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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.

## 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

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## 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

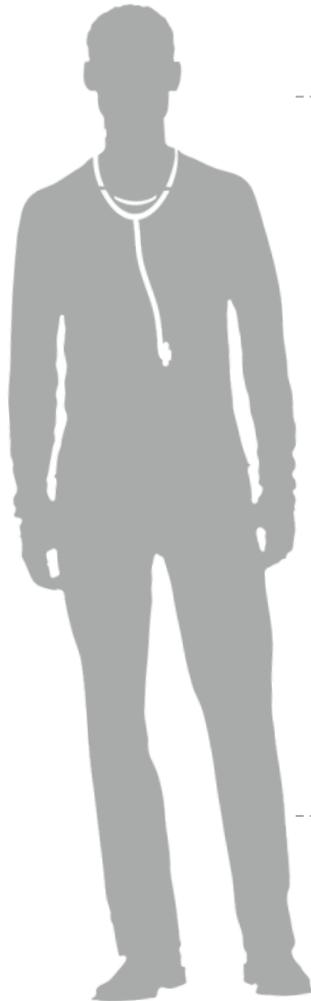
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## Tasks Monitored

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

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# 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.

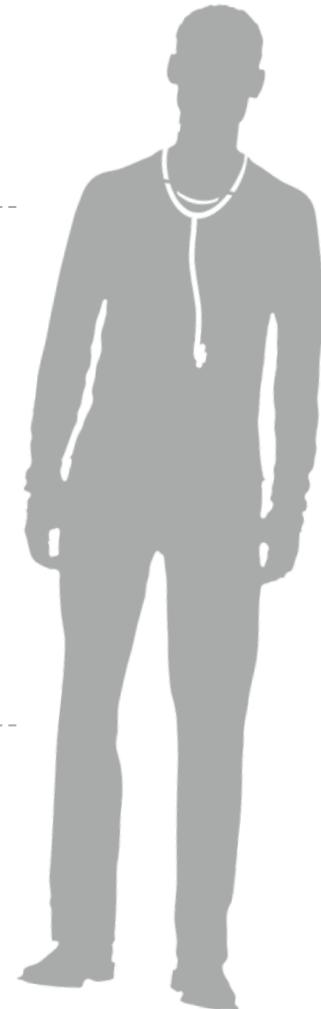
# Patient Scenario Task: Diagnosis Situation

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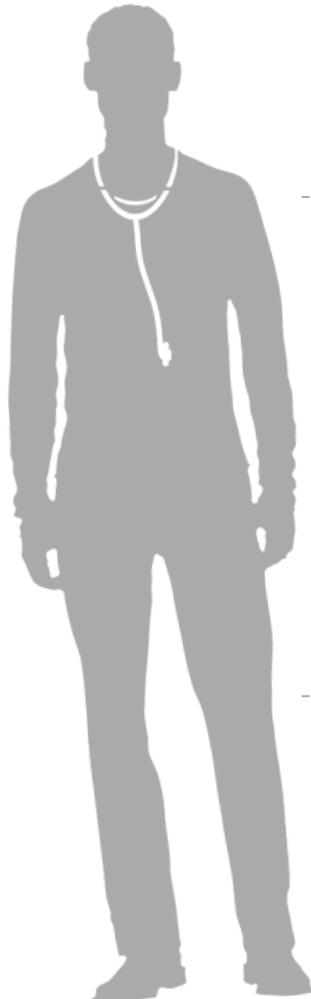
PCP

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.

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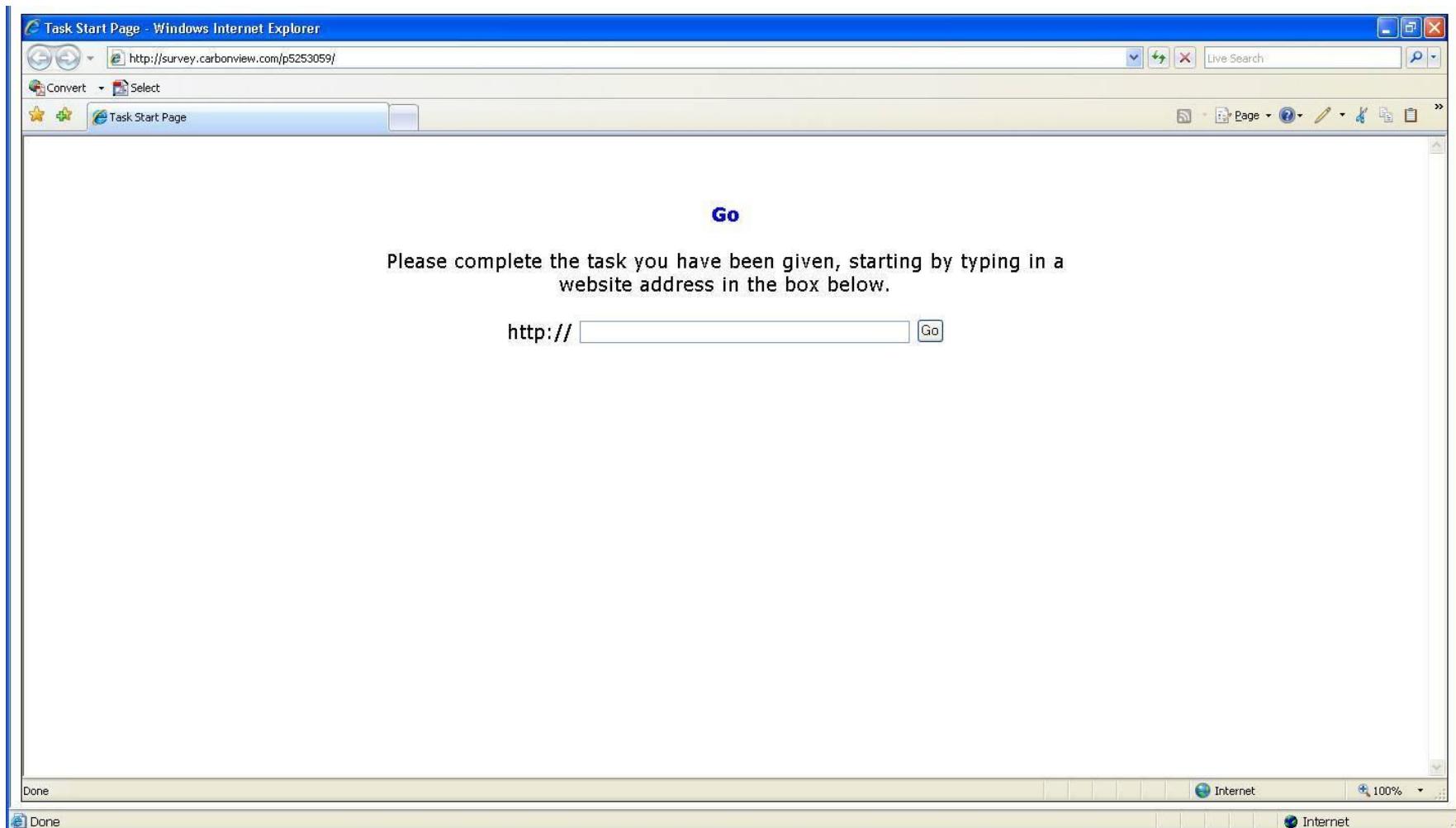
# Patient Scenario Task: Symptom Research



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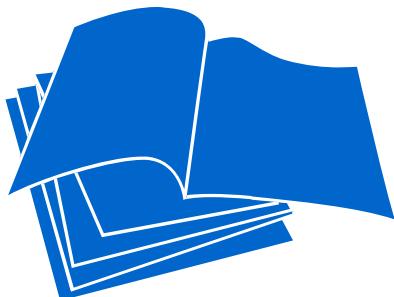
# 1. The Internet is Critical to Clinical Practice

# 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%

Note: Blue box indicates that the data came from online survey.

Base: Total Physicians n=458

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

# 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

Questions: In which of the following places do you access the internet to research medical or clinical information? You mentioned that you access the Internet in your office or clinical setting. Specifically, where do you do so? Do you use a mobile device (e.g. cell phone, PDA, BlackBerry) to access clinical information? .

Base: Total Physicians n=411

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

# Most Physicians Access the Internet Daily



**58%** More than once per day

**70%** Spend 3 minutes or less researching a patient scenario



**65%** of PCPs access the Internet more than once per day

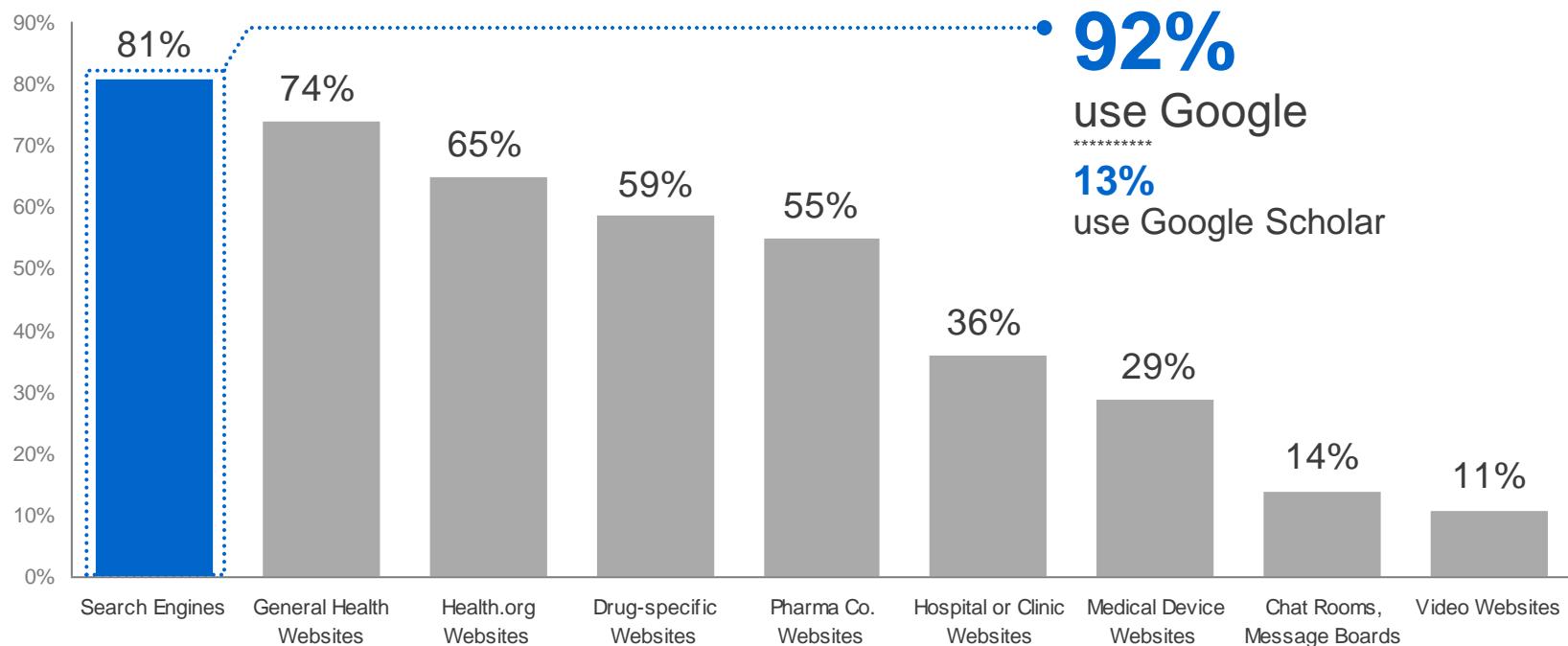
Questions: Which of the following best describe how often you use the internet in your clinical practice to gather health medical or prescription drug information? Approximately how many times per week do you use search engines to research clinical information?

Base: Total Physicians n=411

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

# Search Engines are the Top Online Resource

## Types of Websites Used



Questions: Which of the following online resources do you use to research or gather health, medical or prescription drug information? How useful are the following online resources to you as you 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 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%

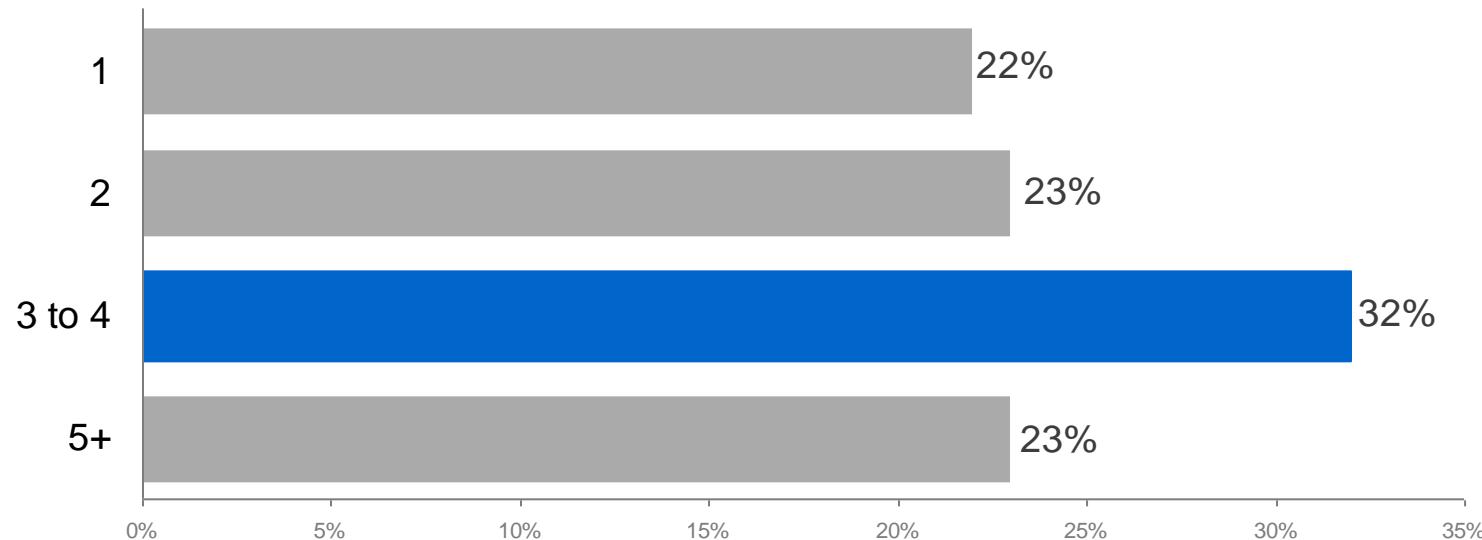
Question: For which of the following reasons do you use the internet to research health, medical or prescription drug information?

Base: Total Physicians n=411

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

# Physicians Research on Multiple Sites

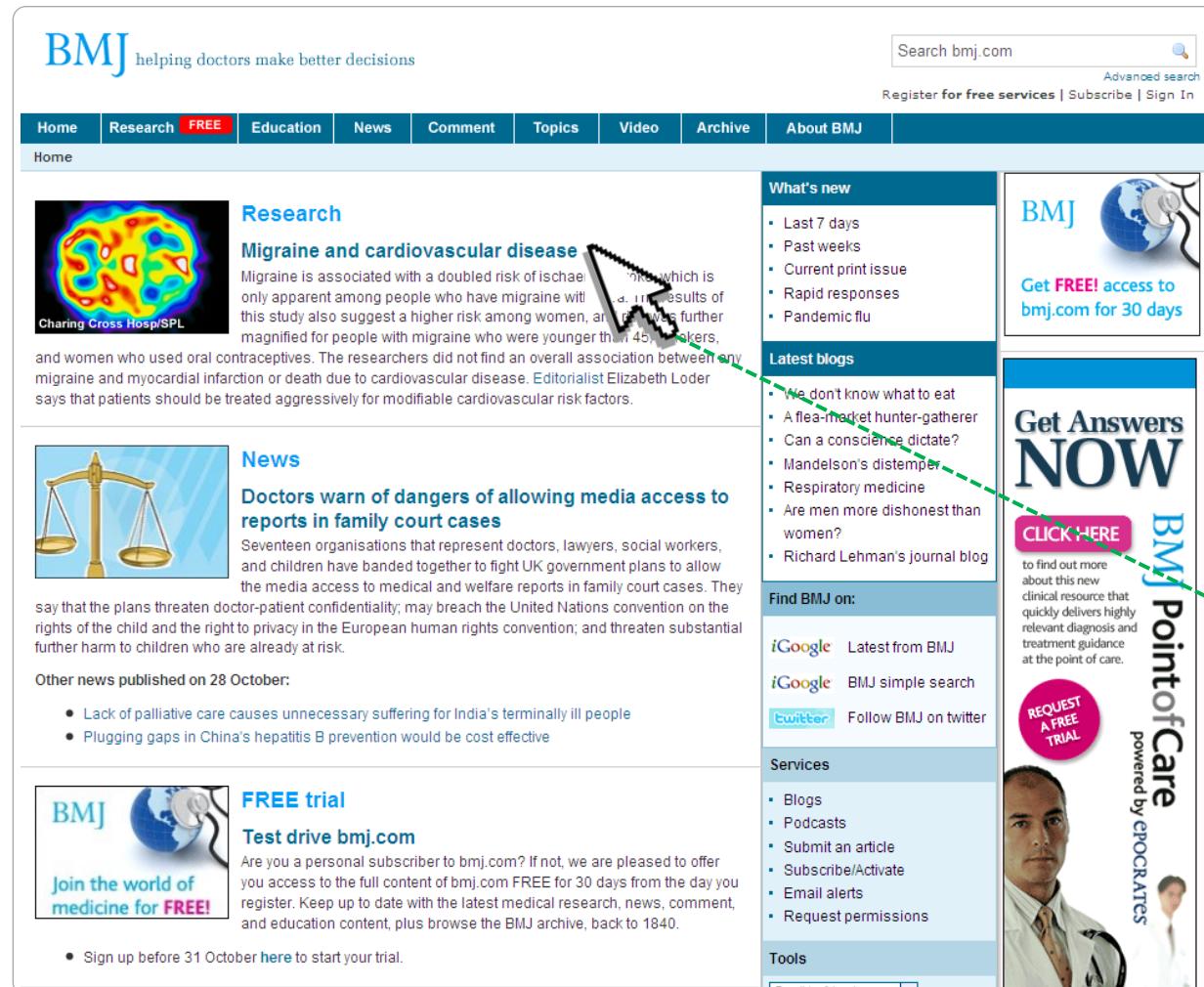
## Number of Unique Websites Visited During Patient Research Task



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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**Research**

**Migraine and cardiovascular disease**

Migraine is associated with a doubled risk of ischaemic stroke, which is only apparent among people who have migraine without aura. The results of this study also suggest a higher risk among women, and this was further magnified for people with migraine who were younger than 45 years, smokers, 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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**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

**86%** Quality of online information has **improved** over the last few years.

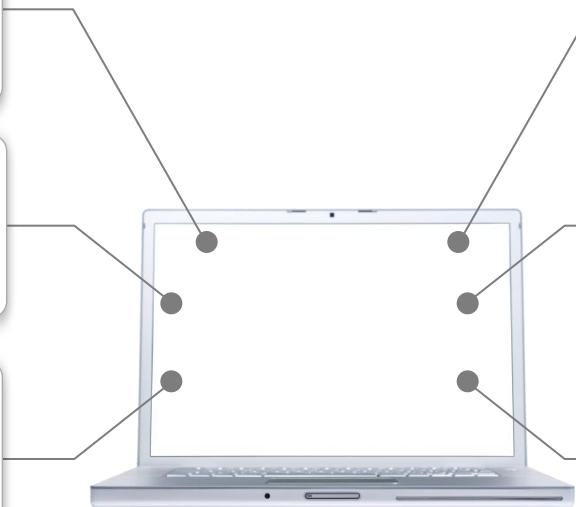
**80%** Use the Internet to **verify information** from a patient.

**73%** Consider the Internet to be a **standard part** of clinical practice.

**83%** **Rely more** on the Internet than in the past for clinical practice.

**78%** Believe the Internet has made **practicing medicine easier**.

**69%** **Trust** clinical information online.



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

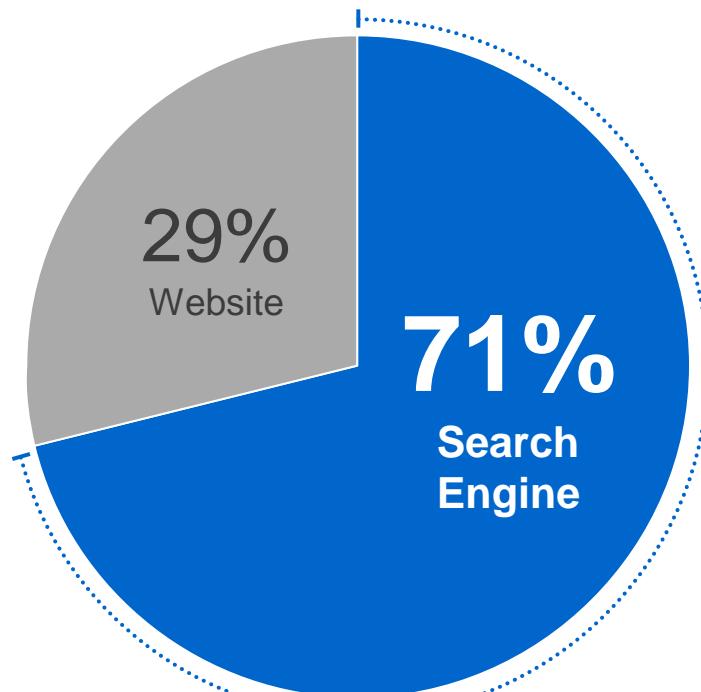
Source: Hall & Partners and Google Custom HCP Study, August 2009



## 2. Search is Core to Online Clinical Research

# Physicians Start with Search

How Physicians Start Patient Research

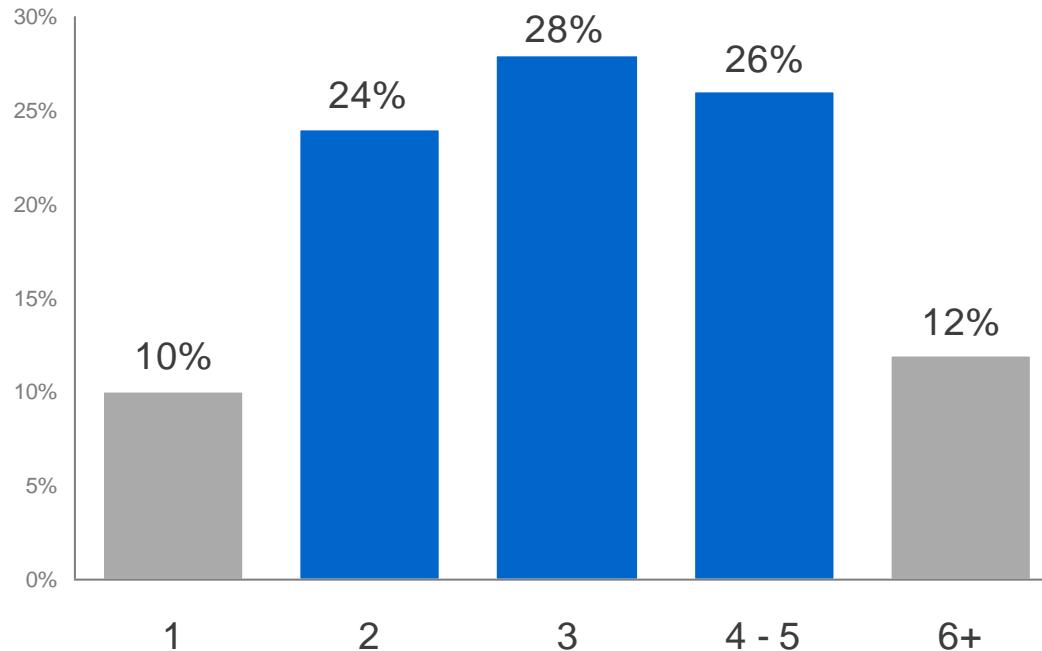


\*Note: 'Where search starts' includes what the 1st step was that respondents took when executing the task. 'Total search engine use overall' includes the use of search engines overall, across scenarios and searches

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

Numbers of Word Used Per Search



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

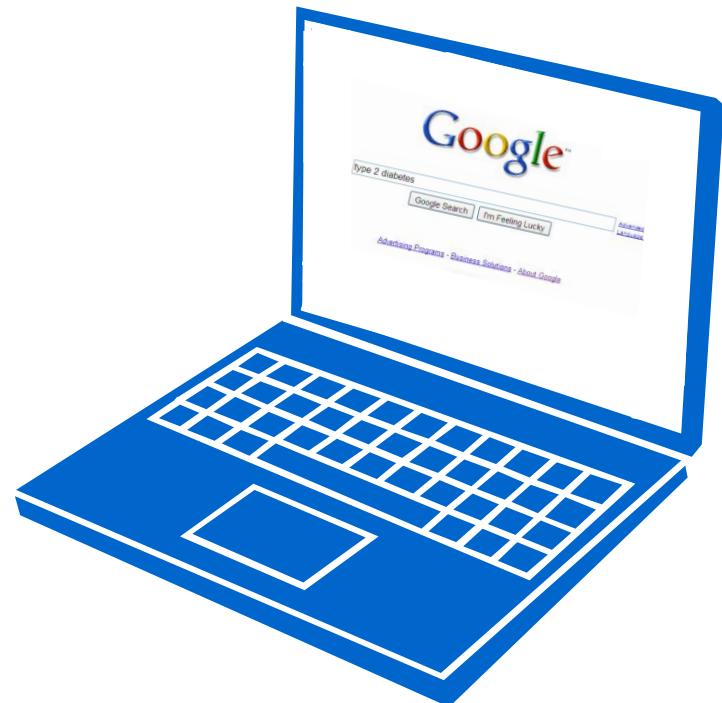
# Physicians Typically Conduct 1 – 2 Searches

Number of Searches Made During Patient Research Task

**64%** Conduct 1 search

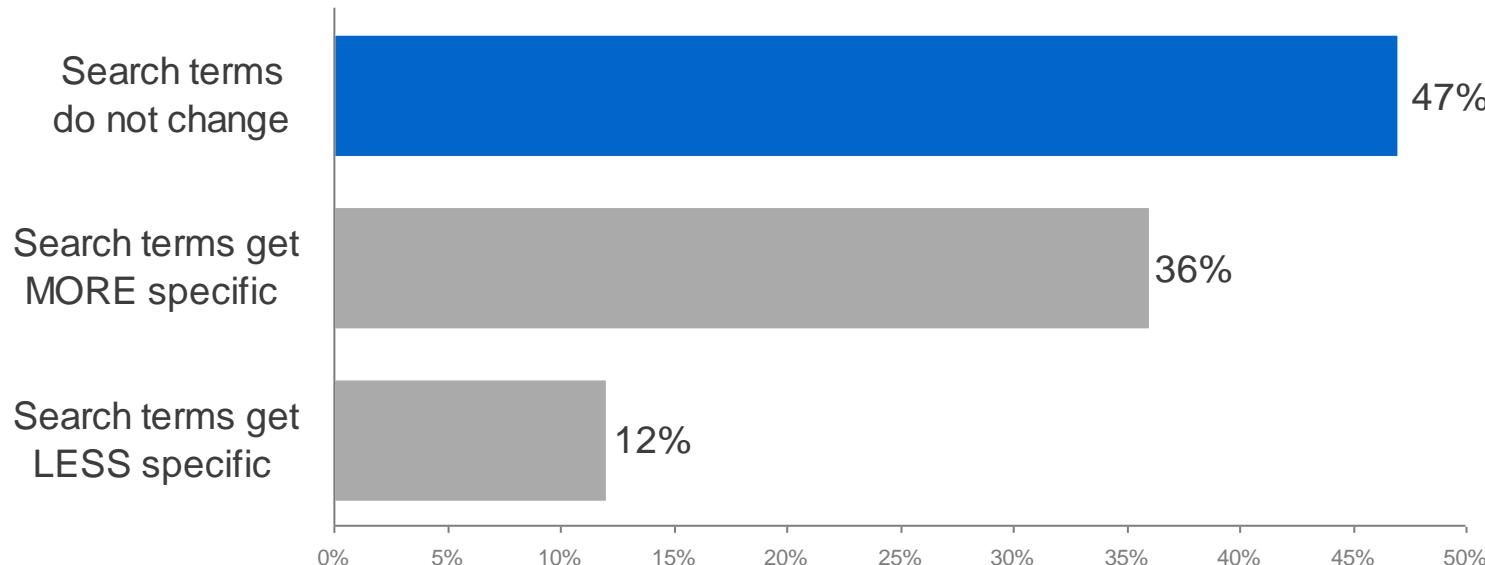
**21%** Conduct 2 searches

**15%** Conduct 3+ searches



# Almost Half Don't Change Search Terms While Searching

Physicians Who Conduct Multiple Searches

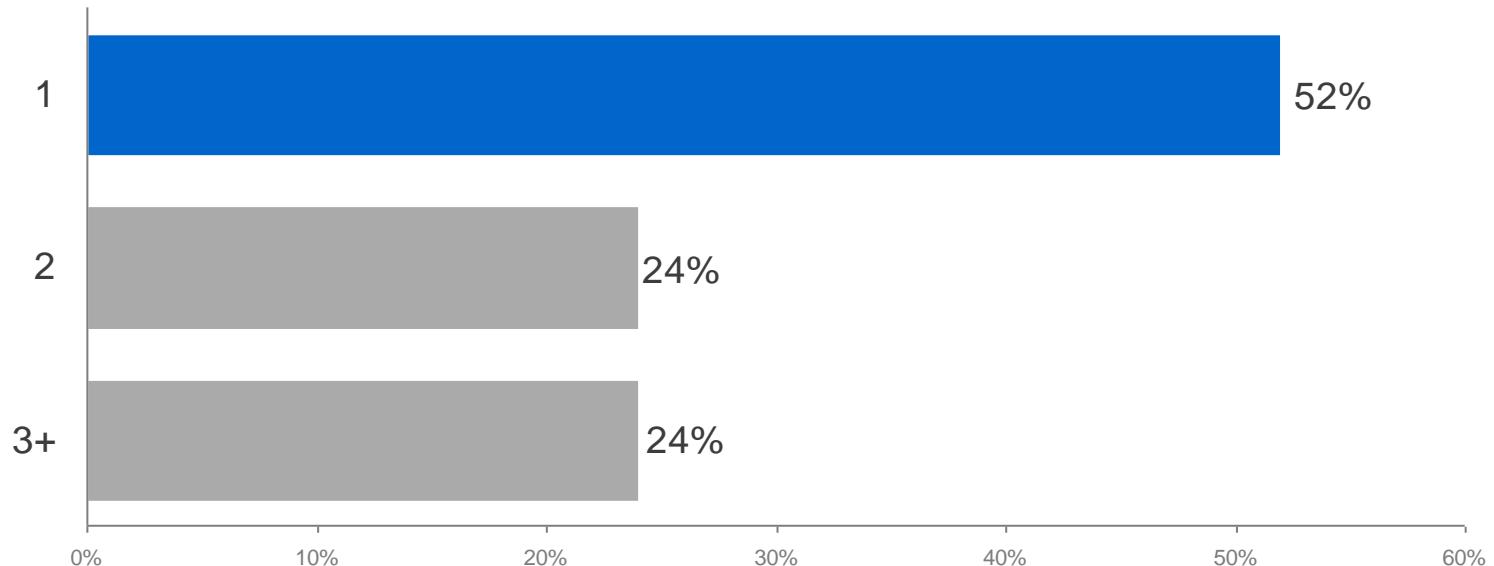


Base: Physicians who use a search engine n=105

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

# Physicians Find Answers Quickly

Number of Search Pages Viewed

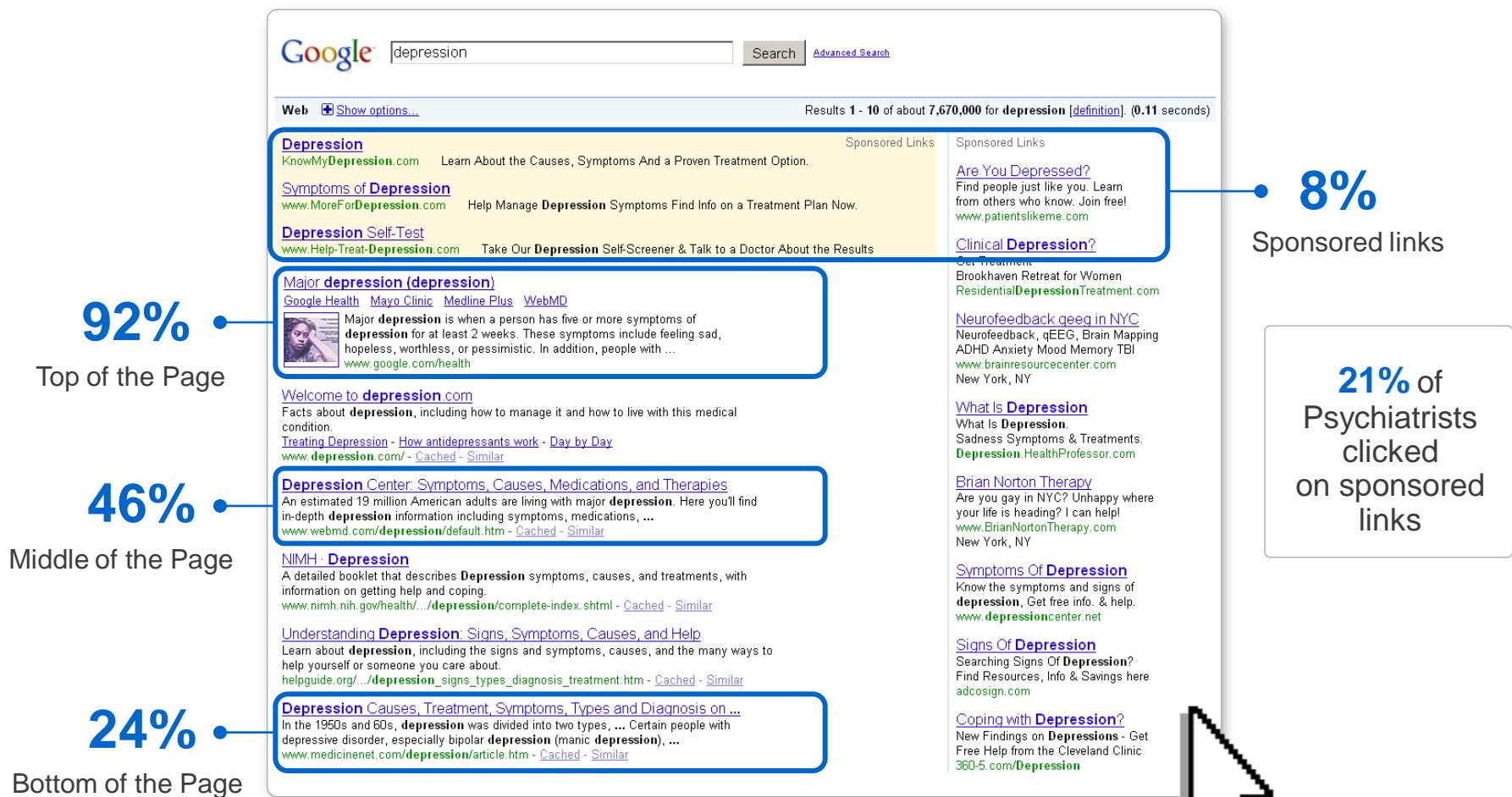


Base: Physicians who use a search engine n=294

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

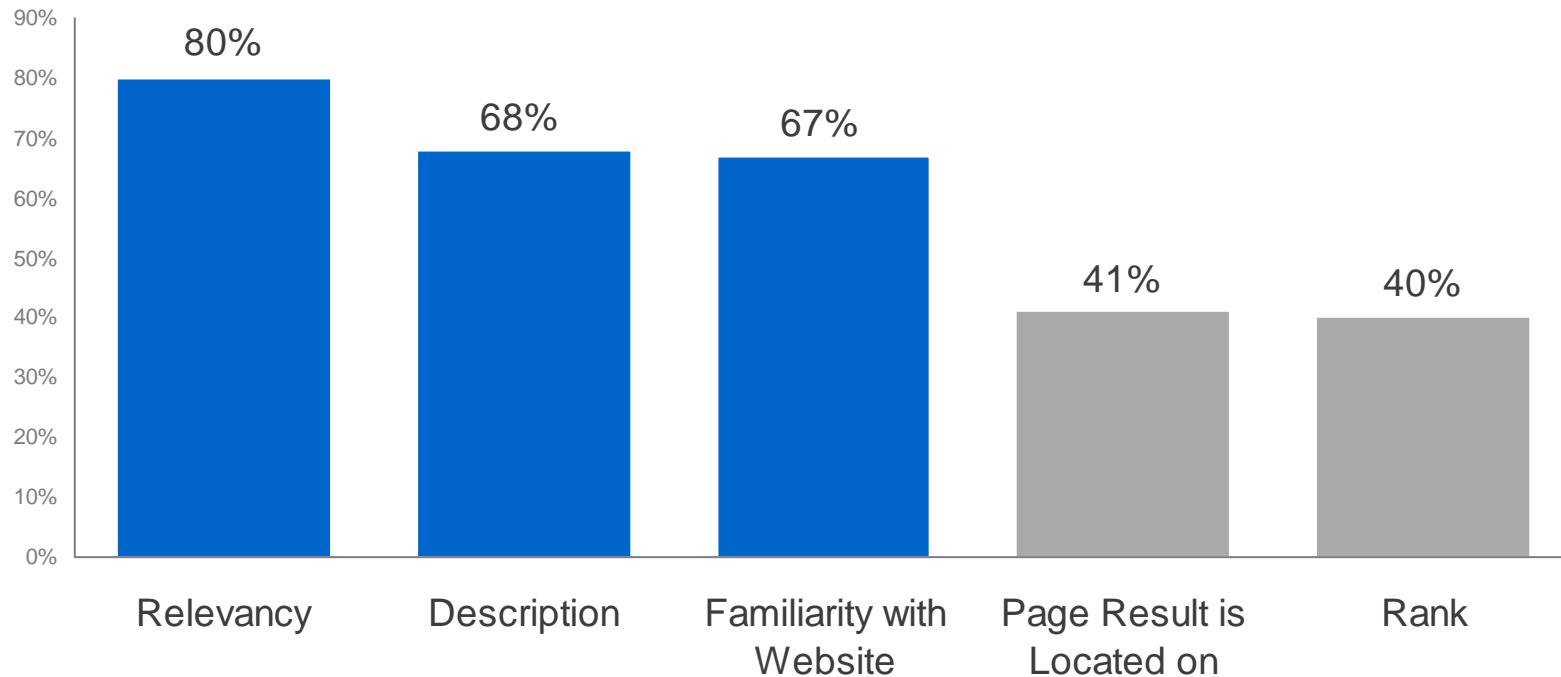
# Physicians Click at the Top of the Page

## Percent of Physicians That Clicked



# Emphasis is Placed on Relevancy and Familiarity

## Importance of Factors to Determine Which Search Results to Select

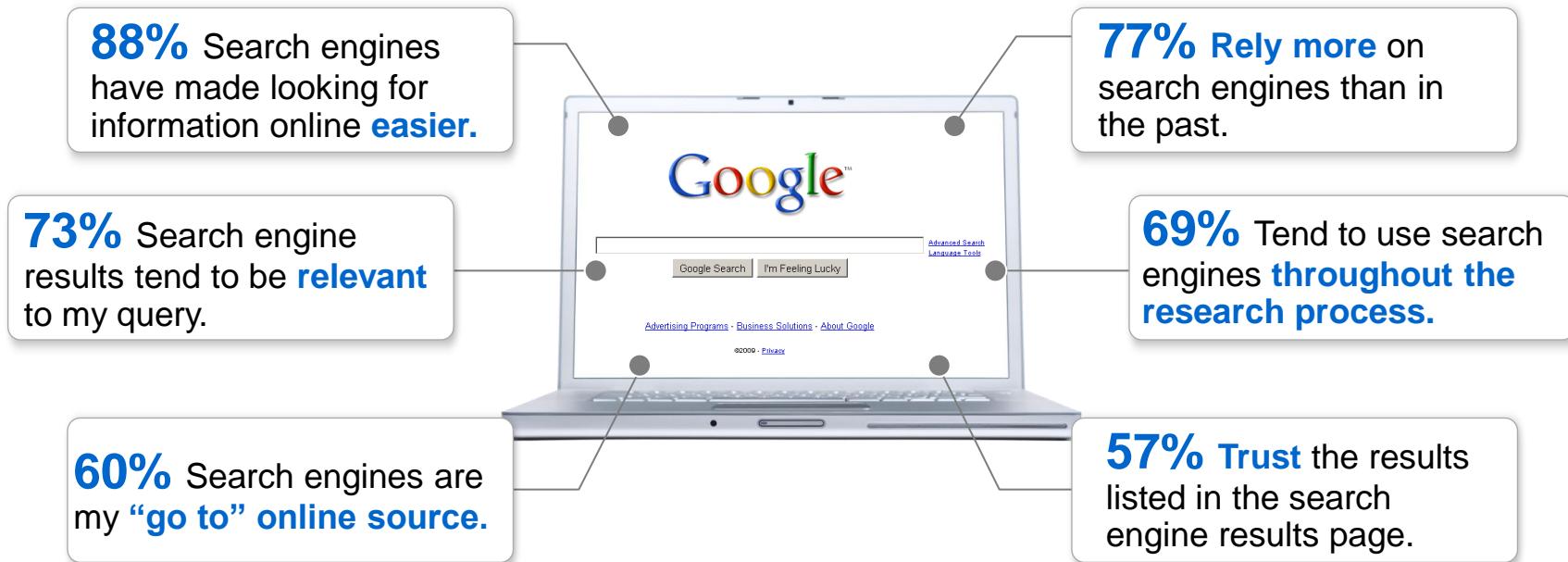


Question: Still thinking about using search engines to find clinical information online, please indicate how important each of the following are in helping you determine which results to select on a search engine results page?

Base: Total Physicians n=411

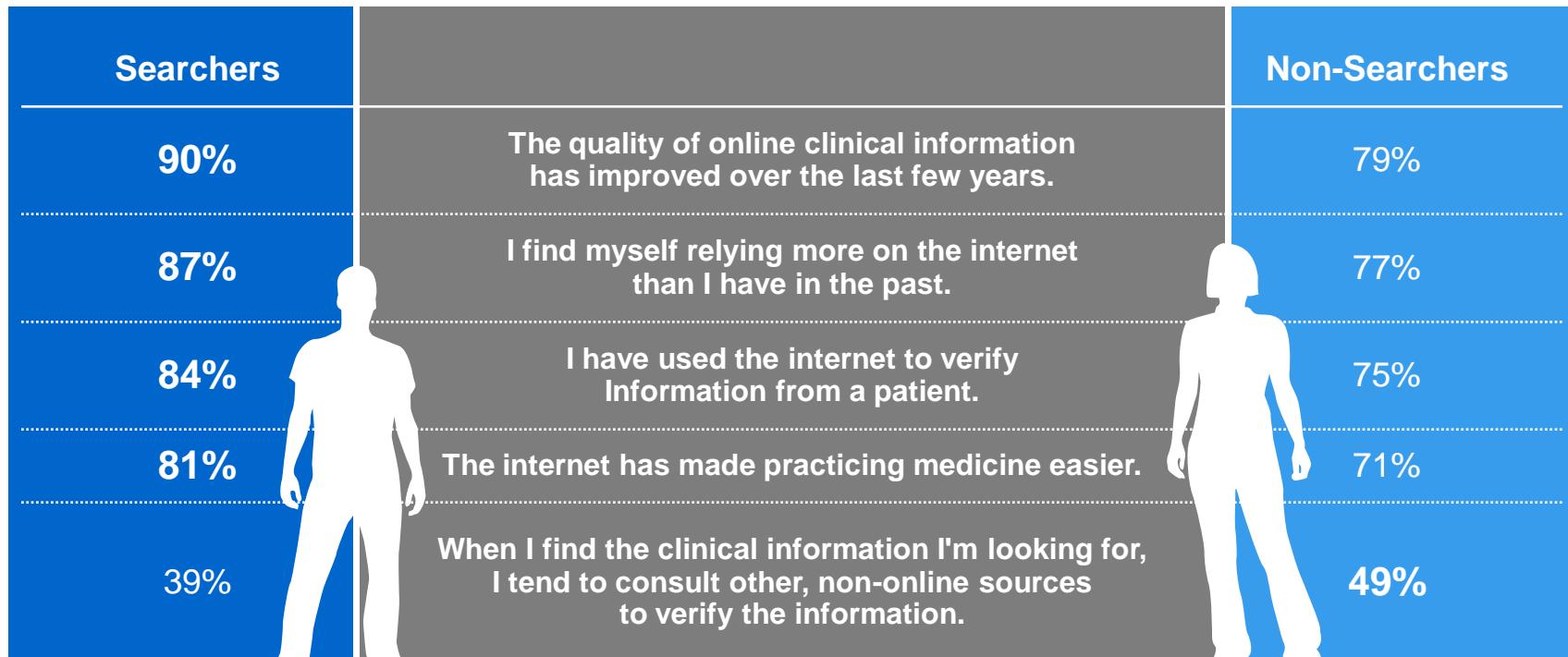
Source: Hall & Partners and Google Custom HCP Study, August 2009

# 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  
treat arthritis  
arthritis treatment  
arthritis research

zinaxa precautions  
zinaxa prescribing info  
zinaxa interactions  
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

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# Appendix

# PCP Research Scenarios

SCENARIO 1

**GOAL:** Understand how physicians research a diagnosis

25 year old patient asks for a the birth control medication by brand name, which she heard may also help alleviate the severe emotional symptoms.

SCENARIO 2

**GOAL:** Understand how physicians research symptoms

Physician struggles with a firm diagnosis after multiple evaluations

SCENARIO 3

**GOAL:** Determine how physicians research medications

50 year old male is currently taking a brand for depression and is experiencing erectile dysfunction and lowered sex drive.

SCENARIO 1

SCENARIO 2

SCENARIO 3



# Cardiologist Research Scenarios

SCENARIO 1

**GOAL:** Understand how physicians research treatments

Physician wants to learn about clinical implications of the ACCORD study to minimize the CVD risk for your patients with Type 2 diabetes.

SCENARIO 2

**GOAL:** Understand how physicians research clinical trial data

Physician needs to review latest clinical trial data on antiplatelet therapies to assess if any patients will benefit from it.

SCENARIO 3

**GOAL:** Determine how physicians research medications

Physician struggles with whether to treat with ambrisentan or clopidogrel bisulfate.

SCENARIO 1

SCENARIO 2

SCENARIO 3



# Psychiatrist Research Scenarios

SCENARIO 1

**GOAL:** 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 2

**GOAL:** 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 3

**GOAL:** 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 1

SCENARIO 2

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	





# Websites

## Medical Reference

Medscape.com	Psychiatrictimes.com	Furiousseasons.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	Furiousseasons.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	Modernemedicine.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	Modernemedicine.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  
Pubmed.gov

FDA.gov  
NIH.gov

NCBI.NLM.NIH.gov  
CDC.gov

Medline/medlineplus.gov  
Dailymed.NLM.NIH.gov

NDEP.NIH.gov

## Pharma Branded

Chantix.com  
Pristiq.com

Yaz.com/Yaz-US.com  
Ambrisentan.com

Plavix.com  
Wyeth.com

Celexa.com  
Pfizer.com

Amylin.com  
Lilly.com

## Academic/ Medical Association

AAFP.org  
ACC.org  
PMDD.Factsforhealth.org academic/  
ADA.org  
Americanheart.org  
Americanpsychiatricassociation.com

Endo-society.org  
Stanford.wellsphere.com  
Bipolar.org  
TIGC.org academic  
Universityofcalifornia.edu  
AMA.org

WPIC.pitt.edu  
UMM.edu  
CME.com  
Endocrinesociety.org  
epilepsyfoundation.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.ahajournal.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	Escienccenews.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

PMDD.com

## Clinical Trials

Clinicaltrials.gov

Accordtrial.org

Centerwatch.com

Clinicalstudies.info.NIH.gov

## Hospital or Clinic

Mayoclinic.com

Cat.inist.FR

Clevelandclinic.org

## Legal

Houston.injuryboard.com

Reichandbinstock.com

Yourlawyer.com

AAA.aboutlawsuits.com

Patentstorm.us

Byettalawsuit.com

## Condition Specific Foundation/ Organization

Cfids.org

Epilepsy.com

lgfdforum.com

Magicfoundation.org

Epilepsyfoundation.org

Hgfound.org

# Websites

## Insurance Company

aetna.com

bcbs.com

## Online Community

sermo.com

## Medical Search Engine

Aolhealth.com

## Other Miscellaneous

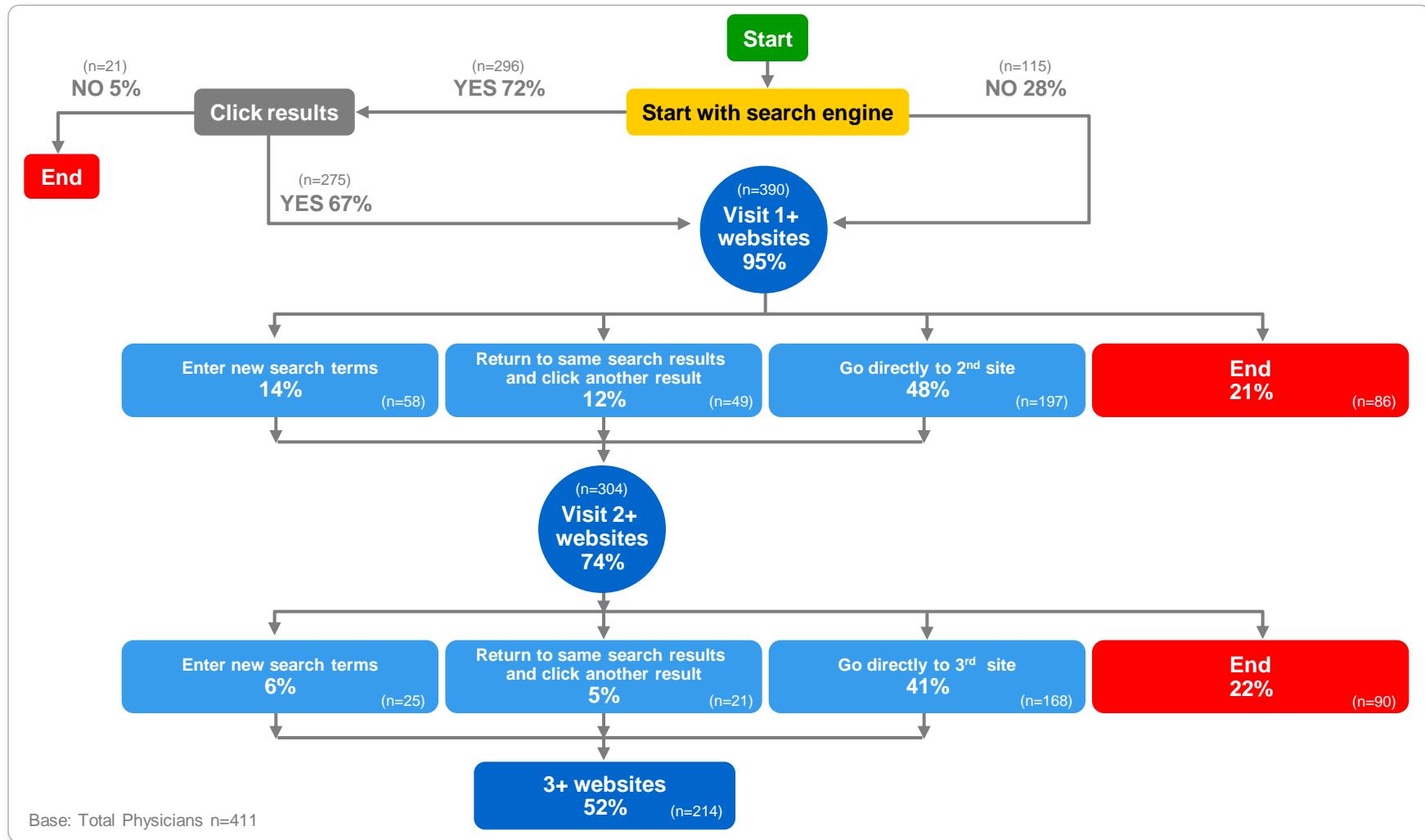
Diabetes.EMEDTV.com

Pslgroup.com

Fatigue.com

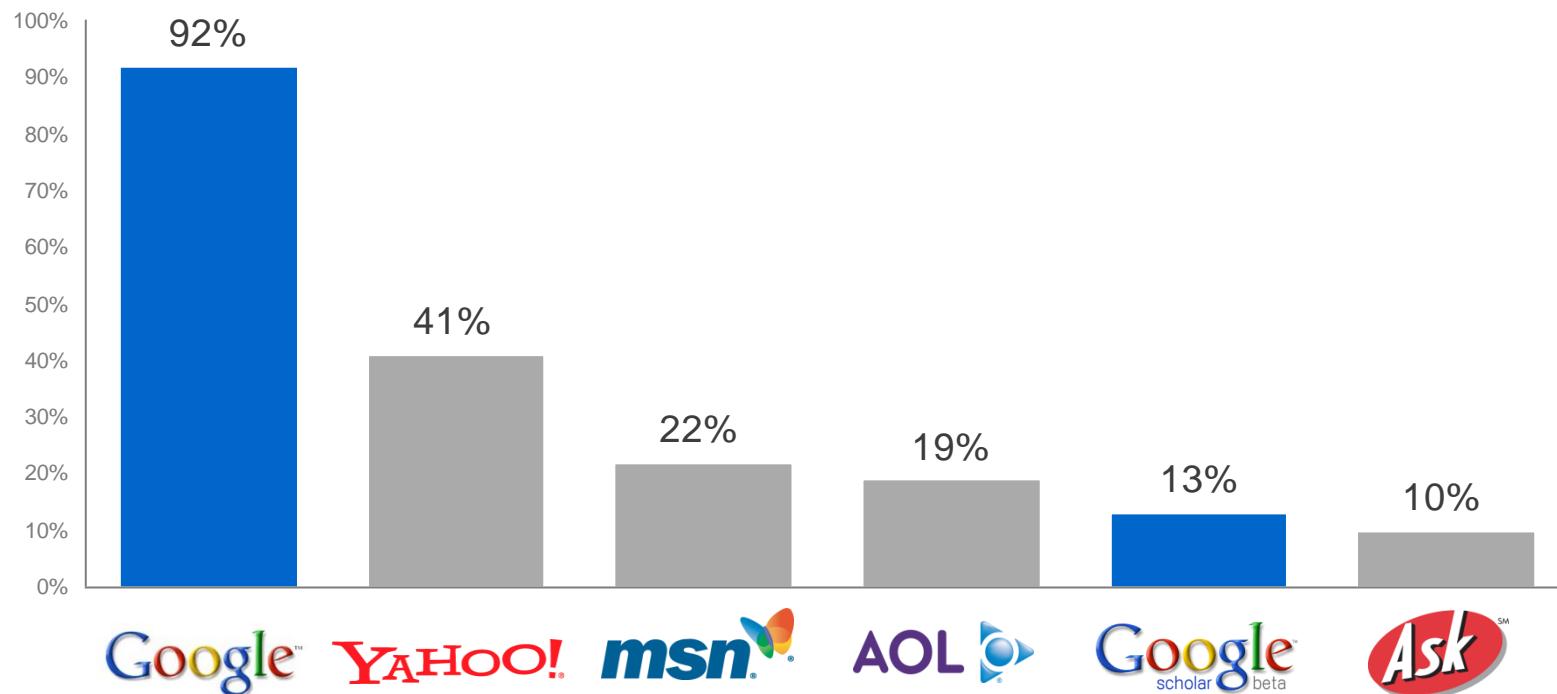
Pad.com

# How Physicians Moved Through Their Research



# The Majority of Physicians Use Google

Search Engines Used



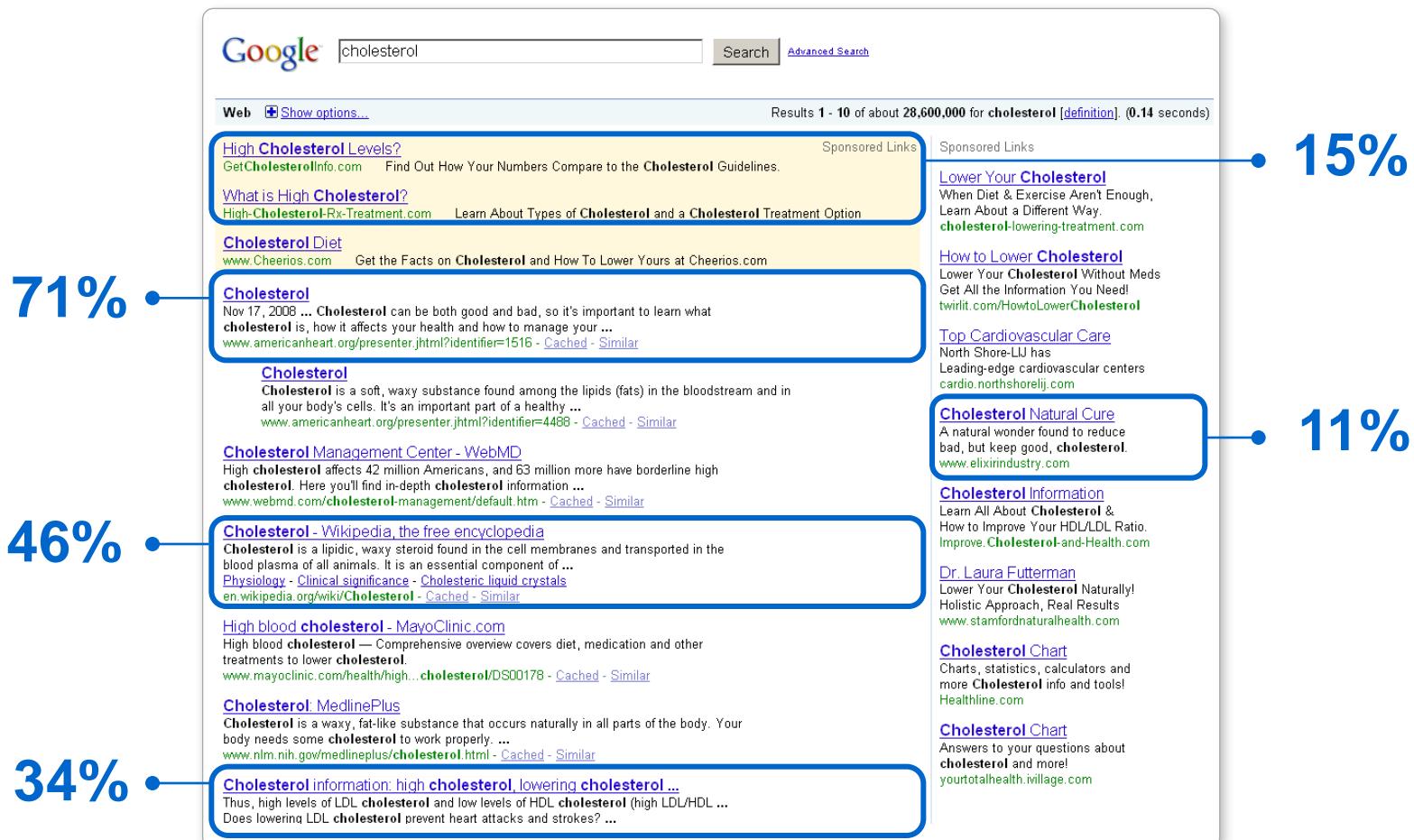
Question: Which of the following search engines, if any, do you use in your clinical practice to research or gather health, medical or prescription drug information?

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?

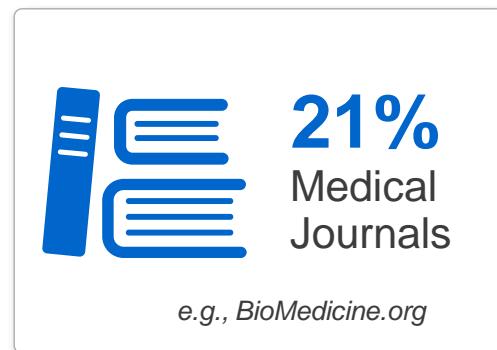
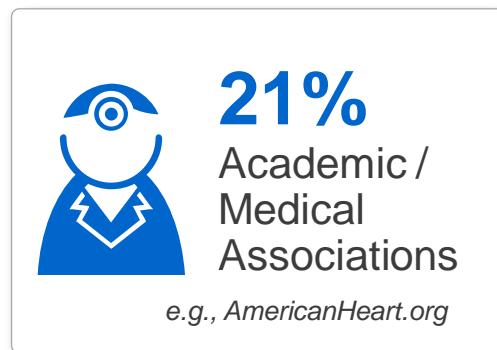
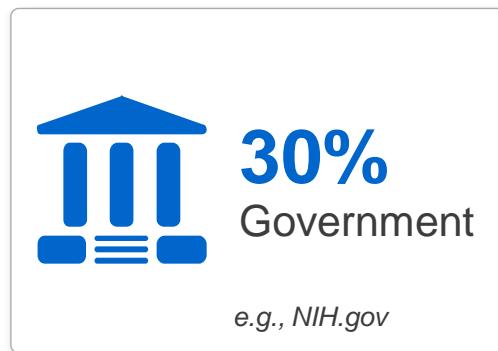
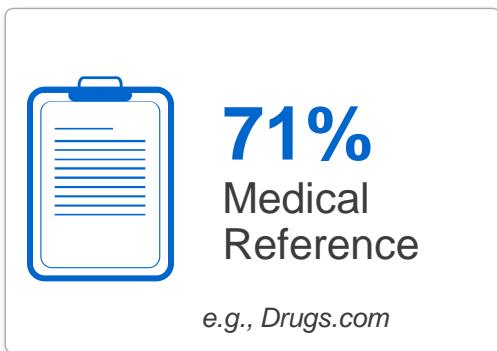
Base: Total Physicians n=411

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

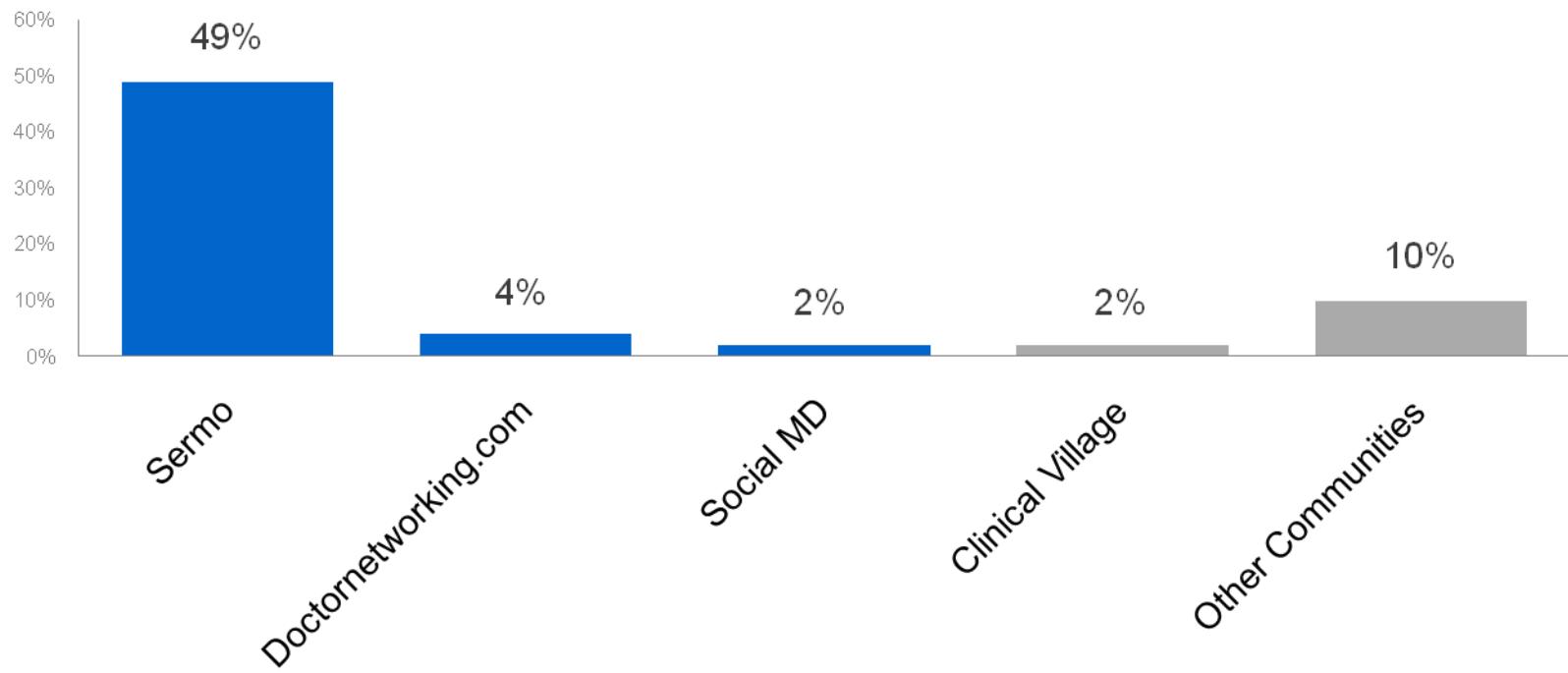


Base: Physicians who used websites n=389

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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