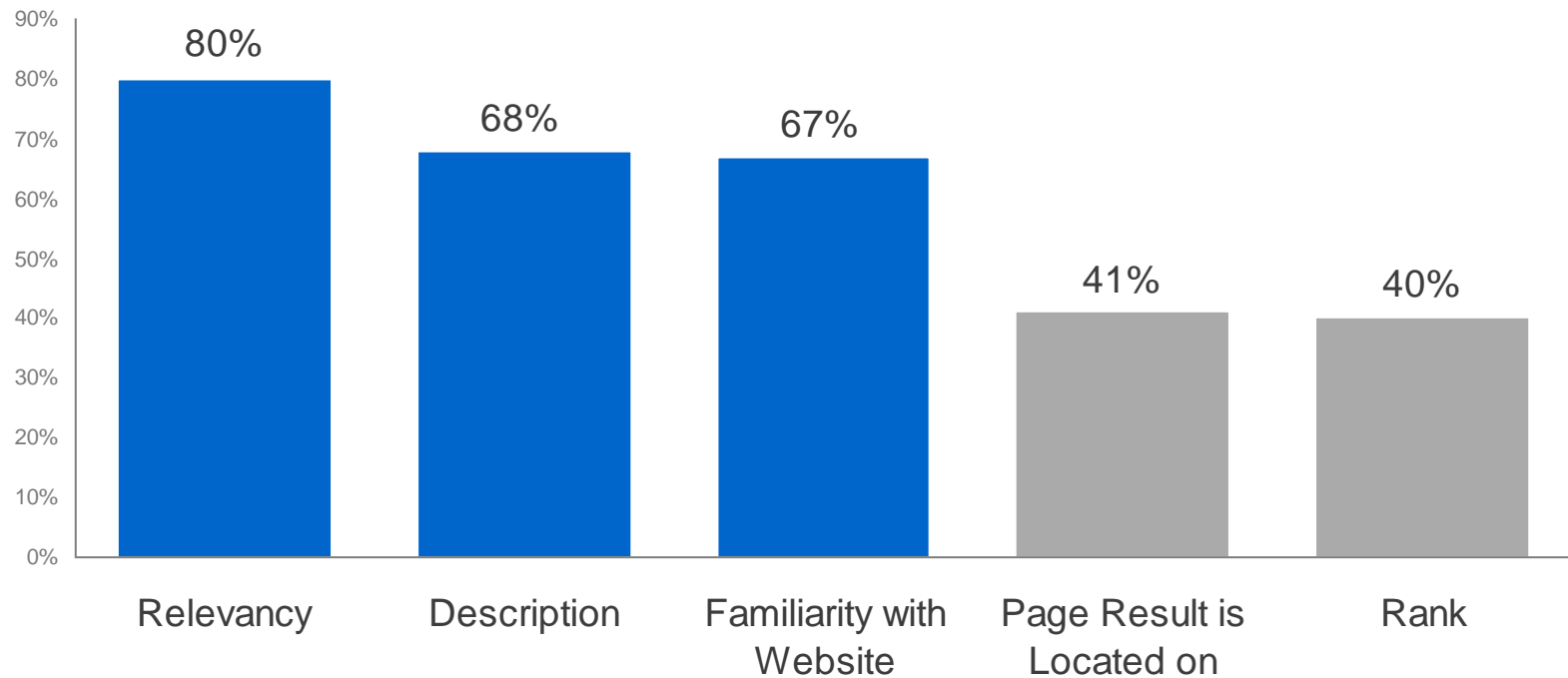
# Physicians Click at the Top of the Page

## Percent of Physicians That Clicked



# Emphasis is Placed on Relevancy and Familiarity

Importance of Factors to Determine Which Search Results to Select

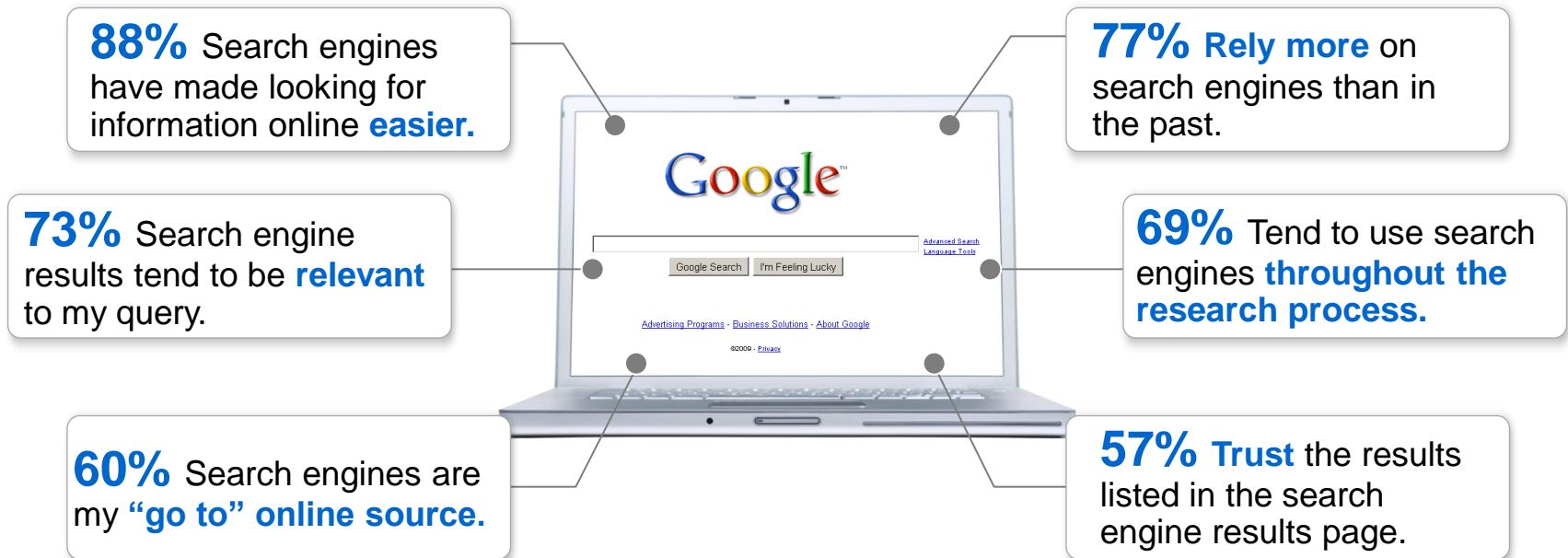


Question: Still thinking about using search engines to find clinical information online, please indicate how important each of the following are in helping you determine which results to select on a search engine results page?

Base: Total Physicians n=411

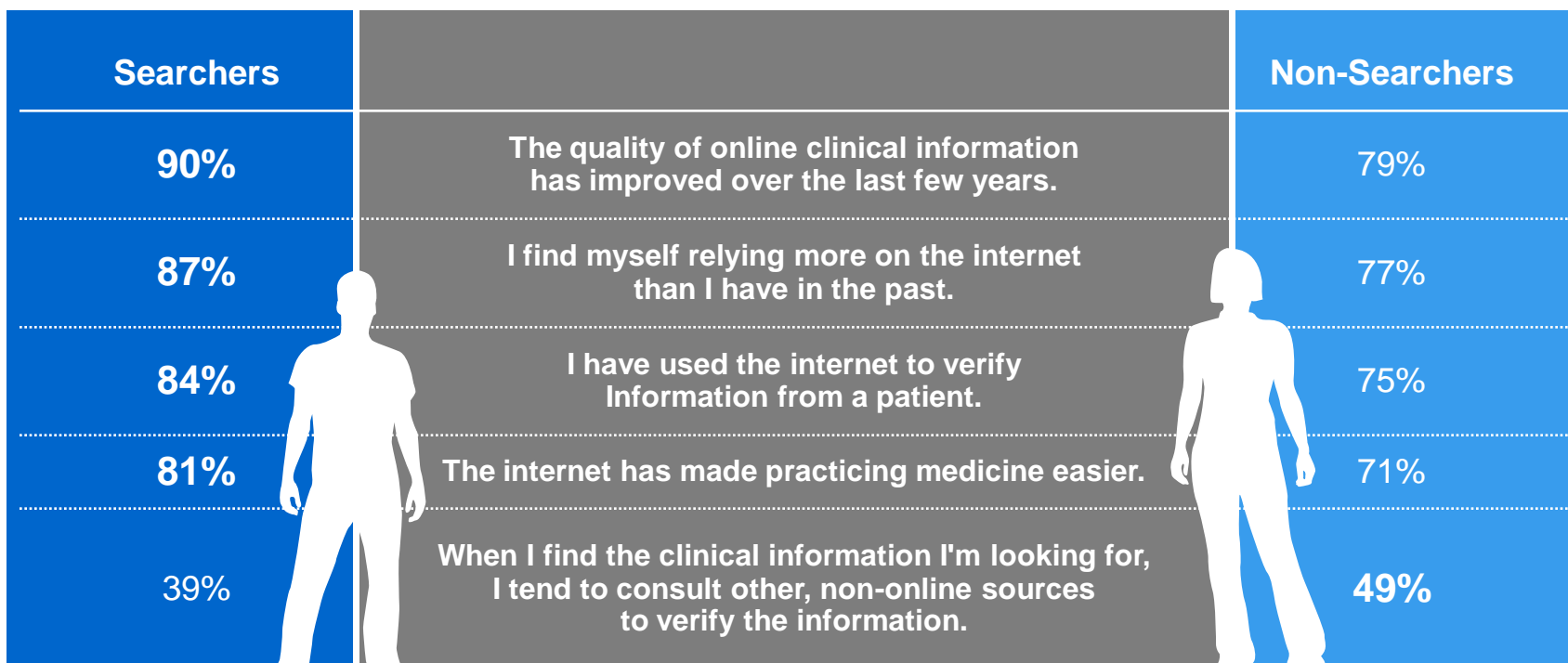
Source: Hall & Partners and Google Custom HCP Study, August 2009

# Physicians Find Search Engines Are Useful & Relevant



# Perceptions Differ Based on Search Usage

## Searchers Rely on the Internet More Than Non-Searchers



Question: Using the scale below, please indicate how much you agree or disagree with each of the following statements about using the internet in your clinical practice? Top 2 box.

Base: Total Physicians n=411

Source: Hall & Partners and Google Custom HCP Study, August 2009



## Conclusions & Recommendations



# Conclusions

- Internet is an integral part of physicians clinical practice
- Physicians use the Internet round the clock in short bursts of time
- Search is a gateway to online health information but also used throughout the research process
- Physicians find what they are looking for using search:
  - Using three words per query, they do one search and click on the top of the page on a result that is relevant to their query
- The Internet and Search have transformed medical practice today

# Physician Campaign Recommendations

- Ensure you have separate physician-specific campaigns set up to capture your target audience
- Include a robust range of keywords, from more general brand and condition terms to more specific ones unlikely to be part of consumer searches:

treating arthritis	zinaxa precautions
treat arthritis	zinaxa prescribing info
arthritis treatment	zinaxa interactions
arthritis research	zinaxa clinical trials



- Always make sure ad copy is clearly targeted to HCPs:

## [Arthritis Physician Site](#)

Antirheumatics & Joint Longevity:

Healthcare Professionals Only

[www.PhysicianArthritisResource.com](http://www.PhysicianArthritisResource.com)

## [ZINAXA® Physician Site](#)

Prescribing Info & Education Tools

Healthcare Professionals Only

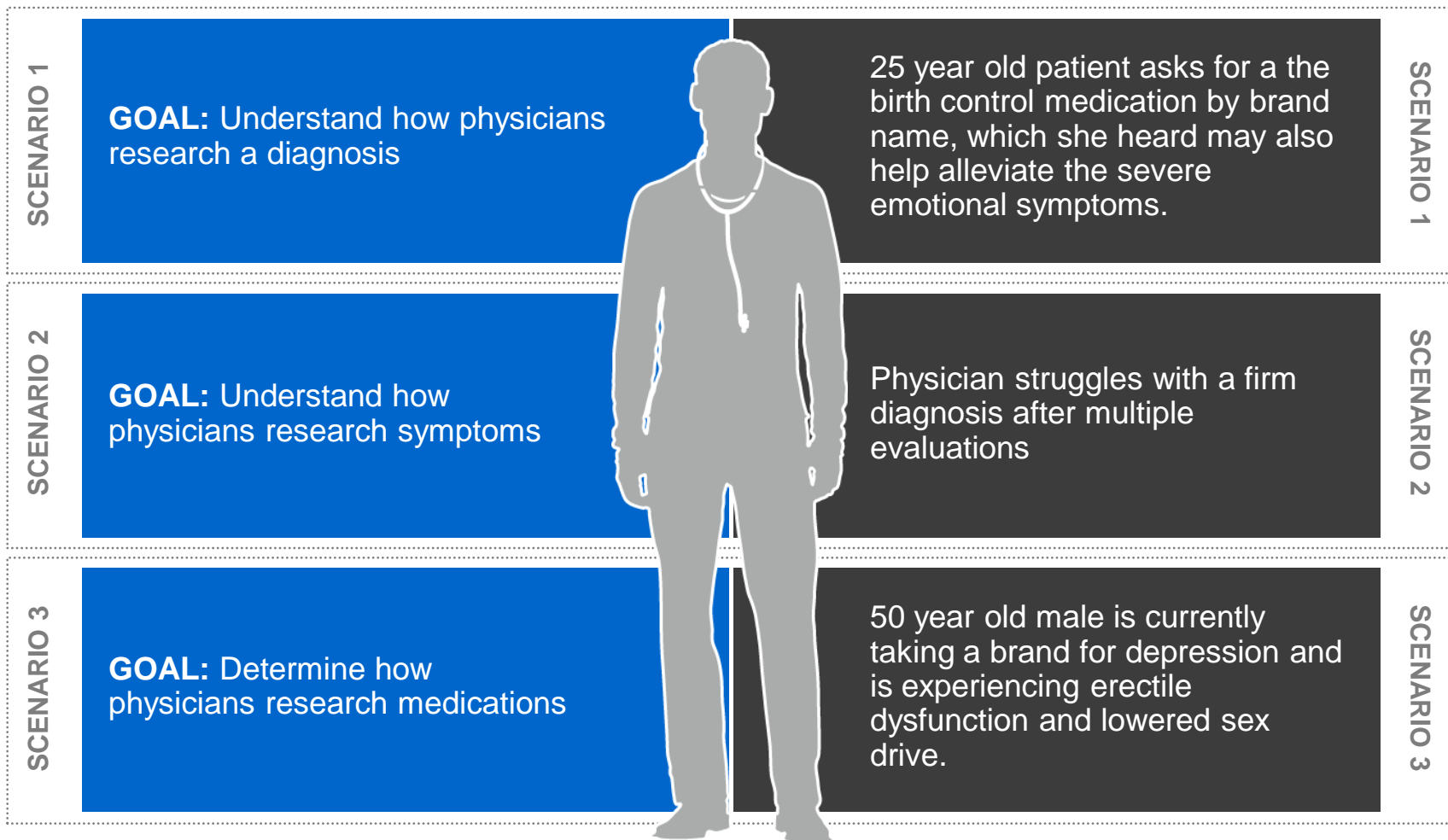
[www.ZINAXA.com](http://www.ZINAXA.com)

- Land physicians on professional content on your site
- Maintain top positions in order to syndicate across Google's search partners to distribute your message across the web

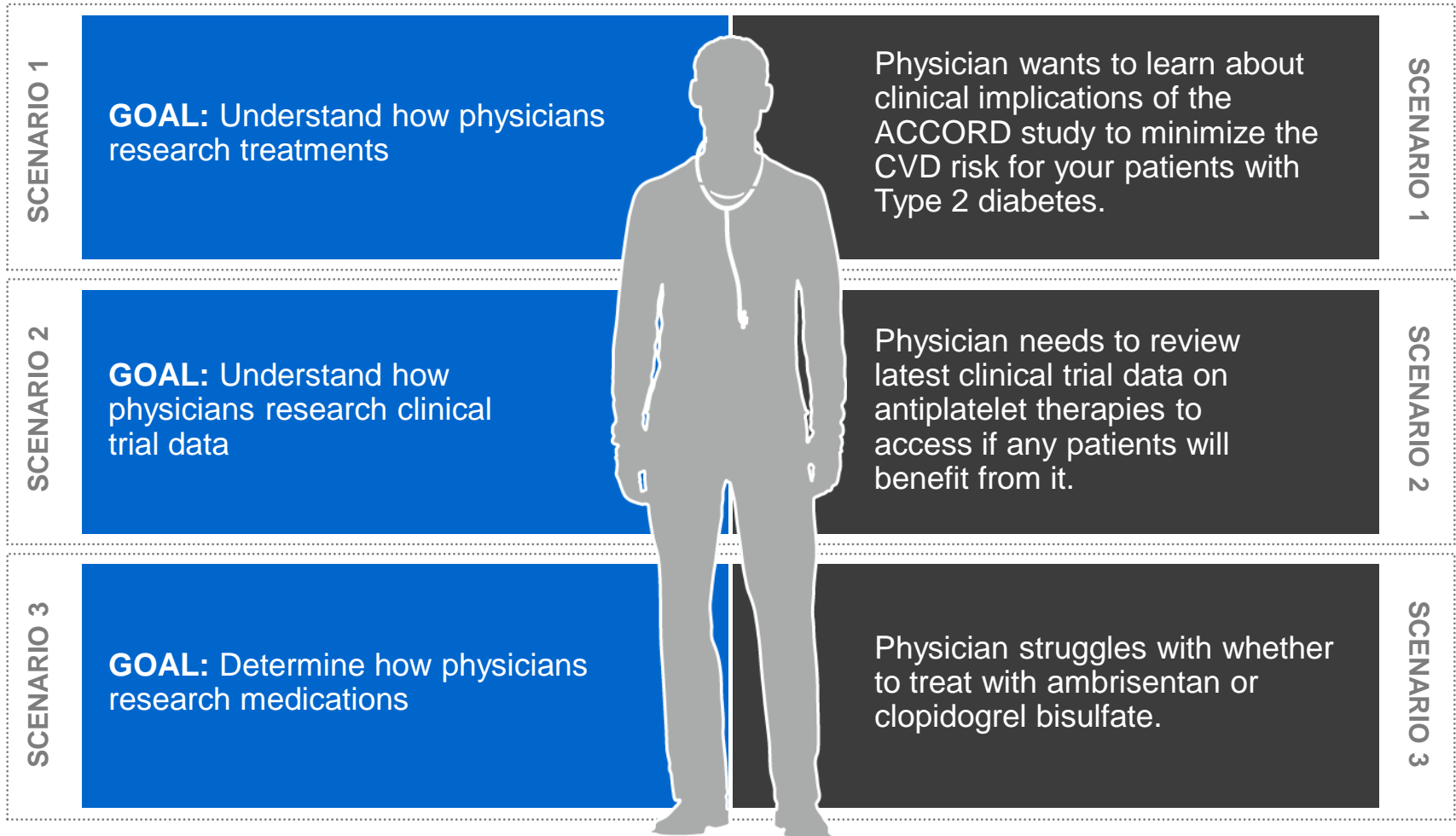


# Appendix

# PCP Research Scenarios




# Cardiologist Research Scenarios



# Psychiatrist Research Scenarios

SCENARIO 1	<b>GOAL:</b> Understand how physicians research medications	Physician wants to determine whether patient suffering from bipolar disorder should be switched from a newer-generation to an older-generation anti-epileptic medication.	SCENARIO 1
SCENARIO 2	<b>GOAL:</b> Determine how physicians research medications & check contraindications	64 year old Caucasian female patient suffers from chronic depression and want to understand if you should prescribe Pristiq and if any contraindications will occur.	SCENARIO 2
SCENARIO 3	<b>GOAL:</b> Understand how physicians research medications	Physician wants to understand whether to prescribe Chantix for a patient you are currently treating for post-traumatic stress disorder and ensure there won't be any conflicts.	SCENARIO 3



# Search Terms

## Conditions

Diabetes/ Diabetes type II/ DM2  
PTSD/ PTSD/ Post traumatic stress disorder  
IGF/ IGF-1/ Growth disorder in children/ IGFD/  
Primary IGFD and IGF-1  
PMDD/ Premenstrual mood disorder  
Chronic fatigue  
ED/ Erectile Dysfunction  
Anxiety Disorder  
Bipolar Disorder  
PAD/ Peripheral arterial disease  
Pancreatitis  
Birth Control  
Osteoporosis  
SSRI  
CVD/ Cardiovascular disease  
Depression  
Atherosclerosis  
Hypertension  
PVD

## Branded Medications

Chantix	Yaz
Pristiq	Boniva
Byetta	Plavix
Celexa	Tegretol

## Non-Branded Medications

Ambrisanten	Citalopram
Clopidogrel	Desvenlafaxine

## Branded Medications

Antiplatelet drugs/ medication	Antiseizure drugs/ medication
Antiepileptic drugs/ AEDS	Antidepressants
Switching medications/ Changing to new medications	Bipolar disorder drugs/ medications
Anticonvulsants/ Anticonvulsant drugs/ medication	

# Search Terms

## Treatments / Trials

Accord study/ trials/ results/ CVD risk/ Diabetes

Diabetes/ Diabetes type II treatment/  
medications for Hispanic patients

Antiplatelet therapy trials/ clinical trials/  
new antiplatelet therapies

ACE/ American College of Endocrinology  
guidelines on Byetta

IGF-1 growth failure treatment/ treatment for IGF-1/ I  
GFD/ Hormone therapy

ED drugs/ medications/ treatment options  
PAD therapy

PMDD treatments

ACS/ American Cancer Society

## Branded Medications

Chantix

Yaz

Pristiq

Bonivia

Byetta

Plavix

Celexa

Tegretol

## Non-Branded Medications

Ambrisanten

Citalopram

Clopidogrel

Desvenlafaxine

## Branded Medications

Antiplatelet drugs/ medication

Antiseizure drugs/  
medication

Antiepileptic drugs/ AEDS

Antidepressants

Switching medications/  
Changing to new medications

Bipolar disorder drugs/  
medications

Anticonvulsants/  
Anticonvulsant drugs/  
medication



# Search Terms

## Treatments / Trials

Accord study/ trials/ results/ CVD risk/ Diabetes  
Diabetes/ Diabetes type II treatment/  
medications for Hispanic patients  
Antiplatelet therapy trials/ clinical trials/  
new antiplatelet therapies  
ACE/ American College of Endocrinology  
guidelines on Byetta  
IGF-1 growth failure treatment/ treatment for IGF-1/ I  
GFD/ Hormone therapy  
ED drugs/ medications/ treatment options  
PAD therapy  
PMDD treatments  
ACS/ American Cancer Society

## Safety/ Contraindications

Byetta deaths/ Byetta safety/ Byetta and Pancreatitis  
Safety/ contraindications  
Antiepileptic drugs/ medications and suicide ideation  
Pristiq contraindications/ Pristiq safety  
Black box warning on antiepileptic drugs/  
medications  
Black box warnings on anticonvulsant/ antiseizure  
drugs/ medications  
Black box warnings on Bipolar drugs/ medications  
Anticonvulsant and suicide ideation  
Bipolar disorder and anticonvulsant/  
antiepileptic/ antiseizure medications  
Bipolar drugs/ medications and suicide ideation

## Drug Interactions

Pristiq drug interactions/ Beta blockers/ Boniva	Ambrisanten and Clopidogrel
Drug Interactions (NS)	Ambrisanten and Plavix

## Side Effects

Side Effects (NS)	Celexa side effects
Byetta side effects	Prestiq side effects
Chantix side effects	

# Websites

## Medical Reference

Medscape.com	Psychiatrictimes.com	Furiouseasons.com	Psychcentral.com
Drugs.com	Dlife.com	Healthboards.com	Netwellnes.org
Webmd.com	Healthline.com	Healthpartners.com	News-medical.net
Epocrates.com	Sciencedirect.com	Wrongdiagnosis.com	Newsrx.com
Uptodate.com	Merckmedicus.com	Andrebergermd.com	Furiouseasons.com
Healthcentral.com	Sciencedaily.com	Psychosomaticmedicine.org	Healthboards.com
Depression.emedtv.com	Medhelp.org	Diabetesmonitor.com	Healthpartners.com
Theheart.org	Everdayhealth.com	Mdnet.com	Wrongdiagnosis.com
Ehealthme.com	Modernmedicine.com	Thomsonhc.com	Andrebergermd.com
Medicinenet.com	Naturalnews.com	Aidsmeds.com	Psychosomaticmedicine.org
Mediafact.com	Nature.com	Medweb.com	Diabetesmonitor.com
Rxlist.com	Eddrugs.com	Everdayhealth.com	Mdnet.com
Emedicine.com	Marketresearch.com	Modernmedicine.com	Thomsonhc.com
PDR.net	Psychcentral.com	Naturalnews.com	Aidsmeds.com
Psychiatryonline.com	Netwellnes.org	Nature.com	Medweb.com
Mdconsult.com	News-medical.net	Eddrugs.com	
Healthsquare.com	Newsrx.com	Marketresearch.com	

# Websites

## Government

NHLBI.NIH.gov	FDA.gov	NCBI.NLM.NIH.gov	Medline/medlineplus.gov	NDEP.NIH.gov
Pubmed.gov	NIH.gov	CDC.gov	Dailymed.NLM.NIH.gov	

## Pharma Branded

Chantix.com	Yaz.com/Yaz-US.com	Plavix.com	Celexa.com	Amylin.com
Pristiq.com	Ambrisentan.com	Wyeth.com	Pfizer.com	Lilly.com

## Academic/ Medical Association

AAFP.org	Endo-society.org	WPIC.pitt.edu
ACC.org	Stanford.wellsphere.com	UMM.edu
PMDD.Factsforhealth.org academic/	Bipolar.org	CME.com
ADA.org	TIGC.org academic	Endocrinesociety.org
Americanheart.org	Universityofcalifornia.edu	epilepsyfoundation.org
Americanpsychiatricassociation.com	AMA.org	Library.musc.edu

# Websites

## Medical Journals

NEJM.org	Diabetesjournals.org	DMD.aspetjournals.org	AJP.psychiatryonline.org
Karger.com	Cardiosource.com	JAMA.AMA.ASSN.org	CIRC.ahajjournal.org
Medicalnewstoday.com	Neurologyreviews.com	Journals.cambridge.org	Onlinejacc.org
Bio-medicine.org	BMJ.com	BJM.org	
Springerlink.com	AHA.org	CCJM.org	
Sagepub.com	Esciencenews.com	EMEA.europa.eu	

## General News

Newsinferno.com	CBS TV.com	Blogs.WSJ.com	News.moneycentral.msn.com
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## General Search Engine

Wikipedia.org/en.wikipedia.org	About.com	Archive.org
Google Scholar	Answers.yahoo.com	
Linkinghub.elsevier.com	Books.google.com	

# Websites

## Pharma Unbranded

[Diabetes.com/org](http://Diabetes.com/org)

[PMDD.com](http://PMDD.com)

## Clinical Trials

[Clinicaltrials.gov](http://Clinicaltrials.gov)

[Accordtrial.org](http://Accordtrial.org)

[Centerwatch.com](http://Centerwatch.com)

[Clinicalstudies.info.NIH.gov](http://Clinicalstudies.info.NIH.gov)

## Hospital or Clinic

[Mayoclinic.com](http://Mayoclinic.com)

[Cat.inist.FR](http://Cat.inist.FR)

[Clevelandclinic.org](http://Clevelandclinic.org)

## Legal

[Houston.injuryboard.com](http://Houston.injuryboard.com)

[Reichandbinstock.com](http://Reichandbinstock.com)

[Yourlawyer.com](http://Yourlawyer.com)

[AAA.aboutlawsuits.com](http://AAA.aboutlawsuits.com)

[Patentstorm.us](http://Patentstorm.us)

[Byettalawsuit.com](http://Byettalawsuit.com)

## Condition Specific Foundation/ Organization

[Cfids.org](http://Cfids.org)

[Epilepsy.com](http://Epilepsy.com)

[lgfdforum.com](http://lgfdforum.com)

[Magicfoundation.org](http://Magicfoundation.org)

[Epilepsyfoundation.org](http://Epilepsyfoundation.org)

[Hgfound.org](http://Hgfound.org)

# Websites

## Insurance Company

aetna.com

bcbs.com

## Online Community

sermo.com

## Medical Search Engine

Aolhealth.com

## Other Miscellaneous

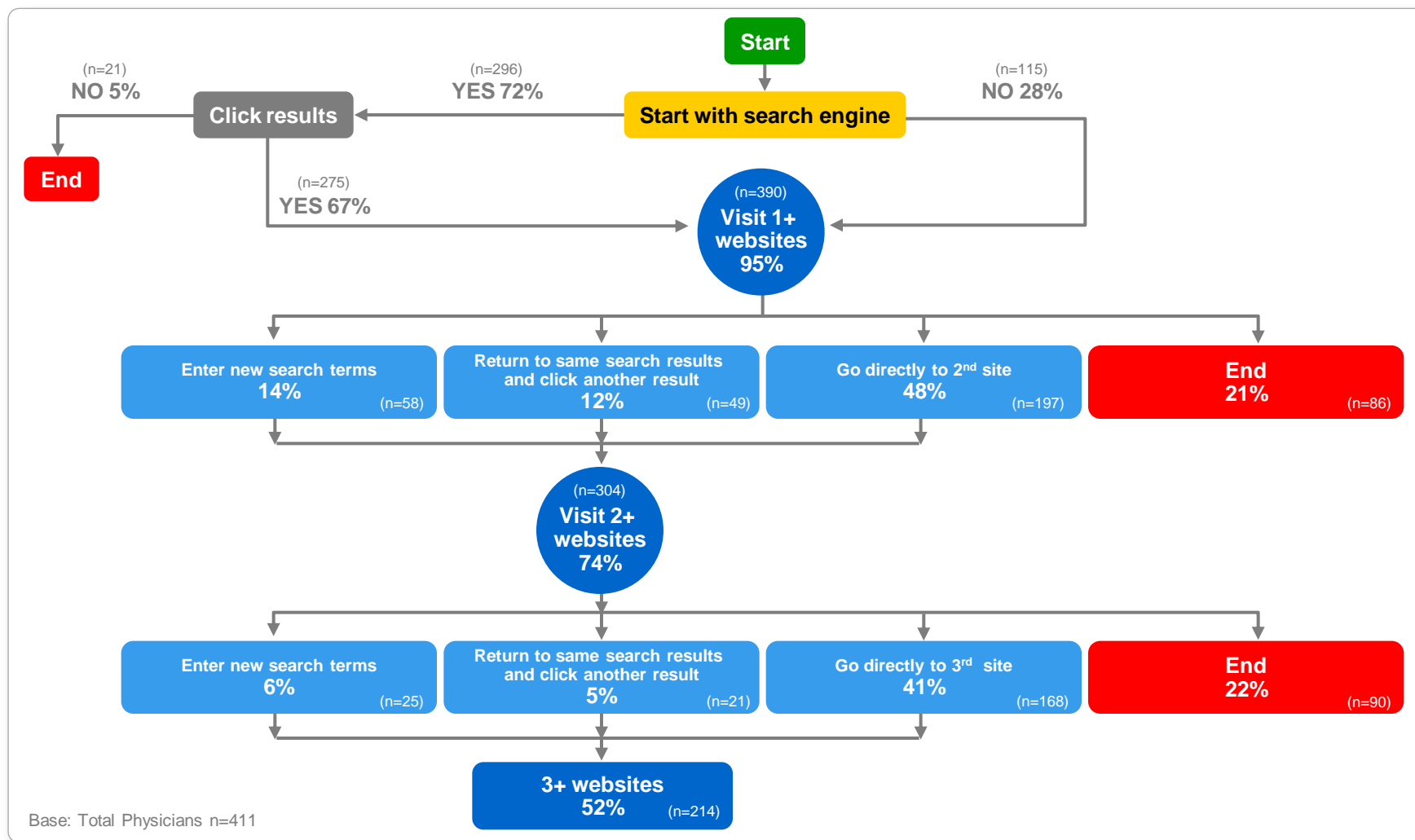
Diabetes.EMEDTV.com

Fatigue.com

Pslgroup.com

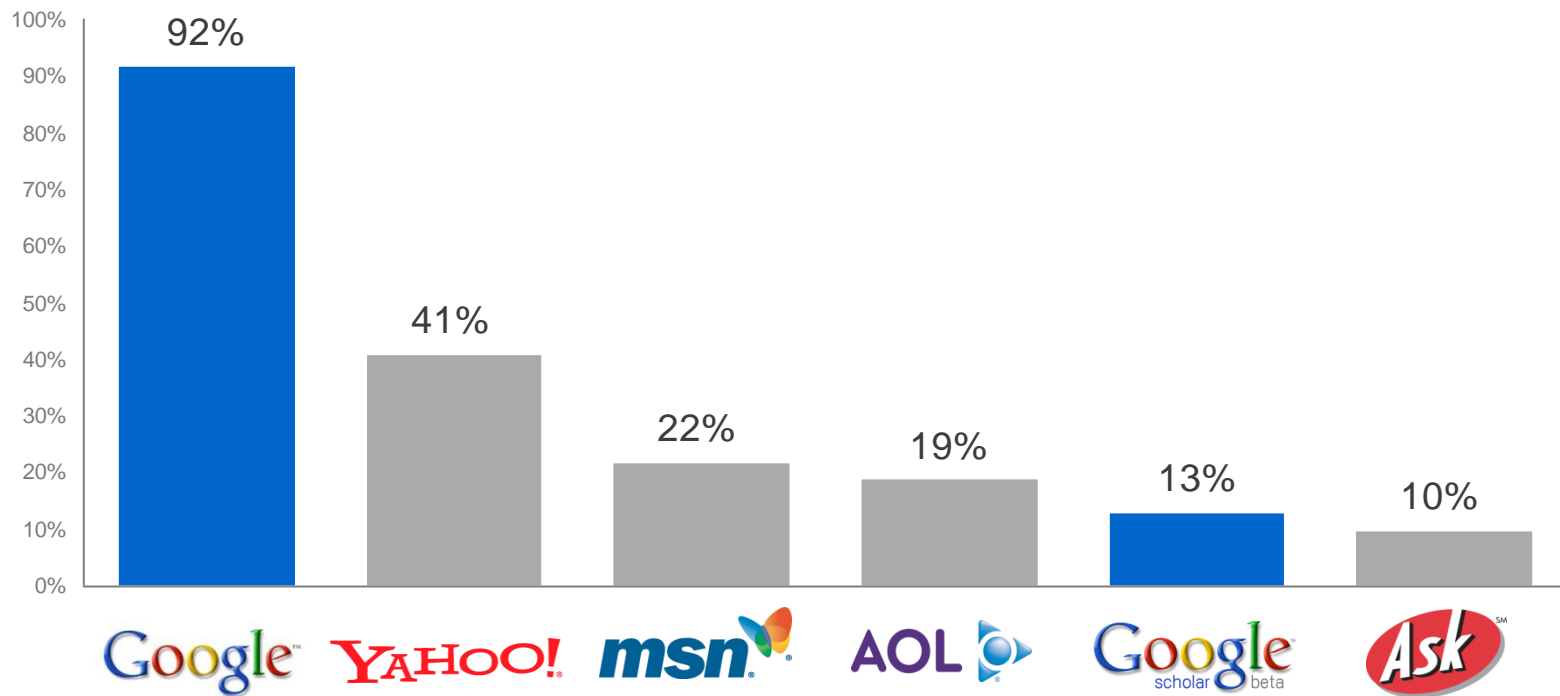
Pad.com

# How Physicians Moved Through Their Research



# The Majority of Physicians Use Google

Search Engines Used



Question: Which of the following search engines, if any, do you use in your clinical practice to research or gather health, medical or prescription drug information?

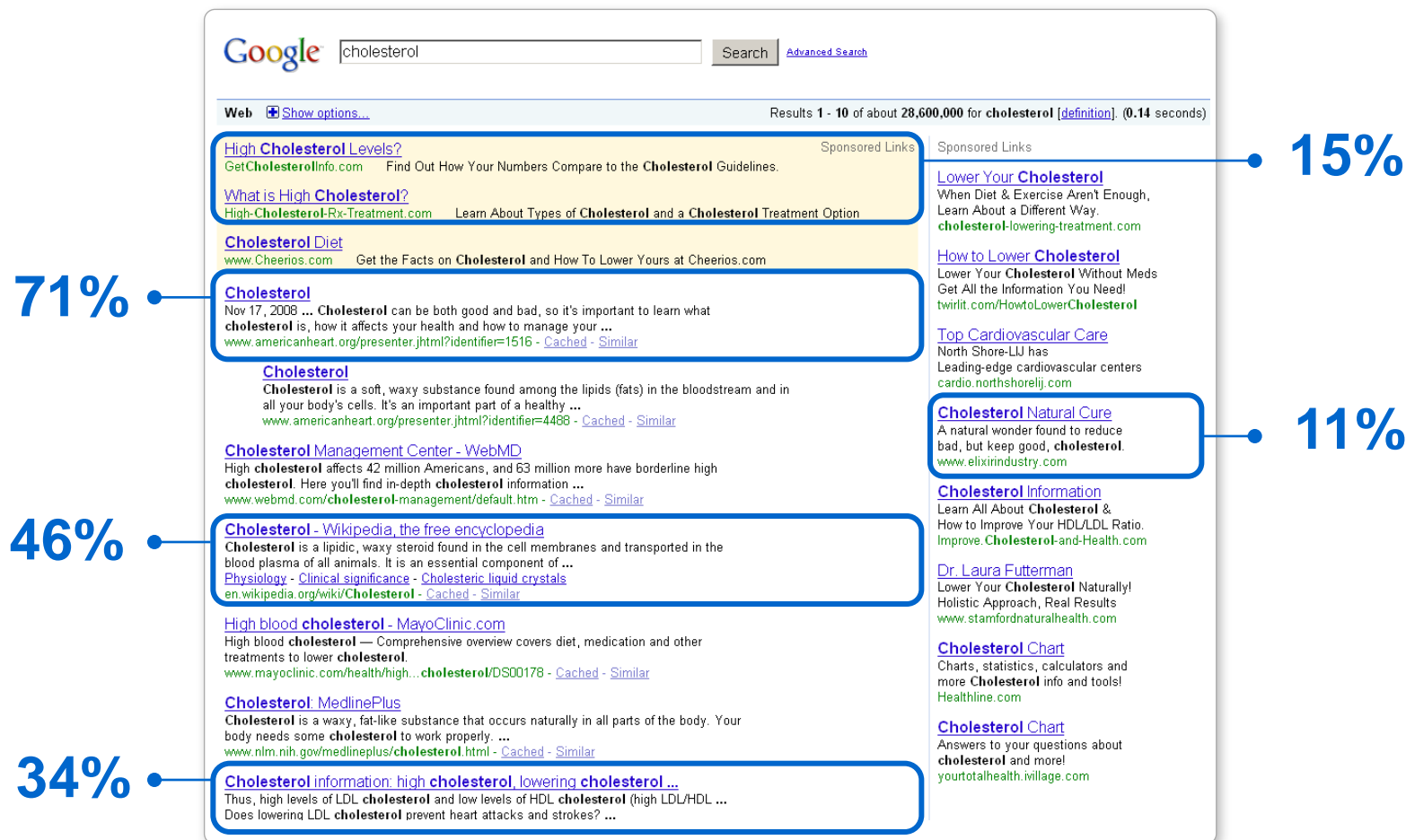
Base: Total Physicians n=411

Source: Hall & Partners and Google Custom HCP Study, August 2009



# Physicians Click on Higher Search Results

## Likelihood to Click on Type/Location of Results



Question: While researching clinical information using a search engine, which of the following are you likely to click on?

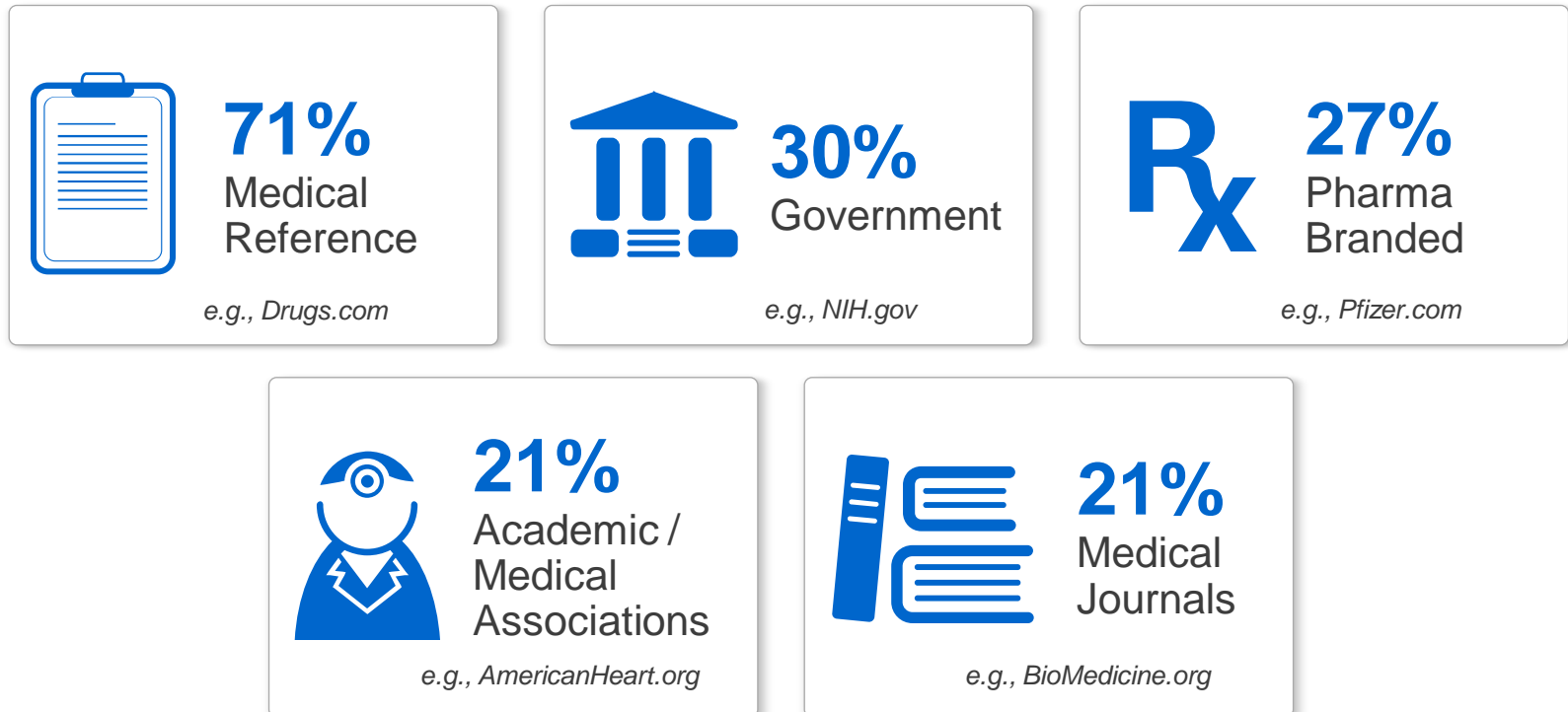
Base: Total Physicians n=411

Note: Physician self-reported data

Source: Hall & Partners and Google Custom HCP Study, August 2009

# Medical Sites Used for Research

## Types of Websites Physicians Used During Patient Scenario Tasks

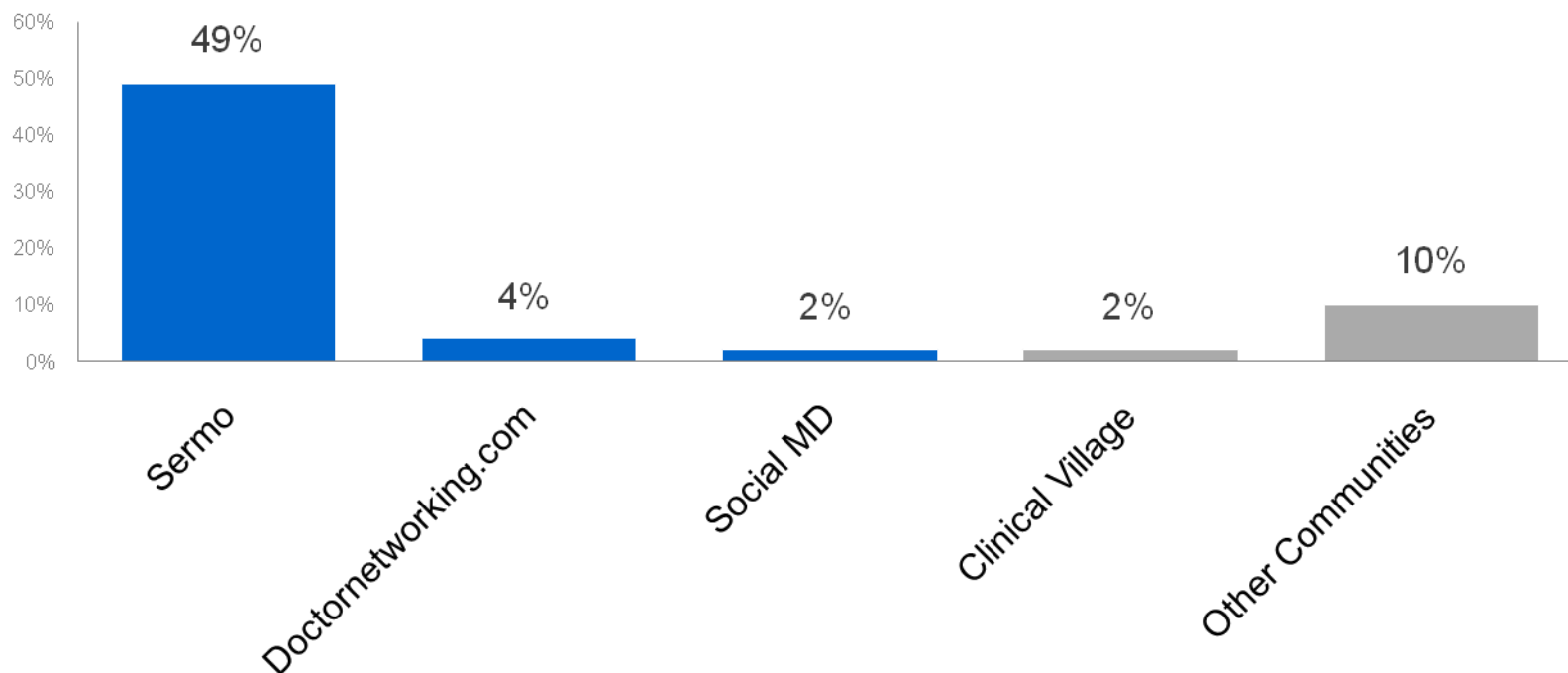


Base: Physicians who used websites n=389

Source: Hall & Partners and Google Custom HCP Study, August 2009

# Over Half of Physicians Belong to an Online Physician Community

Membership in Online Communities



Question: Which of the following online communities, if any, are you a member of?

Base: Total Physicians n=411

Source: Hall & Partners and Google Custom HCP Study, August 2009

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