

TOOLS, TRENDS, & RESOURCES FOR RESEARCH: M-HEALTH & HEALTH I.T.

The screenshot shows the homepage of the HINTS (Health Information National Trends Survey) website. The header features the "hints" logo and the text "Health Information National Trends Survey" next to a graphic of green arrows pointing in various directions. The main content area includes a brief description of HINTS, a "HINTS Briefs" section with a thumbnail of a report, and a "What Does HINTS Tell Us About..." sidebar with a list of topics like Cancer Communication, Patient-provider Communication, Internet Use, Numeracy, and Skin Protection. There are also sections for "Learn About HINTS" and "Use HINTS Data". On the right side, there are social media links and two blue call-to-action boxes: one for influencing the survey and another for participation.

HINTS is a national survey uniquely dedicated to learning how people find, use, and understand health information.

HINTS Puerto Rico Data Released!

HINTS Data Spotlight: Cancer Information Seeking

HINTS Reports and Materials Spotlight

What Does HINTS Tell Us About...

- Cancer Communication
- Patient-provider Communication
- Internet Use
- Numeracy
- Cancer Perceptions and Knowledge
- Nutrition and Physical Activity
- Skin Protection
- Tobacco Use
- Breast Cancer
- Cervical Cancer
- Colon Cancer
- Lung Cancer
- Skin Cancer

[View all HINTS topics...](#)

Learn About HINTS

- [What HINTS Does](#)
- [How HINTS Data are Used](#)
- [HINTS Briefs](#)
- [HINTS Reports and Materials](#)
- [Contact Us](#)

Use HINTS Data

- [Download the Public-use Datasets](#)
- [Survey Instruments](#)
- [Frequently Asked Questions](#)
- [Research Using HINTS Data](#)

[Share](#) | [Facebook](#) [Twitter](#) [Email](#)

[Follow HINTS on Twitter](#)

[HINTS on Facebook](#)

[Download HINTS data](#)

[View all HINTS questions](#)

[Read HINTS briefs](#)

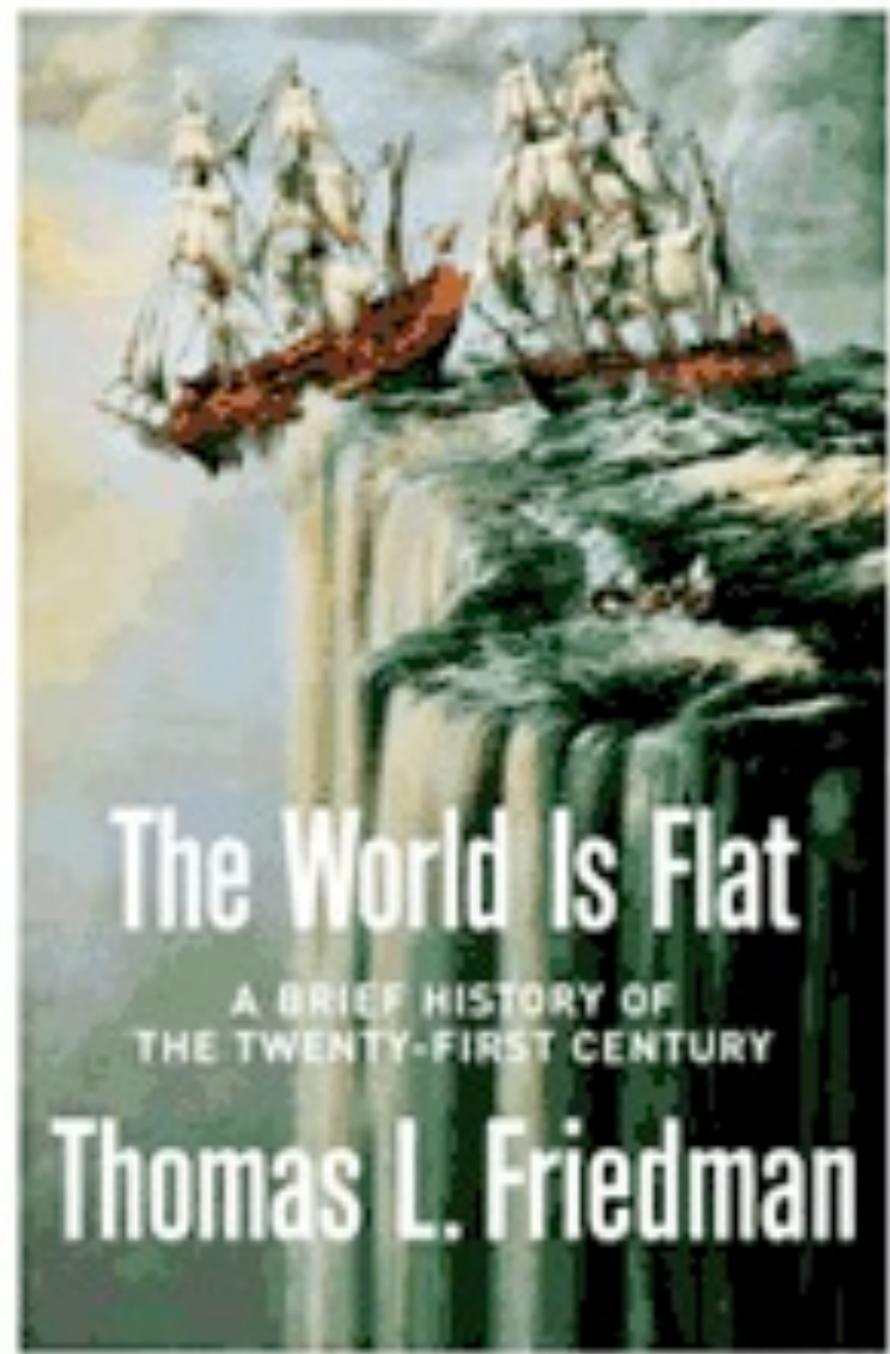
[Want to influence the next HINTS survey?](#)

[Were you contacted to participate in HINTS?](#)

Bradford W. Hesse, PhD
Chief, Health Communication and Informatics Research

September 8, 2011

Globalization 3.0: “Flattening the Global Economic Playing Field”



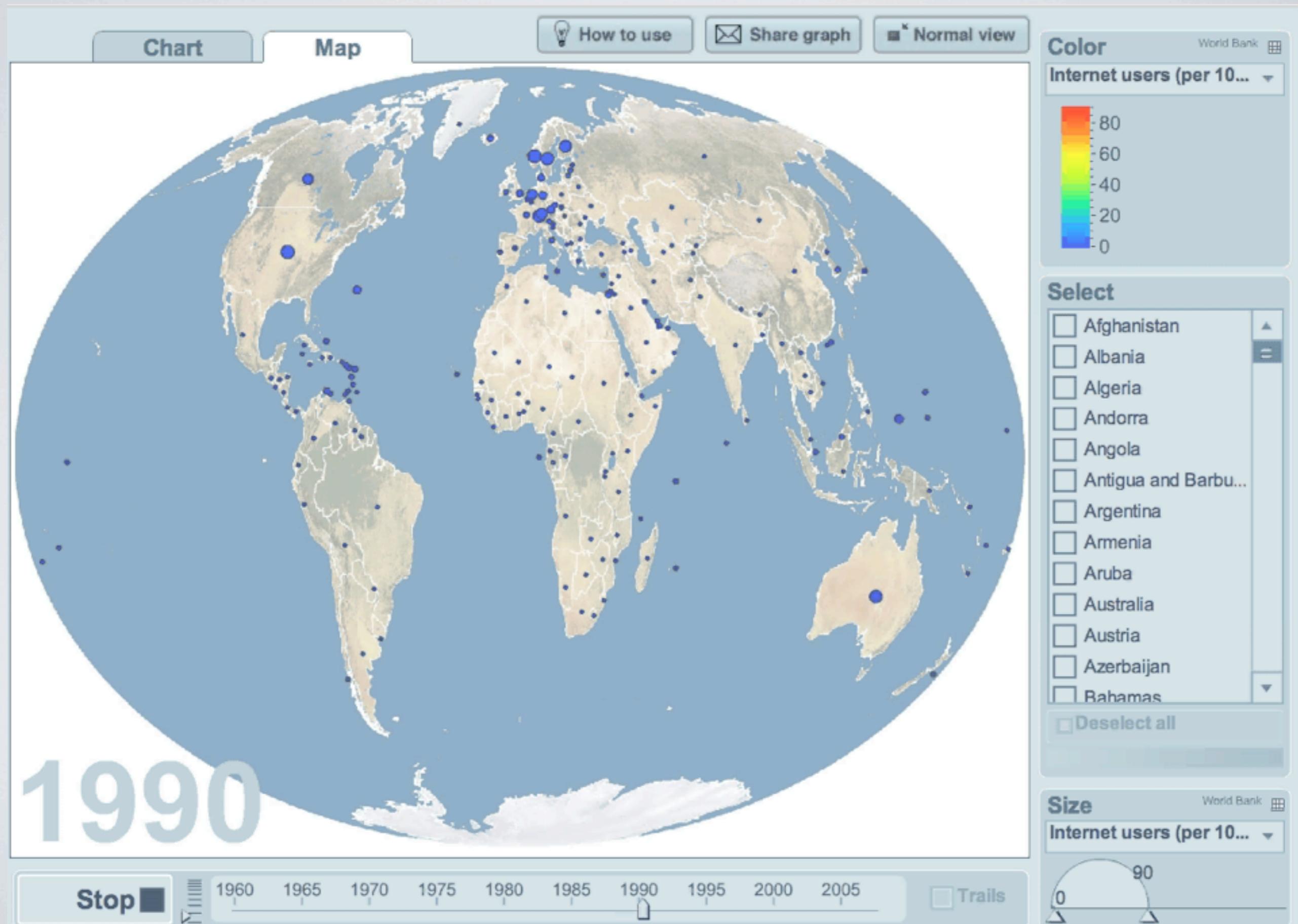
Thomas Friedman, Massachusetts Institute of Technology, May 16, 2005

Internet per 100: 1990 to 2008

GAPMINDER for a fact-based world view

Internet per 100: 1990 to 2008

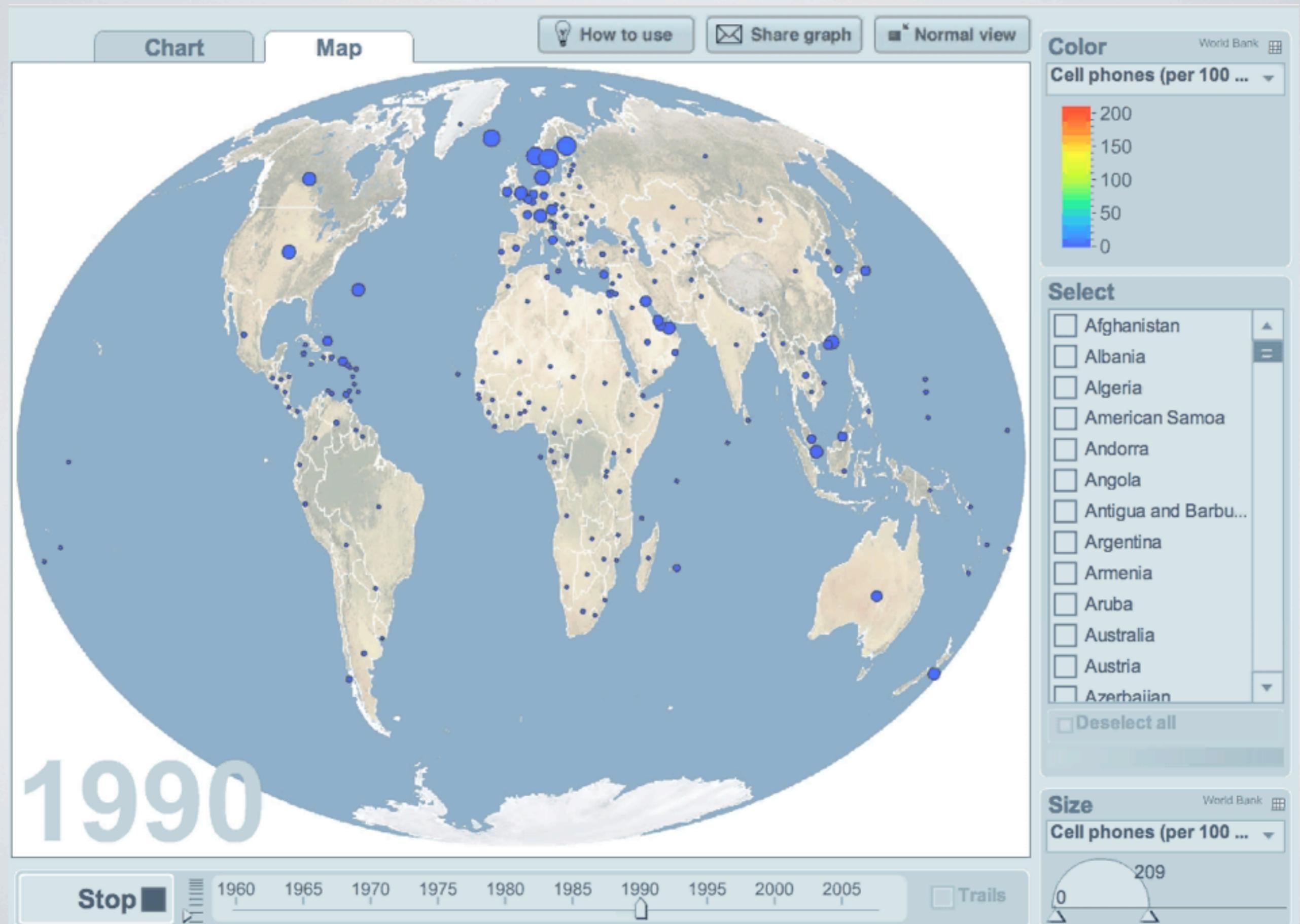
GAPMINDER for a fact-based world view



Mobile per 100: 1990 to 2008

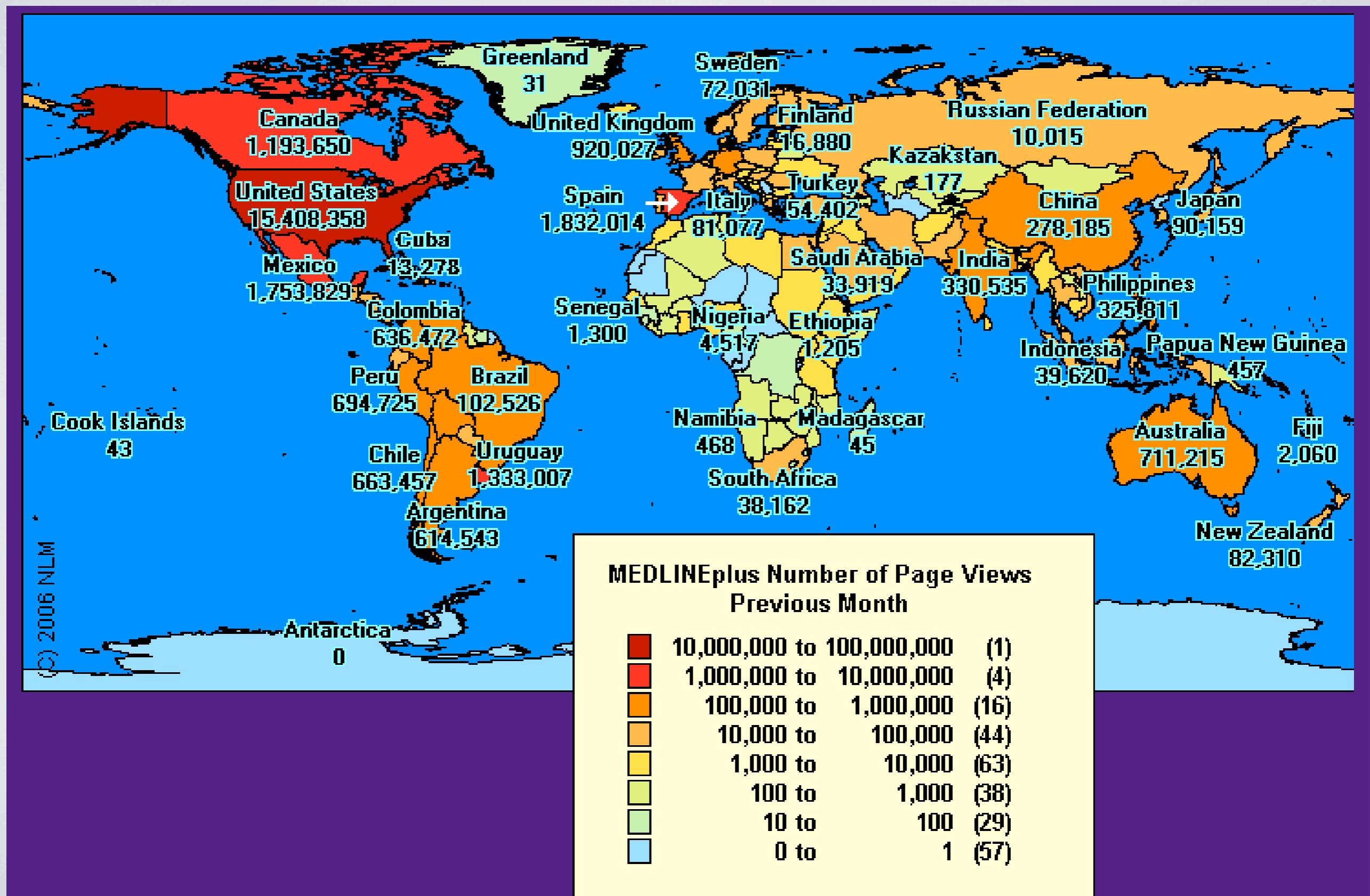
Mobile per 100: 1990 to 2008

GAPMINDER for a fact-based world view



Medline Page Views: 2006

U.S. National Library of Medicine (MedLine), 2006



Changes in the Policy Environment

Health Information Technology for Economic and Clinical Health (HITECH) ACT

The screenshot shows the Kaiser Permanente website homepage. At the top, there's a navigation bar with links for 'Home kp.org', 'Guía en español', and a search bar. Below the navigation is a banner with the text 'BE YOUR OWN ACTION FIGURE.' and a superhero-themed illustration of a child in a yellow suit. To the left, there's a 'Members sign on' section with fields for 'User ID' and 'Password', and links for 'Forgot your user ID or password?' and 'Online security'. A sidebar on the left includes a 'Just mousing around?' section with links for 'Site improvements—take a look!' and 'Register to get a user ID'. The main content area features several sections: 'Health and wellness' (with a carrots icon), 'Health plans and services' (with a pea icon), 'My health manager' (with a cherries icon), and 'KP News Center' (with an apple icon). Each section contains descriptive text and links to more information.

Meaningful Use

- Safety, Efficiency, Effective
- Patient Engagement
- Care Coordination
- Population Health
- Privacy, Security



Open Source Applications (NCI)

Changes in the Policy Environment

Patient Protection and Affordable Care Act of 2009

The screenshot shows the main page of HealthCare.gov. At the top, there's a banner with the text "Health care is getting better. So is HealthCare.gov. Where you see [was this helpful?](#) add your comments to help us improve." Below the banner is the HealthCare.gov logo and the tagline "Take health care into your own hands". The navigation bar includes links for "Blog", "Newsroom", "Implementation Center", "FAQs", "Home", "Email Updates", "Glossary", "Font Size", "En Español", and a search bar. A large central image features a man in a blue shirt with the text "Your Health Care, Explained". To the left, a blue sidebar box says "Explore your coverage and pricing options" and "Find out which private insurance plans, public programs and community services are available to you." It includes a dropdown menu for "Pick Your State" and a "GO" button. Another section titled "Making Insurance Plans Easier to Understand" discusses new proposed rules for disclosure forms, with links to learn more and see samples. At the bottom, there are "Featured Topics" including "PARTNERSHIP FOR PATIENTS", "HealthCare Notes" (a blog), and "Medicare Open Enrollment: Better Choices, Sooner".

Meaningful Use

- Safety, Efficiency, Effective
- Patient Engagement
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Open Source Applications (NCI)

Changes in the Policy Environment

Accountable Care Organizations

The screenshot shows the homepage of the Office of Inspector General (OIG) of the U.S. Department of Health & Human Services. The top navigation bar includes links for REPORT FRAUD, Home, FAQs, FOIA, Careers, HEAT, and Contact Us. Below the navigation is the OIG logo and the text "U.S. Department of Health & Human Services". The main menu includes About OIG, Reports & Publications, Fraud, Compliance, Recovery Act Oversight, Exclusions, and Newsroom. A search bar at the top right has fields for "Report #, Topic, Keyword..." and "Search". A "Select One" dropdown is also present. On the left, there's a sidebar for "Accountable Care Organizations" with a link to "Federal Agencies Address Legal Issues Regarding Accountable Care Organizations Participating in the Medicare Shared Savings Program". It also mentions Adobe Acrobat Reader required to read PDF files and provides links to various documents from CMS and OIG. The right side features a sidebar titled "I'm looking for" with a dropdown menu containing links to Accountable Care Organizations, Advisory Opinions, Compliance Guidance, Corporate Integrity Agreements, Open Letters, Physician Education, Provider Compliance Training, RAT-STATS, Safe Harbor Regulations, Self-Disclosure Information, and Special Fraud Alerts, Bulletins, and Other Guidance. At the bottom is a red banner for "EXCLUSIONS DATABASE".

Meaningful Use

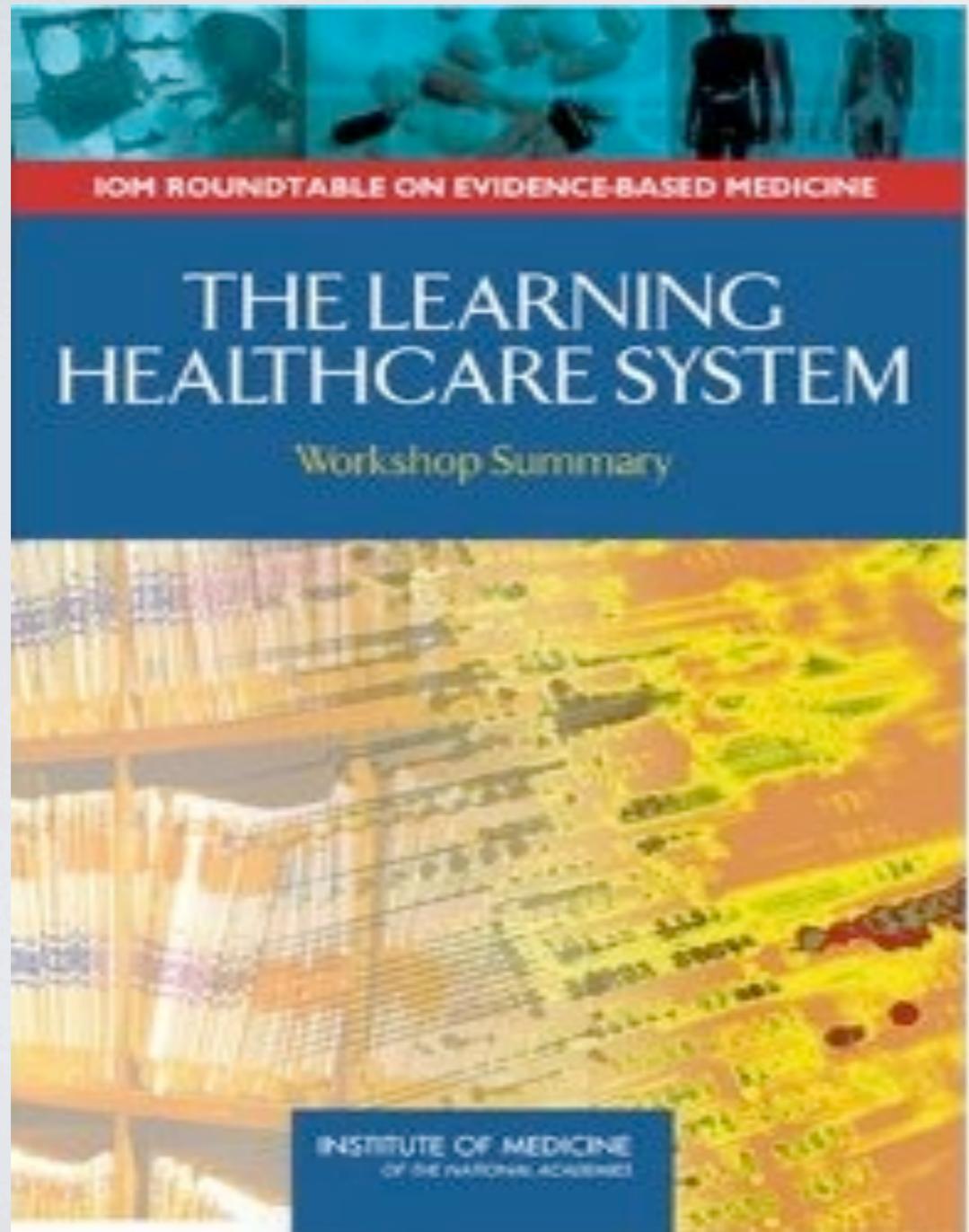
- Safety, Efficiency, Effective
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Open Source Applications (NCI)

Changes in the Policy Environment

Comparative Effectiveness and Data Liquidity: Healthcare as Data Platform



Meaningful Use

- Safety, Efficiency, Effective
- Patient Engagement
- Care Coordination
- Population Health
- Privacy, Security



Open Source Applications (NCI)

Changes in the Policy Environment

“Open Government:” Government as Platform

The screenshot shows the HHS.gov/Open website. At the top, there's a blue header bar with the American flag, the date "FRIDAY, APRIL 22, 2011", and a search bar. Below the header, the main title "HHS.gov/Open" is displayed in large white letters. To the right of the title are links for "Font Size", "OPEN GOV", and a "Search" button. The main content area has a blue background with the slogan "EXPLORE. ENGAGE. ENLIGHTEN." in white. On the left, there are four blue buttons with icons: a magnifying glass for "Data Sets", a wrench for "Tools", a document for "Our Plan", and a speech bubble for "Discuss". In the center, there's a "Spotlight on MedlinePlus" section featuring an image of a laptop with a stethoscope around its neck, displaying the MedlinePlus logo. Below the spotlight, there's a navigation menu with links: Home, Data Sets, Tools, Our Plan, FOIA, Records Management, Get Involved, Innovate, Discuss, and Leadership. At the bottom of the page, there's a sidebar with sections for "Adding Value at HHS through Innovation" (posted March 31, 2011 by Todd Park), "Our Open Government Plan" (with a link to a PDF), and "Share Your Ideas".

Meaningful Use

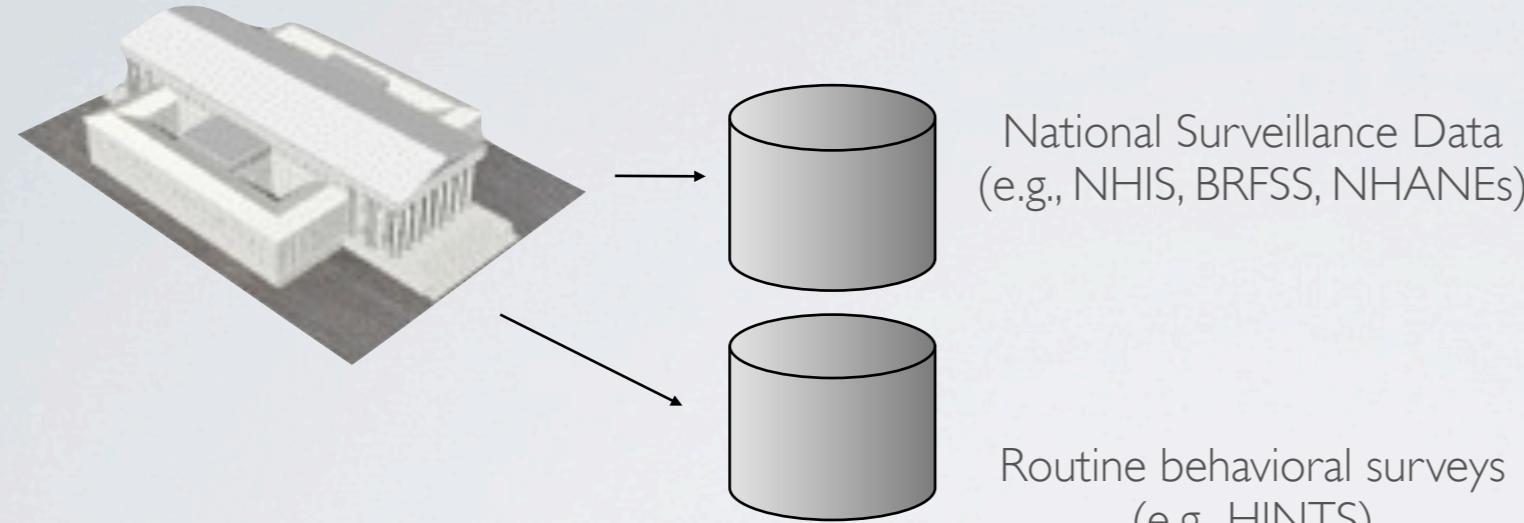
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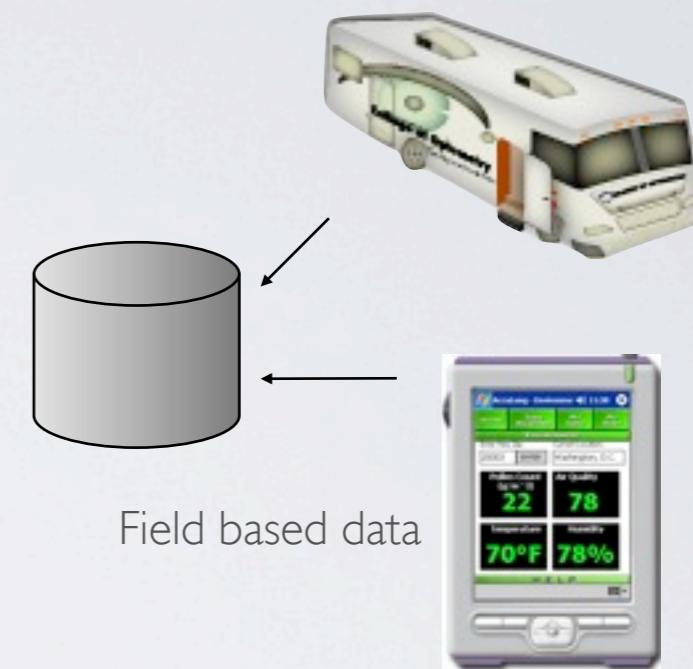
Open Source Applications (NCI)

Public Health Data Sources

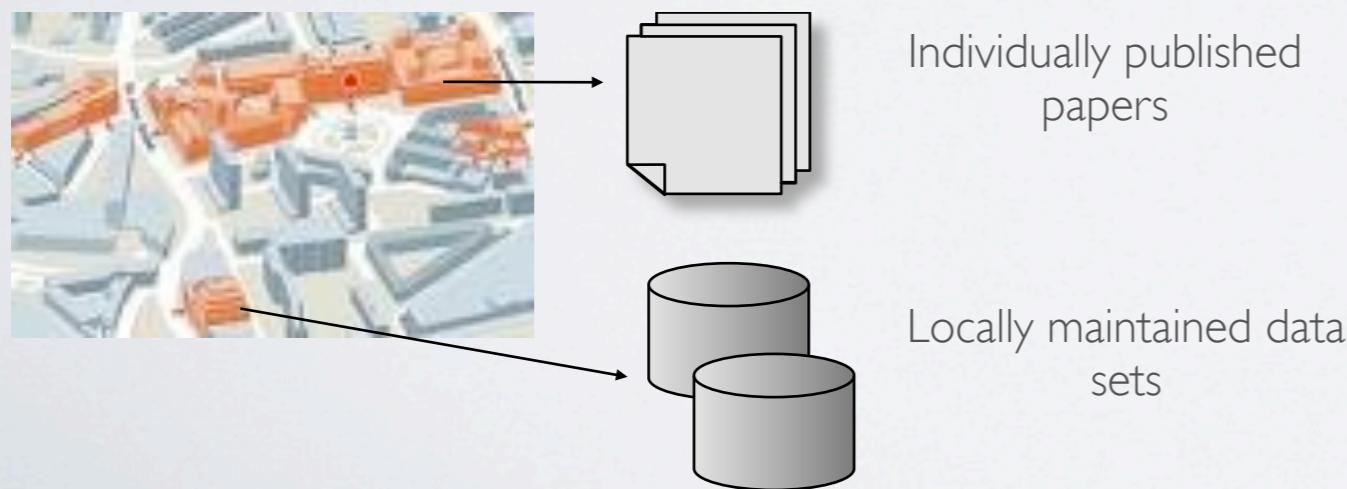
Public Health Surveillance



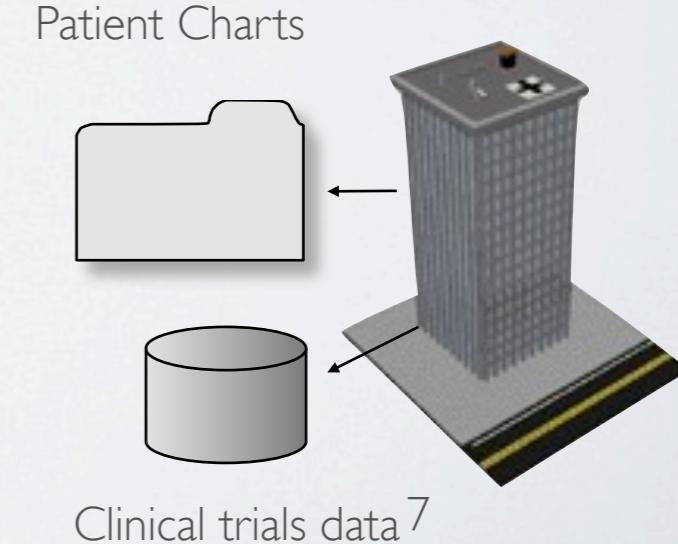
Local Interventions



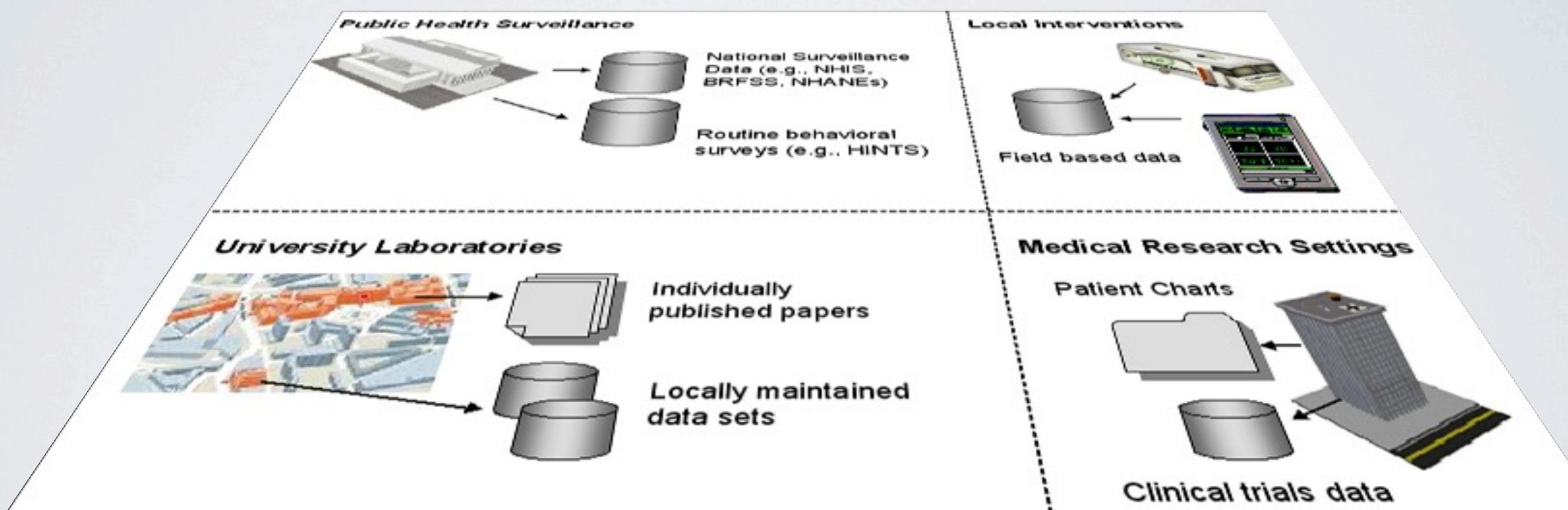
University Laboratories



Medical Research Settings

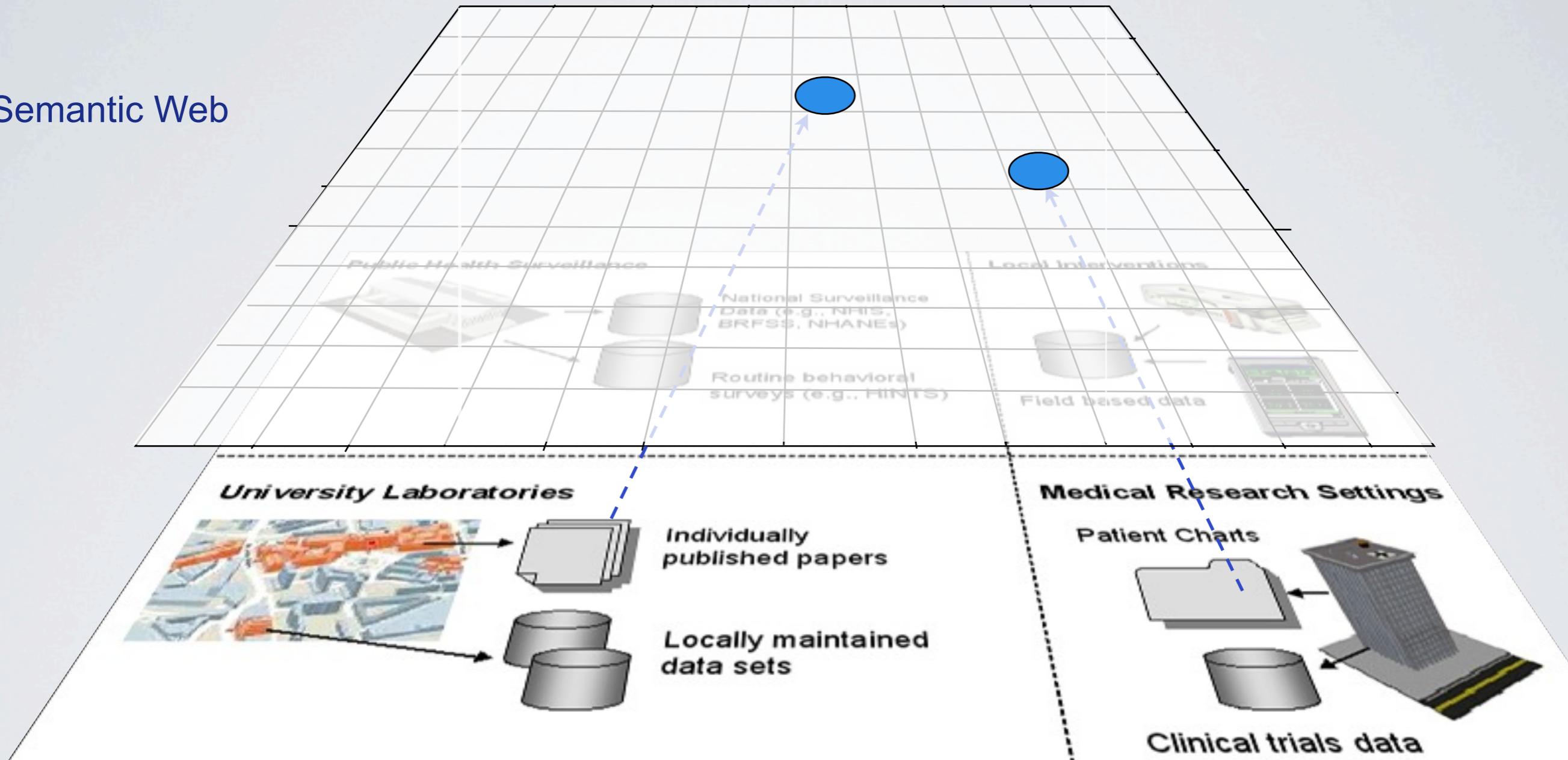


Cyberinfrastructure for Health



Cyberinfrastructure for Health

Semantic Web



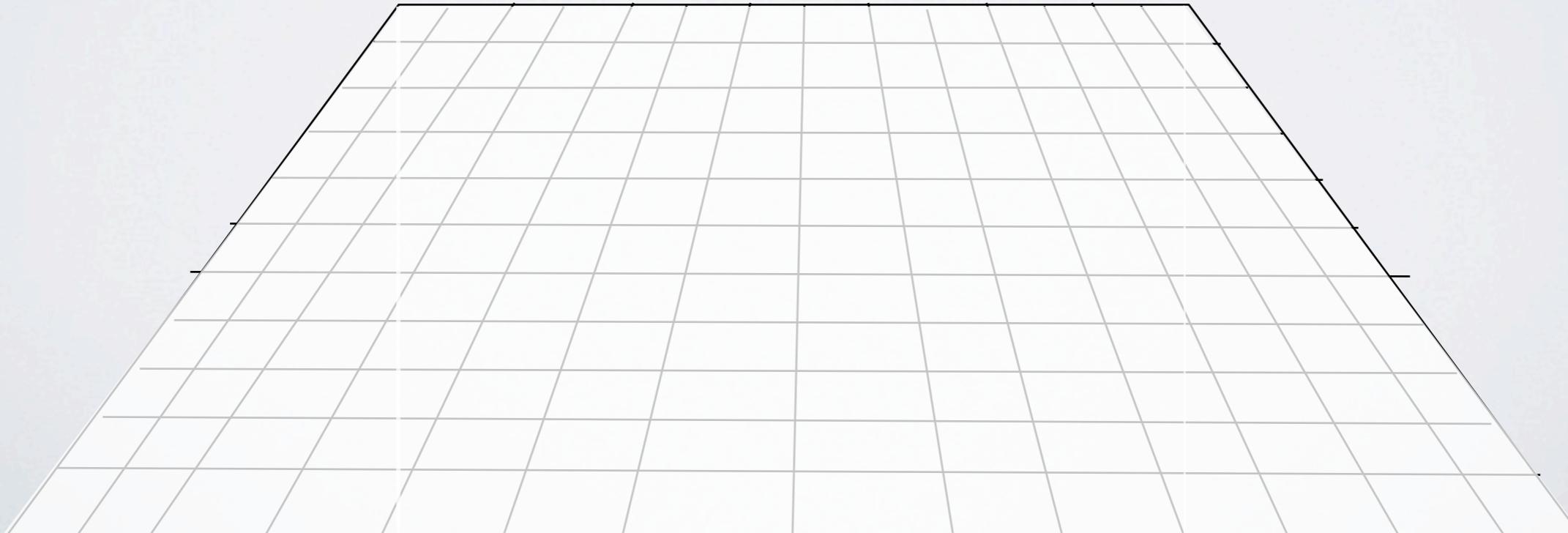
- Common Data Elements
- Open Source
- Shared “Grid” Structure



Cyberinfrastructure for Health



Cyberinfrastructure for Health

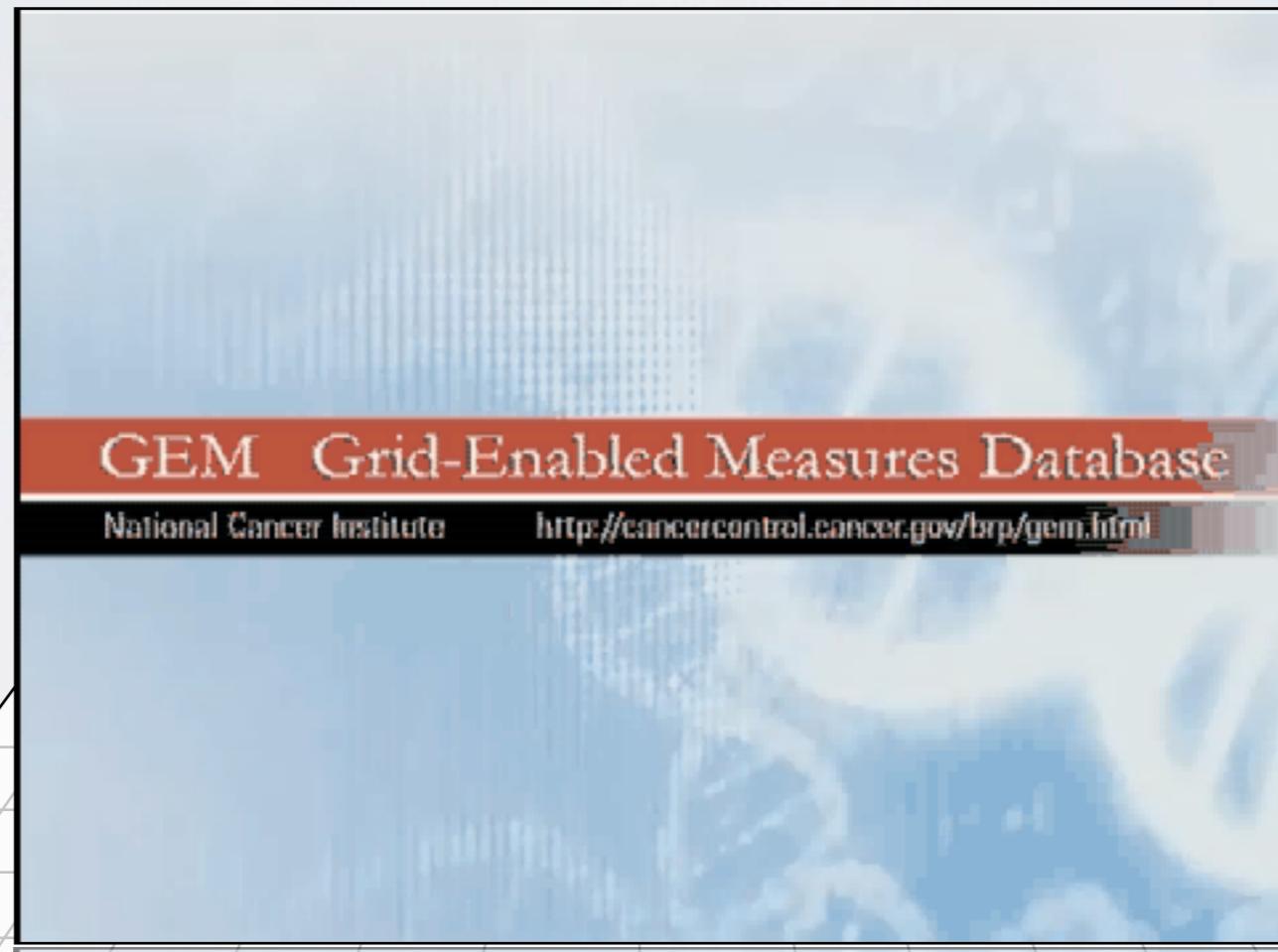


Cyberinfrastructure for Health

Tool:



URL: www.gem-beta.org



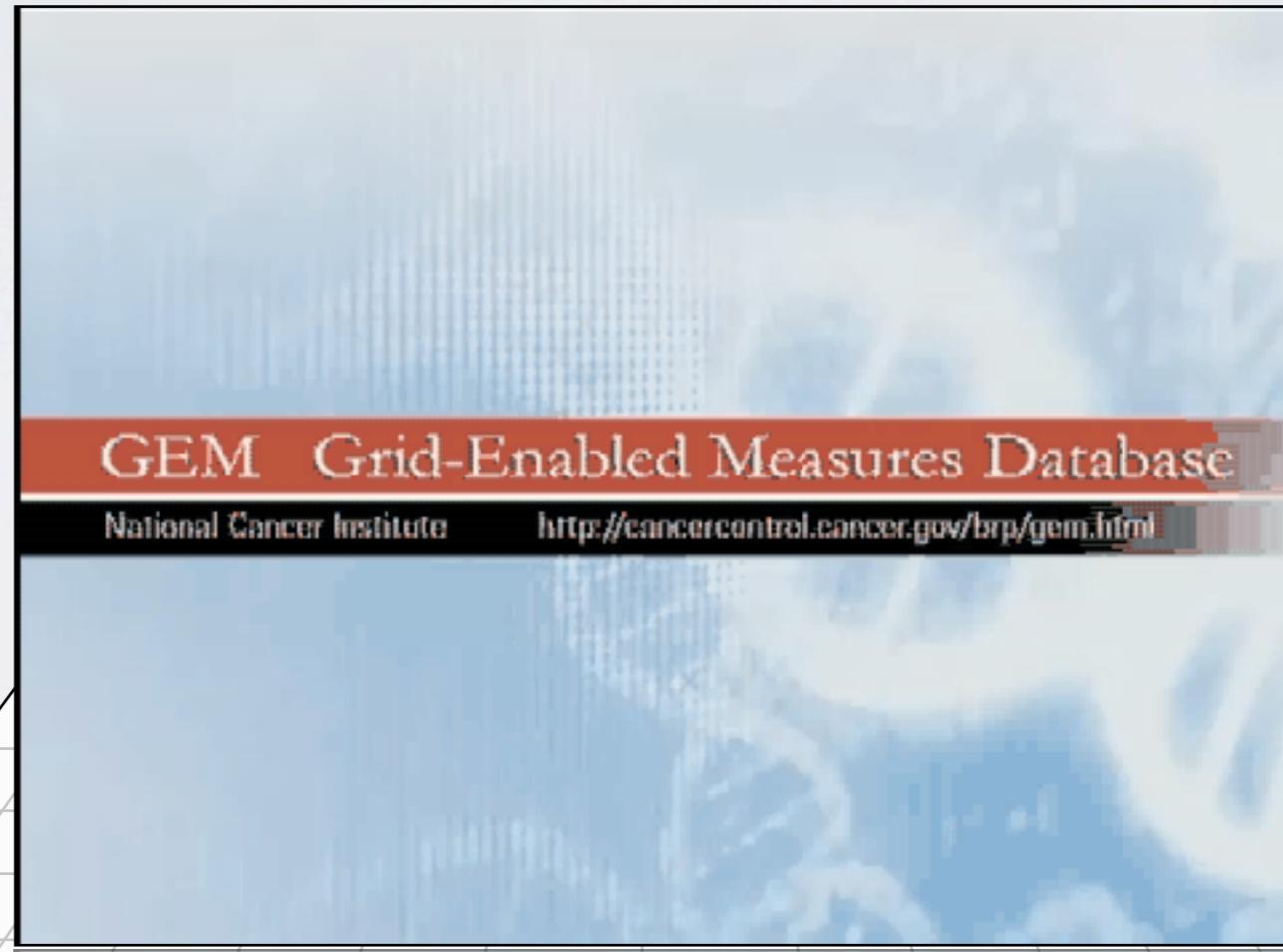
Cyberinfrastructure for Health

Tool:



URL: www.gem-beta.org

Common measures
/ shared data



Cyberinfrastructure for Health

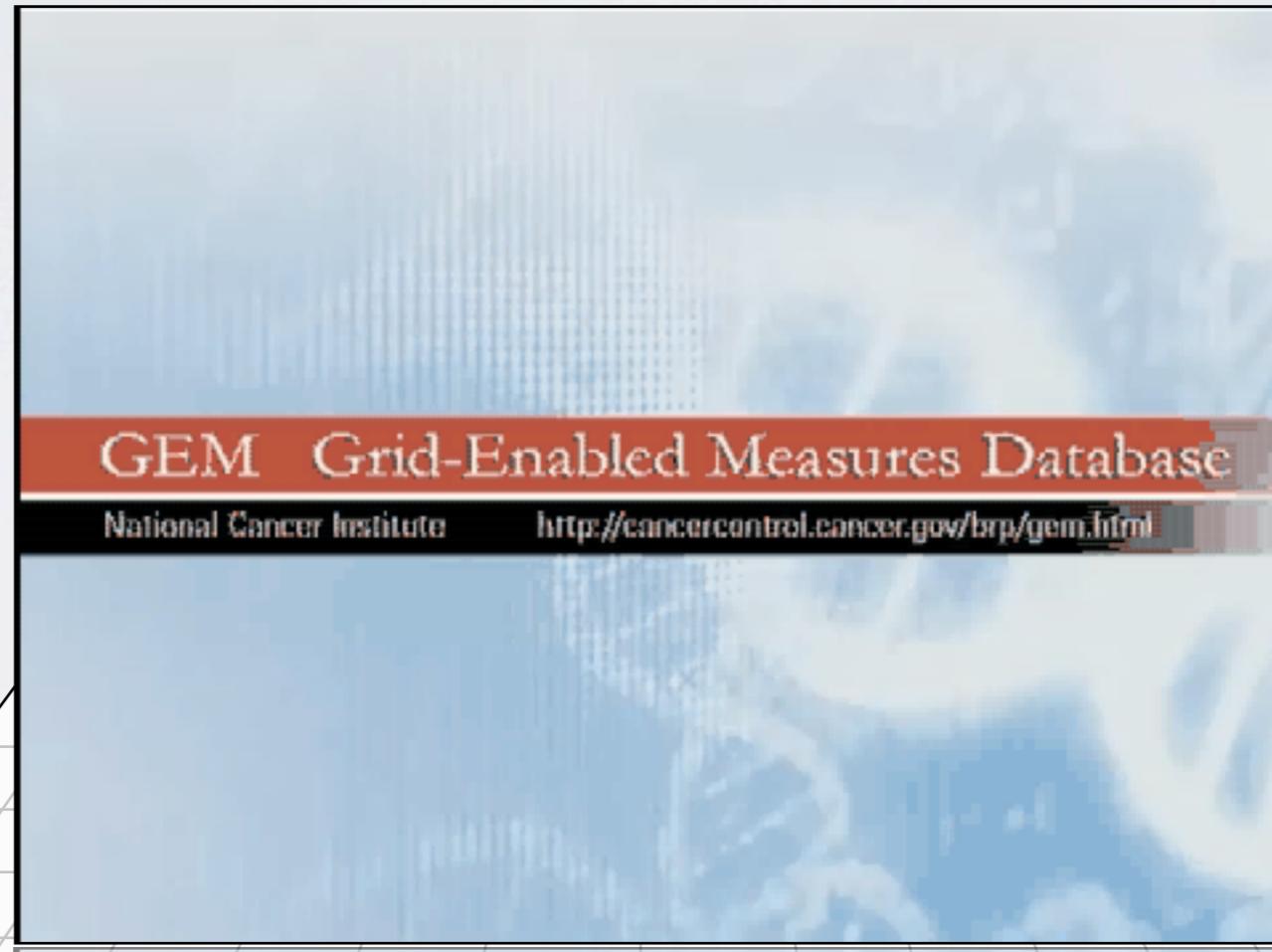
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Common measures
/ shared data

“Prospective
meta-analyses”



Cyberinfrastructure for Health

Tool:

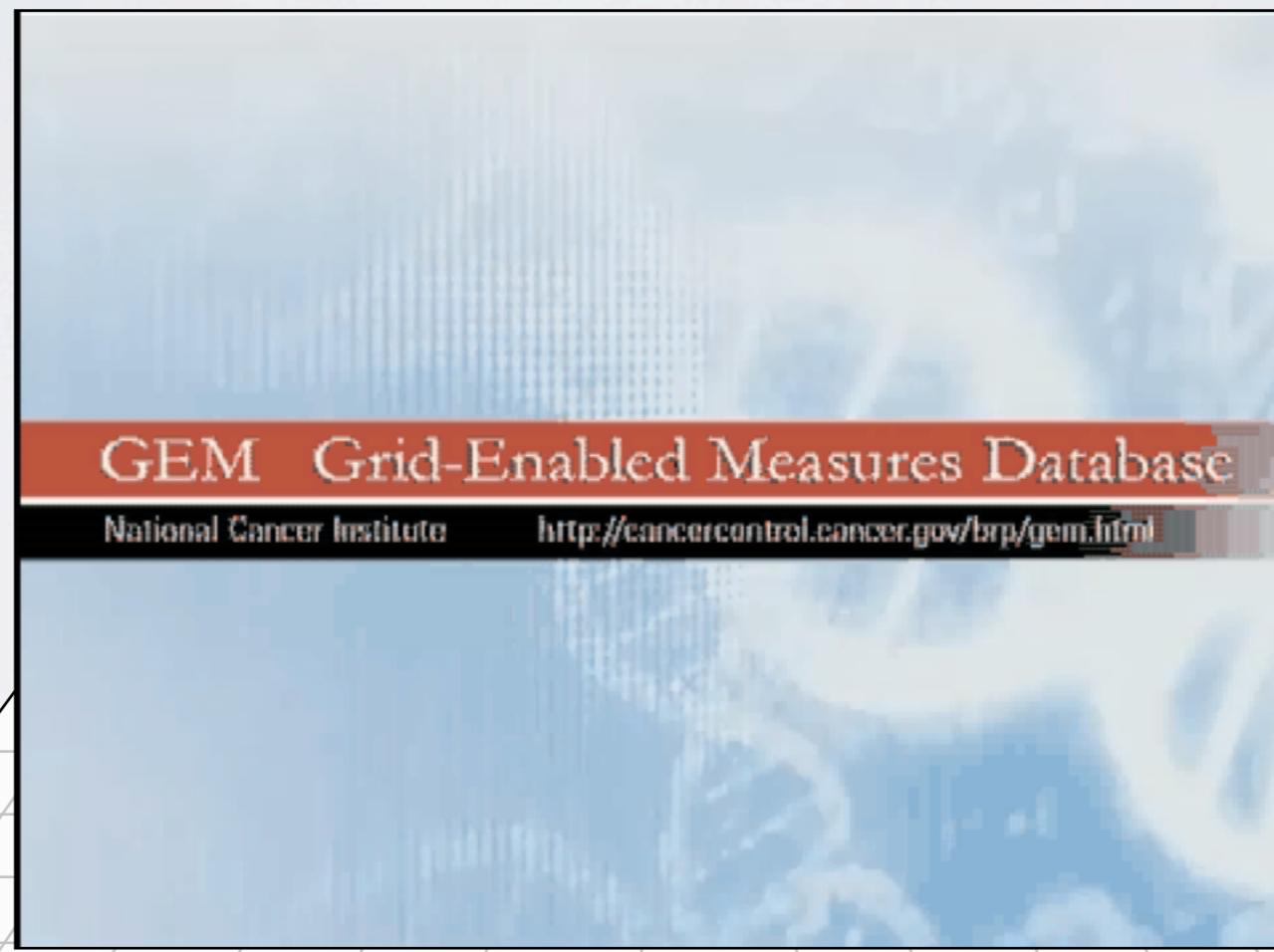


URL: www.gem-beta.org

Common measures
/ shared data

“Prospective
meta-analyses”

“Science 2.0”
wiki approach



Cyberinfrastructure for Health

Tool:



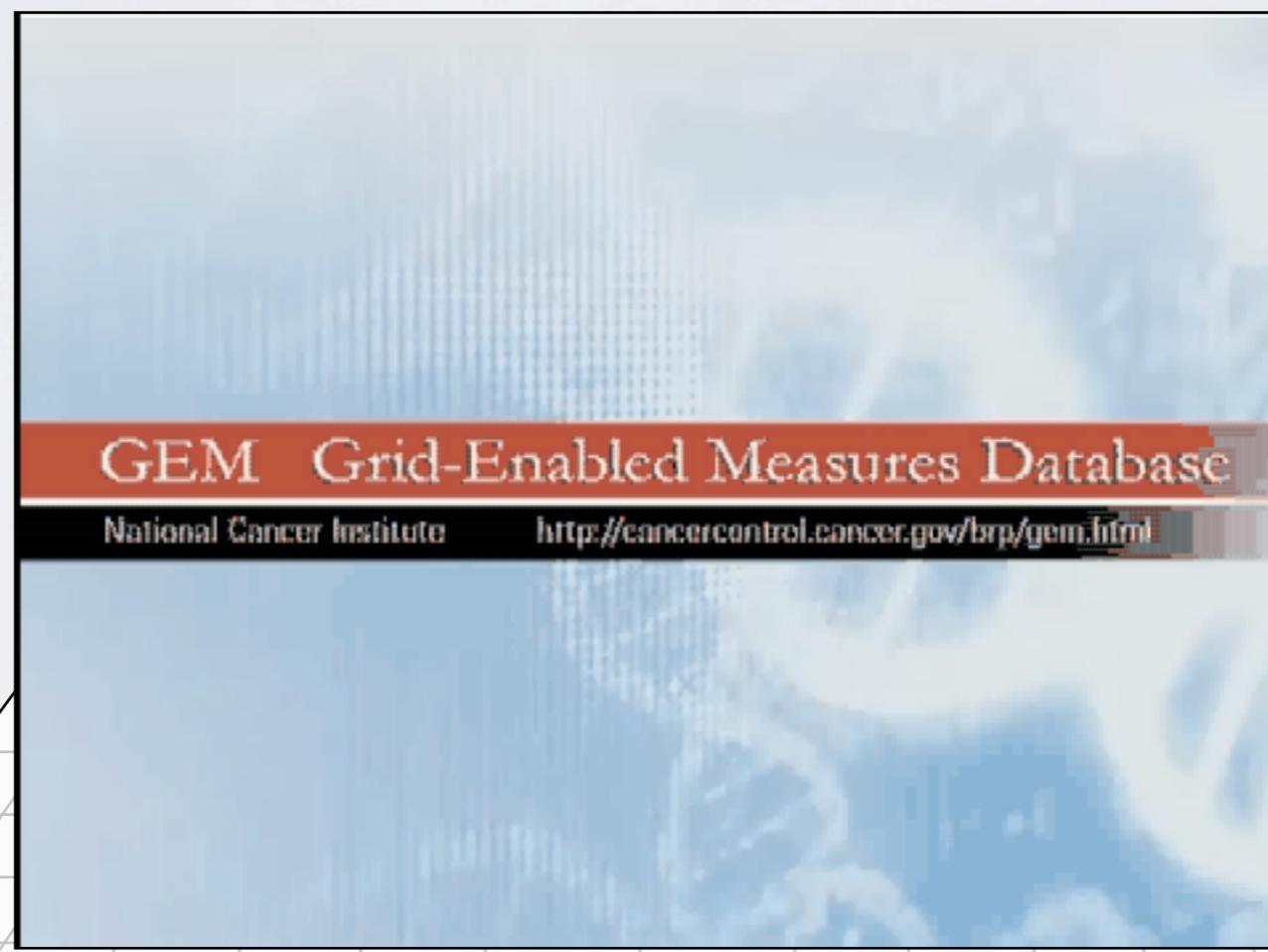
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Common measures
/ shared data

“Prospective
meta-analyses”

“Science 2.0”
wiki approach

Reset Social
Incentives



Cyberinfrastructure for Health

Tool:



URL: www.gem-beta.org

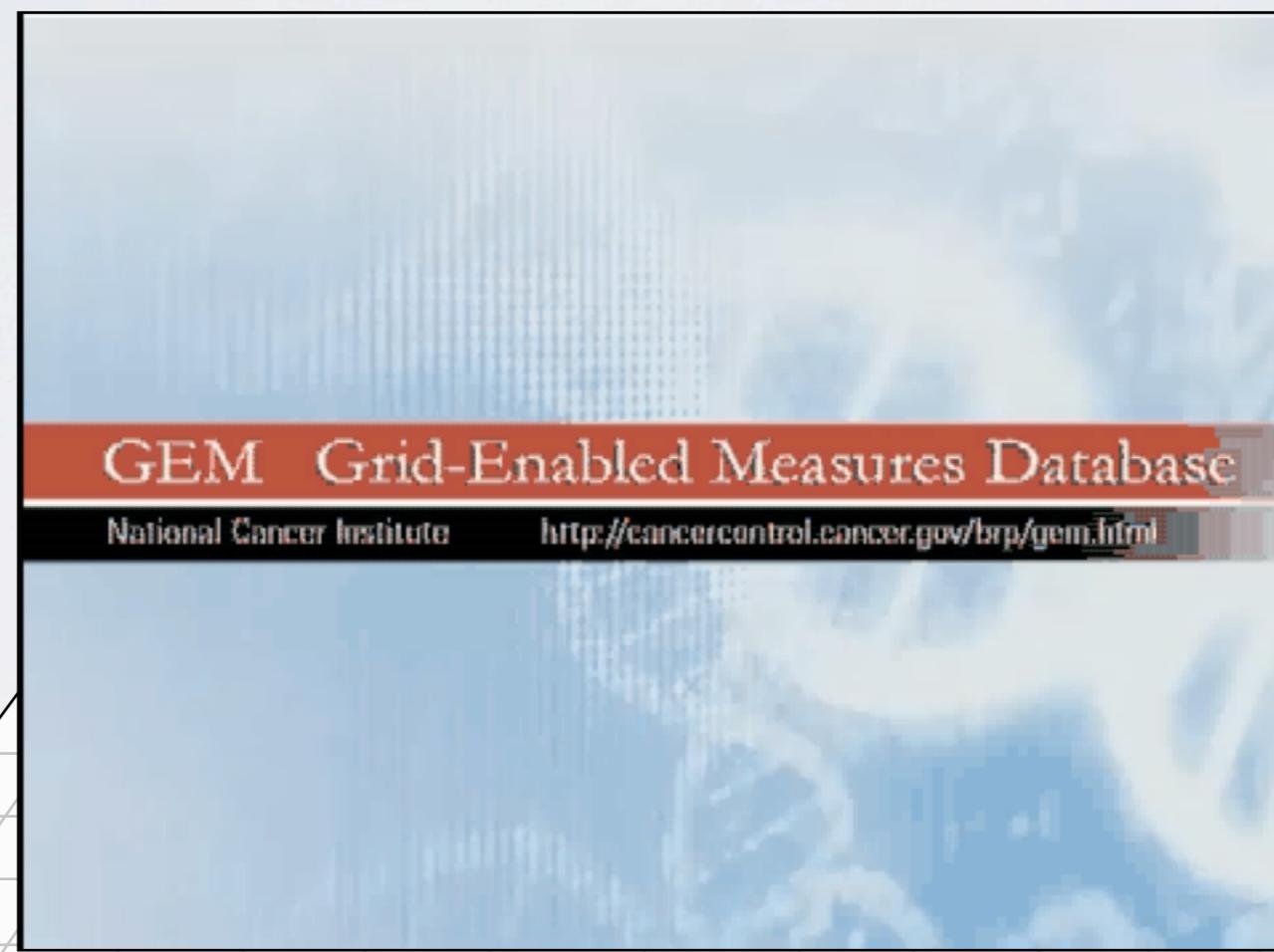
Common measures
/ shared data

“Prospective
meta-analyses”

“Science 2.0”
wiki approach

Reset Social
Incentives

International
Translations in
FY 2012



Cyberinfrastructure for Health

Tool:



URL: <http://hints.cancer.gov/>

A screenshot of the HINTS website homepage. The header features the "hints" logo and the text "Health Information National Trends Survey". The main content area includes a brief description of HINTS, a "HINTS Briefs" section showing a map of Puerto Rico and a brochure, and a "What Does HINTS Tell Us About..." sidebar listing various topics like Cancer Communication, Patient-provider Communication, and Internet Use. The footer contains navigation links for "Learn About HINTS" and "Use HINTS Data".

HINTS is a national survey uniquely dedicated to learning how people find, use, and understand health information.

What Does HINTS Tell Us About...

- Cancer Communication
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- Cervical Cancer
- Colon Cancer
- Lung Cancer
- Skin Cancer

[View all HINTS topics...](#)

Cyberinfrastructure for Health

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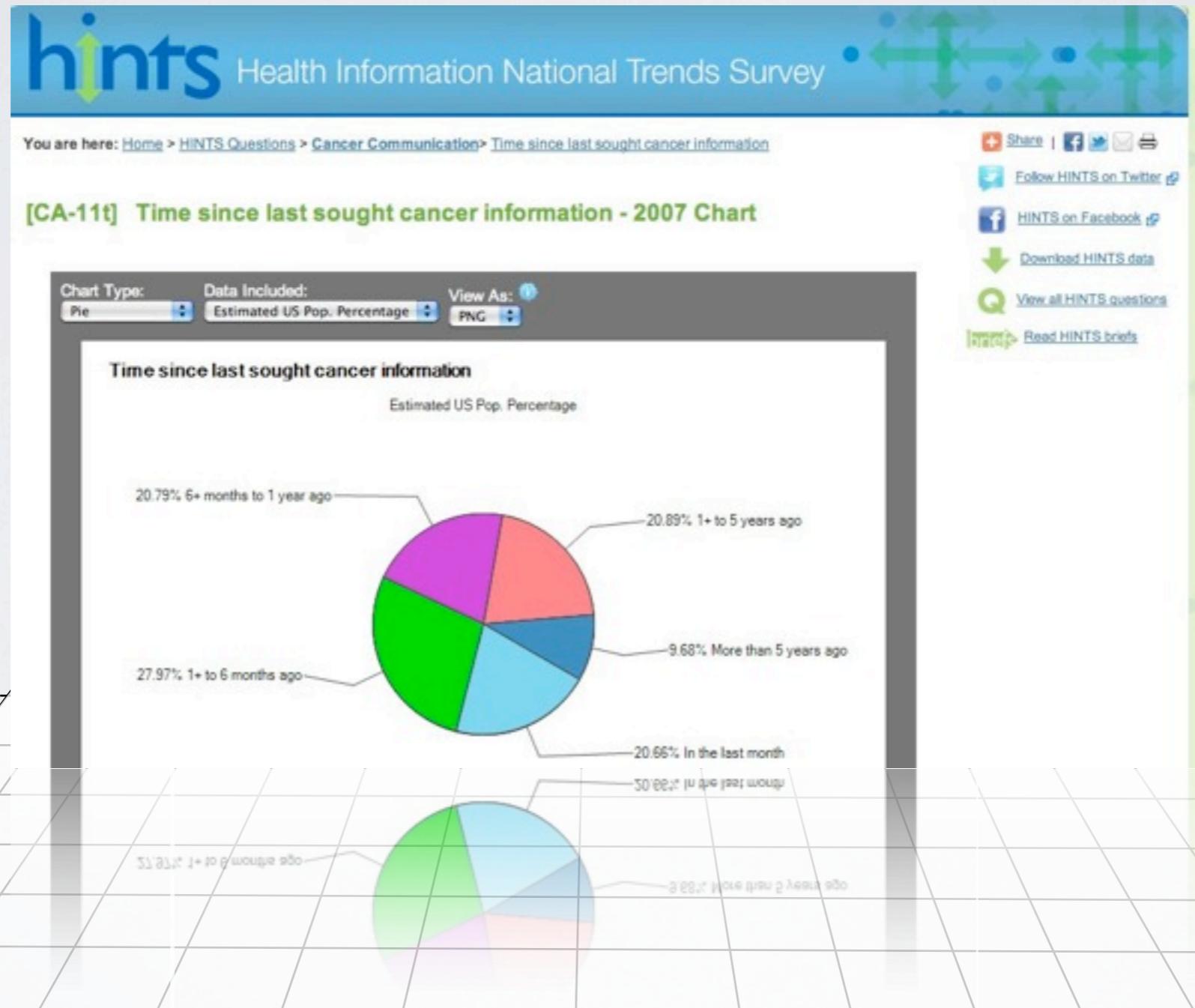
A screenshot of the HINTS website. The header features the "hints" logo and the text "Health Information National Trends Survey". Below the header, a breadcrumb navigation shows "You are here: Home > HINTS Questions > Cancer Communication > Time since last sought cancer information". A navigation bar includes links for "Share", "Follow HINTS on Twitter", "HINTS on Facebook", "Download HINTS data", "View all HINTS questions", and "Read HINTS briefs". The main content area displays a table titled "[CA-11] Time since last sought cancer information". The table has columns for "Response", "Number", "Percentage", "Sample Responses", and "Sample Percentage". The responses are numbered 1 through 5, representing time periods from "In the last month" to "More than 5 years ago". The total sample size is 1,841. Below the table, there are "Survey Notes" and links to the "HINTS 2007 Survey Instrument (English)" in PDF format. At the bottom of the page, there is a footer with various links and a copyright notice.

Cyberinfrastructure for Health

Tool:



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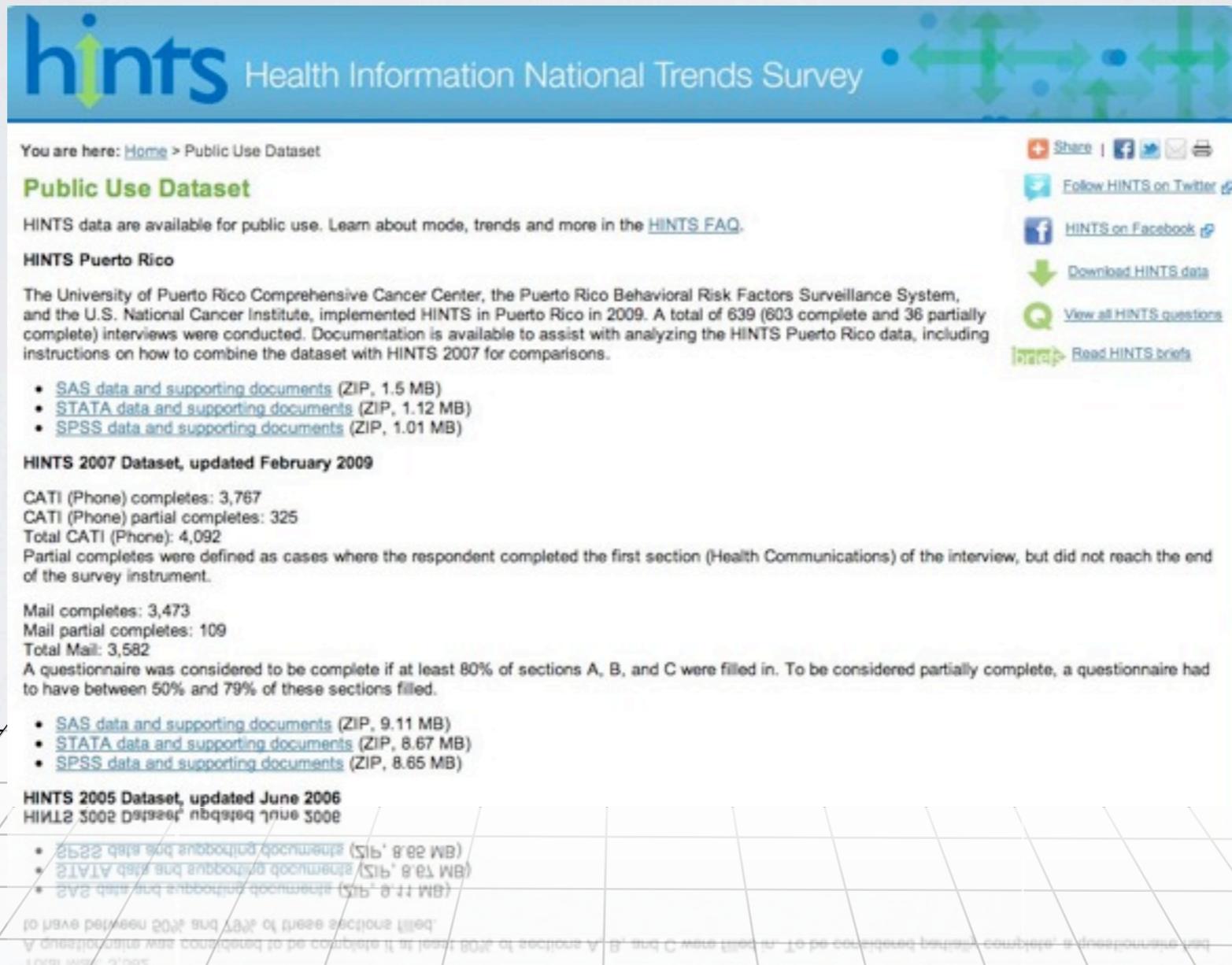


Cyberinfrastructure for Health

Tool:



URL: <http://hints.cancer.gov/>



The screenshot shows the HINTS Public Use Dataset page. At the top, the HINTS logo and the text "Health Information National Trends Survey" are displayed. A navigation bar on the left includes links for "Home", "Public Use Dataset", "About", "FAQ", "Data", "Findings", "Briefs", and "Contact". On the right, social media links for Facebook, Twitter, and LinkedIn, along with links for "Download HINTS data" and "View all HINTS questions", are shown. The main content area starts with a section for "HINTS Puerto Rico", which describes the survey's implementation in Puerto Rico in 2009. It provides links to SAS, STATA, and SPSS data files. Below this is a section for the "HINTS 2007 Dataset, updated February 2009", detailing completion counts for CATI (Phone), Mail, and Total. It also specifies the percentage of sections A, B, and C required for a questionnaire to be considered complete. Data files for this dataset are also provided. At the bottom, a section for the "HINTS 2005 Dataset, updated June 2006" is partially visible, showing similar download links for SAS, STATA, and SPSS files. The footer contains a copyright notice for the University of Puerto Rico Comprehensive Cancer Center.

Cyberinfrastructure for Health

Tool:



URL: <http://hints.cancer.gov/>

A screenshot of the "hints briefs" Number 19 document. The title "hints briefs" is prominently displayed in large, green, stylized letters. "NUMBER 19" is written in smaller capital letters below the main title. The "Health Information National Trends Survey" logo is in the top left corner, and the URL "http://hints.cancer.gov" is in the top center. The main content area has two columns. The left column is titled "U.S. Social Media Use and Health Communication" and includes a section on "Characteristics of Internet and Social Media Users". The right column is titled "Age Plays a Significant Role in Internet and Social Media Use" and discusses research findings about age differences in internet and social media usage.

Cyberinfrastructure for Health

Tool:



URL: <http://hints.cancer.gov/>



The screenshot shows a page titled "Breves de hints NÚMERO 19". The header includes the "Health Information National Trends Survey" logo and the URL "http://hints.cancer.gov". The main content is divided into two columns. The left column is titled "La comunicación sobre la salud y la utilización de los medios sociales en los Estados Unidos" and contains a section on "Características de los usuarios de Internet y los medios sociales". The right column is titled "La edad juega un papel fundamental en la utilización de los medios sociales e Internet" and discusses the relationship between age and internet usage.

La comunicación sobre la salud y la utilización de los medios sociales en los Estados Unidos

Características de los usuarios de Internet y los medios sociales

Con frecuencia, las encuestas indican que más de las dos terceras partes de los adultos estadounidenses utilizan Internet, y alrededor del 60 % de esos usuarios afirman que lo hacen para buscar información médica o relacionada con la salud. Aunque los estudios siguen demostrando que es más probable que las minorías étnicas y aquellas personas mayores, de nivel educativo inferior y menos saludables no utilicen Internet, están surgiendo algunas visiones más subjetivas de esta "división digital", particularmente con el advenimiento de los medios sociales y las tecnologías móviles.

Los avances en la tecnología de Internet han anunciado la llegada de nuevas aplicaciones para medios sociales. Las mismas facilitan el contenido generado por los usuarios (UGC) y permiten la interacción social entre los usuarios. Estas aplicaciones incluyen sitios web como Facebook, Twitter y LinkedIn, así como aplicaciones móviles como Instagram y WhatsApp.

La edad juega un papel fundamental en la utilización de los medios sociales e Internet.

Los estudios que utilizan los datos reunidos por HINTS de 2008 han confirmado las investigaciones anteriores que muestran que, como grupo, es mucho menos probable que las personas de 65 años de edad o más utilicen Internet que las personas de cualquier otra franja etaria, ya que alrededor de dos tercios de ellas han afirmado que no se conectan a Internet. Las personas que conforman el grupo etario inmediatamente inferior (entre 55 y 64 años de edad) resultaron tener dos veces más probabilidades de utilizar Internet. Esta tendencia continúa a medida que la edad disminuye, con los niveles más altos de utilización de Internet (85 %) en los adultos más jóvenes, entre 18 y 24 años de edad.

Las brechas entre usuarios son aún más pronunciadas con respecto a los medios sociales. Solo el 8 % de los usuarios de Internet en los grupos de mayor edad utilizan estas plataformas, en comparación con más de las tres cuartas partes de los grupos de menor edad. También se observan diferencias en los tipos de plataformas utilizadas por las personas en diferentes grupos etarios. Por ejemplo, los usuarios de Internet entre 18 y 24 años de edad presentaron la menor cantidad de probabilidades de utilizar grupos de ayuda en línea (cociente de probabilidad = 0,98), pero mostraron más probabilidades que ningún otro grupo de ser bloggers (cociente de probabilidad = 19,11) y utilizar sitios de redes sociales (cociente de probabilidad = 47,85). A lo largo de todas las franjas etarias, las probabilidades de participar en redes sociales y en blogs fueron menores a

Cyberinfrastructure for Health

Tool:



URL: <http://hints.cancer.gov/>



The screenshot shows the HINTS website homepage. At the top, the "hints" logo and the text "Health Information National Trends Survey" are displayed. A decorative graphic of green arrows pointing in various directions is on the right. Below the header, a breadcrumb trail says "You are here: Home > HINTS Reports and Materials". A section titled "HINTS Reports and Materials" contains links to "Books & Reports" and several specific reports: "Building the Evidence Base in Cancer Communication", "Journal of Health Communication Special Issue", "Analytic Methods to Examine Changes Across Years Using HINTS 2003 & 2005 Data", and "Cancer Communication Health Information National Trends Survey 2003 and 2005". To the right of these reports are social media sharing icons for Facebook, Twitter, and email, along with links to "Download HINTS data", "View all HINTS questions", and "Read HINTS briefs". A sidebar on the left lists "HINTS Overview Materials" such as the "HINTS Health Information National Trends Survey Brochure" and the "HINTS Factsheet". The bottom of the page features a grid pattern with the HINTS logo repeated in smaller boxes.

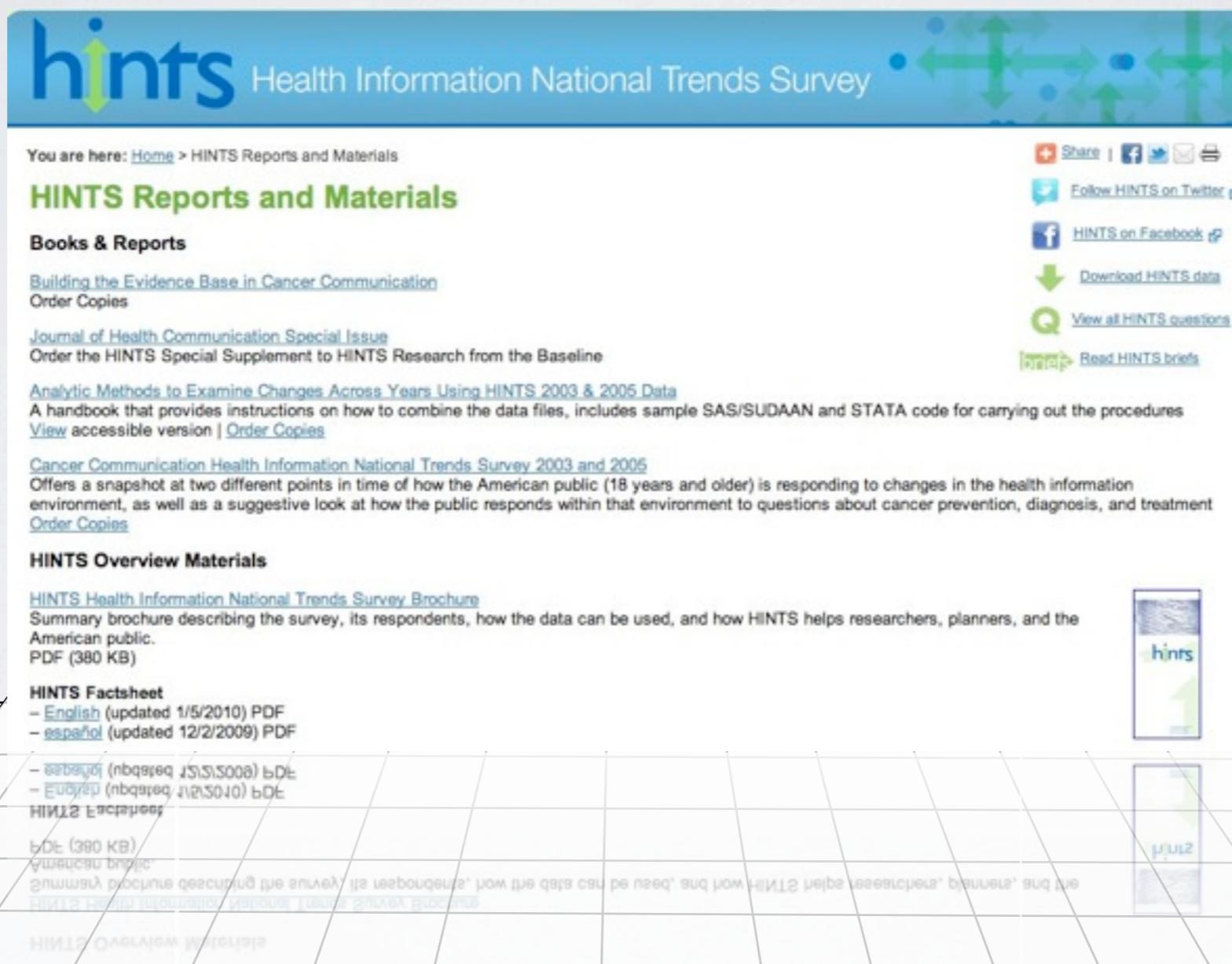
Cyberinfrastructure for Health

Integrative
Data
Analysis
Conference
2012

Tool:



URL: <http://hints.cancer.gov/>



The screenshot shows the HINTS website homepage. The header features the "hints" logo and the text "Health Information National Trends Survey" next to a graphic of green arrows forming a network. The main navigation menu includes "Home", "About", "Data", "Reports and Materials", "Findings", "Tools", and "Contact". The "Reports and Materials" section is currently selected and expanded, showing sub-sections for "Books & Reports" and "HINTS Overview Materials". Under "Books & Reports", links are provided for "Building the Evidence Base in Cancer Communication", "Journal of Health Communication Special Issue", "Analytic Methods to Examine Changes Across Years Using HINTS 2003 & 2005 Data", and "Cancer Communication Health Information National Trends Survey 2003 and 2005". Each link includes options to "Order Copies" or "View accessible version". Under "HINTS Overview Materials", there is a link to the "HINTS Health Information National Trends Survey Brochure". The right sidebar contains social media links for Facebook, Twitter, and LinkedIn, along with links to "Download HINTS data", "View all HINTS questions", and "Read HINTS briefs". A small "hints" logo is also present in the bottom right corner of the page.

Cyberinfrastructure for Health

Tool:

Informatics for Consumer Health

Innovation through information sharing, funding and dialog

URL: <http://informaticsforconsumerhealth.org/>

The screenshot shows the homepage of the Informatics for Consumer Health website. At the top, there's a navigation bar with links for Home, About, Funding & Prizes, News, Journal Articles, Events, and Blog. Below the navigation is a section titled "IN THE SPOTLIGHT" with three bullet points:

- [CyberInfrastructure for Consumer Health: An American Journal of Preventive Medicine Special Supplement with articles derived from the 2009 ICH Summit](#)
- [Join the Conversation! Stay engaged with the latest in informatics for consumer health. Connect with us on Twitter and LinkedIn.](#)
- [Building a Better App: Lessons learned for consumer health IT. Read more in the ICH blog.](#)

On the right side, there are two call-to-action boxes: "Subscribe to our Alert Service" and "Share your news, event, or funding opportunity with us!". Below these are sections for "Highlights", "Funding & Prizes", and "Dialog & Discussion".

Highlights

Events	Event Title	Posted Date
Events	2011 mHealth Trends: HIMSS* Preview [WEBINAR]	9/12/11
Events	How To Use Challenge.gov: Supporting Federal Agency...	9/12/11
Journal Articles	Health-information exchange: why are we doing it, and...	9/12/11
Journal Articles	Finding the meaning in meaningful use	9/12/11
Events	NeHC University - Fall 2011: HIT Orientation [WEBINAR]	9/6/11

Funding & Prizes

Contest	Description	End Date
Best Mobile Health Game App Contest	ends 9/11/11	9/11/11
CHCF Health Innovation Fund: Innovations for the Underserved		
Blue Button for All Americans	ends 10/18/11	10/18/11
Relevant Evidence to Advance Care and Health (REACH)	ends 10/30/11	10/30/11

[View all funding & prizes](#)

Dialog & Discussion

Type	Post	Timestamp	Actions
WEBINAR	2011 #mHealth Trends: @HIMSS Preview 2/10/2012 #EHR #HIT #mHealth http://ow.ly/6u5fu	2 hours ago	reply · retweet · favorite
WEBINAR	How To Use Challenge.gov 9/16, #ehealth # HIT http://ow.ly/6u5d6	5 hours ago	reply · retweet · favorite
BLOG	How do we build the better app for consumer #HIT? Read about the #AHRQ report findings and tell us what you think http://ow.ly/6thLq	7 hours ago	reply · retweet · favorite

[Follow ICH on Twitter](#)

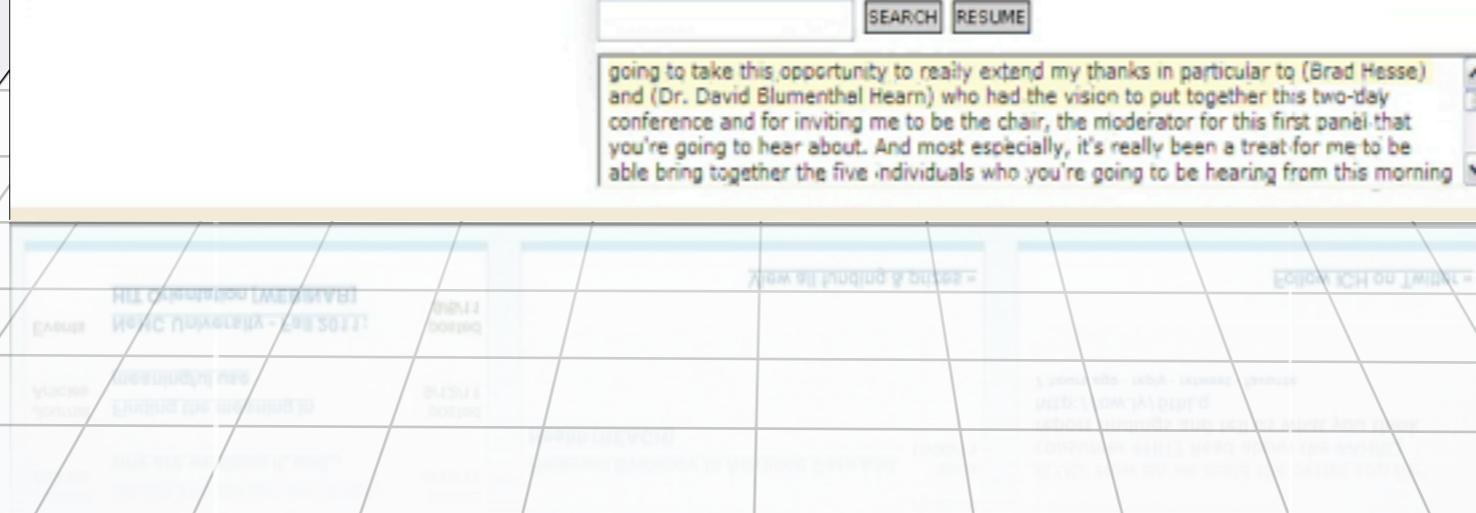
Cyberinfrastructure for Health

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Cyberinfrastructure for Health

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The screenshot shows the homepage of the 2011 Health 2.0 Developer Challenge. The header features the challenge logo with "2011 Health 2.0 DEVELOPER CHALLENGE". To the right, a large blue button says "Repeat." Below it is a link to "Skip to Main Content". The main navigation menu includes links for About, Online Challenges, ONC i2 Challenges, Code-a-Thons, Past Winners, Resources, Sponsor, and Partners. A sub-section titled "Enabling Community Use of Data for Cancer Prevention and Control" is highlighted. It features a thumbnail image of a mobile device displaying a health-related app, with the caption "Winner announced – Team Ozioma!". Below this, there's a section titled "About the winning application:" which describes the Team Ozioma's use of local health data sets to inform media sources. To the right, the National Cancer Institute logo is displayed, along with a note that the challenge is closed and the winner announced. There are also social media sharing icons and a "Prize" section detailing travel awards to Hawaii.

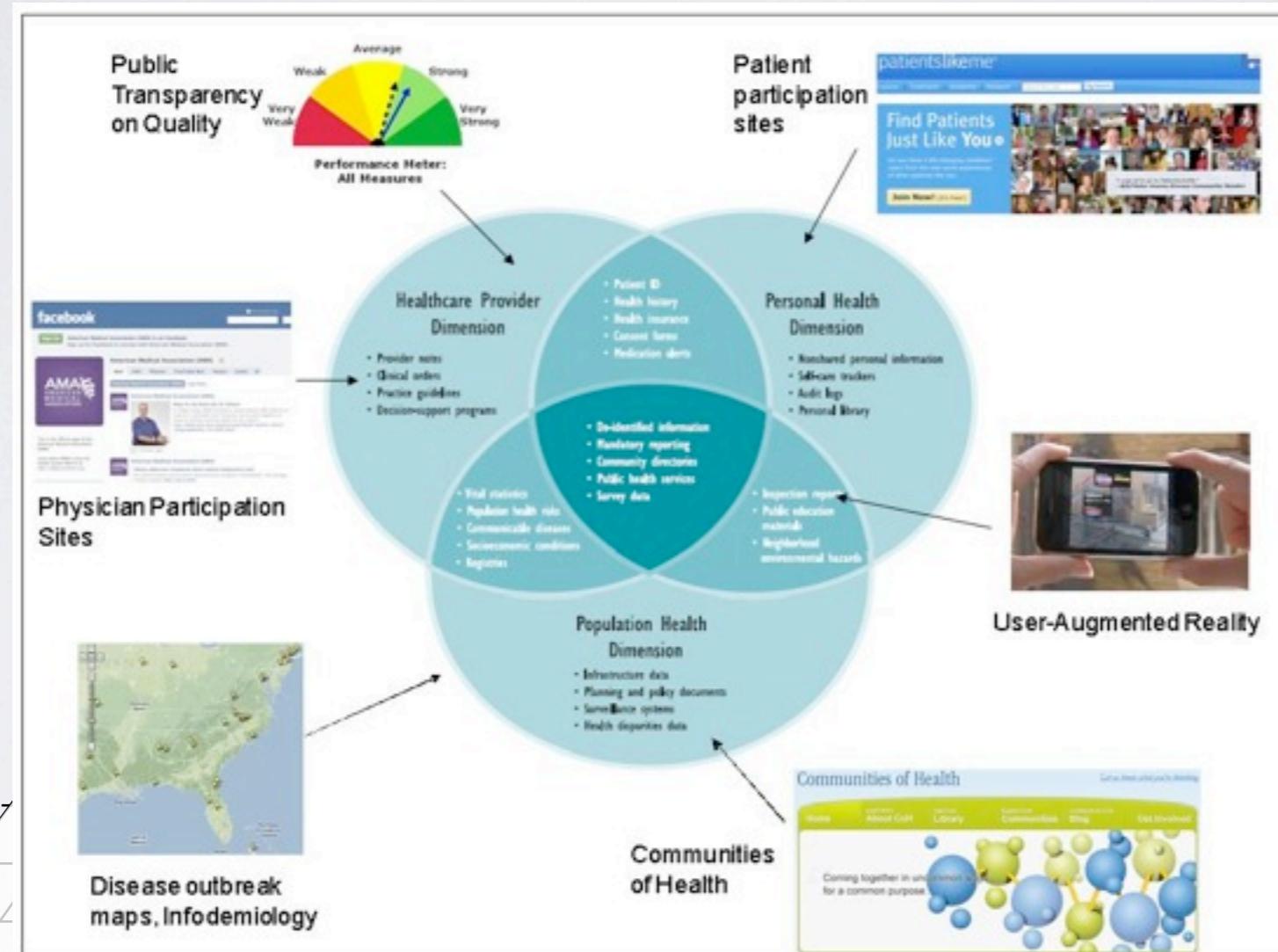
Cyberinfrastructure for Health

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Innovation through information sharing, funding and dialog

URL: <http://informaticsforconsumerhealth.org/>

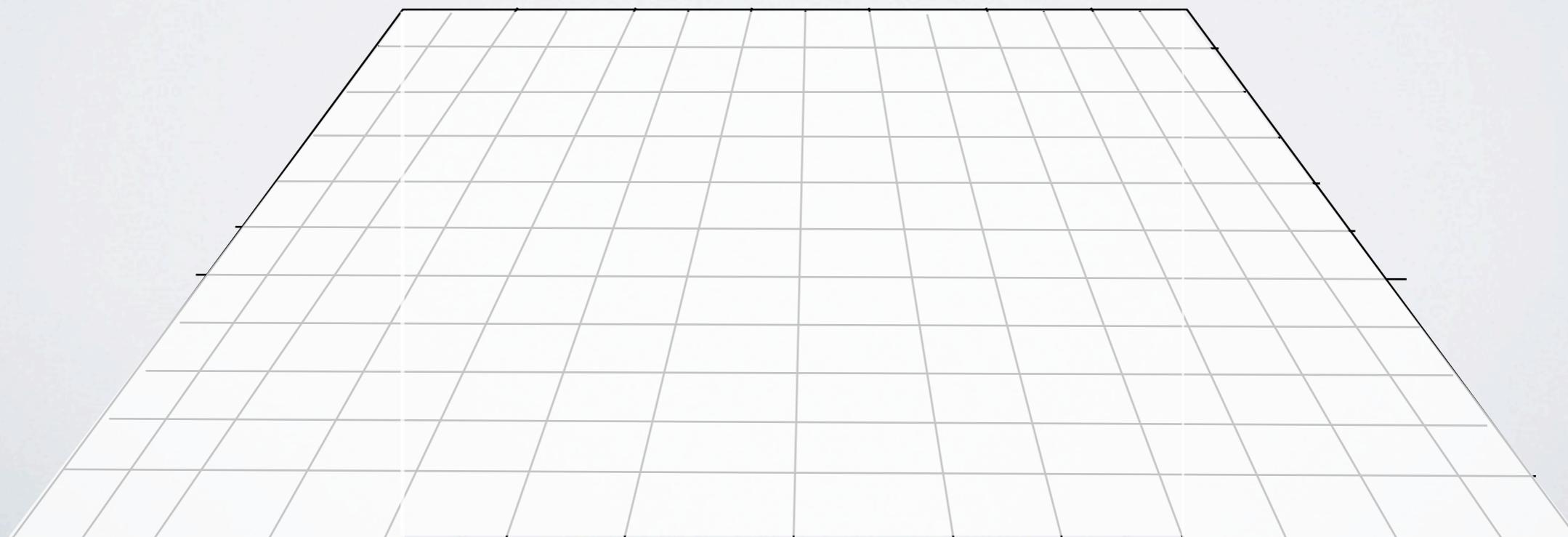


Cyberinfrastructure for Health

Tool:

NCI International Portfolio:
Addressing the Global Challenge of Cancer

URL: http://cancercontrol.cancer.gov/global_health.html/

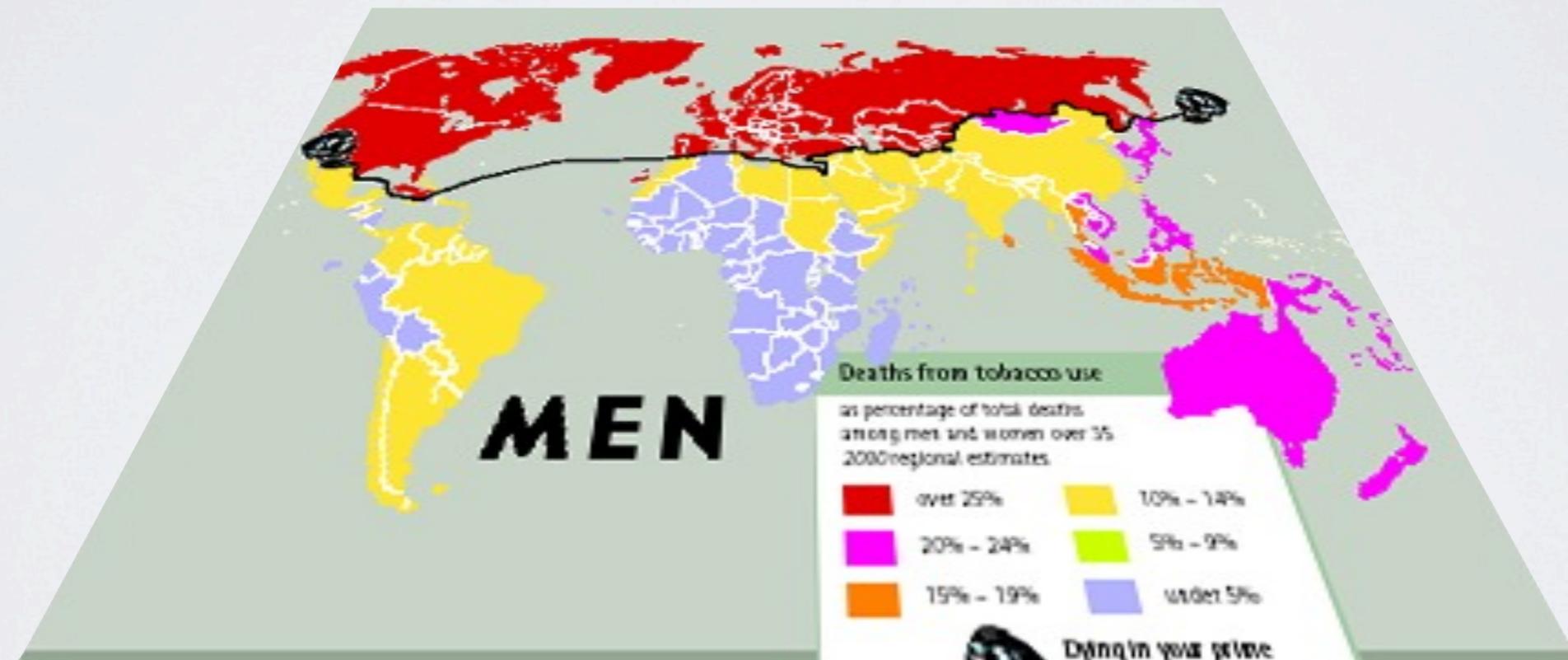


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Thank you!

*The future is not a gift.
It is an achievement.*

- Bobby Kennedy

