Technology and Information: Necessary Tools for Health in a Challenging Time

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Trust for America's Health

Trust*for* America's Health

WWW.HEALTHYAMERICANS.ORG

Who we are What we do

- Policy
- Advocacy
- Communications

Meet Fran Edwards:

- Newly insured
- At MD for first physical 5 years
- 55 years old, married, smokes, overweight, exercise
- Asthmatic, pre-diabetic
- Stopped taking medications in past due to cost

Insurance and Quality Care Help... But they Aren't Enough

- ☐ **Income -** Poor, family of 5
- ☐ **Barriers to Fitness** – Rising crime, few parks, no nearby supermarket
- ☐ **Under stress** - Son with behavioral health concerns, worried about money
- ☐ **Sub-par Housing –** Mold and ventilation problems

Our Emphasis

- ☐ Focus on both health care and the social determinants of health - SDOH
- ☐ Attend to those issues at both the patient-specific and total populations levels

Examples of Information and Technology & the SDOH

Example #1
Identify Evidence-Based Approaches - *ROI*

Use both health outcome and clinical data to make the case

THE 6|18 INITIATIVE

Accelerating Evidence into Action

SIX WAYS TO SPEND SMARTER FOR **HEALTHIER PEOPLE**

REDUCE TOBACCO USE

CONTROL BLOOD PRESSURE

PREVENT HEALTHCARE-ASSOCIATED INFECTIONS (HAI)

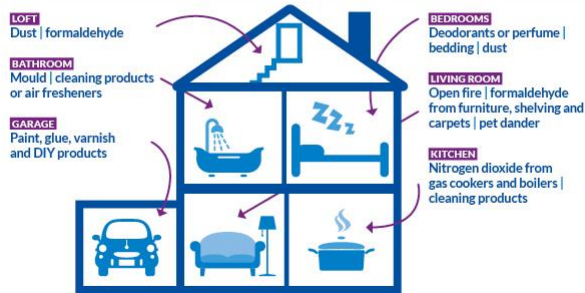CONTROL ASTHMA

PREVENT UNINTENDED PREGNANCY

PREVENT DIABETES

Provide all tobacco cessation meds without cost – MA Medicaid study

To Address Asthma:
Healthy Home Risk Reduction – MA research

Common asthma triggers in the home

LOFT
Dust | formaldehyde

BATHROOM
Mould | cleaning products or air fresheners

GARAGE
Paint, glue, varnish and DIY products

BEDROOMS
Deodorants or perfume | bedding | dust

LIVING ROOM
Open fire | formaldehyde from furniture, shelving and carpets | pet dander

KITCHEN
Nitrogen dioxide from gas cookers and boilers | cleaning products

Home visit by CHWs to

❑ Provide additional education/ encouragement

❑ Assess risk factors in the home

❑ Assist in removing risk factors

Go Beyond the MD Office

School-Based Programs to Increase Physical Activity
→ School-Based Violence Prevention
→ Safe Routes to School
→ Motorcycle Injury Prevention
→ Tobacco Control Interventions
→ Access to Clean Syringes
→ Pricing Strategies for Alcohol Products
→ Multi-Component Worksite Obesity Prevention

Counseling and Education

Clinical Interventions

Long Lasting Protective Interventions

→ Early Childhood Education
→ Clean Diesel Bus Fleets
→ Public Transportation System
→ Home Improvement Loans and Grants
→ Earned Income Tax Credits
→ Water Fluoridation

Changing the Context
Making the healthy choice the easy choice

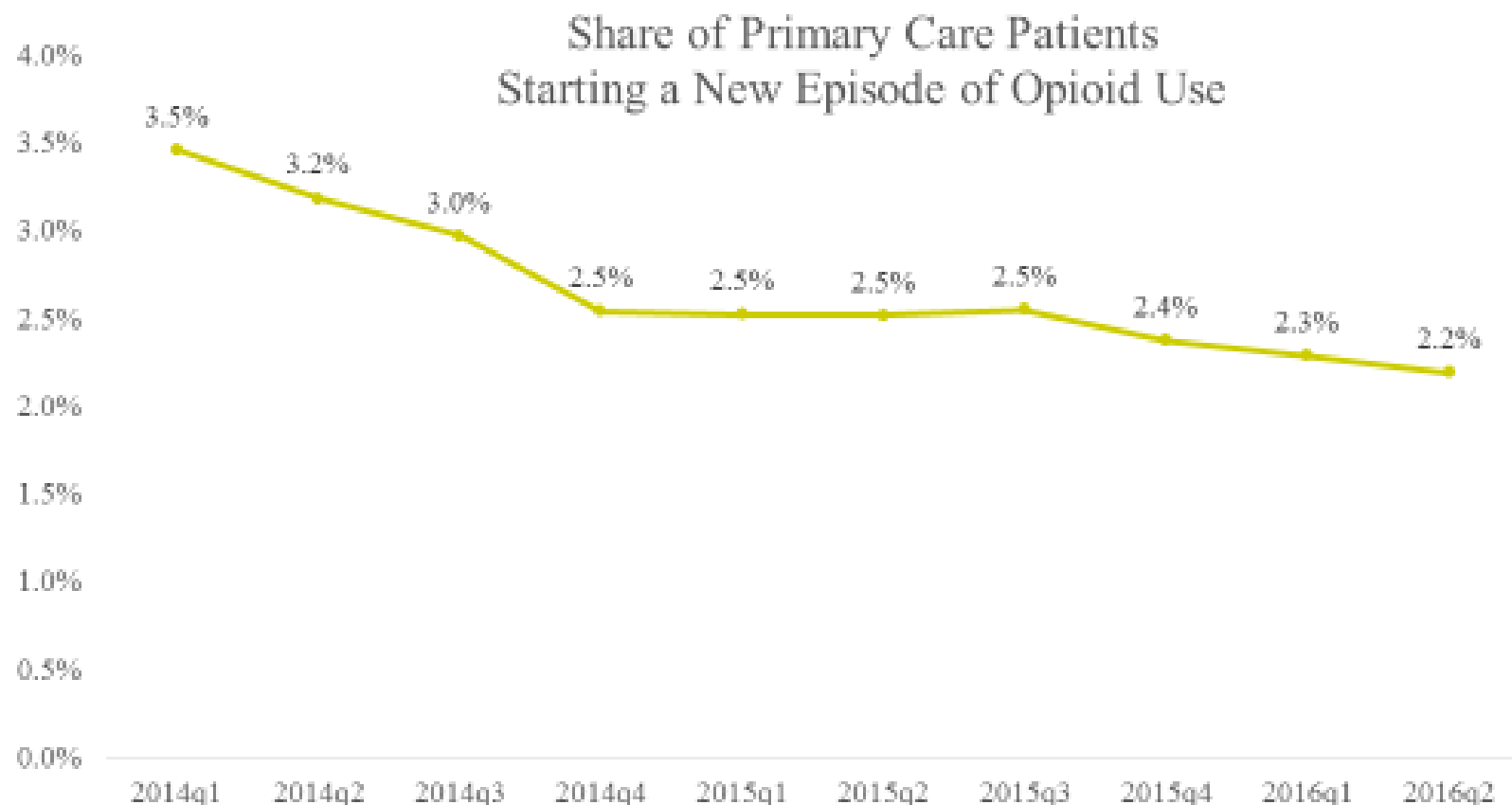**Social Determinants of Health**

HI-5

HEALTH **IMPACT** IN 5 YEARS

Example #2 – Utilize EMR data in aggregate to drive/assess policy change

Steady decline in primary care patients starting new opioid prescriptions

Share of Primary Care Patients
Starting a New Episode of Opioid Use

- 2014q1: 3.5%
- 2014q2: 3.2%
- 2014q3: 3.0%
- 2014q4: 2.5%
- 2015q1: 2.5%
- 2015q2: 2.5%
- 2015q3: 2.5%
- 2015q4: 2.4%
- 2016q1: 2.3%
- 2016q2: 2.2%

Sample: Over 2 million visits from 1.5 million patients to over 2,900 individual providers each quarter.
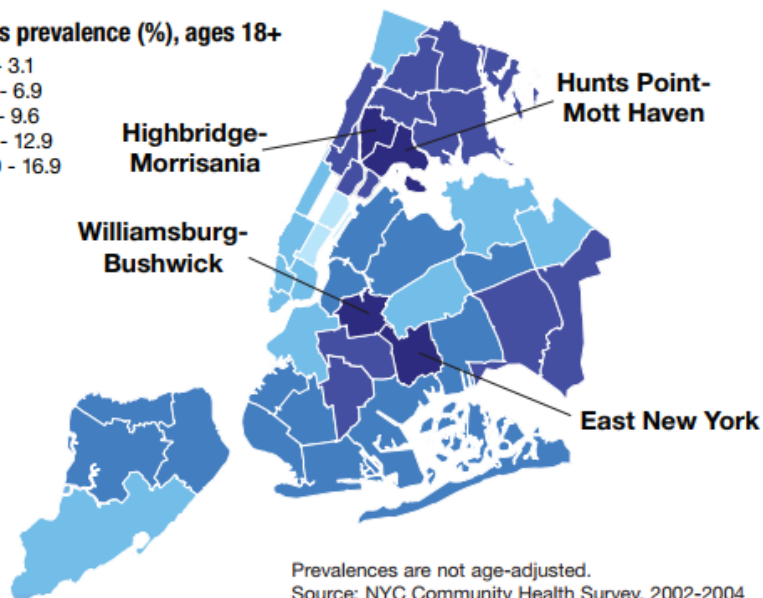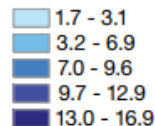**Source:** athenaResearch

Objectives of New York City A1C Registry (NYCAR)

- Surveillance and epidemiology
  - Track trends on the population level

- Provider feedback and communication
  - Quarterly provider reports in comparison to peers
  - Quarterly rosters of patients stratified by A1C level

- Patient feedback (via provider)
  - Letters with A1C information
  - Local resources

- Deliver resources to providers/patients

All of the above requires matching and data linkages

NYC
Health

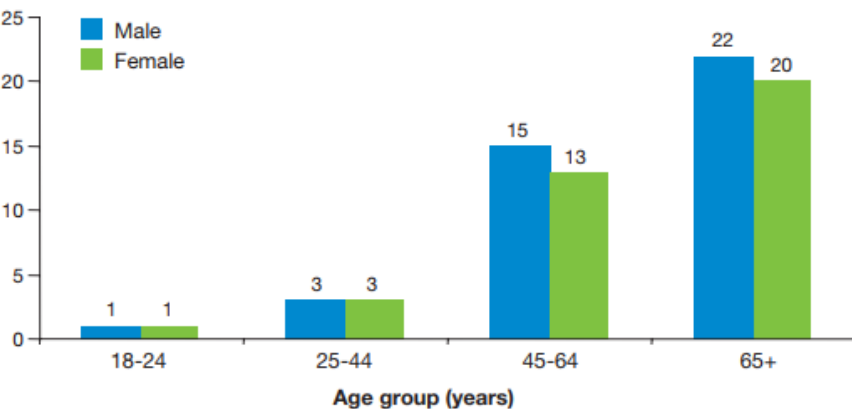## Diabetes prevalence varies by neighborhood

Diabetes prevalence (%), ages 18+

- 1.7 - 3.1
- 3.2 - 6.9
- 7.0 - 9.6
- 9.7 - 12.9
- 13.0 - 16.9

Hunts Point-Mott Haven

Highbridge-Morrisania

Williamsburg-Bushwick

East New York

Prevalences are not age-adjusted.
Source: NYC Community Health Survey, 2002-2004

Diabetes prevalence is highest among adults from the lowest income households

Diabetes prevalence (%)

| Household income (% of federal poverty level)	Value
<200%	11
200% - 599%	8
600+%	5
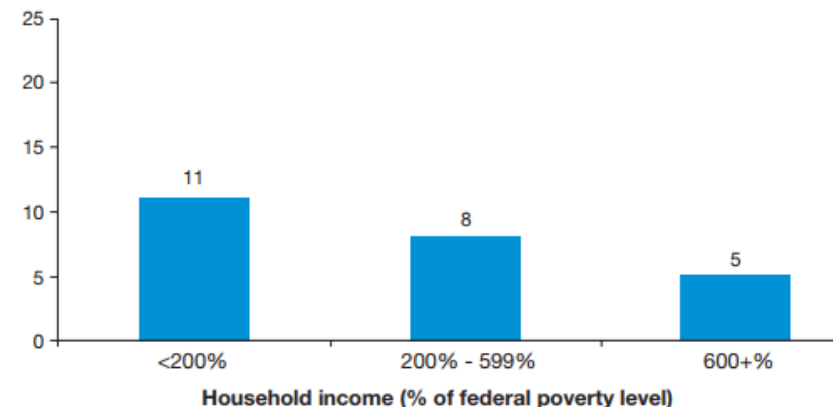
Percents are age-adjusted to the year 2000 U.S. Standard Population and exclude individuals who did not report age.
Source: NYC Community Health Survey, 2002-2004

FIGURE 1-6

Diabetes prevalence increases with age

Diabetes prevalence (%)

- ■ Male
- ■ Female

Age group (years)	Male	Female
18-24	1	1
25-44	3	3
45-64	15	13
65+	22	20

FIGURE 1

Diabetes prevalence among blacks and Hispanics is more than twice that of whites

Diabetes prevalence (%)

	Value
Black	12
Hispanic	13
Asian	9
White	6
Other	12
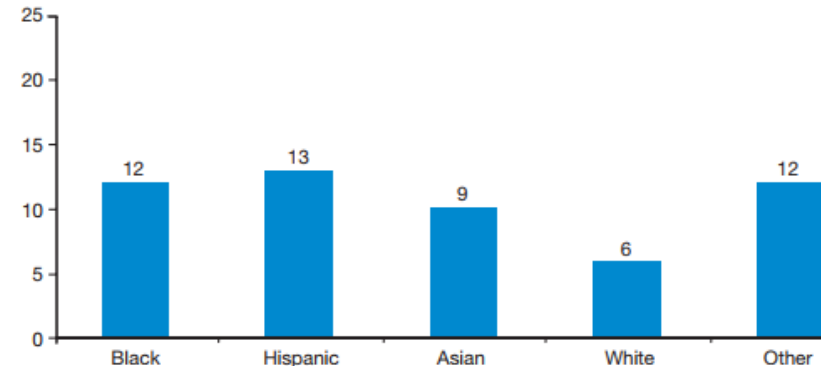
Example #3 – Use Data from Non-Health Sectors

Utilization and Behavioral Patterns Help Identify Social ICU Patients

Jeffrey Brenner, MD, Camden, NJ

- Used medical billing data to explore health trends:
  - 1% of Camden's patients accounted for 30% of costs
  - Identified 2 most expensive blocks: a large nursing home and a low-income housing tower
- Camden Coalition of Healthcare Providers formed to provide a medical home for "super-utilizers"
 - Rely on home visits, phone calls, urgent call number to reach patients

Results

- 40% reduction in ED visits
- 56% reduction in hospital bills

"The people with the highest medical costs—the people cycling in and out of the hospital—were usually the people receiving the worst care."

ED = emergency department. Source: Gawande A. The hot spotters. *The New Yorker* January 24, 2011. www.newyorker.com/reporting/2011/01/24/110124fa_fact_gawande. Accessed June 2011.

County Health Rankings

- Annual *Rankings:* snapshots of how health is affected by where one lives, works, plays

- Shows progress: looking at many health outcome measures in counties.

- Illustrates impact of efforts to address the many factors that influence health.

County Health Rankings model © 2014 UWPHI
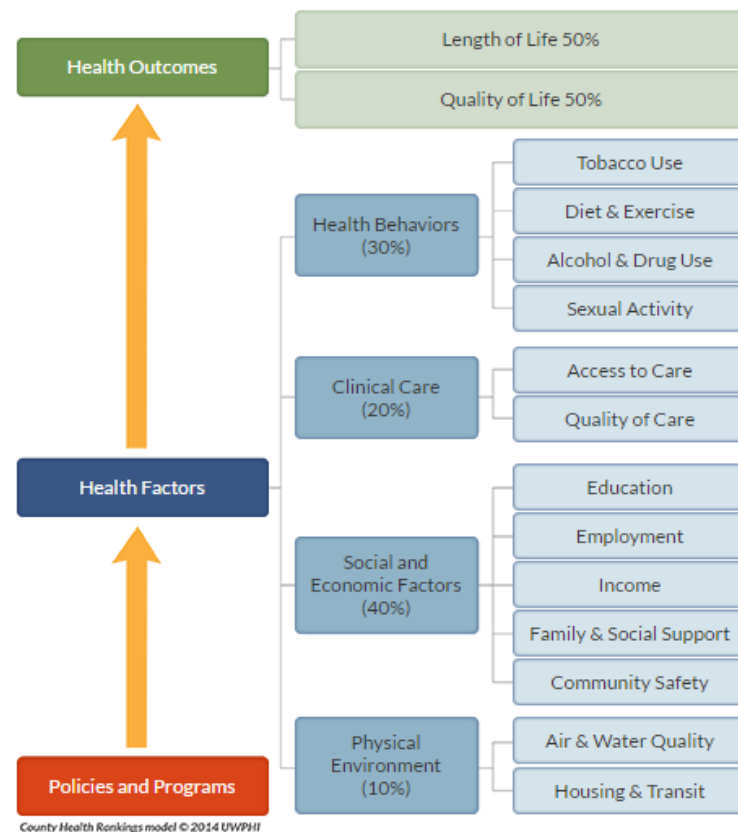
Community Commons

- Community Commons provides access to meaningful data, easy-to-use mapping tools, and community health needs assessments

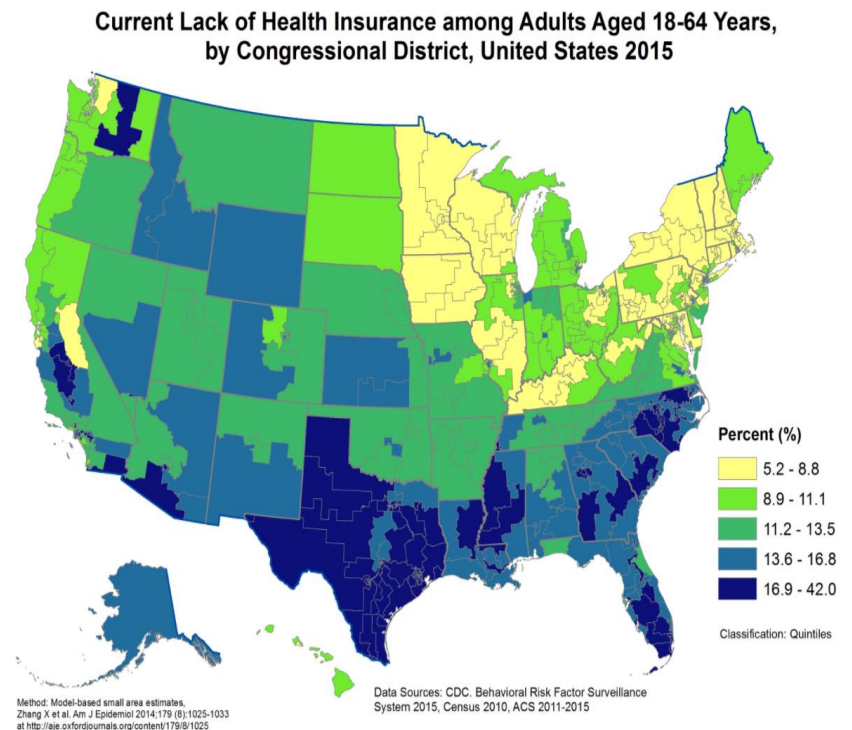Vulnerable Populations Footprint
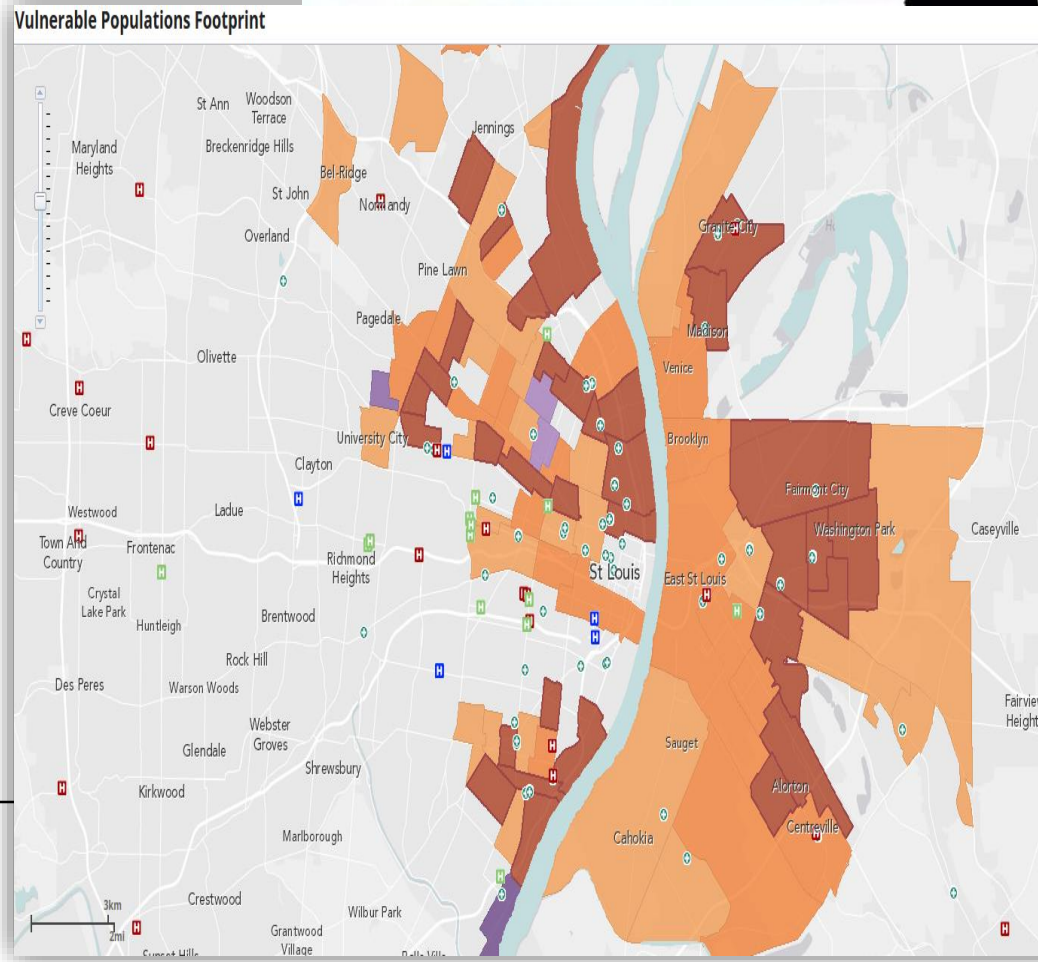
Example #4: Translate federal health policy into local reality

How Healthy is Your Congressional District?

- Snapshot of 7 preventive health measures for each Congressional District and state

- Uses data from CDC's Behavioral Risk Factor Surveillance System (BRFSS).

Current Lack of Health Insurance among Adults Aged 18-64 Years, by Congressional District, United States 2015

Percent (%)
- 5.2 - 8.8
- 8.9 - 11.1
- 11.2 - 13.5
- 13.6 - 16.8
- 16.9 - 42.0

Classification: Quintiles

Method: Model-based small area estimates, Zhang X et al. Am J Epidemiol 2014;179 (8):1025-1033 at http://aje.oxfordjournals.org/content/179/8/1025

Data Sources: CDC. Behavioral Risk Factor Surveillance System 2015, Census 2010, ACS 2011-2015

Adults Who Had a Cholesterol Screening

Rate	State	US Representative (District)
81.5	**USA**	
84.7	Maryland	Jamie Raskin (MD-8)
84.4	New Jersey	Leonard Lance (NJ-7)
84.2	Florida	Vern Buchanan (FL-16)
84.2	Florida	Daniel Webster (FL-11)
84.1	New York	Thomas R. Suozzi (NY-3)
84.1	New Jersey	Josh Gottheimer (NJ-5)
83.4	New Jersey	Rodney P. Frelinghuysen (NJ-11)
83.4	New Jersey	Christopher H. Smith (NJ-4)
83.1	Massachusetts	William R. Keating (MA-9)
83.1	New Jersey	Thomas MacArthur (NJ-3)
83.1	Florida	Bill Posey (FL-8)
83.0	Maryland	Andy Harris (MD-1)
83.0	Florida	Lois Frankel (FL-21)
82.8	New York	Kathleen M. Rice (NY-4)
82.8	Connecticut	James A. Himes (CT-4)
82.8	Massachusetts	Seth Moulton (MA-6)
82.7	Florida	Brian J. Mast (FL-18)
82.7	Florida	Charlie Crist (FL-13)

% of Adults Who Currently Smoke

Rank	Rate	State	US Representative (District)
	17.5	**USA**	
1	7.9	Utah	Jason Chaffetz (UT-3)
2	8.3	California	Ro Khanna (CA-17)
3.5	8.8	California	Jackie Speier (CA-14)
3.5	8.8	California	Zoe Lofgren (CA-19)
5	9.2	Utah	Mia B. Love (UT-4)
6	9.4	California	Anna G. Eshoo (CA-18)
7	9.5	Utah	Chris Stewart (UT-2)
8	9.9	Utah	Rob Bishop (UT-1)
9	10.0	Washington	Adam Smith (WA-9)
11	10.1	California	Eric Swalwell (CA-15)
11	10.1	California	Julia Brownley (CA-26)
11	10.1	Maryland	Jamie Raskin (MD-8)
13	10.2	California	Nancy Pelosi (CA-12)
14	10.4	California	Barbara Lee (CA-13)
16	10.5	California	Judy Chu (CA-27)
16	10.5	California	Edward R. Royce (CA-39)
16	10.5	California	J. Luis Correa (CA-46)
18	10.6	California	Mimi Walters (CA-45)

Sheet1

CDC Investments by State - At Risk

Critical CDC Public Health Investments are at Risk:

The Impact in New York

Total Amount to New York:

$41,517,446

667 jobs

Are estimated as supported by these funds annually*

$5,854,395 to support **vaccines** for needy **children** and adults

$10,438,530 to the **Department of Public Health** for **core state-identified needs**

$3,089,349 in infectious disease prevention **including health care-associated infections**

Diving Deep into Key Issues

She Needs Our Help