

**NHHPC Workshop: Innovation
through Co-Development -
Engaging Partners**



Health Data Consortium:
A case study in catalyzing
collaboration and innovation
in support of health care
transformation

Dwayne Spradlin

CEO Health Data Consortium

September 19th, 2014

Me



Price Waterhouse



PRICEWATERHOUSECOOPERS



VerticalNet

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A D&R COMPANY



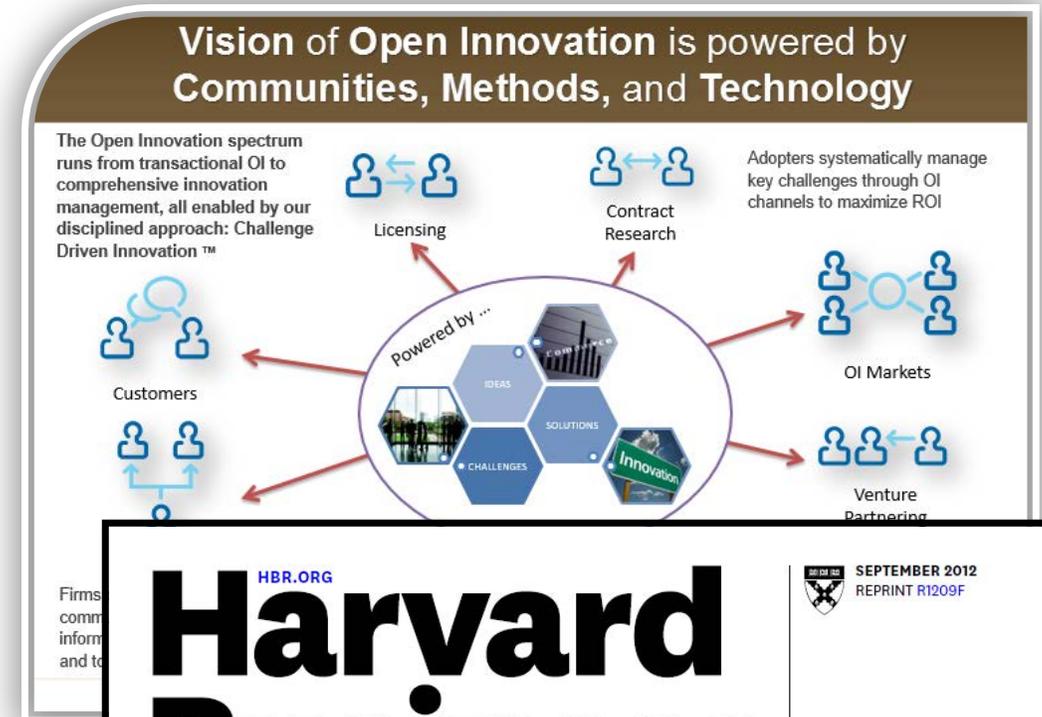
INNOCENTIVETM
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Health Data
Consortium

Why take this on?

- It IS VITAL to remaking the health care system.
- We all have a public service obligation (or we should!).
- Leverage background in innovation and business building.
- An Intellectual Question: *What can catalyzing innovation at the sector level teach us about how to do that in more traditional organizations?*



HBR.ORG

Harvard Business Review

SEPTEMBER 2012
REPRINT R1209F

Are You Solving the Right Problem?

Most firms aren't, and that undermines their innovation efforts. *by Dwayne Spradlin*

Framing the Challenge

The U.S. spends nearly \$3 Trillion annually on health care or nearly one fifth of the gross domestic product, more than any country in the world. Unfortunately, in areas from mortality to morbidity, the U.S. ranks well down the list compared to other advanced nations.

We must do better.

Could much of the answer be in better use of health data?

What if we could answer these questions?

- How environmental and social factors don't we know about that correlate to better outcomes?
- Which medical procedures yield the best results?
- What children are at real risk?
- Which patients require interventions right now to avoid excessive future medical care?

What if we could integrate better data and information into key areas in our health care system?

- Comprehensive patient information/history
- Better decisions at the Point of Care, Patient Monitoring
- Improved and faster research
- Predictive Models and early warning systems.
- Fewer mistakes, better compliance.

What if YOU had this information?

- Where are our most vulnerable populations and where must we focus our resources?
- What doctors and hospitals are best suited for a treatment?
- What treatment options are broadly available? What do they cost? What are the pros/cons?
- Are you utilizing all the services available to them?

Better use of health data and technology could create \$300BB+ in savings and improve outcomes ...

McKinsey&Company

Center for US Health System Reform
Business Technology Office



The 'big data'
revolution in healthcare

Accelerating value and innovation



Potential Uses of Big Data in Health Care



Care Delivery

- Decision support
- Real-time monitoring in hospital and home
- Personalized medicine
- Comparative effectiveness research
- Workflow optimization
- Cost and quality analytics
- Predictive analytics



Operations

- Business analytics
- Marketing and supply chain analytics
- Fraud and breach detection
- Payment and pricing models
- Health economics research



Public Health

- National and regional patient registries
- Biosurveillance
- Preventive health analytics
- Data mining for new multimodal approaches to major public health issues



Research

- Biomedical research literature
- Clinical trial analytics
- Predictive modeling for drugs and devices
- Genomics, biodata
- Analysis of disease patterns to plan future R&D investments

Why doesn't health and healthcare better leverage the potential of health data today across the system?

Health Data is essential to the triple aim





The challenge is made more complex due to the sheer size of the system and the number of stakeholders.

- Public and Private
 - Smaller and larger organizations.
 - Information producers, information consumers, and tools.
 - Essential voices from the patient to physicians to academia.
 - All vital to the discussion.

Question: Can we CATALYZE the availability, use, and sharing of health data to innovate and transform health and healthcare? ... at the system level?

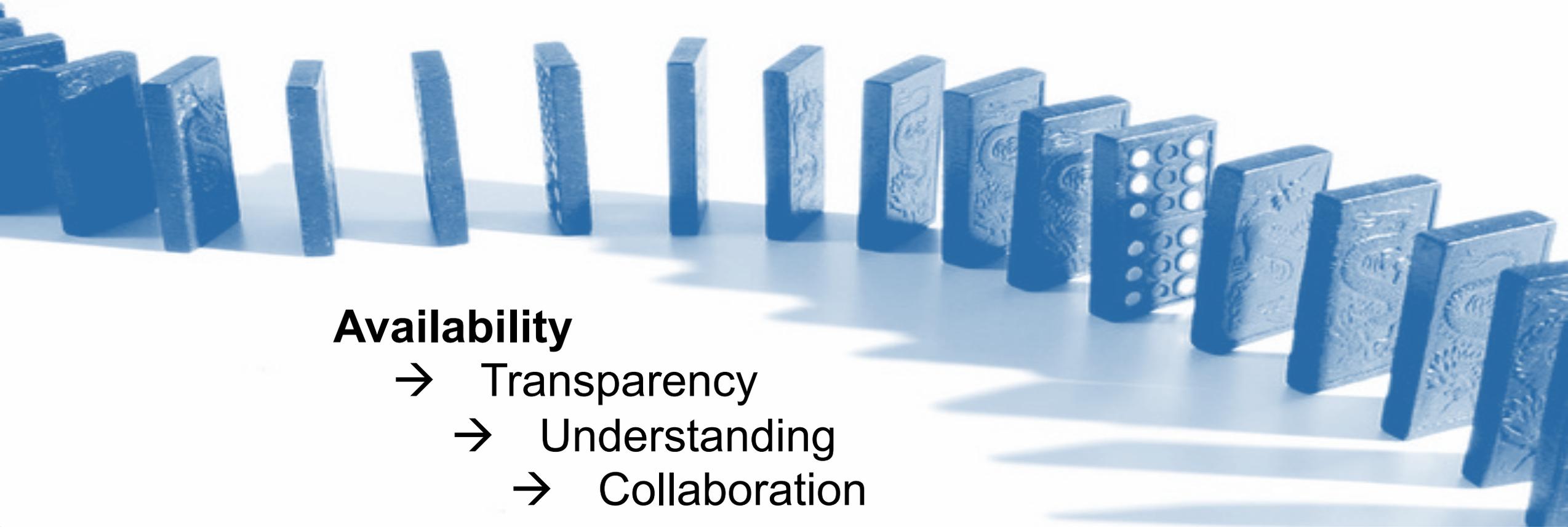
One thing was clear: Focusing the industry's attention, enabling partners, inspiring entrepreneurs, working with VCs, convening, etc. would be key levers (because they are scalable).

What is innovation? ... at the system level?

- Business models
- Technical innovation
- New approaches
- Cost reductions
- New products
- Consumer empowerment
- Data releases
- Quality improvements
- Behavior changes
- New sharing models
- System insights
- Renaissance in data science

Inspire thousands of innovations which in total can remake the system as we know it.

Change hypothesis: The domino effect of data



Availability

- Transparency
- Understanding
- Collaboration
- Innovation

Improvement



Health Data Consortium

unleashing the power of open health data

Who We Are

Health Data Consortium (HDC) is a 501(c)3 non-profit, public-private partnership working to foster the availability and innovative use of open health data to improve health and health care.

Our Mission

Our mission is to liberate health data to ignite innovation and foster collaboration among health data users and stakeholders for the benefit of everyone. We promote responsible health data use and accelerate the movement through advocacy, education and targeted "catalyst" programs.

Our Focus

Three foundational strategies drive our programs and support the HDC mission:

HDC will:

Open health data

Free the data

- Continue to advocate the release of deidentified data in order to improve health outcomes, inform choices, increase transparency and drive accountability.
- Promote the operational “readiness” of data for safe and broad use.

Data sharing across the health system

Use the data

- Promote responsible health data sharing policies, standards, practices, collaborations and reforms.
- Advocate for a balance between the missions of the public and private sectors.

A human-centered health system, powered by health data

Improve health

- Promote a vision for health data exchange that elevates the role of each of us, empowers patients with information and control, advocates for information sharing policies, and creates a robust patient information framework.

A HEALTH DATA CONSORTIUM EVENT

HEALTH DATAPALOOZA™



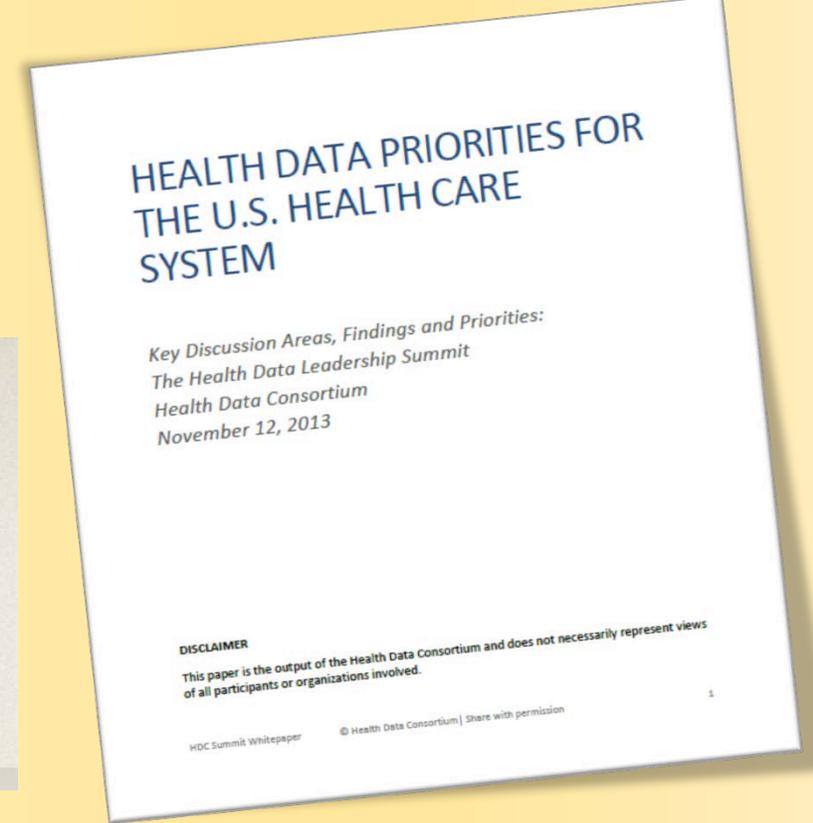
Establishing national identity – the voice of open health data



The
New York
Times



Creating and promoting “Catalysts”



Building a network of members and supporters

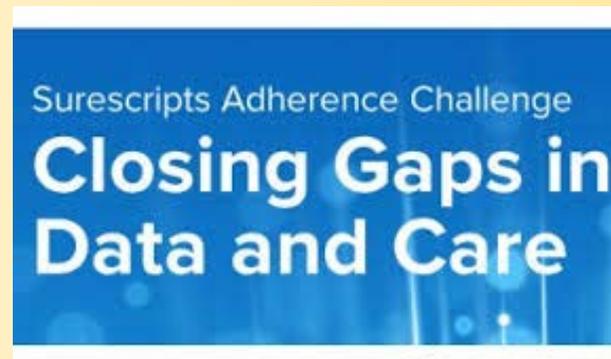


Connecting with startups and innovators is key priority ... planting a thousand seeds ...



- We have engaged thousands directly and indirectly
- We often help connect them to resources and data
- Highlight and promote
- Boot camps!

We use challenges, competitions, and other tools (directly and through partners) are particularly effective with innovators.





Pilot Program

with Horizon® Blue Cross Blue Shield of New Jersey

9-Month Post-Intervention Outcomes

Endpoint	Model Significance	P	Savings
Opioid Rx Claims Cost	Yes	= 0.041	\$2,596,189
Non-opioid Rx Claims Cost	Yes	= 0.045	\$461,731
Total (Annualized)			\$3,057,920
Benefit-to-Cost			4.4 : 1

Notes

- Achieved model significance in 4 of 4 risk endpoints: PSI Score™, Multiple Prescribers, Multiple Pharmacies, and Concomitance.
- Achieved model significance in 1 of 2 utilization endpoints: Morphine Equivalent Dose (mg), NOT Opioid Prescription Claims.
- Achieved model significance in 2 of 2 cost endpoints: Opioid Rx Claims and Non-opioid Rx Claims.
- Annualized savings shown based on an assessment of 9-month post-intervention outcomes.

- **Program returned 4.4x the investment in *pharmacy cost savings* alone**
- **Medical cost savings estimated to be \$10M - \$20M**

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Cities & Funders



Healthcare



Non-Profits



Joseph Flesh

President



Declan Frye

CTO

ORGANIZE

Jenna Arnold and Greg Segal,
Founders ORGANIZE.org

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**AMERICANS DIE
EVERYDAY
WAITING FOR AN
ORGAN TRANSPLANT**



**150 MILLION AMERICANS SUPPORT ORGAN DONATION
BUT AREN'T REGISTERED**

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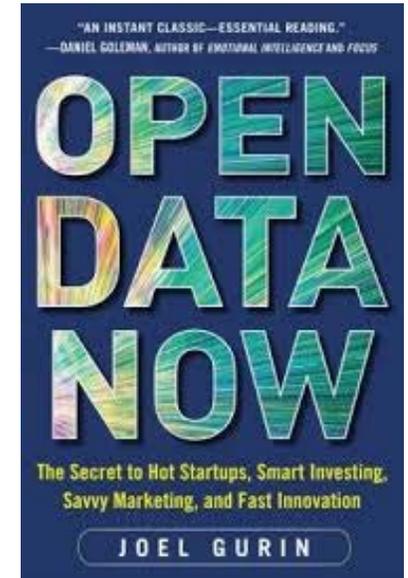
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Other organizations and champions now help carry the torch .. Beyond our wildest imagination!



Putting Health Data to Work: An Illinois Health Datapalooza

November 9, 2013 · 9:00 AM



NY **NYeC**
NEW YORK eHEALTH
COLLABORATIVE

Institute for Health
Metrics and Evaluation WA

IL **FUZEHEALTH**

Wyoming Institute
of Population Health WY

FOUNDATION FOR
HEALTHCARE INNOVATION CA
At the intersection of healthcare, delivery innovation, and technology

LA **VDI** Center for Visual &
Decision Informatics
**UNIVERSITY
OF LOUISIANA**
Lafayette

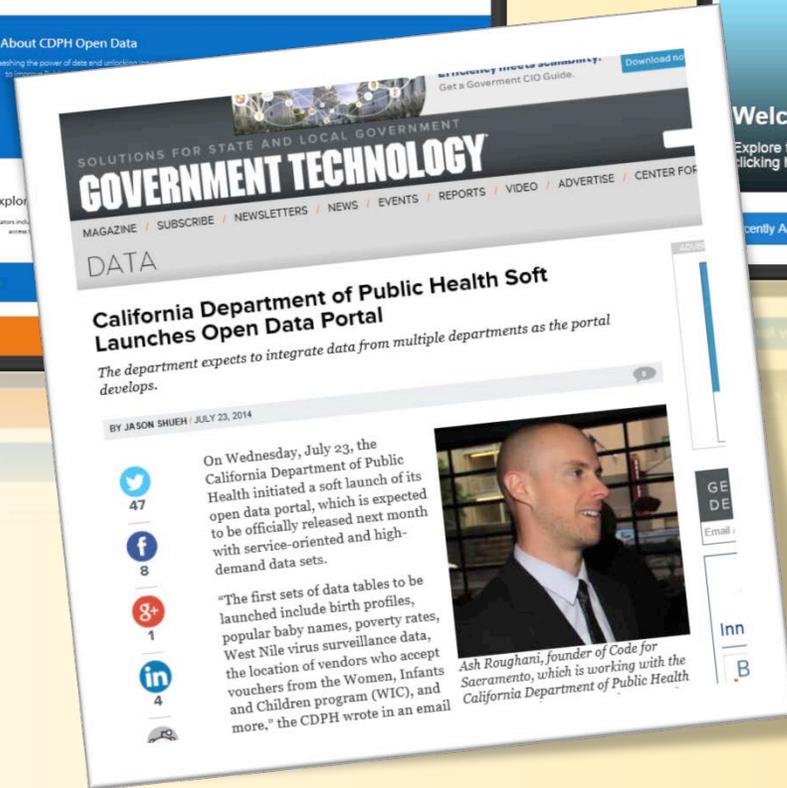
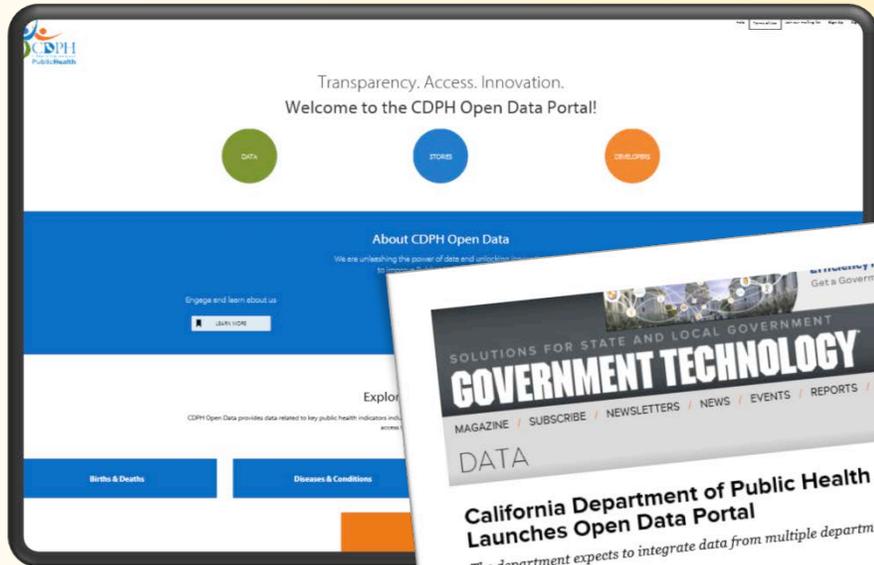
**Viable
Synergy** OH
TRANSFORMING
HEALTH

CO **CIVHC**
CENTER FOR IMPROVING
VALUE IN HEALTH CARE

NASHVILLE
HEALTH CARE
COUNCIL TN

HDC Affiliates network

And now States are beginning to break ground in open health data ...



Of course HHS has been instrumental as a partner from the very beginning ...



IDEA

LAB
@ HHS





Incorporated data from CO, MD, NY, IL, WA, HI, OR, OK, MO
Working to include data from: CA, FL, TX, OH, MI, GA, NC

Data catalog has grown **397%** in one year

Even more federal data **coming soon**

More **opportunities** to use health data

10 Lessons Learned – From setting up a PPP to catalyze collaboration and innovation

... at the system level

... in healthcare

1. Mission: A “game changing” idea or approach with the potential to remake an entire system and improve the world (a populist appeal is important).



2. The right initial founders can be critical. It can compress “time to credibility” by years.



Robert Wood Johnson Foundation



INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

3. Define the organization properly and for the long term. Independence and governance are critical as are board members.



4. Enroll luminaries and influencers early. Prioritize representatives of stakeholder groups foundational to system change.



5. Build your business plan and case for funding early. Develop revenue streams ideas and mature the business model quickly. Sustainability should be a principal concern.



7. “Movements” are made of “big ideas” and “heroes”,
not work groups and white papers *



* OK, you need those too

8. Use a “distribution” mindset to grow the network. Lowest cost, highest gain, greatest scalability. Invest in routes that yield results.

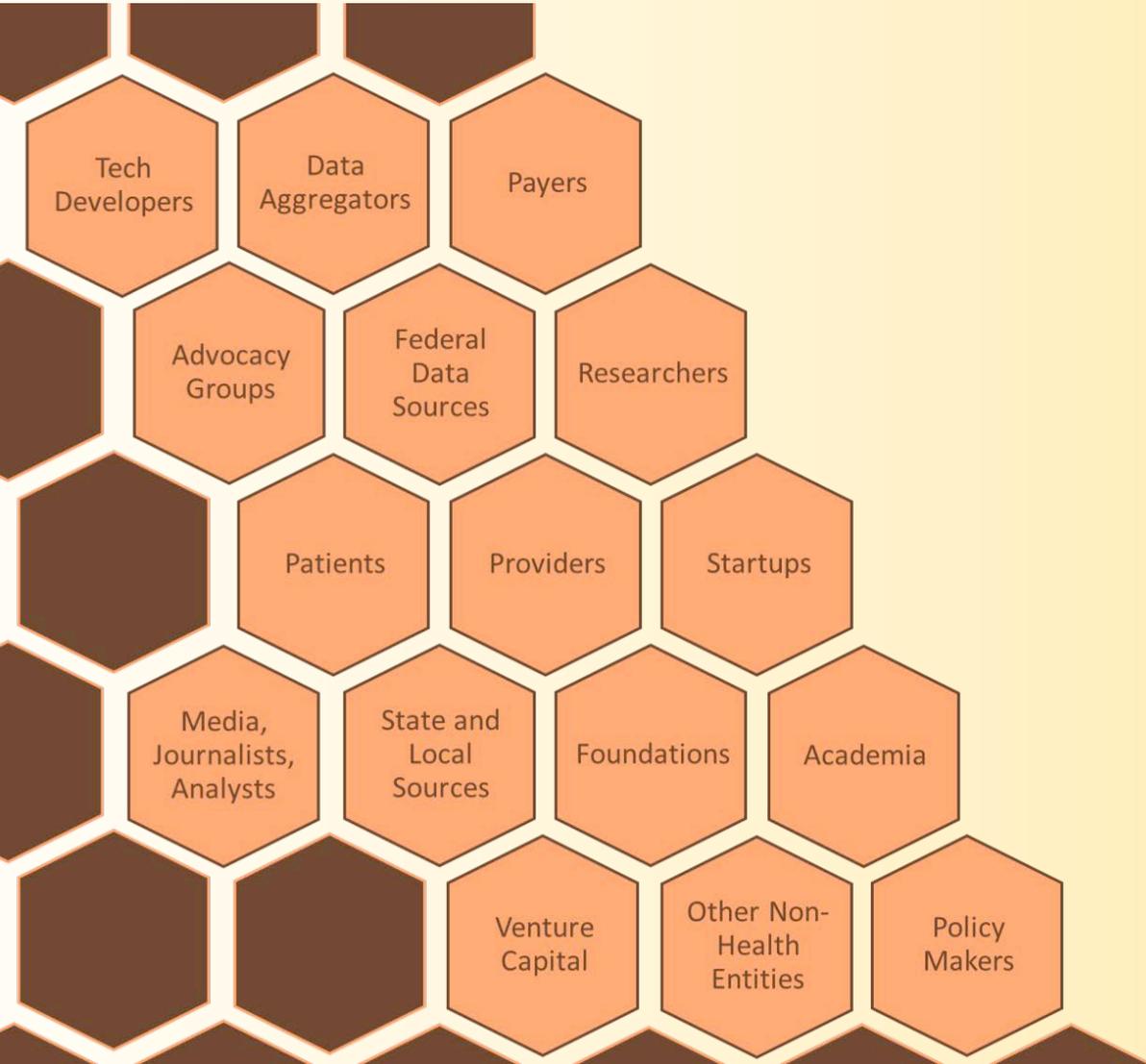


Plant a thousand seeds.

Examples:

- Develop networks of networks which take messages local and help recruit followers.
- Invest in national messaging and activities and avoid localization.
- Online and rich media scale and trump small interactions.
- Don't ignore individuals – they will found local chapters, write books, and carry the message.

9. Understand the ecosystem and what drives each of the targeted areas. Tailor activities.

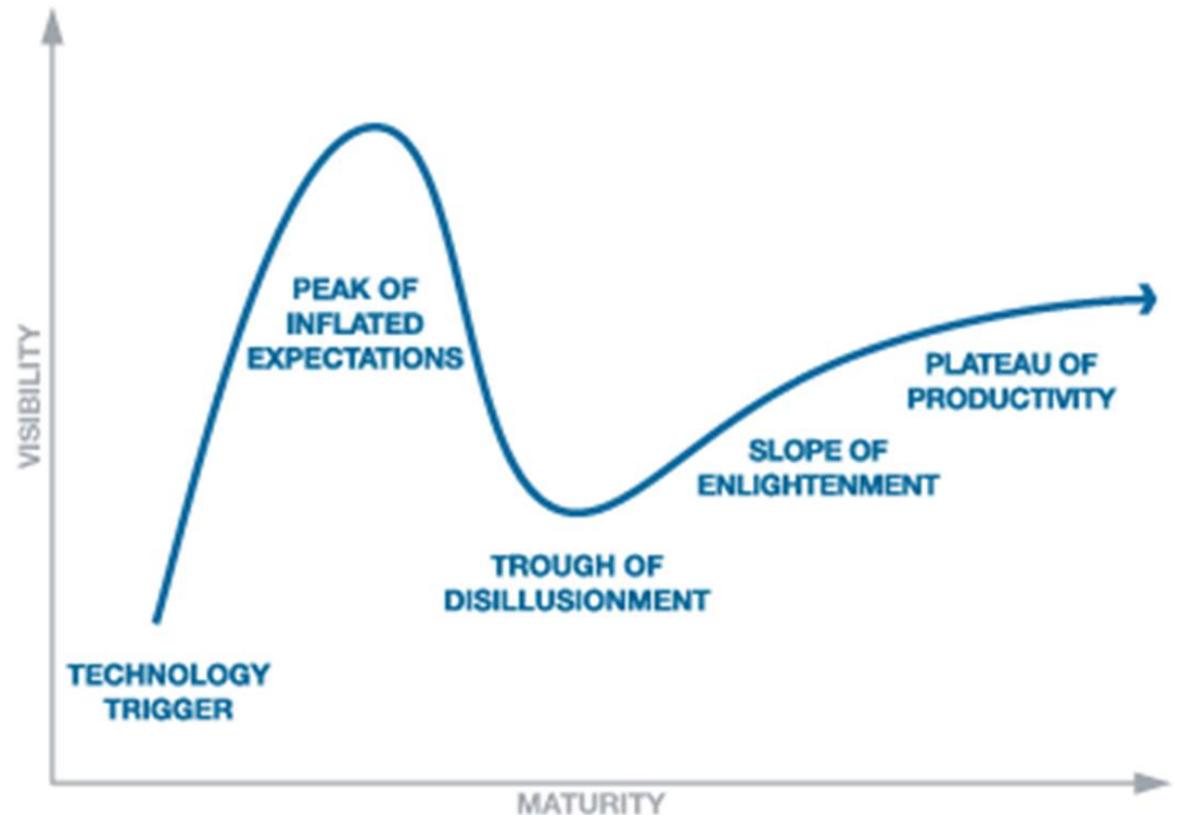


Examples:

- Health Systems, Plans, etc. need data, starting with Federal data.
- Patients want their health records and robust information rights/security
- Health data startups often need exposure, data, and test beds more than money.
- States need resources, playbooks, and air cover.
- Academic institutions need cases, data, and subjects for study.

BONUS: Be patient and realistic about expectations and timelines. Takes time and resources.

"Expectation
is the root of all
heartache"
- Shakespeare



BONUS: Talent matters. Invest early in people and capabilities that will execute.

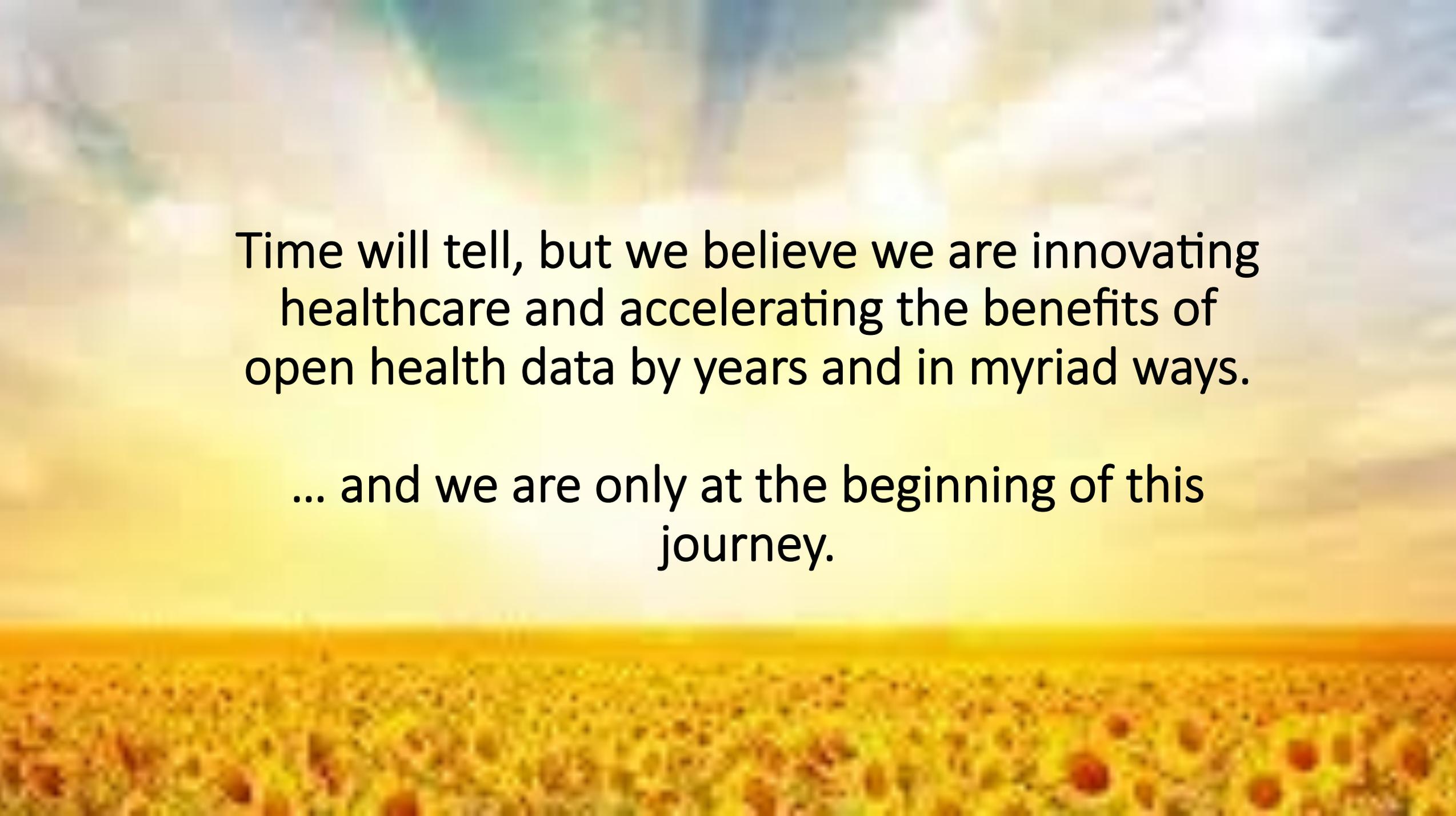


Key:

- CEO/ED: The face of the movement and key to credibility, fundraising, and partnerships.
- Staff that understand innovation, business building, and relationships
- Professionals that “get” membership, policy, etc.
- Youth and entrepreneurs bring a powerful energy ...

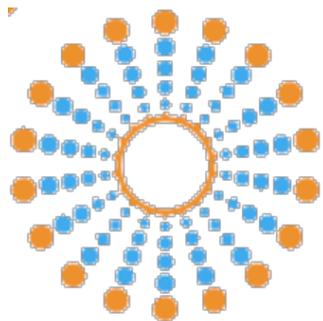
What do the learnings tell us about organizational innovation?

Learning	More traditional organizations
<p>1. Mission: A “game changing” idea or approach with the potential to remake an entire system and improve the world (a populist appeal is important). BONUS: Be patient and realistic about expectations and timelines. Takes time and resources.</p>	<p>Inspiring a system can work – it needs inspiration and BHAGs and time.</p>
<p>6. Marketing matters. Keep messages simple, compelling, scalable, and self evident. 7. “Movements” are made of “big ideas” and “heroes”, not work groups and white papers</p>	<p>And it needs to be communicated clearly, with energy, and passionately.</p>
<p>2. The right initial founders can be critical. It can compress “time to credibility” by years. 4. Enroll luminaries and influencers early. Prioritize representatives of stakeholder groups foundational to system change. 10. Convening is powerful and establishes leadership. Be aggressive and bold, but judicious in its use.</p>	<p>Sr. Executive support is key as is early validation from the market. Analysts and influencers.</p>
<p>5. Build your business plan and case for funding early. Develop revenue streams ideas and mature the business model quickly. Sustainability should be a principal concern. 9. Understand the ecosystem and what drives each of the targeted areas. Tailor activities. 8. Use a “distribution” mindset to grow the network. Lowest cost, highest gain, greatest scalability. Invest in routes that yield results. 3. Define the organization for the long term. Independence and governance are critical.</p>	<p>Structural innovation still requires a compelling business plan and resources. Be realistic. Assign real leaders. Tap “champions”. Know and anticipate customers, partners, influencers.</p>



Time will tell, but we believe we are innovating healthcare and accelerating the benefits of open health data by years and in myriad ways.

... and we are only at the beginning of this journey.



THE HEALTH DATA CONSORTIUM PRESENTS:
HEALTH **DATAPALOOZA**
HealthDatapalooza.org 2015



MARRIOTT WARDMAN PARK • WASHINGTON, DC
May 31 – June 3, 2015

Mark your calendars. See you there!

