

Averting Today's Biggest Public Health Epidemics with Social Media

Thaddeus Mason Pope, J.D., Ph.D.

**Amarillo College Creative Mind
Lecture Series 2013**

Prevention vs. Treatment

WHAT'S THE RIGHT BALANCE?



edited by Halley S. Faust & Paul T. Menzel

OXFORD

Medicine

Individual focus

Public health

Population focus

Medicine explains morbidity and mortality in terms of cancer, heart disease, and stroke.

Public health looks at root causes, such as smoking, alcohol, and diet.

Preventive Service Use and Potential Benefits



Notes: Utilization rates are for targeted populations. The current rate for flue vaccines for seniors is 65%; the QALYs figure is for all people over age 50.

Source: Maciosek et al., "Priorities Among Effective Clinical Preventive Services," *Am J Prev Med* 2006.

50%

Very slow

Smoking

Obesity

Alcohol abuse

Diabetes

STDs



Society is fully prepared
to **rescue** the injured or
sick individual

But is far less prepared
to **prevent** injuries &
illnesses

Healthcare protects
identifiable lives

PH protects **statistical**
lives (benefits long-term
& invisible)

“withering”

“anachronistic”

“deficient”

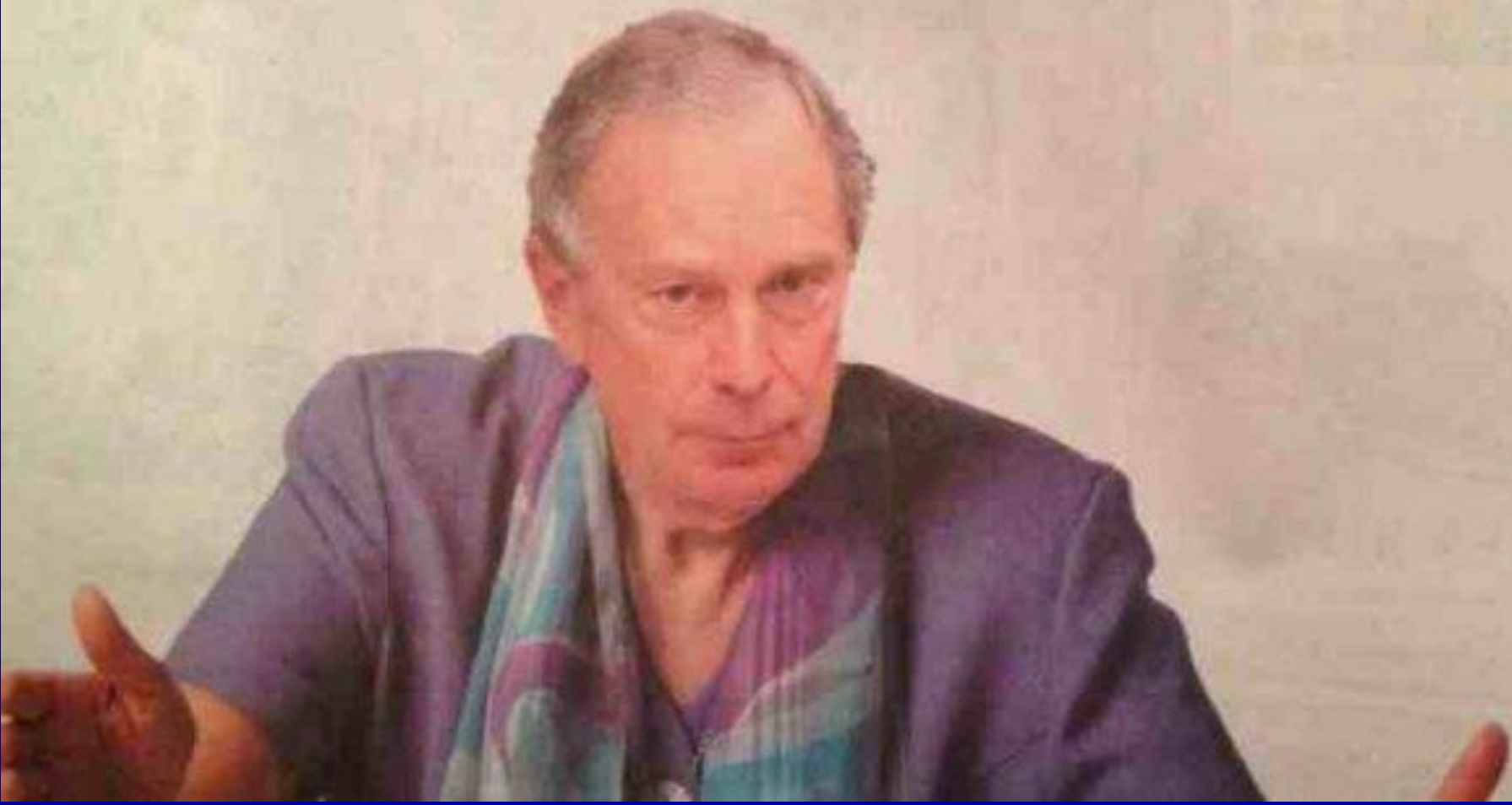
“disarray”

For most of U.S.
history PH laws
were aimed at
preventing discrete
harm to others

Today's greatest
PH threats come
from **self-regarding**
behaviors

The Nanny

You only thought you lived in the land of the free.





“renaissance”

“modernization”

“reemergence”

“revitalization”

“renewal”

March 23, 2010



TITLE IV—PREVENTION OF CHRONIC DISEASE AND IMPROVING PUBLIC HEALTH

Subtitle A—Modernizing Disease Prevention and Public Health Systems

Pages 401 to 470

Prevention Fund

\$15 billion

Support infrastructure

Improve evidence base

Expand & train PH
workforce

Federal Funding Allocations of the Prevention and Public Health Fund, Fiscal Year 2011

Activity	Amount	Purpose
COMMUNITY PREVENTION		
Community and state prevention	\$222 million	Implement Community Transformation Grants to support state and community initiatives to prevent heart disease, cancer, and other conditions by reducing tobacco use, preventing obesity, and reducing health disparities
Tobacco prevention	\$60 million	Implement anti-tobacco media campaigns, telephone-based cessation services, and similar programs
Obesity prevention and fitness	\$16 million	Advance activities to improve nutrition and increase physical activity
CLINICAL PREVENTION		
Access to wellness and preventive health services	\$112 million	Increase awareness of preventive benefits under ACA; expand immunization services; strengthen employer wellness programs
Behavioral health screening and integration with primary health	\$70 million	Help communities coordinate and integrate primary care services into public mental health and other community-based behavioral health settings; expand suicide prevention efforts and substance use disorders
INFRASTRUCTURE AND TRAINING		
Public health infrastructure	\$40 million	Support state, local, and tribal infrastructures to promote health and prevent disease through information technology, and workforce training
Public health workforce	\$45 million	Support training of public health providers for preventive medicine, health promotion and disease prevention, and epidemiology; improve access to and quality of services in underserved communities
Public health capacity	\$52 million	Build state and local capacity to prevent, detect, and respond to infectious disease outbreaks through improved epidemiology and lab capacity; invest in programs to prevent health care-associated infections
RESEARCH AND TRACKING		
Surveillance and planning	\$84 million	Fund data collection and analysis to monitor impact of ACA on health; increase collection of environmental hazards data
Prevention research	\$49 million	Identify and disseminate evidence-based recommendations on public health challenges to practitioners, educators, and decision makers; expand development of recommendations for clinical preventive services

February 2012
Congress cut
33% (\$5 billion)



facebook®





twitter

www.dshs.state.tx.us/



TEXAS

Department of
State Health Services



Partnership for a Drug-Free America

**DRINKING AND DRIVING
CAN KILL A FRIENDSHIP**



© 2008 Ad Council of Professionals



Just Buckle Up

A CLICK CAN SAVE YOUR LIFE



ARE YOU POURING ON THE POUNDS?

DON'T DRINK YOURSELF FAT.
Cut back on soda and other sugary beverages.
Choose water or low-fat milk instead.

NYC

Department of
Health & Mental
Hygiene



**If you're ready for a zombie
apocalypse, then you're ready
for any emergency**

emergency.cdc.gov





Now that I'm gone, I tell you:
Don't smoke, whatever you do, just don't smoke.

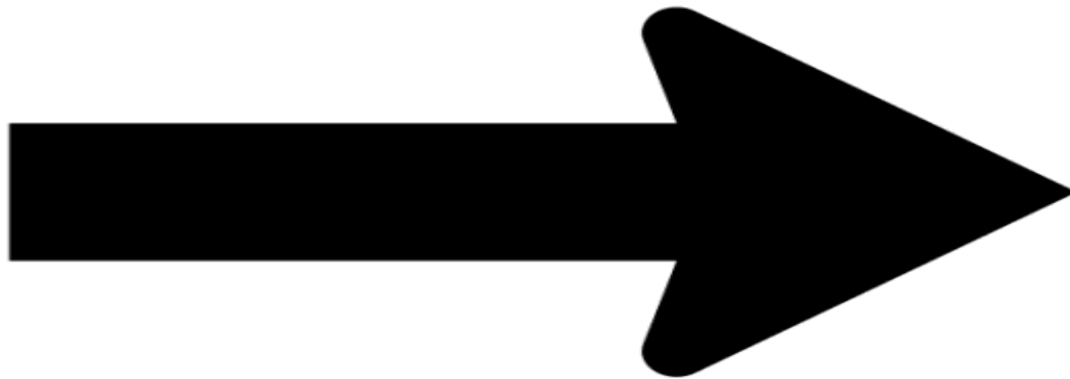
Yul Brynner 1985

In the Know

Social Media for Public Health: Webcast Series



**ONE
WAY**



flu near you 
do you have it in you?

google.org Flu Trends

[Google.org home](#)

[Denque Trends](#)

Flu Trends

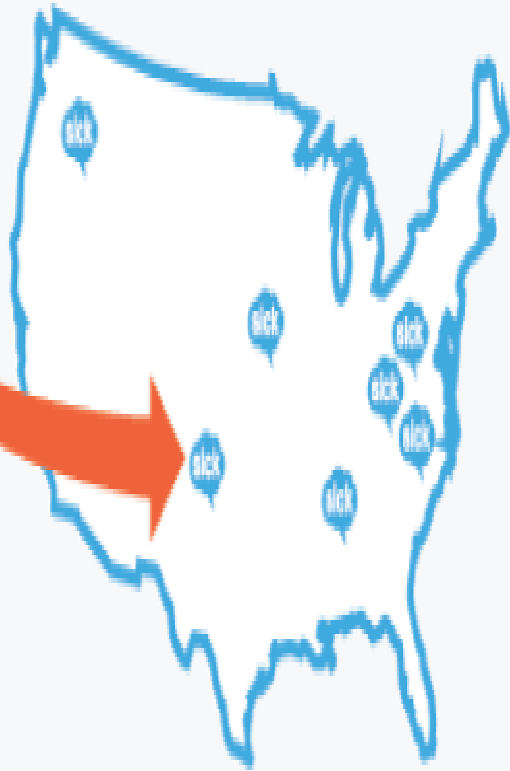
Explore flu trends - United States

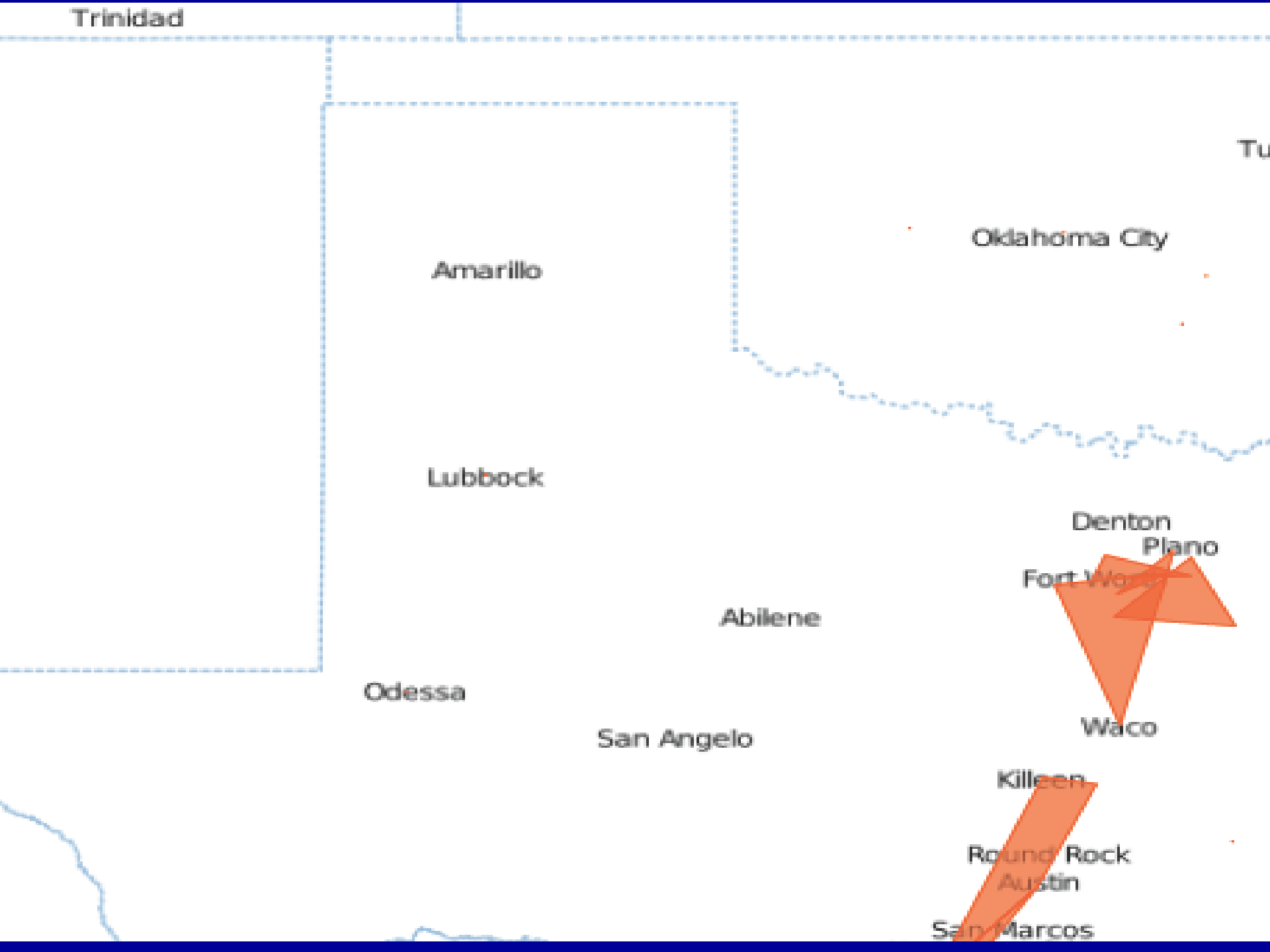
We've found that certain search terms are good indicators of flu activity. aggregated Google search data to estimate flu activity. [Learn more »](#)



beto

sickweather





Trinidad

Tu

Oklahoma City

Amarillo

Lubbock

Denton

Plano

Fort Worth

Abilene

Odessa

Waco

San Angelo

Killeen

Round Rock

Austin

San Marcos

Tobacco

Obesity

Diabetes

Challenges

Tobacco

About
443,000
U.S. Deaths
Attributable
Each Year to
Cigarette
Smoking*

Lung Cancer
128,900
(29%)

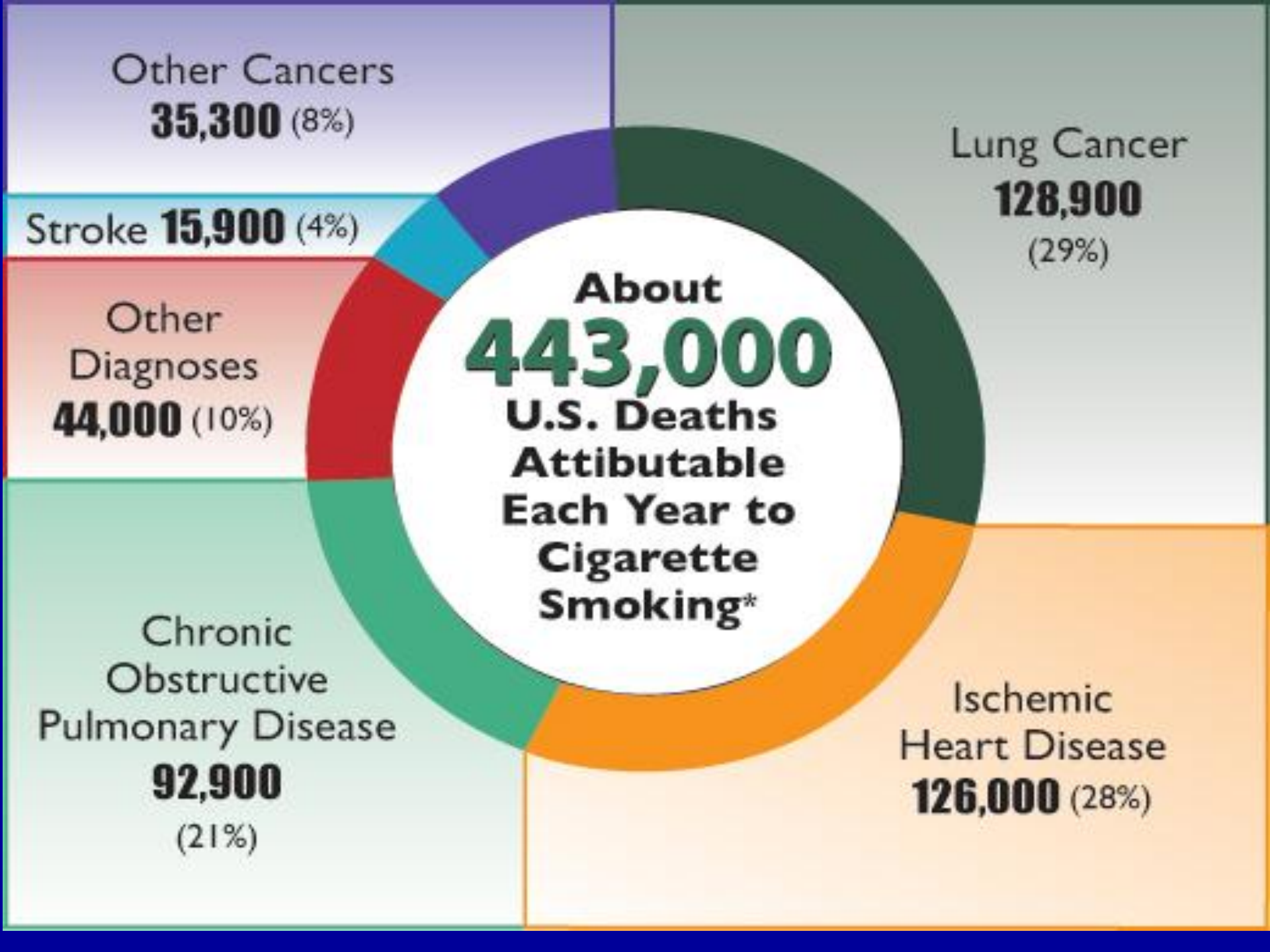
Ischemic
Heart Disease
126,000 (28%)

Chronic
Obstructive
Pulmonary Disease
92,900
(21%)

Other
Diagnoses
44,000 (10%)

Stroke **15,900** (4%)

Other Cancers
35,300 (8%)



100 million deaths

20th century

1 billion deaths

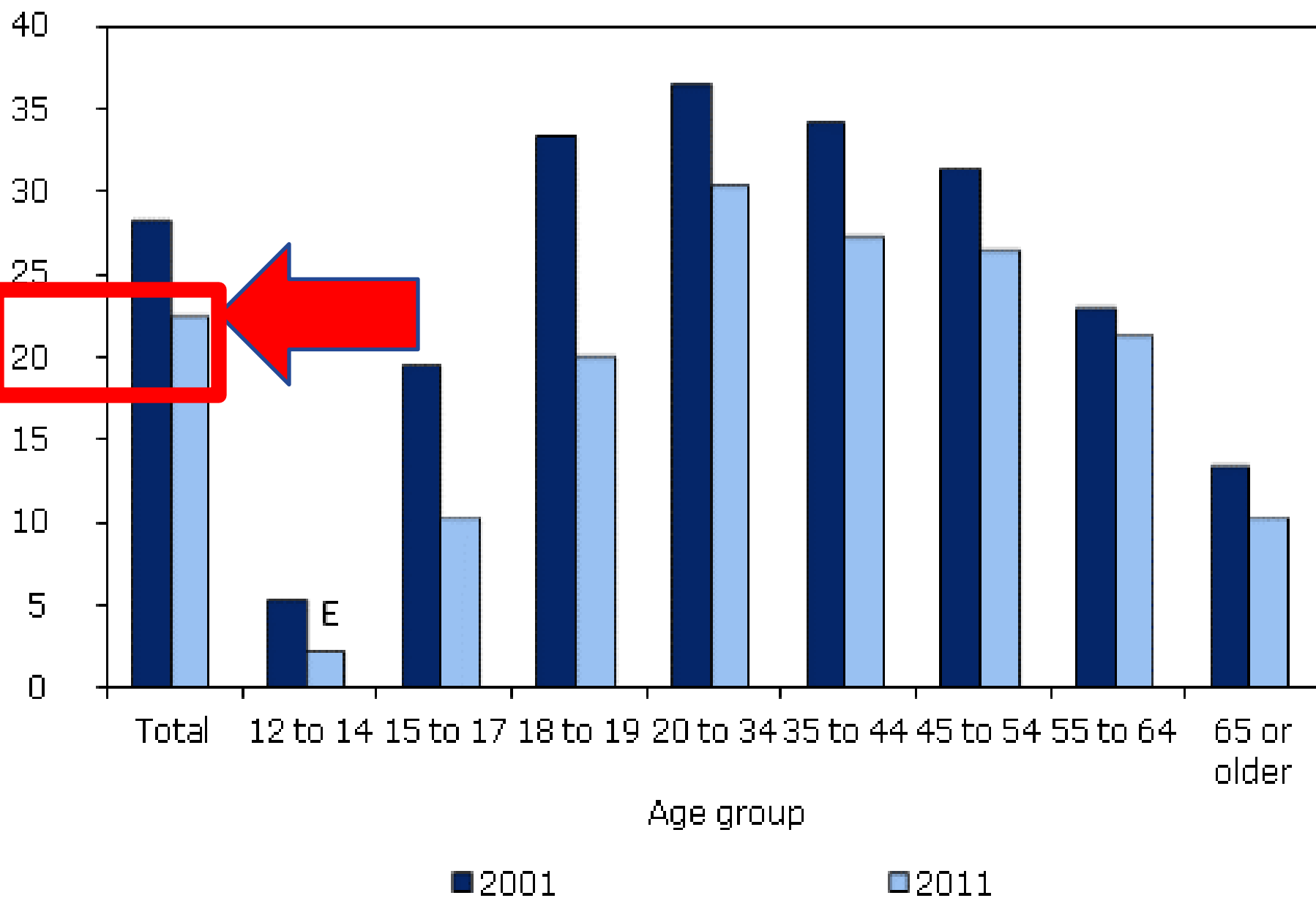
21st century



World Health
Organization

Tobacco is
the leading
preventable
cause of death

percentage of population



DEPARTMENT OF HEALTH & HUMAN SERVICES • USA



FDA

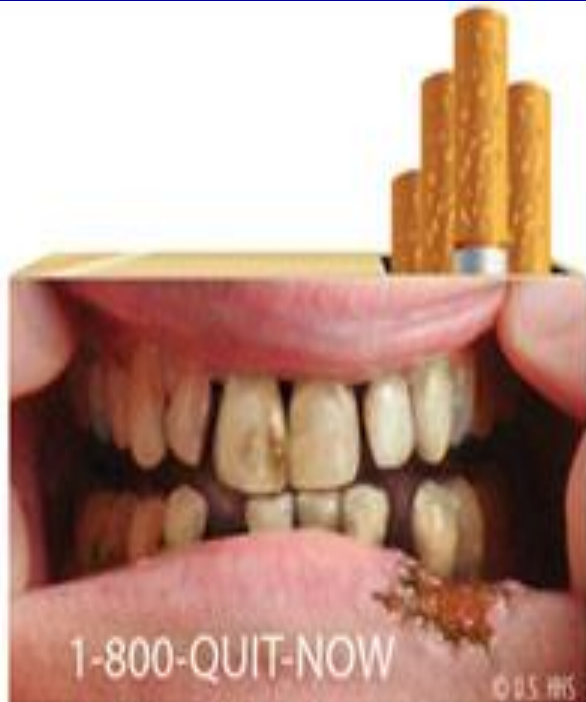


1-800-QUIT-NOW

WARNING:
Smoking can kill you.

BRAND

20 Class A Cigarettes

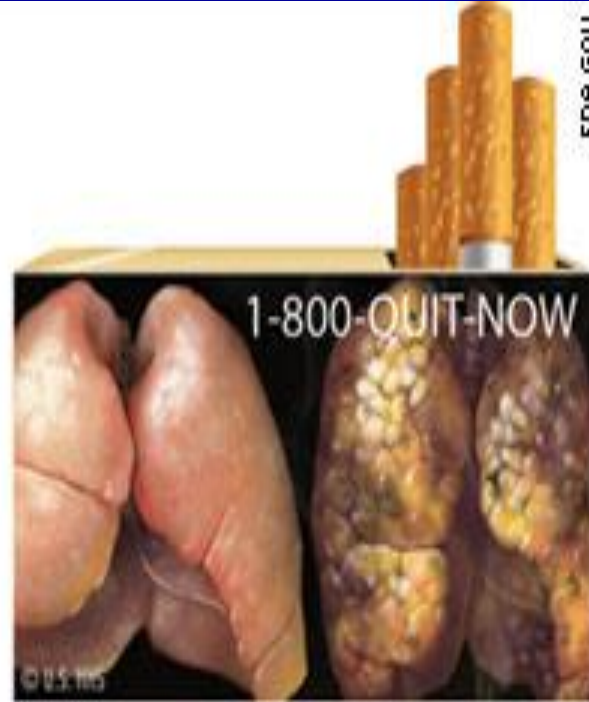


1-800-QUIT-NOW

WARNING:
Cigarettes cause cancer.

BRAND

20 Class A Cigarettes



1-800-QUIT-NOW

WARNING: Cigarettes
cause fatal lung disease.

BRAND

20 Class A Cigarettes

WARNING:
Cigarettes
cause strokes
and heart
disease.

© U.S. HHS 1-800-QUIT-NOW

BRAND

20 Class A Cigarettes

WARNING:
Cigarettes
are
addictive.

© U.S. HHS 1-800-QUIT-NOW

BRAND

20 Class A Cigarettes

1-800-QUIT-NOW

WARNING: Cigarettes
cause fatal lung disease.

WARNING:
TOBACCO
SMOKE CAN
HARM YOUR
CHILDREN.

© U.S. HHS 1-800-QUIT-NOW







11:56 AM

Unknown

FaceTime

iMessage
Nov 30, 2012 11:49 AM

Cravings last less than five minutes on average. To help distract yourself, try sipping a drink slowly until the craving is over.

iMessage

Send

Are **you** trying
to quit with
social media?

The Effectiveness of Mobile-Health Technology-Based Health Behaviour Change or Disease Management Interventions for Health Care Consumers: A Systematic Review

Caroline Free^{1*}, Gemma Phillips², Leandro Galli³, Louise Watson⁴, Lambert Felix⁵, Phil Edwards¹, Vikram Patel⁴, Andy Haines⁴

Doubles

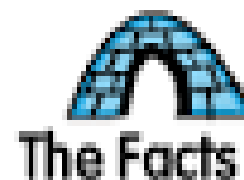
quit rate

qwitter

Home



Get Started



The Facts

Qwitter is a social tool designed to help you quit smoking. Qwitter does a few things to assist you in your effort to be **SMOKE FREE.**



Encouragement

Accountability

Obesity

Normal

Overweight

Obese

Severely Obese

Morbidly Obese

BMI 18.5 – 24.9

BMI 25 – 29.9

BMI 30 – 34.9

BMI 35 – 39.9

BMI ≥ 40

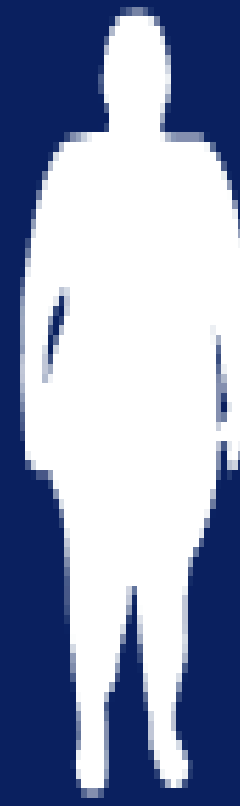
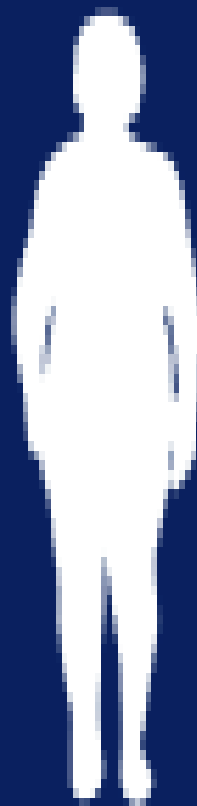
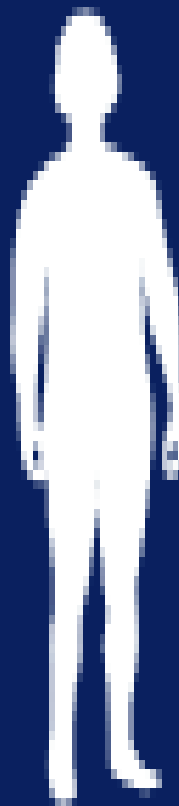
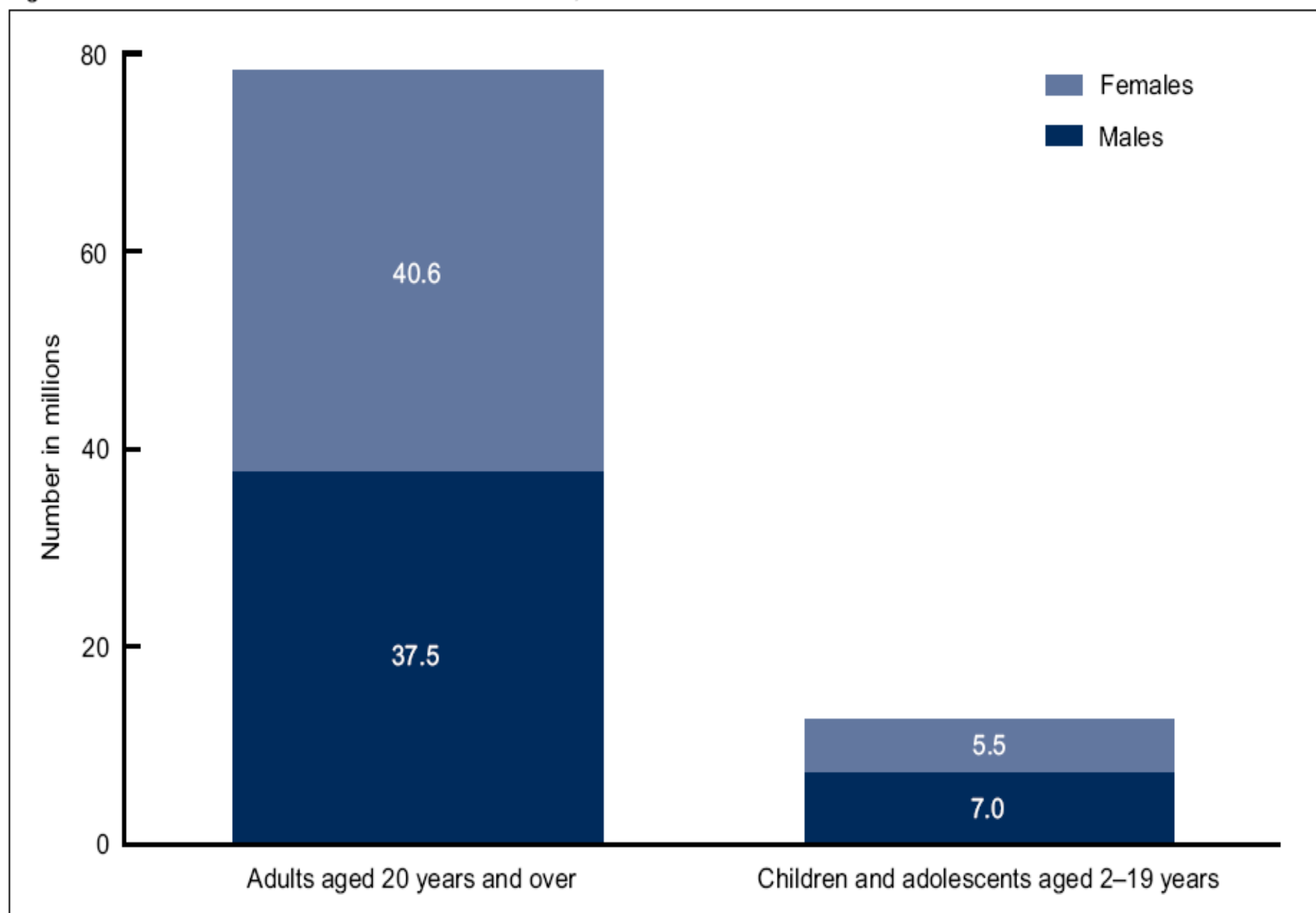
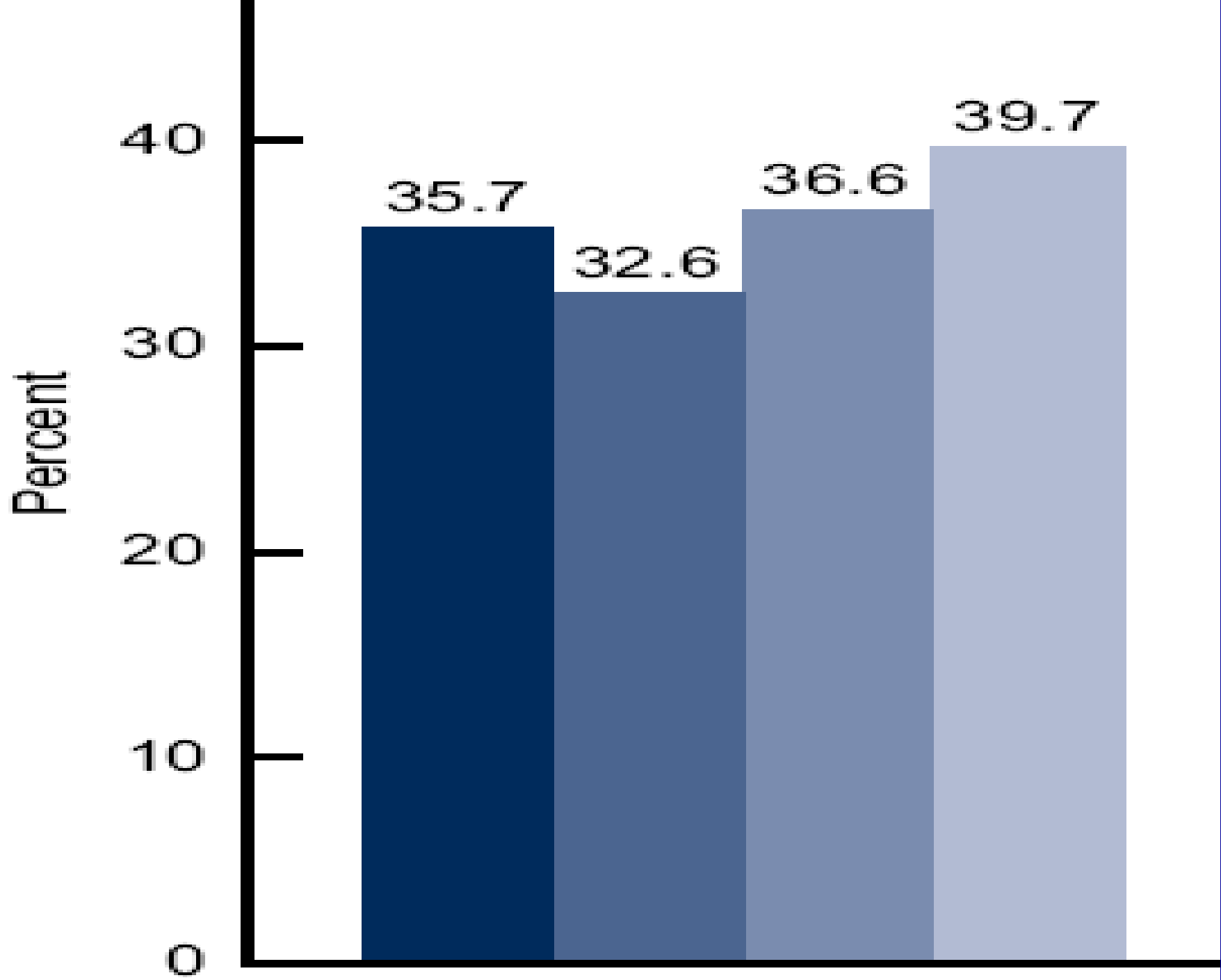
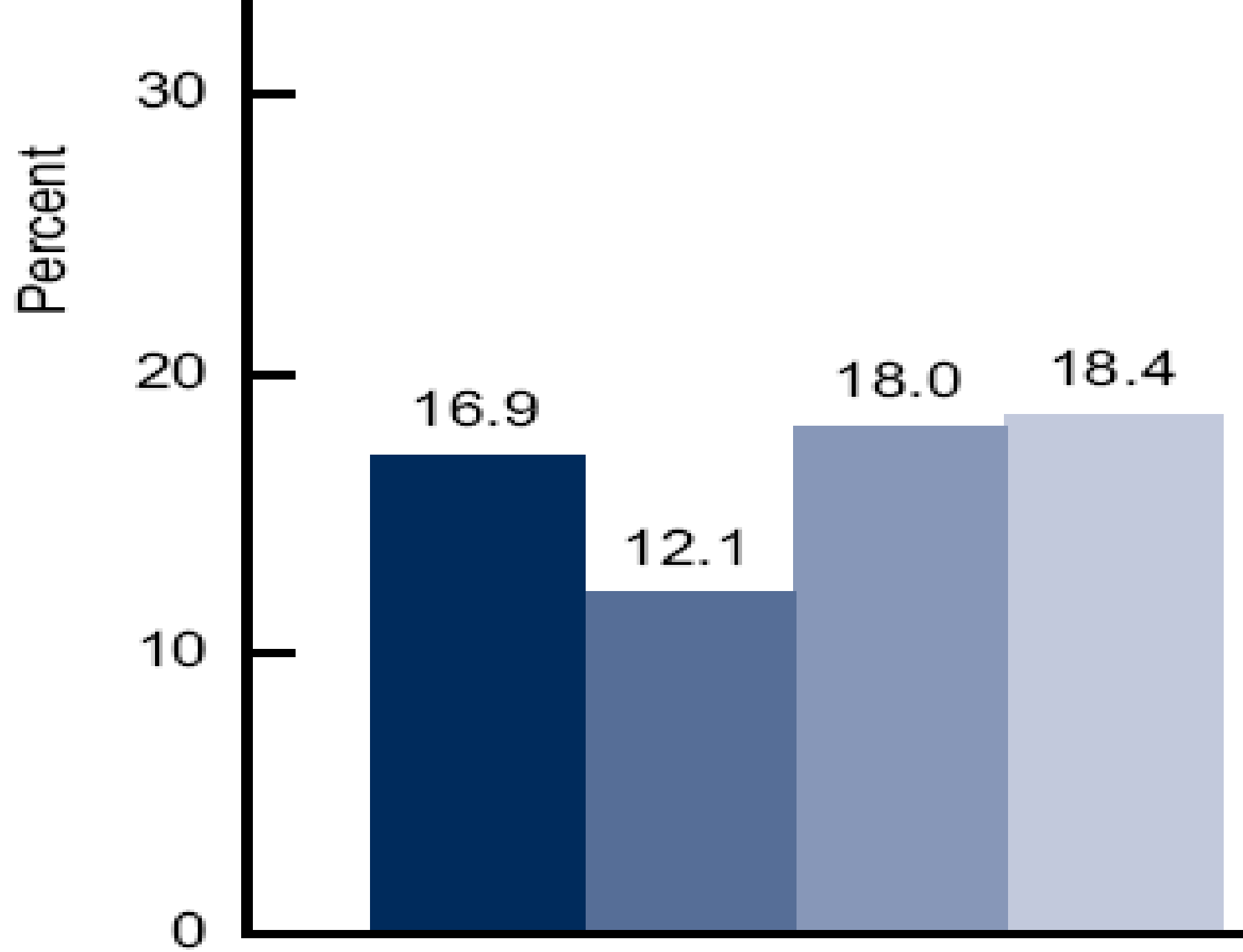


Figure 3. Number of obese individuals: United States, 2009–2010



SOURCE: CDC/NCHS, National Health and Nutrition Examination Survey, 2009–2010.





Heart disease

Stroke

Type 2 diabetes

Certain types cancer

[Burn Belly Fat Guide](#) This 1 simple trick was designed to help you shed pounds of fat... www.GetSlimRecipes.com/Diet

[5\) Foods you must not eat](#) Cut down a bit of stomach fat every day by never eating these 5 foods. Beyonddiet.com

[No1 Boot Camp Spain](#) Spanish Venues in Marbella & Ibiza 10% Discount for 2 weeks - Book Now No1BootCamp.com/Spain

[Lose 4 Stone in 3 Months?](#) Discover the Shocking Truth About Britain's Hottest Diet... RecipeThin.net/LoseWeight AdChoices

Your Diet Tools

[Track Food](#)
[Track Exercise](#)
[Weigh-In](#)
[Message Boards](#)
[Your Profile](#)
[Mobile](#)

My weight loss progress

15 lbs
lost

Add to your site

Your Daily Summary



2740 CALORIES
REMAINING

Goal	Food	Exercise	= Net
2740	0	- 0	0

News Feed — All Updates [View Summary](#)

[SHARE](#)


Sandall completed her food and exercise diary for 09/07/2012 and was under her calorie goal

16 hours ago · [Comment](#)



Sandall has logged in for 70 days in a row!

16 hours ago · [Comment](#)



rolephant has not logged in for a month. She might need some encouragement.

[Burn Belly Fat Guide](#)

This 1 simple trick was designed to help you shed pounds of fat...

www.GetSlimRecipes.com/Diet

[No1 Boot Camp Spain](#)

Spanish Venues in Marbella & Ibiza 10% Discount for 2 weeks - Book Now

No1BootCamp.com/Spain

[Lose 4 Stone in 3 Months?](#)

Discover the Shocking Truth About Britain's Hottest Diet...

RecipeThin.net/LoseWeight

AdChoices

Recent Forum Topics

[View All](#)

- ♥ Tell me your favorite perfume
- Got a slow cooker! Throw your best ideas/recipes at me! :)
- exercises for flat belly
- September Daily Step Challenge
- 5kg makes a big difference!



INCENTIVIZE YOUR EXERCISE

Paying too much for a gym you never use? GymPact lets you set the financial stakes of not getting to the gym, plus earn real cash for every workout you committed - paid for by those who didn't get to the gym! All you need is an iPhone. Make the most of your gym membership!

Get Started

[Learn More...](#)



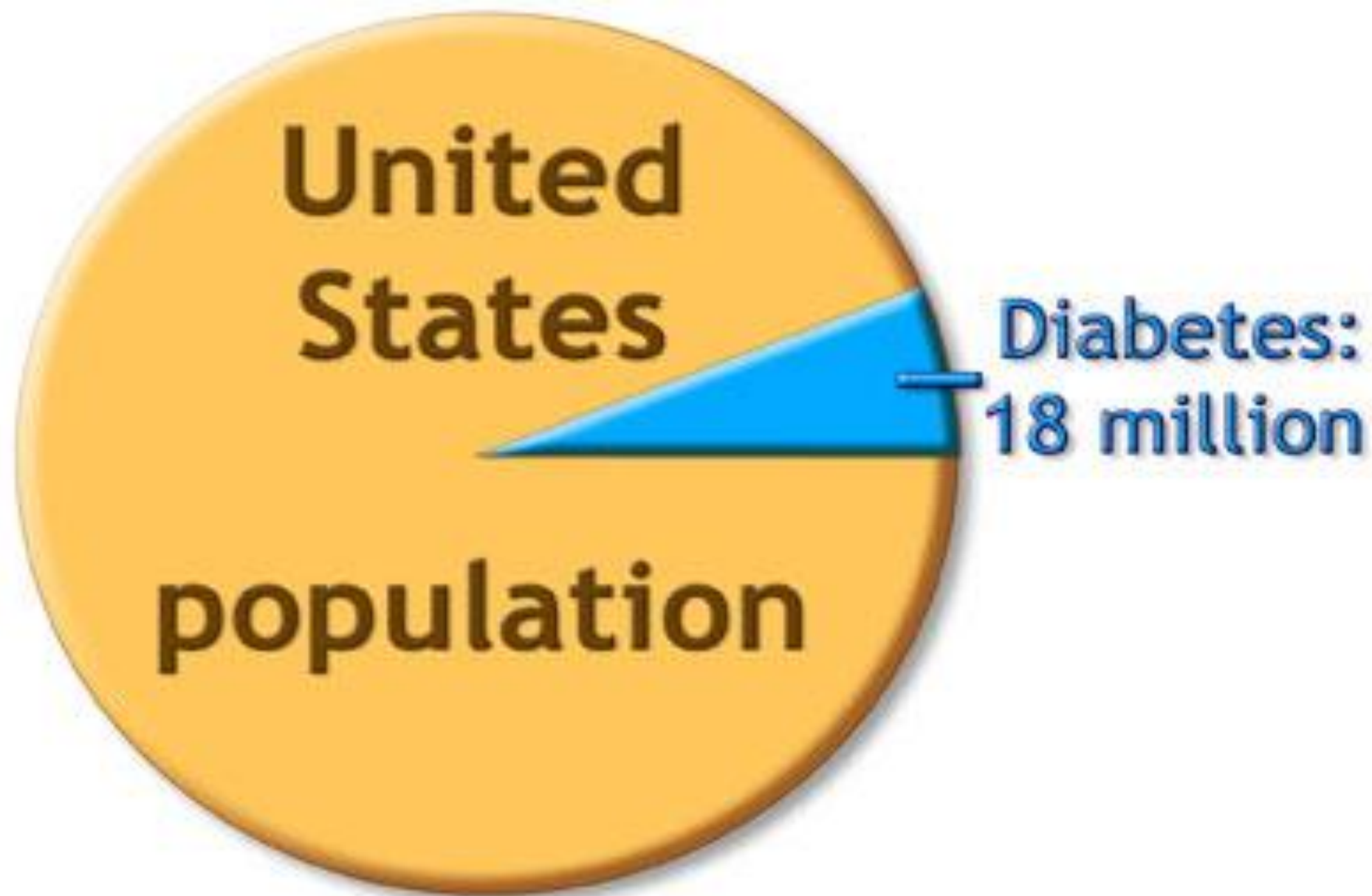
The Effectiveness of Mobile-Health Technology-Based Health Behaviour Change or Disease Management Interventions for Health Care Consumers: A Systematic Review

Caroline Free^{1*}, Gemma Phillips², Leandro Galli³, Louise Watson⁴, Lambert Felix⁵, Phil Edwards¹, Vikram Patel⁴, Andy Haines⁴

Diabetes

Primary prevention

Tertiary prevention

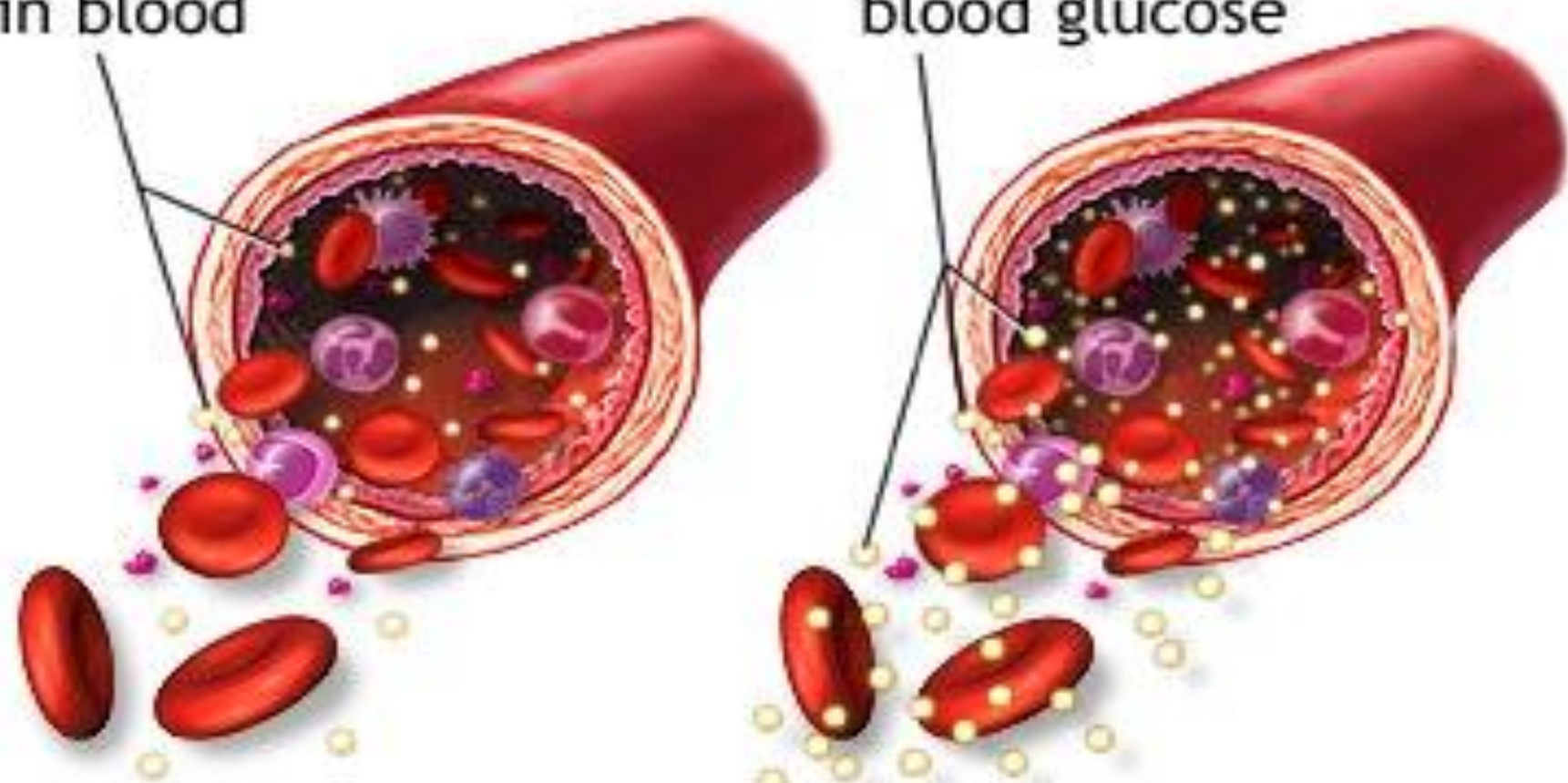


About 18 million people in the U.S. have diabetes

Your goal is to maintain normal blood glucose levels

Glucose
in blood

Excessive
blood glucose



THE BEST OF DIABETES SELF-MANAGEMENT

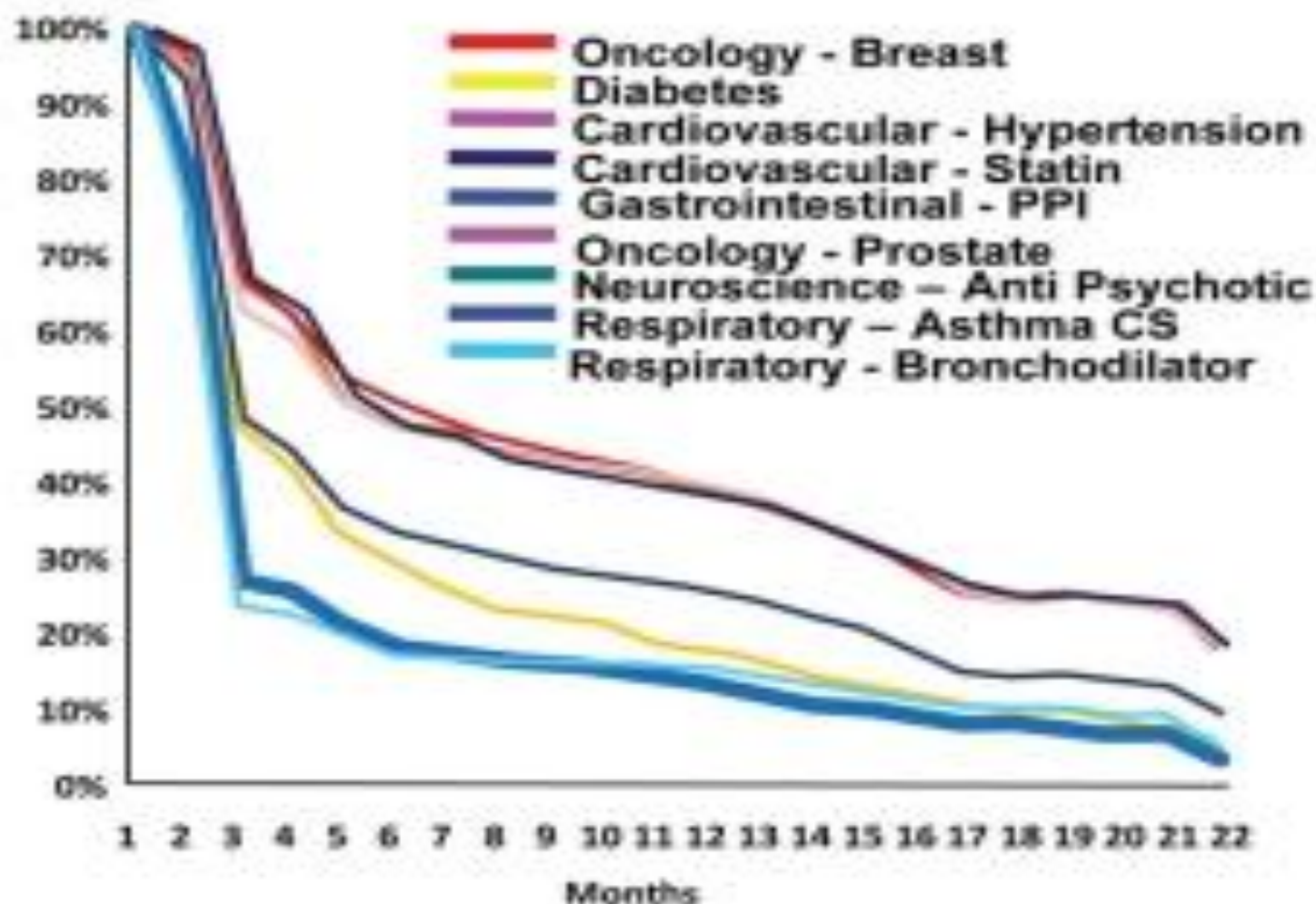
THE DEFINITIVE
COMMONSENSE GUIDE TO
MANAGING YOUR DIABETES



From the editors of DIABETES SELF-MANAGEMENT

KSVBeland

Compliance





the reminder contains all the necessary info, such as appointment time, date, doctor name, and patient name, as well as a unique patient ID that can be used to confirm or check in for a specific appointment.

“Time to take
your diabetes
medication.”

“How many
times did you
take your meds
this week?”

“How many
times did you
check your feet
this week?”

New iMessage

Cancel

To: Joshua Adams

**Individualized
feedback**



Question about MCA..

Send

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ABC



space

return





Self-aware

Reinforcement

Seriousness

Caring & support

Motivational

Similar compliance

VITAMIN C-500 COMPLEX™

MILD NON-ACIDIC VITAMIN C
CITRUS BIOFLAVONOIDS · CALCIUM



PROCAPS
LABORATORIES

ALL-SOLAR
MANUFACTURING

720 Easy-to-Swallow Capsules

sume
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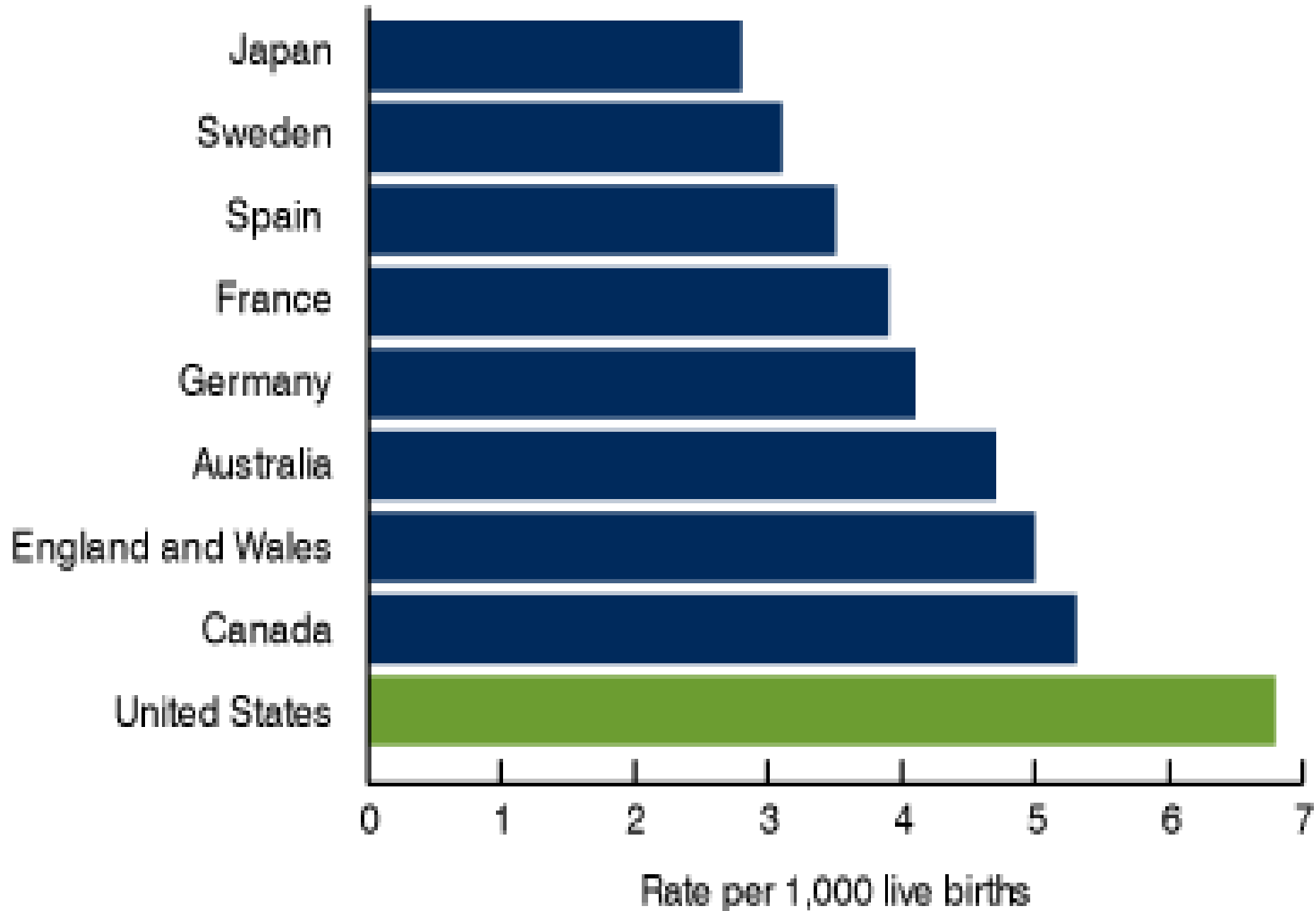
CT

LAB
SOLLS

2011-2014

Andrew Less
obtained into
Vitamin C su
stomach. The
stomach disc
Ascorbic Acid
and systems in
heart, brain, in
abundant in d
which is with
The Calcium
50 milligrams
Citrus Bioflav
in most vitam
Vitamin C-500
small, soft gel
that are gent
sensitive sto
This is a non-
acidic Vitamin
treat. Contains
CONTAINS NO
Gluten, sodium
preservatives, and
contains
control





SOURCE: Health, United States, 2007, Table 25, [http://www.cdc.gov/nchs/data/07.pdf#listables](http://www.cdc.gov/nchs/data/hus/07.pdf#listables).



text4baby™

FOUNDING SPONSOR

Johnson & Johnson



Pew Internet

Pew Internet & American Life Project

a project of the
PewResearchCenter

Peer-to-peer healthcare

1



Among online health information seekers, **16%** in the past year tried to find others who might share the same health concerns.

2



30% of internet users have consulted online reviews or rankings of health care services or treatments.

3



26% of internet users have read or watched someone else's experience about health or medical issues in the past year.



Email

Share your story. Build your support circle.

Password passwords are case sensitive.

CarePages websites are free patient
blogs that connect friends and family
during a health challenge

Remember me



home

create

favorite

map

help

inviter

directory

?

Hello Visitor!
Get your Profile

Find Help

Transfer Points

Submit News

Submit Research

Hire a Writer

Profile Completeness

62% profile completeness

View + Add (only)
Update Profile

Network Spot

Direct Contacts
Contacts of
your contacts

Expand your network now!



All updates • Friends • Photos • Videos • Pages • More •



Launching in 10 days 15 hours 59 minutes



Looking for Best Diet Options

Posted by Clerk Rpa Thu at 6:18 PM 0 comments 0 likes 10 views
Are you good at researching diet options?

Need Help Organizing My Records

Posted by Clerk Rpa Thu at 6:00 PM 0 comments 0 likes 4 views
Do you have expertise in organizing medical records?

Need an article for this

Posted by Clerk Rpa Wed at 12:12 PM 0 comments 0 likes 7 views
Proin ac morbi et placerat elementum eget vitae. Maecenas pharetra leo quis ante placerat sed laoreet. Duis cursus. In sollicitudin viverra massa eu bibendum. Donec tringit semper sit sit amet venenatis. Nullam quis dicit erat. Morbi a regie et al. more

Need Article on Exercise

Posted by Clerk Rpa Tue at 1:40 PM 0 comments 0 likes 8 views
Write an Article Regarding Exercise and meet the following requirements:

Earn Co-Founder Status



Find an Oncologist

Quick Links

You can earn credits by posting helpful information about medical services. For more information please visit FAQ section.

- Invite Friends
- Post New Video
- Create New Event
- Post New Article
- Add New Profile

Create an Ad More Ads

Chondrosarcoma

View Page

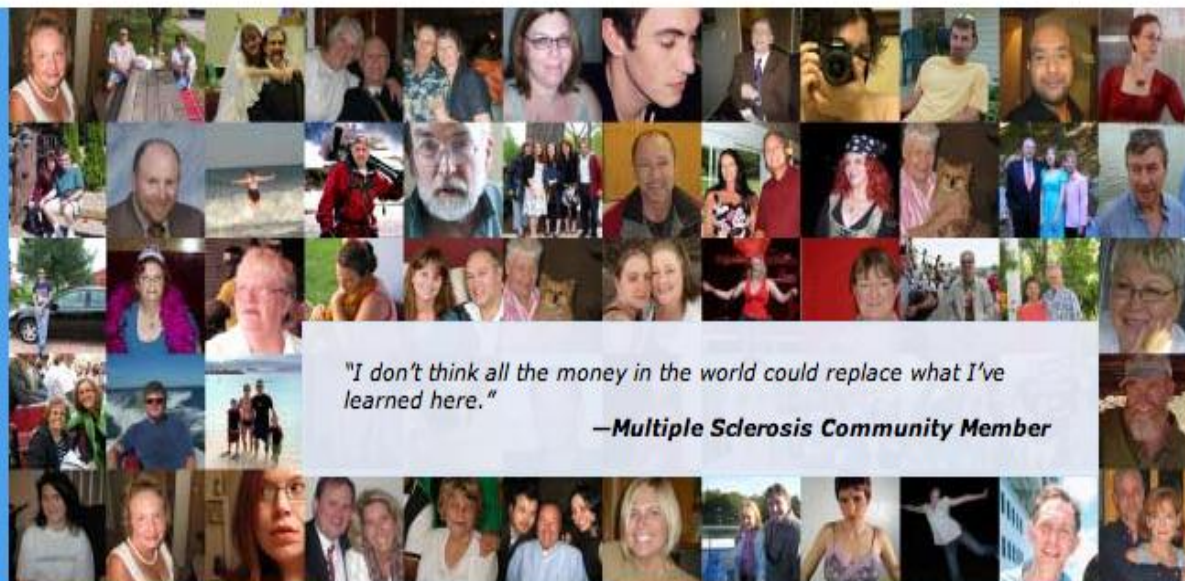


Chondrosarcoma is categorized as a malignant cancer of the bone. The

Find Patients Just Like You »

Do you have a life-changing condition?
Learn from the real-world experiences
of other patients like you.

Join Now! (It's free!)



CURRENT DISEASE COMMUNITIES

Prevalent Diseases

ALS / MND

Anxiety

Bipolar

Depression

Fibromyalgia

HIV/AIDS

MS (Multiple Sclerosis)

OCD (Obsessive-Compulsive Disorder)

See how PatientsLikeMe can help you take control of your health:



Share your health profile »

Answer simple questions to create a shared health profile to see how you're doing over time.



Find patients like you »

Search by gender, age, treatments, symptoms, and time since diagnosis to easily connect with patients like you.



Learn from others »

Learn from real-world treatment and symptom reports, forum discussions, health profiles, one-on-one

Challenges

Advertising

Pepsi  Like

Wall

Info

Pepsi MAX

Pepsi Refre...

Notes

Road Trip

[Vote in The Pepsi Refresh Celebrity Challenge!](#)[How it Works](#)[Submit an Idea](#)[Vote Now](#)[Refresh Blog](#)[FAQs](#)

Pepsi is giving away millions in grants each month to fund ideas. Support your favorite project!

Vote on the site

or [Support ideas on Facebook](#)

Grant Categories:

**HEALTH**

Impact the health of anyone, from hospitals & clinics to exercise.

**ART & CULTURE**

Celebrate the arts in all its forms.

[FIND OUT MORE](#)**FOOD & SHELTER**

Provide things to eat, wear or live in – and sometimes all three.



Suggest to Friends

<http://refresheverything.com/>
<http://twitter.com/pepsi>

1 Friend Likes This



1,607,956 People Like This



McDonald's

Like

Wall

Info

Local

Dollar Menu...

McCafé

Quality



Get Local!

McDonald's is everywhere. And now you can get info, updates and specials all personalized for your city. Just enter your zip code to get started.



You are here.

GO

Enter your zip code above.

Already selected a favorite store? Click Here.

[My City isn't listed](#)

Create an Advert

Connect with more friends



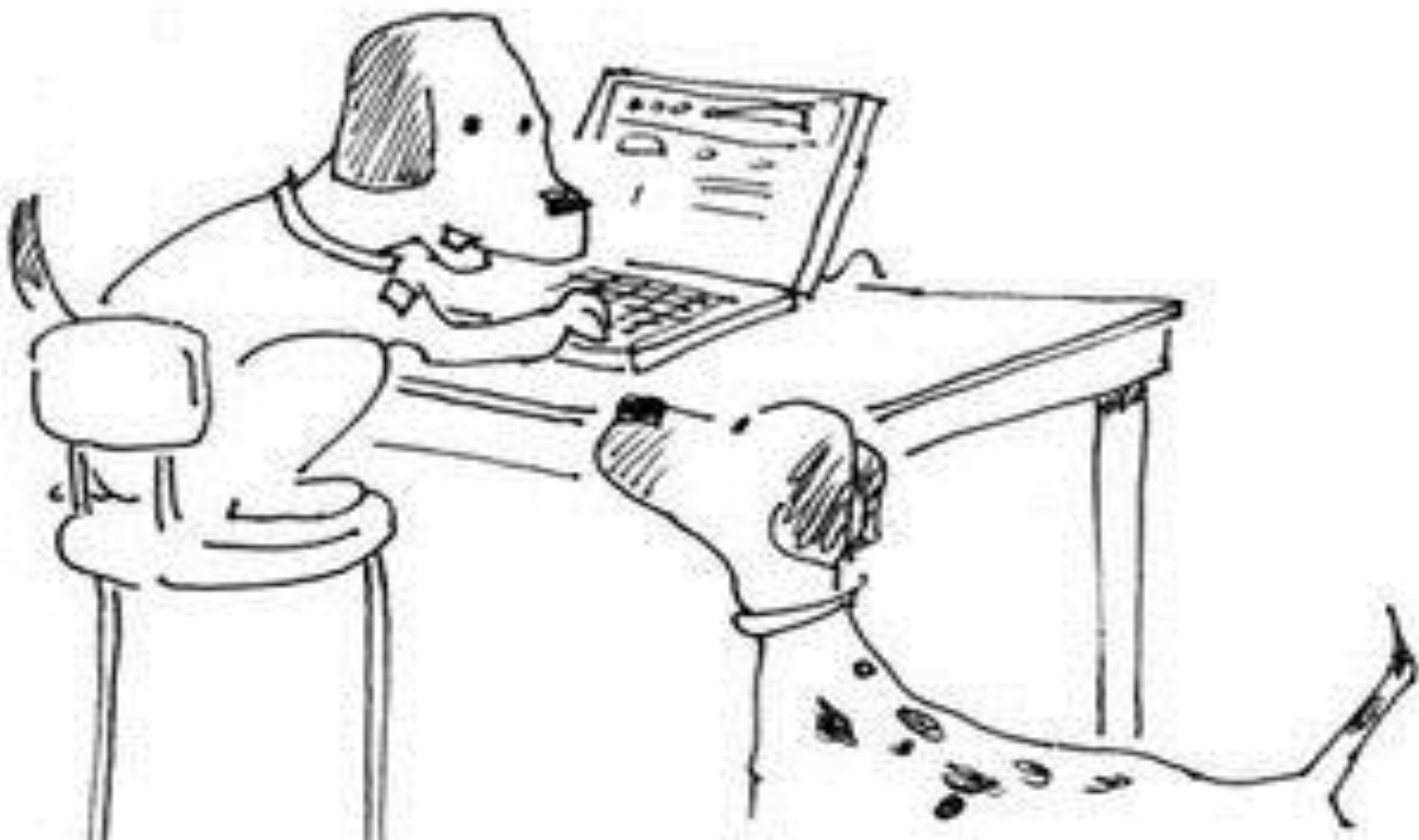
Share the Facebook experience with more of your friends. Use our simple invitation tools to start connecting.

More Ads

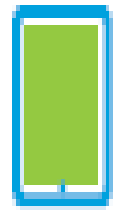
Secret

Advertising

**"On Facebook, 273 people know I'm a dog.
The rest can only see my limited profile."**



Agge



Desktop/laptop

Cell/mobile phone

Smart phone

Tablet computer

Millennials
1982-1994

74%

49%

45%

19%

Gen X
1965-1981

79%

43%

43%

18%

Boomers
1946-1964

77%

36%

21%

11%

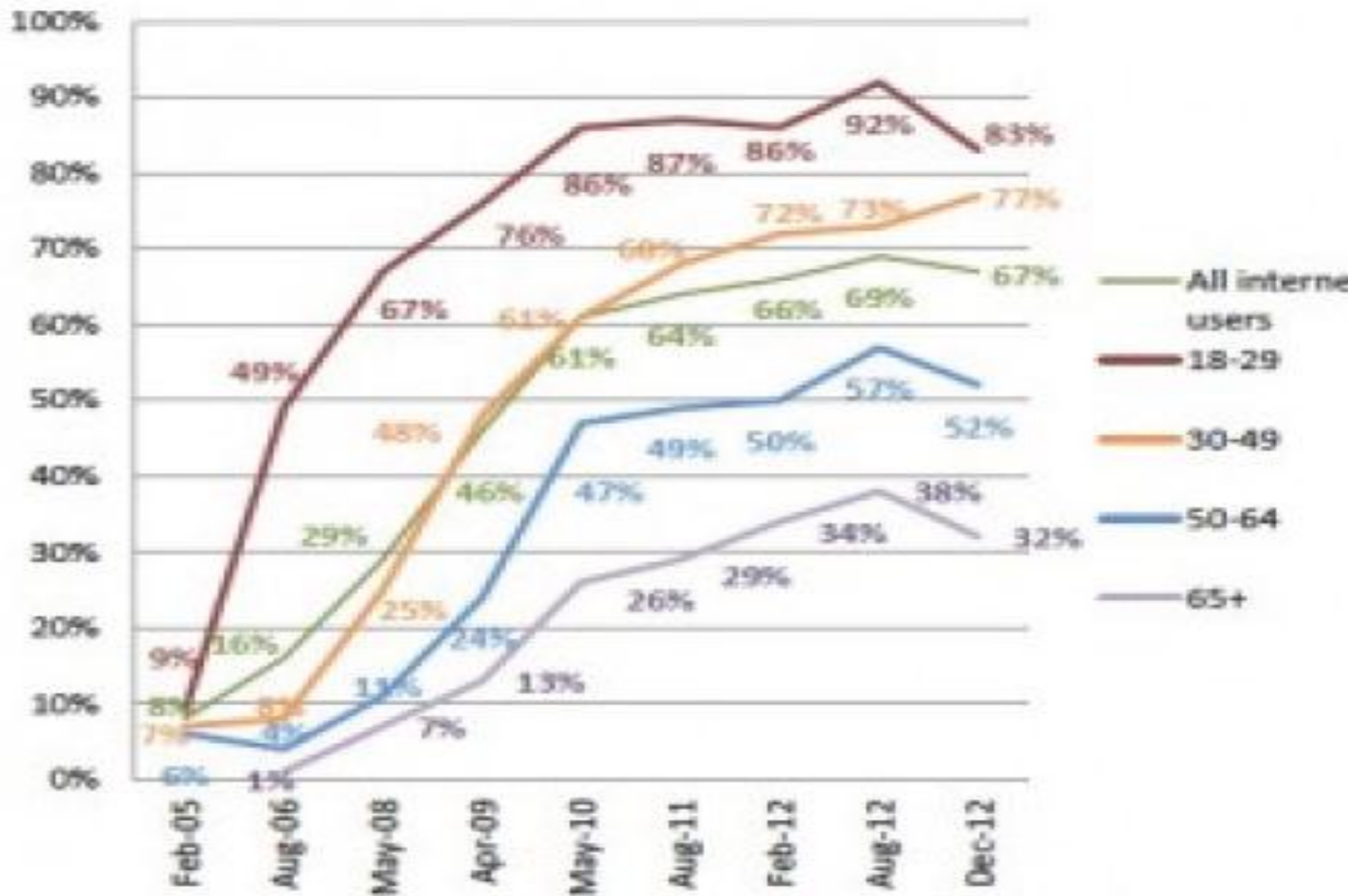
Seniors
1900-1945

68%

27%

10%

7%



Source: Pew Research Center's Internet & American Life Project surveys, 2005-2012

Privacy



Regulation



1865 Red Flag Act
Concern new technology stifles

3 Day Hearing Series on HIT



Expansion

Incentives

Top US Hospital Readmission Rates by Condition (30-days)

Medical Conditions	30-day Readmission Rate	% of all Readmissions
Heart Failure	26.9%	7.6%
Pneumonia	20.1%	6.3%
COPD	22.6%	4.0%
Psychoses	24.6%	3.5%
GI related problems	19.2%	3.1%

Pneumonia
23%
secondary
cause

Surgical Conditions	30-day Readmission Rate	% of all Readmissions
Cardiac Stent	14.5%	1.6%
Major Hip or Knee Surgery	9.9%	1.5%
Vascular Surgery	23.9%	1.4%
Major Bowel Surgery	16.6%	1.0%
Other Hip or Femur Surgery	17.9%	0.9%

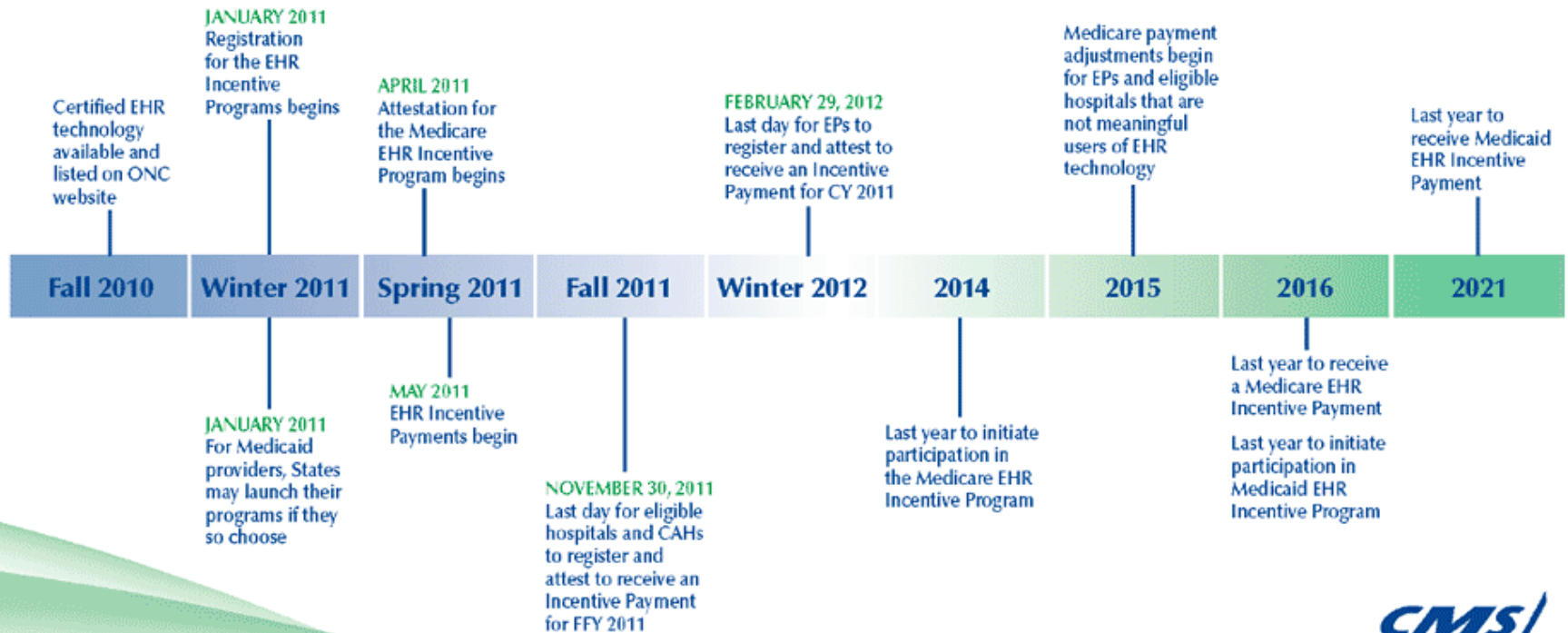
SSI 6.4%
secondary
cause





CMS Medicare and Medicaid EHR Incentive Programs

Milestone Timeline



IPDAS



International Patient Decision
Aid Standards Collaboration



**"That's Where
the Money is..."**

— *Willie Sutton*



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