HealthLandscape

GIS, Data Democratization, and Public Health

Mark A. Carrozza, MA

Andrew Bazemore, MD, MPH

Robert Phillips, MD, MPH

Shiloh Turner, MPA

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Introduction and Overview

- Using principles of data democratization, we have designed a community health data portal that can be used to create maps and tabular data of health at the local level.

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Introduction and Overview

- Contextual Data

- The web portal uses a combination of state, county, and census tract data to provide social, behavioral, and economic context for detailed local area data such as state and community-level health survey data, birth and death certificates, and the location of community health centers.

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Introduction and Overview

- User Data

- Authorized users can securely upload data to a private area of the web portal, to be displayed with the contextual data already available in HealthLandscape.

- Users can nominate their data for inclusion in the pool of publicly available data.

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What is Data Democratization?

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- Data Democratization is "enabling community actors to access data and to use it to build community capacity to effect social change" -- Treuhaft, 2006

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What is Data Democratization?

- "The goal of Democratized Data is to make public information accessible and comprehensible by all members of the community, so that they can understand community problems, the resources available to address them, plan effective strategies, and evaluate progress towards their goals" – Melcher, 2007
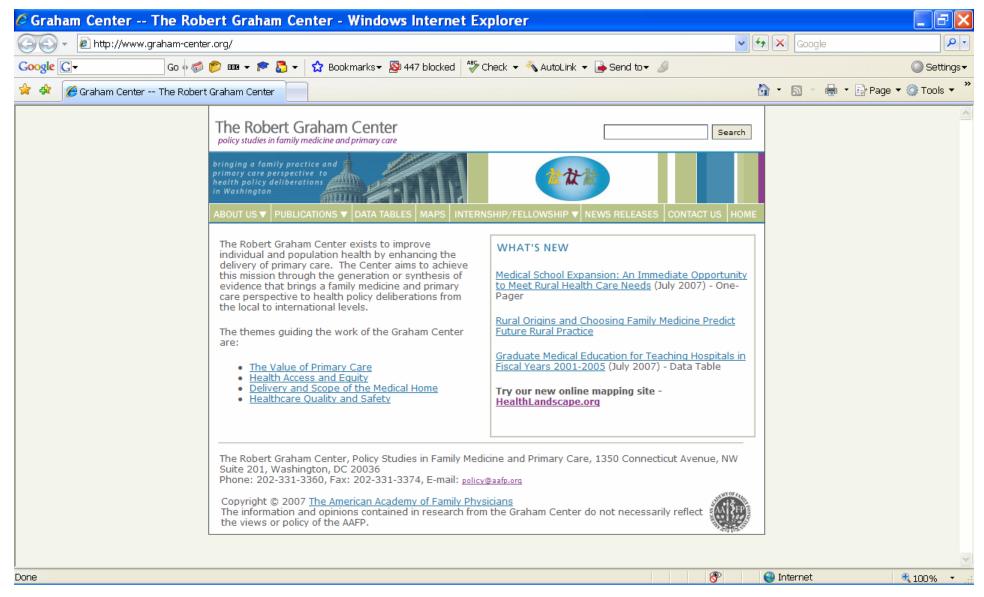
Enabling Data Democratization

- Financial Resources
  - Mission to Produce Data
  - Mission to Disseminate Data
- Political Will
  - Data Producers
  - Data Users
- Organization Culture
  - Vision to create a critical mass of high-quality health information that separately are useful, but invaluable in combination.

GIS and Data Democratization

- Maps are particularly effective for presenting complex data and relationships
- The Demand: Providers, Community Health Planners, Policymakers & Advocates
  - Grasp and think in geographies (particularly political)
  - Want to target resources geographically
  - Crave local/regional analysis
  - Need ways to monitor and depict change over political terms (2 yr, 4 yr, and longer)
  - Don't always see data patterns right in front of their noses

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Robert Graham Center

Health Foundation of Greater Cincinnati

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Missions of AAFP/RGC and HFGC

- The Robert Graham Center exists to improve individual and population health by enhancing the delivery of primary care.

- The mission of the Health Foundation of Greater Cincinnati is to improve community health.

Data Democratization Efforts

- American Academy of Family Physicians
  - Maps
  - Data
- Health Foundation of Greater Cincinnati
  - Health Data Program
  - OASIS

*Health*Landscape

What is *Health*Landscape?

- *Health*Landscape is a customizable data delivery tool that allows *anyone* to create maps and tables from a wide array of primary care and health related data
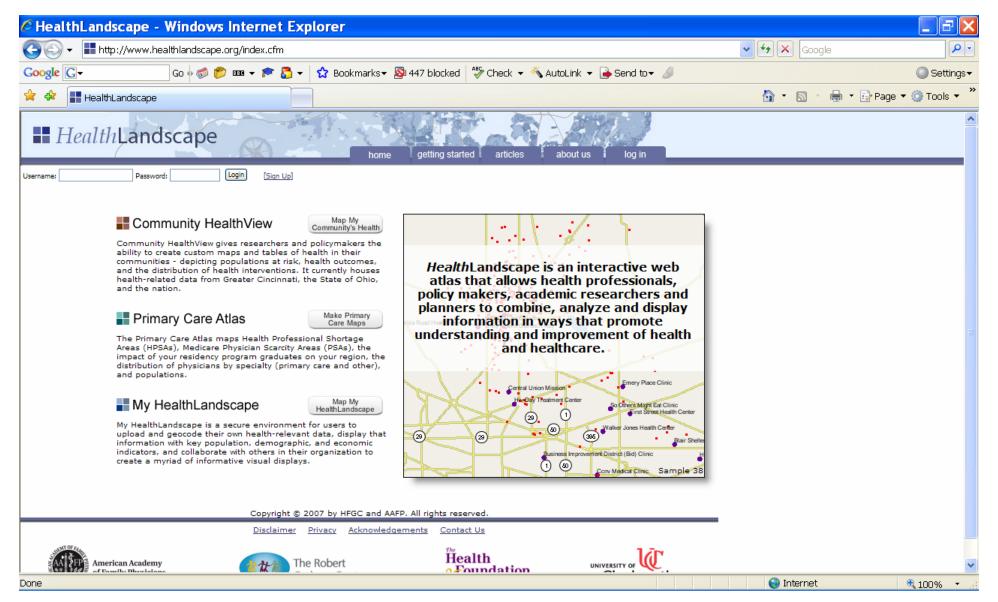
*Health*Landscape

Core Values

- *Integrity and Reliability*: That platform data would be valid, reliable and consistent.
- *Accessibility:* That data and tools would be accessible to everyone.
- *Functionality*: That the platform would be simple to use correctly.
- *Innovation*: That the platform would bring new dimensions to data.
- *Relevance*: That the platform would be committed to advancing public health policy.

Audience:

- The tool was designed to appeal to physicians and other providers, health professional training programs, policy-makers, advocates, community leaders, and health policy researchers.

- However, the site is also purposefully dynamic, such that not only new data, but new user groups, can be added over time.
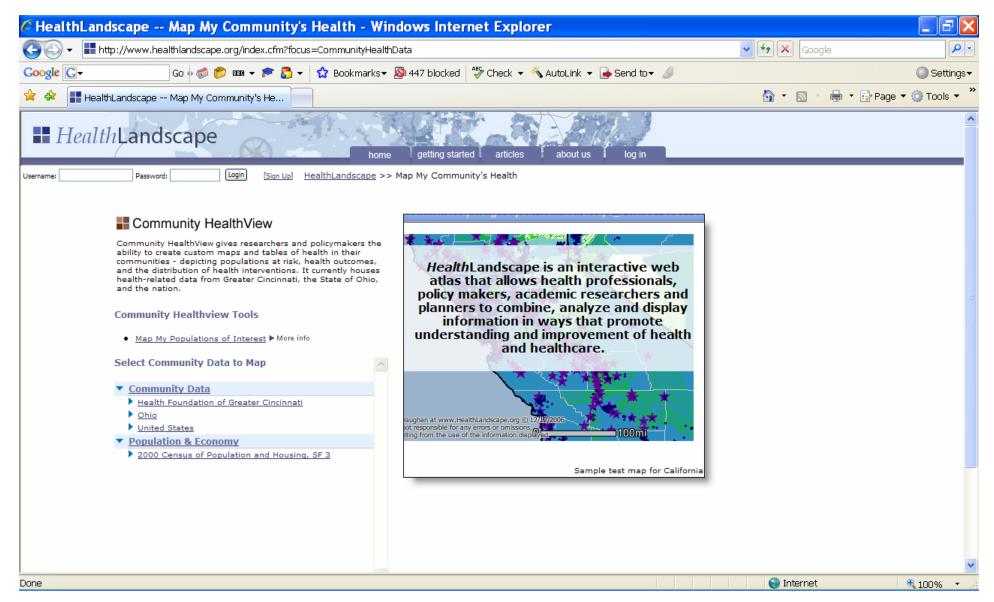
http://www.healthlandscape.org

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Components

- **Community HealthView**: A home for data relevant to health in communities, where public users can depict populations at risk, health outcomes, and the distribution of health interventions.

Community HealthView

Components

- The **Primary Care Atlas**: A place to explore the relationship between primary care, the physician workforce, and the populations and places that these providers serve.
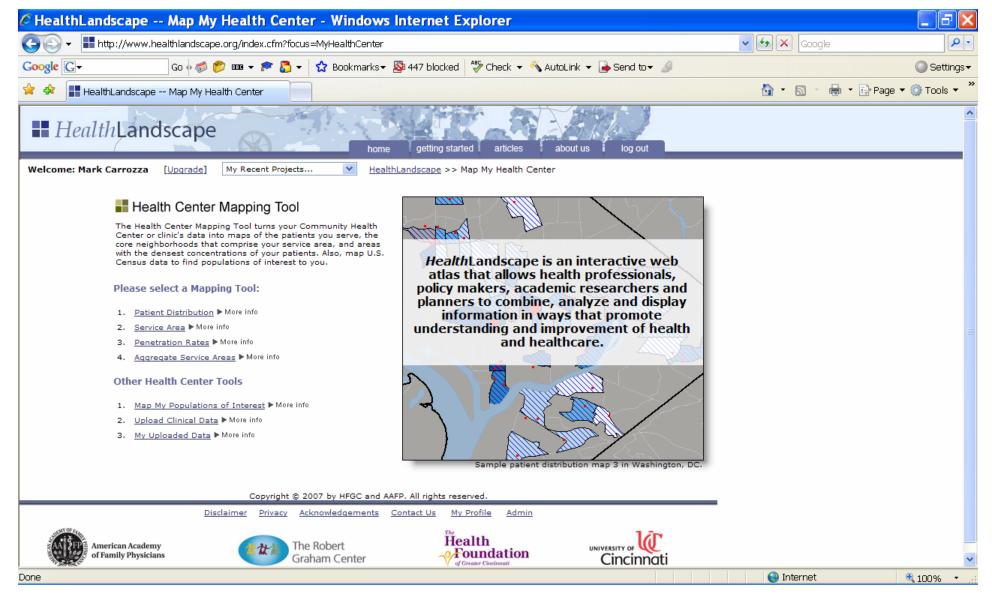
Primary Care Atlas

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Components

- **Health Center Mapping Tool**: A HIPAA-compliant, secure home for uploading, geocoding, and mapping clinical data and other secure information, and a place to understand the patient distribution, service areas, market penetration, and relationships to local and regional populations.
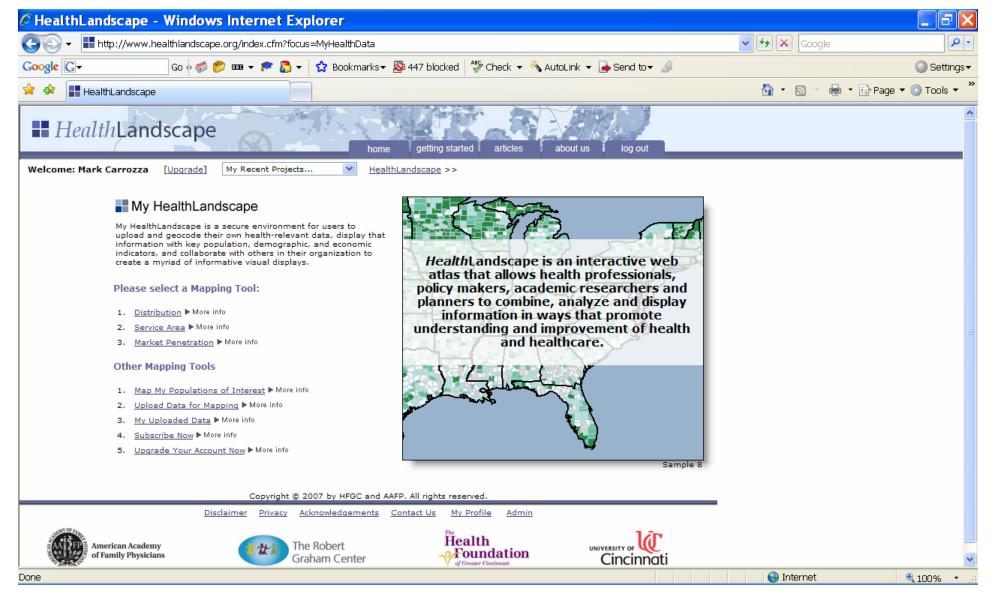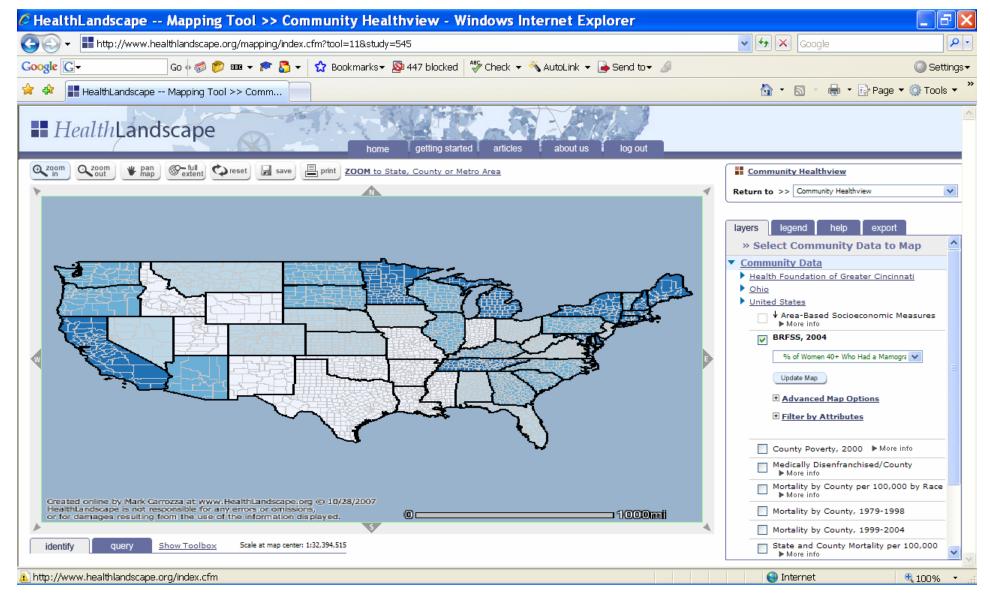
Health Center Mapping Tool

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Components

- **My *Health*Landscape**: A secure environment for users to upload and geocode their own health-relevant data, display that information with key population, demographic, and economic indicators, and collaborate with others in their organization to create a myriad of informative visual displays..
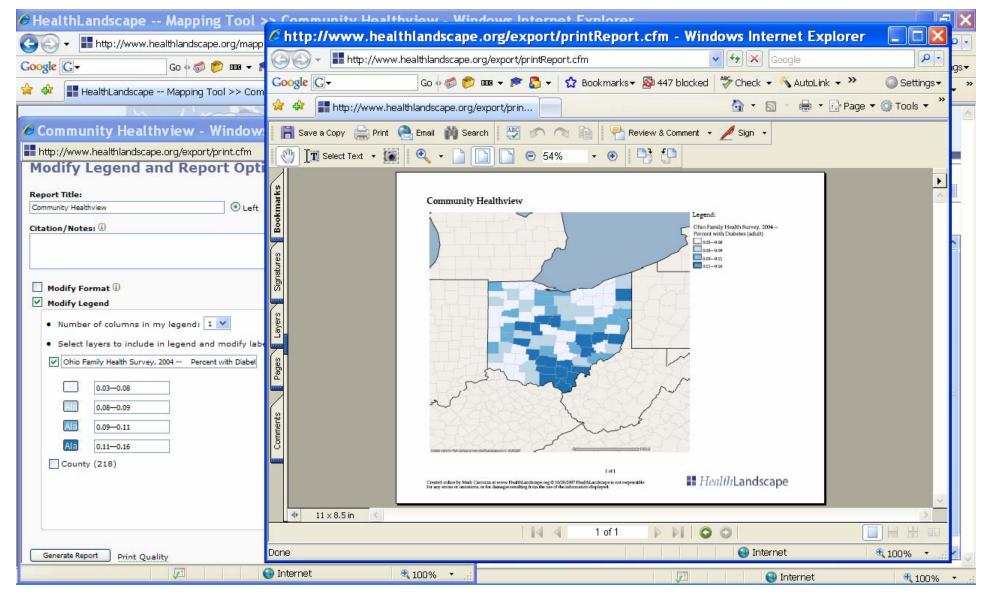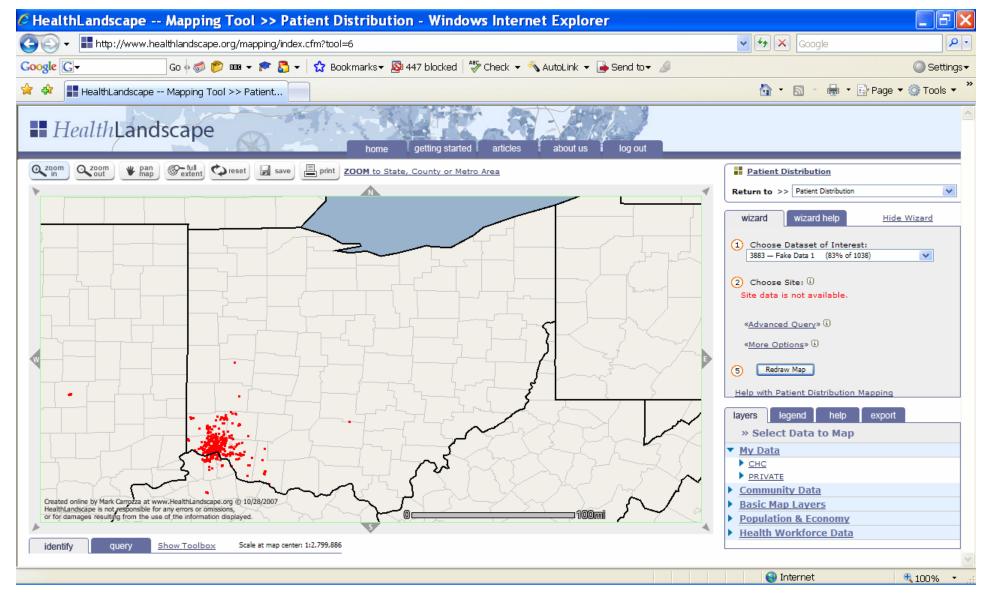
My *Health*Landscape

2004 BRFSS by State

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2004 Ohio Family Health Survey, Adults with Diabetes

Patient Distribution map, Cincinnati Metro Area

Clinic Service Area map, Cincinnati Metro Area

Final Thoughts

- Knowledge is the most democratic source of power.

- You can use all the quantitative data you can get, but you still have to distrust it and use your own intelligence and judgment.

  – Alvin Toffler