



# *Vermont Department of Health Fiscal Year 2017 Executive Budget*

Vermont is still the  
**2<sup>nd</sup> healthiest** state.

# Vermont

RANK: 2

No Change  
from  
2014

2014 Rank: 2  
No Change

TOP FIVE HEALTHIEST STATES:

1. Hawaii
2. Vermont
3. Massachusetts
4. Minnesota
5. New Hampshire



## Smoking

16.4%



of people in Vermont smoke  
compared with 18.1% nationally

Healthy People 2020 Goal: 12.0% of adults

## Drug Deaths

12.9



deaths per 100,000 people in Vermont  
from drug overdose compared with 13.5 deaths  
per 100,000 nationally

Healthy People 2020 Goal: 11.3 deaths per 100,000

## Physical Inactivity

19.0% or about

1 in 5



adults in Vermont are  
physically inactive compared  
with 22.6% nationally

## Infant Mortality

4.3



deaths per 1,000 live births in Vermont  
compared with 6.0 deaths per 1,000 nationally

Healthy People 2020 Goal: 6.0 infant deaths per  
1,000 live births

## Obesity/Diabetes

24.8%

of adults in Vermont are obese



7.9%

of adults in Vermont have diabetes

Nationally, 29.6% of adults are obese,  
and 10.0% have diabetes.

## Immunizations—Children

71.8%

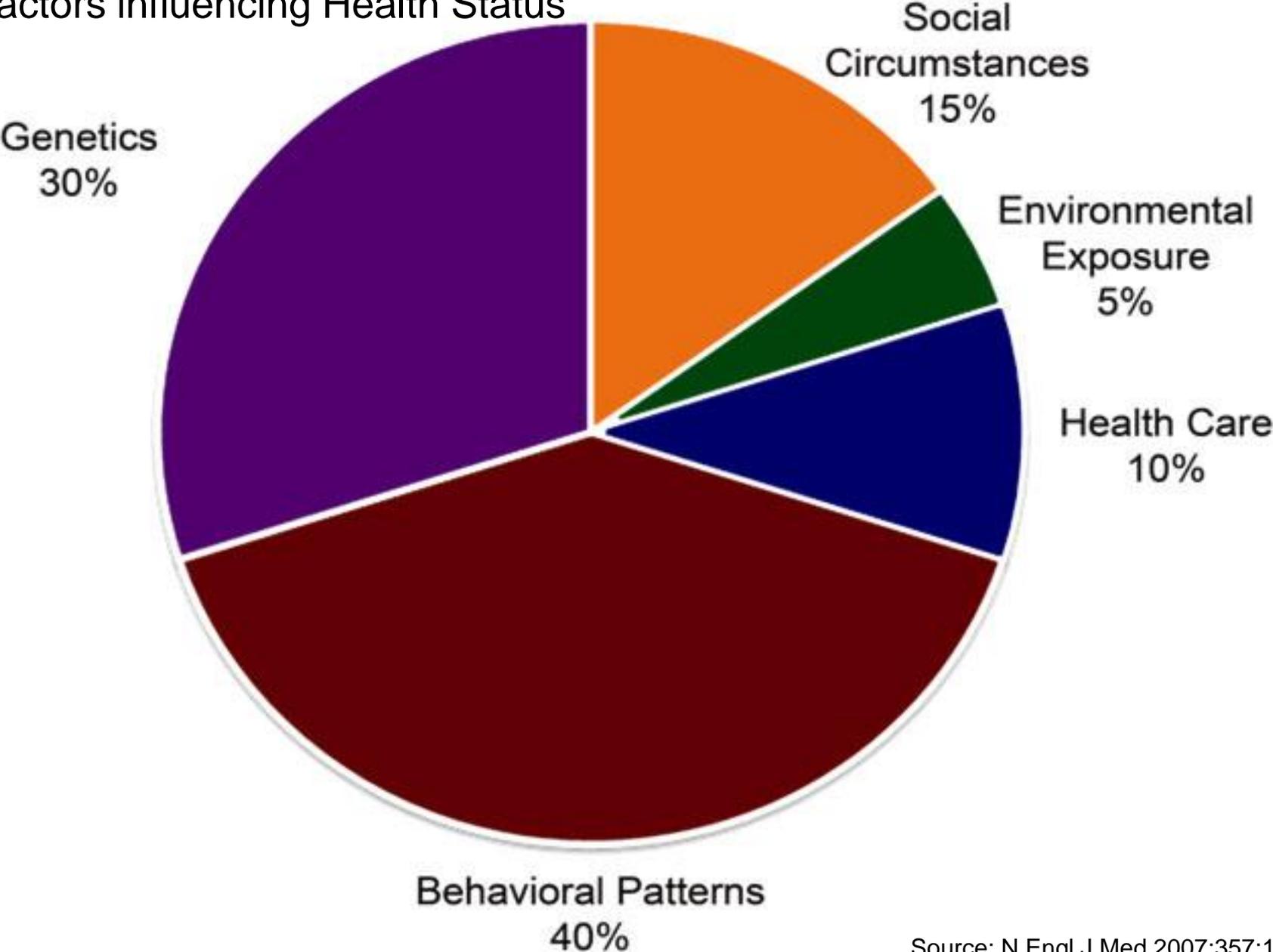


of children in Vermont received vaccinations  
compared with 71.6% nationally

Healthy People 2020 Goal: 80.0% of children

# Determinants of Health

Factors influencing Health Status

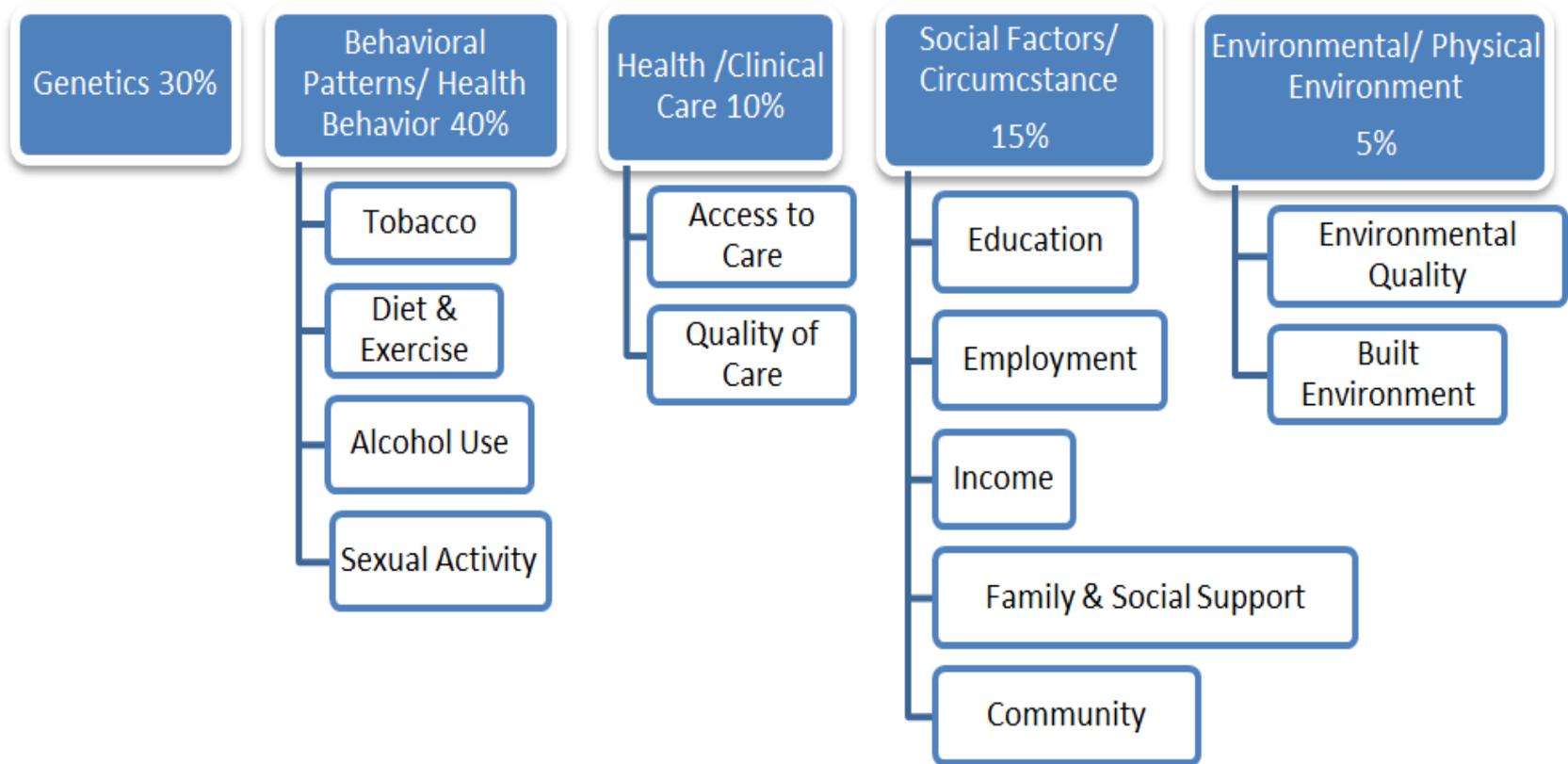


Source: N Engl J Med 2007;357:1221-8.

# Determinants of Health

## Factors influencing health status

**Figure 2. Factors Affecting Health Outcomes**



Adapted to include genetics and McGinnis weighting of factors approach

# Core Measures



## Behaviors

- Smoking
- Excessive Drinking
- Drug Deaths
- Obesity
- Physical Inactivity
- High School Graduation

## Policies

- Lack of Health Insurance
- Public Health Funding
- Immunization Coverage

## Community & Environment

- Violent Crime
- Occupational Fatalities
- Children in Poverty
- Air Pollution
- Infectious Disease

## Clinical Care

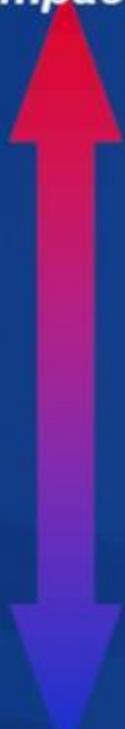
- Low Birthweight Infants
- Primary Care Physicians
- Dentists
- Preventable Hospitalizations

## Health Outcomes

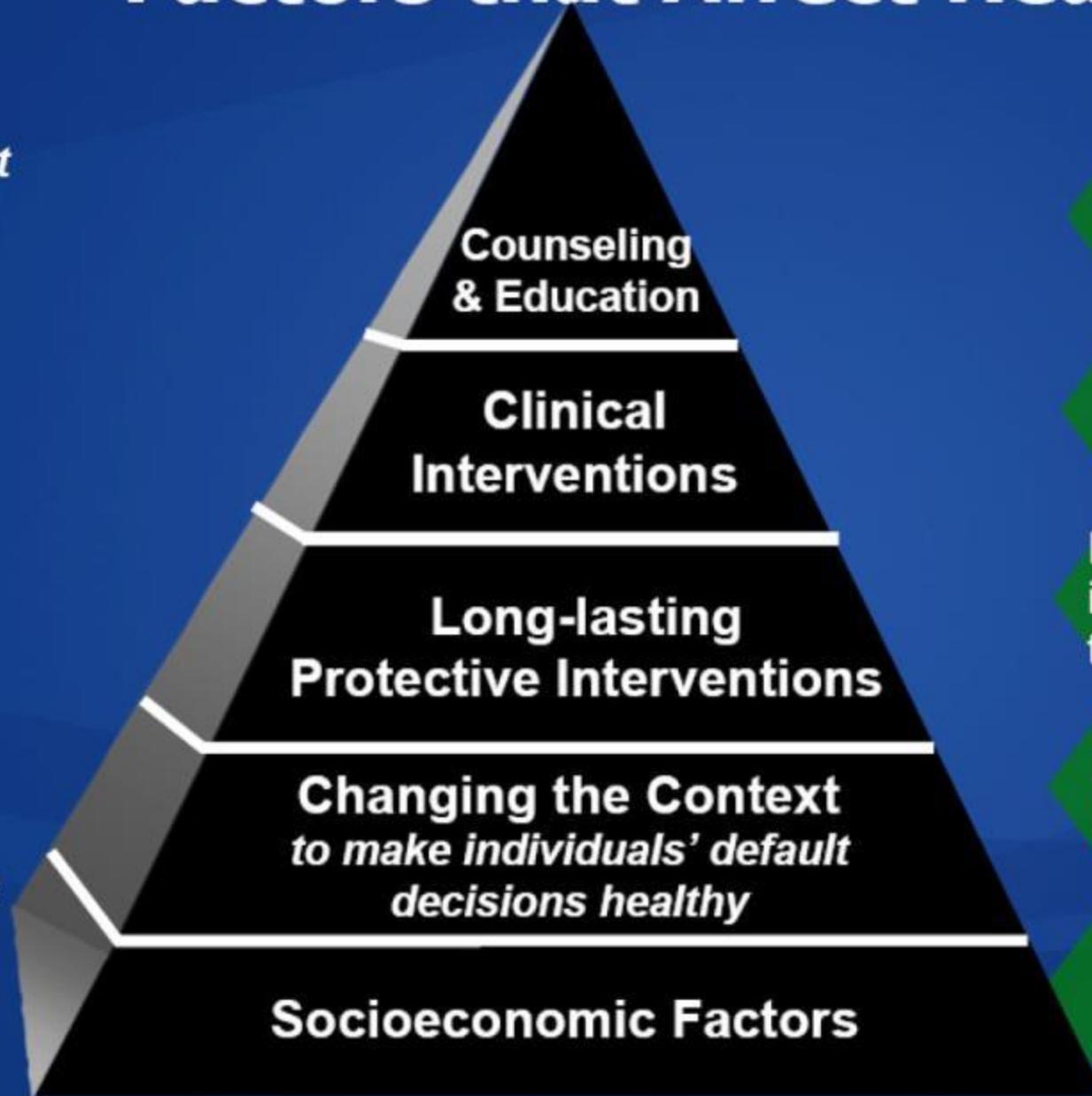
- Diabetes
- Poor Mental Health Days
- Poor Physical Health Days
- Disparities in Health Status
- Infant Mortality
- Cardiovascular Deaths
- Cancer Deaths
- Premature Death

# Factors that Affect Health

*Smallest Impact*



*Largest Impact*



## Examples

Condoms, eat healthy  
be physically active

Rx for high blood  
pressure, high  
cholesterol

Immunizations, brief  
intervention, cessation  
treatment, colonoscopy

Fluoridation, 0g trans  
fat, iodization, smoke-  
free laws, tobacco tax

Poverty, education,  
housing, inequality

# Public health keeps kids healthy and communities strong

## Public health and prevention programs in your community:



**We all benefit**

Low Dietary Guidelines  
Age Less Sugar for All  
Less Meat for Boys...



WELL  
Rethinking Weight Loss  
and the Reasons We're  
'Always Hungry'



WELL  
Mexican Soda Tax  
Followed by Drop in  
Sugary Drink Sales



PHYS ED  
How Training Without  
Helmets Could Reduce  
Head Injuries



WELL  
Ask Wel  
Diabetes

## HEALTH

## Death Rates Rising for Middle-Aged White Americans, Study Finds

By GINA KOLATA NOV. 2, 2015



Angus Deaton with his wife, Anne Case, right, last month after he won the 2015 Nobel Memorial Prize in Economic Science. Together, they wrote a study analyzing mortality rates.

Ben Solomon for The New York Times

Something startling is happening to middle-aged white Americans. Unlike every other age group, unlike every other racial and ethnic group, unlike their counterparts in other rich countries, death rates in this group have been rising, not falling.

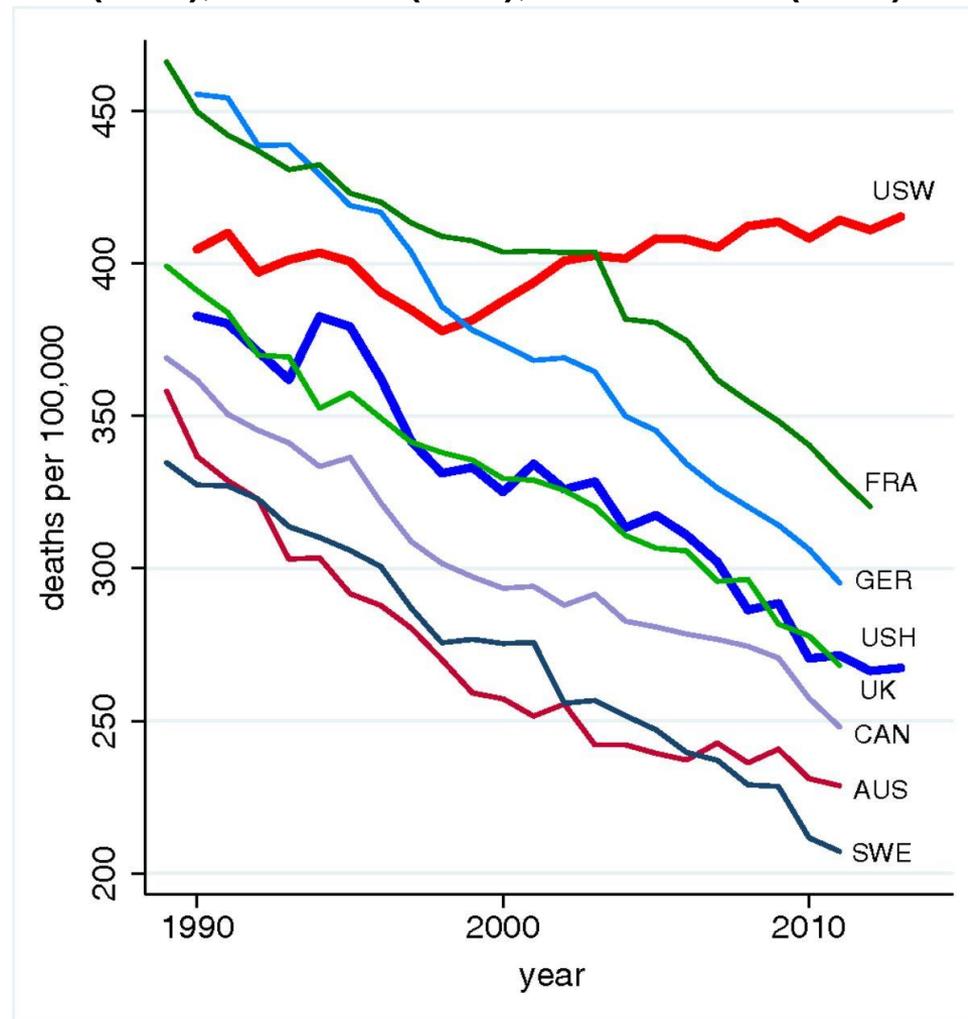
That finding was reported Monday by two Princeton economists, Angus Deaton, who last month [won the 2015 Nobel Memorial Prize in Economic Science](#), and Anne Case. Analyzing health and mortality data from the Centers for Disease Control and Prevention and from other sources, they concluded that rising annual death rates among this group are being driven not by the big killers like heart disease and [diabetes](#) but by an epidemic of suicides and afflictions stemming from [substance abuse](#):

*... an epidemic of **suicides** and afflictions stemming from substance abuse: **alcoholic liver disease** and **overdoses** of heroin and prescription opioids.*

Email

[alcoholic liver disease](#) and overdoses of heroin and prescription opioids.

**All-cause mortality, ages 45–54 for US White non-Hispanics (USW), US Hispanics (USH), and six comparison countries: France (FRA), Germany (GER), the United Kingdom (UK), Canada (CAN), Australia (AUS), and Sweden (SWE).**



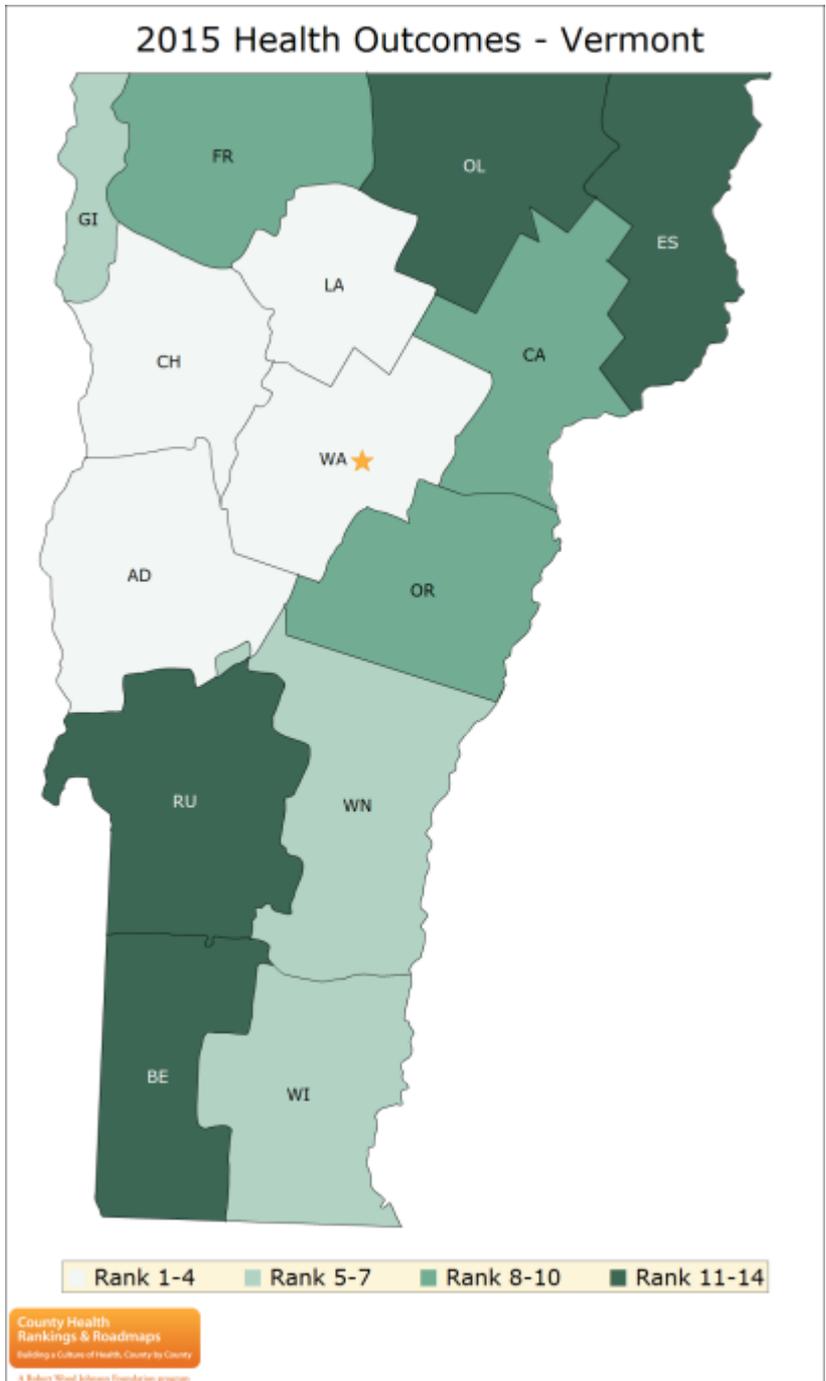
Anne Case, and Angus Deaton PNAS 2015;112:15078-15083

## Vermonters are not equally healthy

The overall rankings in health outcomes represent how healthy counties are within the state. The healthiest county in the state is ranked #1.

The ranks are based on 2 types of measures:

- how long people live
- how healthy people feel while alive



**3**

**BEHAVIORS**

- No Physical Activity
- Poor Diet
- Tobacco Use

*LEAD TO*

**4**

**DISEASES**

- Cancer
- Heart Disease & Stroke
- Type 2 Diabetes
- Lung Disease

*RESULT IN*

*MORE THAN*

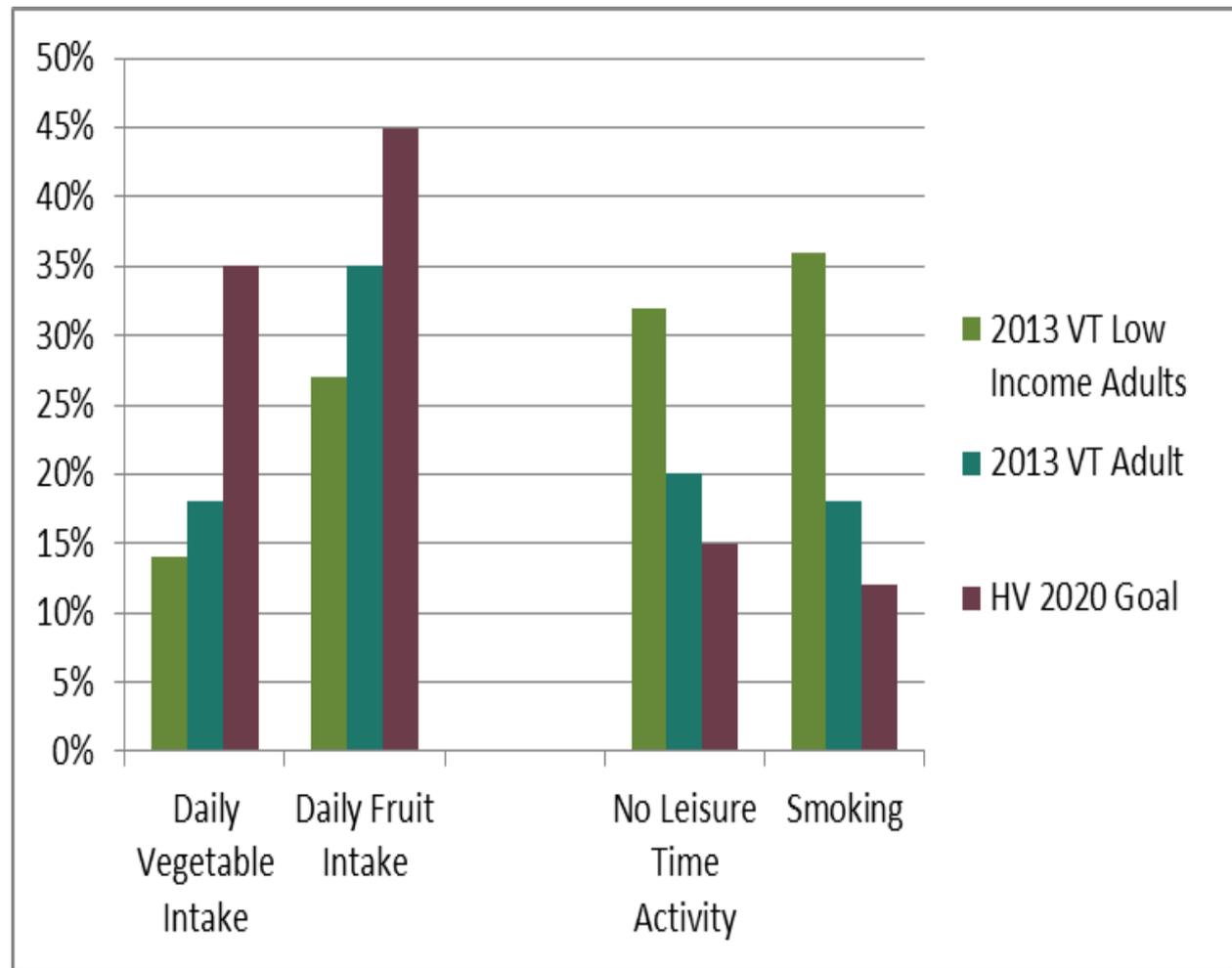
**50**

**PERCENT  
OF DEATHS  
IN VERMONT**

Current rates of unhealthy behaviors

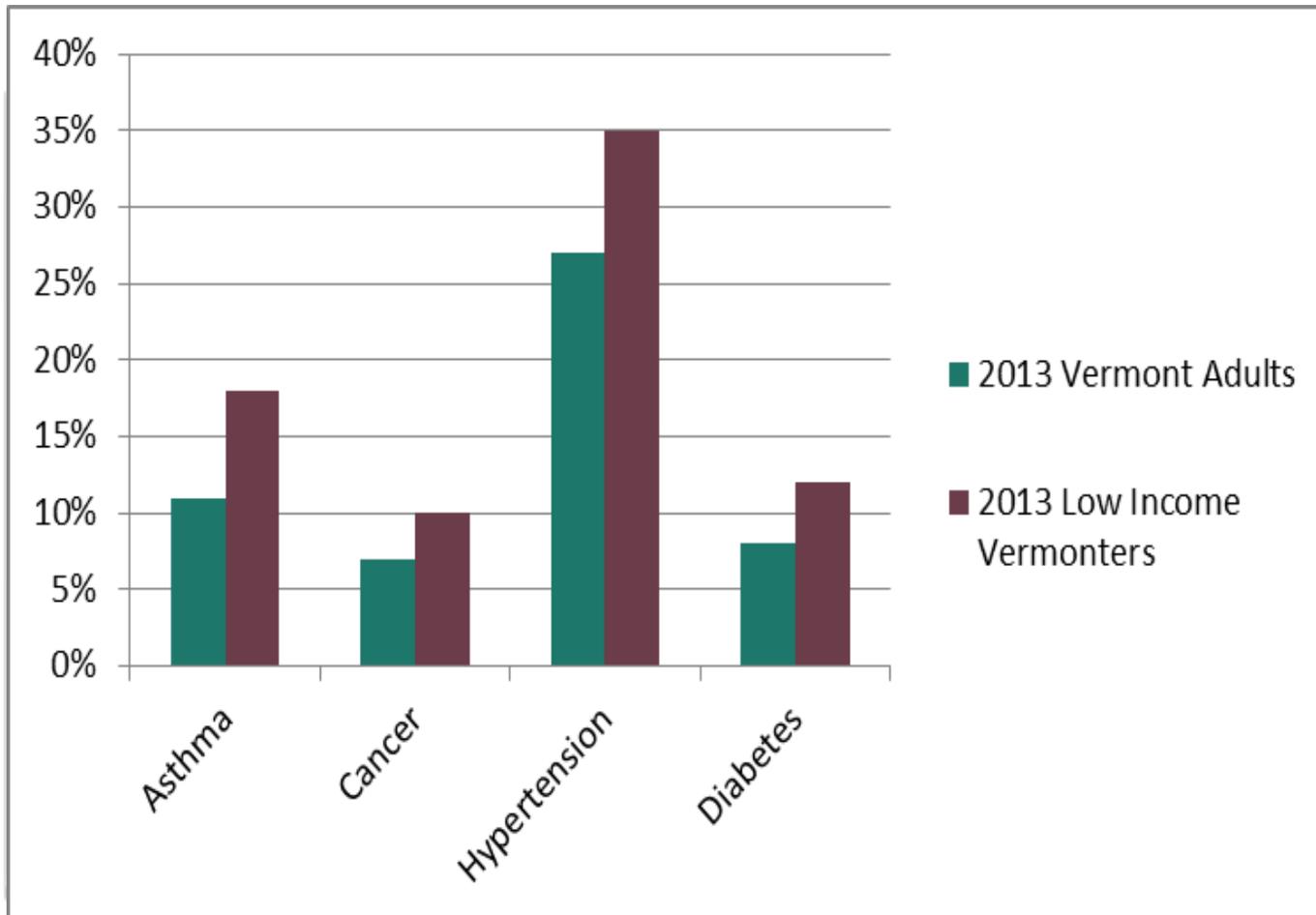
*versus*

Healthy Vermonters 2020 goals



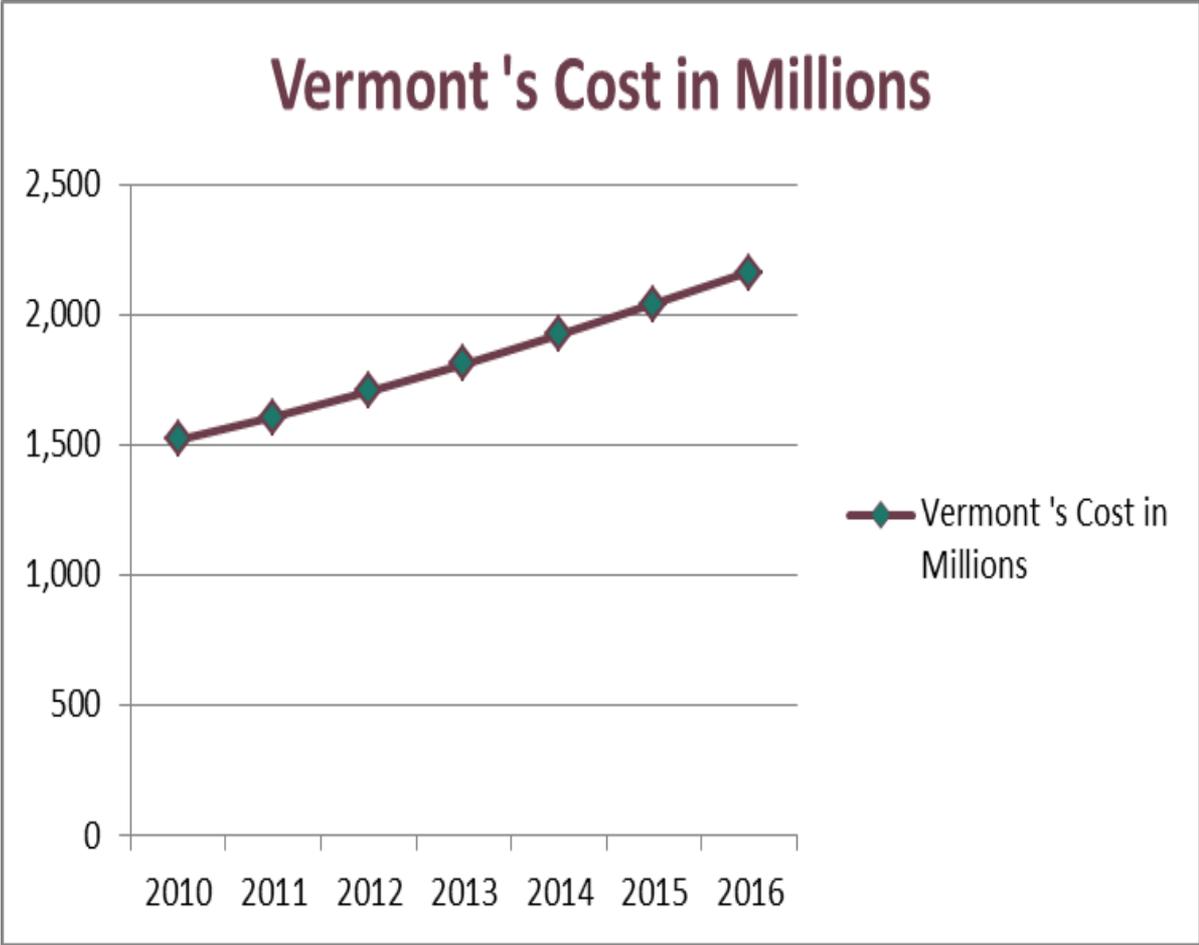
Vermont BRFSS, 2013

# Chronic Disease Rates Among Vermonters



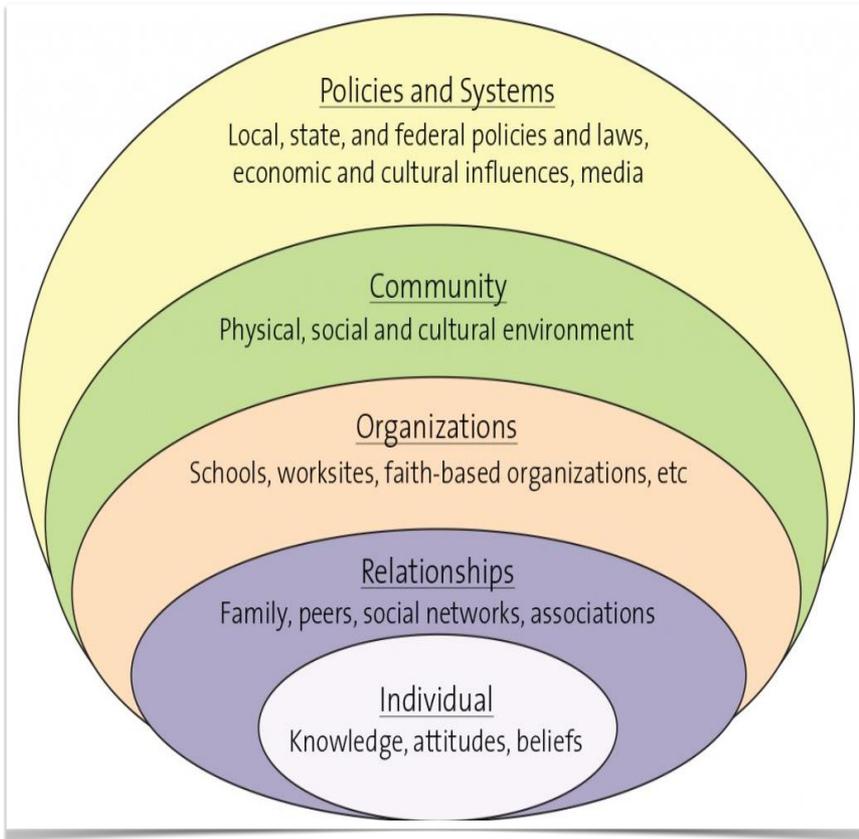
Vermont BRFSS, 2013

# Health Care Costs of Chronic Disease



Chronic Disease Cost Calculator, Version 2, Centers for Disease Control and Prevention

# Current Activities Work Across Prevention Model



- Work with state agencies on healthy food procurement and guidelines
- Work with cities and towns on healthy community design
- Work with community organizations to promote second-hand smoke protections
- Support businesses to make workplaces healthier
- Support health care providers to help their patients make healthy changes
- Support Vermonters to take control



**MAKE YOUR  
MOMENT NOW**

# Chronic Disease Prevention: 3-4-50

Available online at:

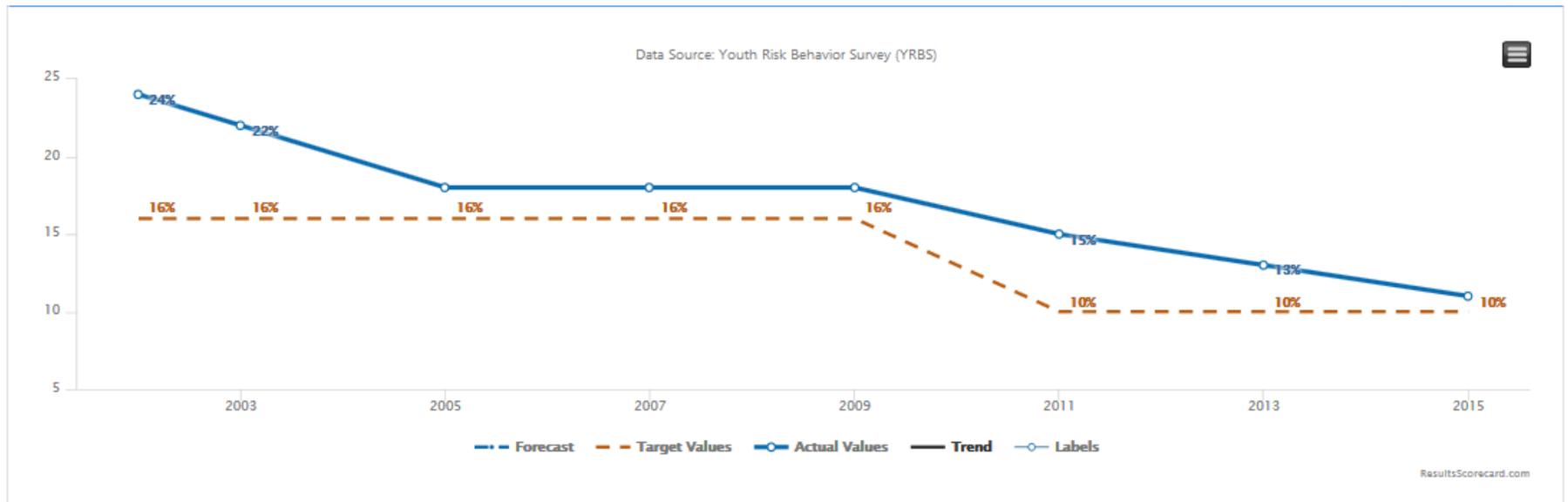
AHS Act 186 Scorecard - <https://app.resultsscorecard.com/Scorecard/Embed/8131>

Healthy Vermonters 2020 Scorecard - <http://healthvermont.gov/hv2020/dashboard/tobacco.aspx>

## Act 186 & HV2020 Population Indicator

### % of adolescents in grades 9-12 who smoke cigarettes

11% 2015



# Infectious Disease



- Immunization
- Lyme Disease
- Needle Exchange

# Immunization Program

- Received CDC Immunization Coverage Awards
  - Highest herpes zoster vaccine coverage
  - Influenza vaccination among children
- Insurers provided over \$7 million toward the purchase of vaccines for children and adults
- 2014–15 school year had highest percentage (88%) of fully-immunized children entering kindergarten since requirements were revised in 2008
- In 2015, the percent of teens 13–17 years who received 3 doses of HPV vaccine increased in all Vermont counties

# Infectious Disease - Immunization

Available online at:

**AHS Programmatic Performance Measures for Budgeting Scorecard** - <https://app.resultsscorecard.com/Scorecard/Embed/9736>

**AHS Act 186 Scorecard** - <https://app.resultsscorecard.com/Scorecard/Embed/8131>

**Healthy Vermonters 2020 Scorecard** - [http://healthvermont.gov/hv2020/dashboard/imm\\_infectious.aspx](http://healthvermont.gov/hv2020/dashboard/imm_infectious.aspx)

## IZ Program Performance Measure

## % of Kindergarteners provisionally admitted to school

6.2% 2014

VDH AOA Immunization Programs (PPMB)

What We Do Who We Serve How We Impact Budget Information

**What We Do**

The Vermont Department of Health Immunization Program provides over \$14 million in vaccine immunizations, implements the state immunization regulations, and conducts ongoing assessments of preventable diseases. Program activities are developed based on best practices to ensure access to the public with information needed to vaccinate with confidence.

**Who We Serve**

The Immunization Program serves health care providers, provider practices, and all Vermonters.

**How We Impact**

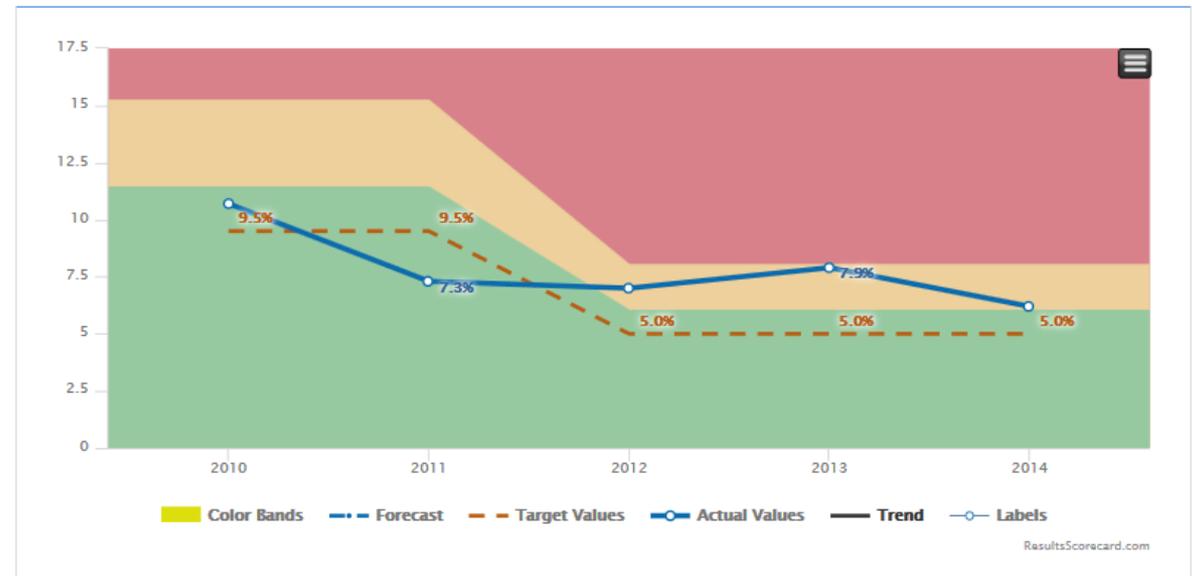
The Immunization Program ensures children have access to all recommended vaccines at the time of their birth.

**Budget Information**

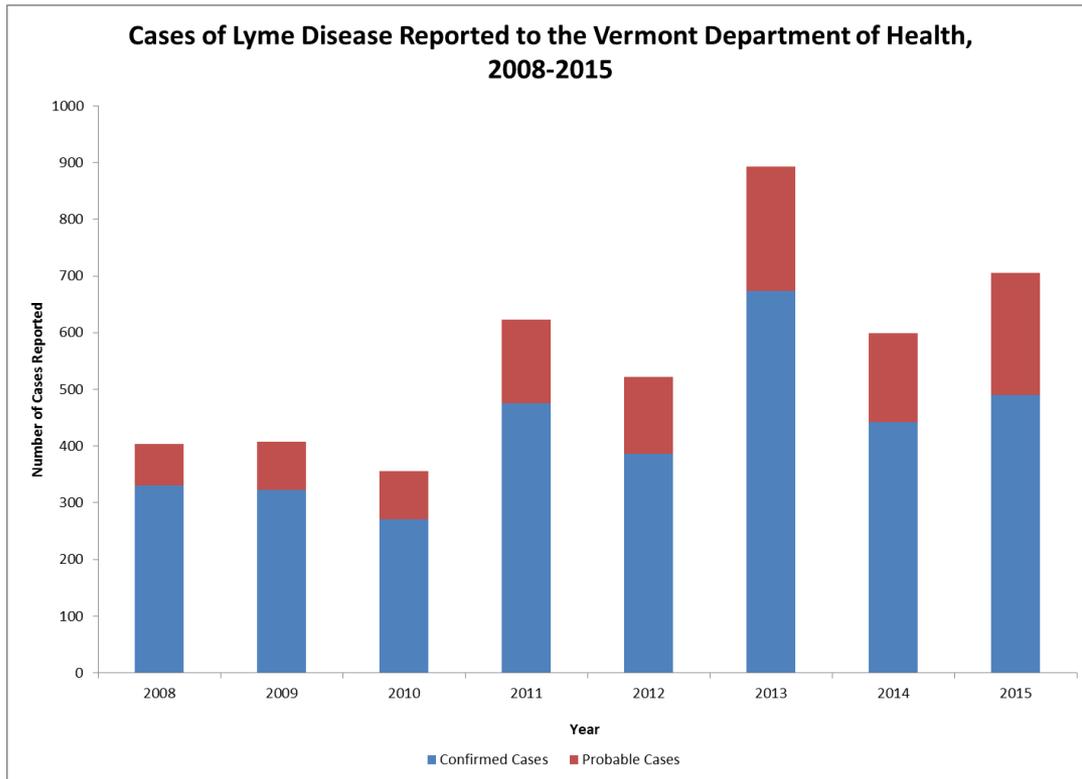
**Total Program Budget FY 2017: \$9,300,000**

PRIMARY APPROPRIATION #: 3420021000  
PROGRAM # (if applicable): N/A

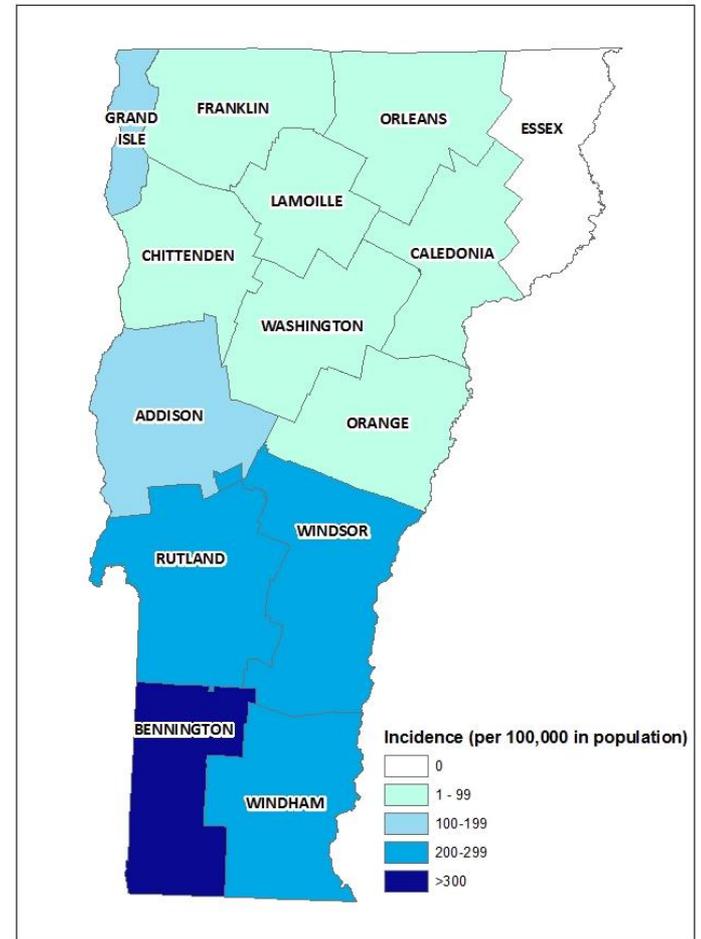
Total FY2017 Appropriation	\$88,289,646
Budget Amounts in Primary Appropriation if not related to this program	\$78,791,579
<b>TOTAL PROGRAM BUDGET 2017</b>	<b>\$9,498,067</b>



# Lyme Disease Surveillance in Vermont



**Incidence of Lyme Disease in Vermont Counties, 2015**

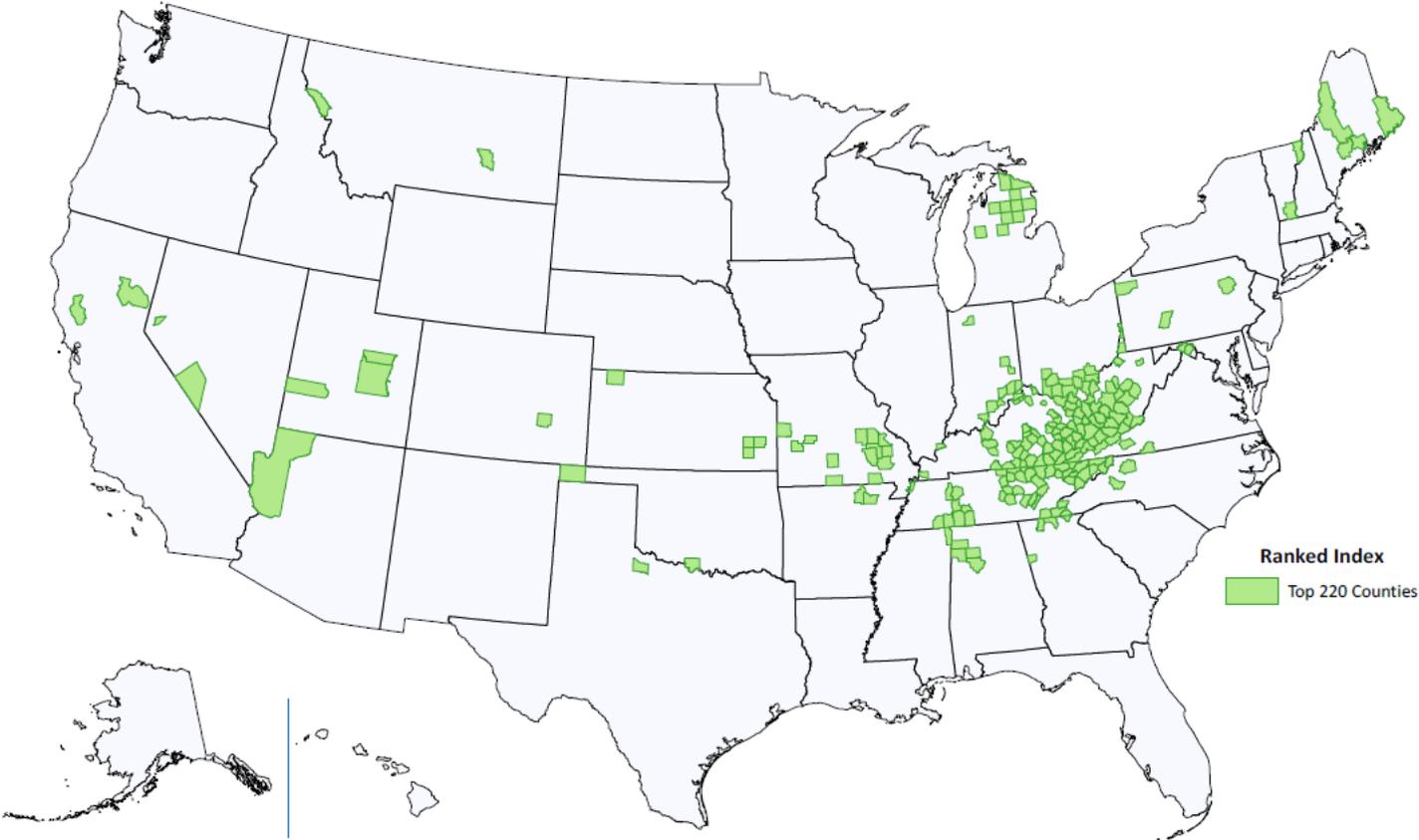


# Lyme Disease Outreach & Education

1. Continued surveillance of tick sightings using the Vermont Tick Tracker website
2. Sponsored the 3<sup>rd</sup> annual Lyme disease prevention video contest for high school students
3. Multiple interviews with television, radio and print news outlets
4. Partnered with Green Up Vermont to educate volunteers on tick prevention
5. Paid for underwriting messages about ticks and Lyme disease on Vermont Public Radio
  - Resulted in 5 times the normal traffic to the Department's tick information website
6. Gave 8 presentations about Lyme Disease to the public
7. Continued to provide the public with “Be Tick Smart” booklets and Tick Identification cards
  - Over 50,000 booklets and cards distributed so far
8. Hosted a Continuing Medical Education session on tickborne disease for health care providers
9. Initiated the CDC Lyme Corps program in Vermont
  - Medical, nursing and public health students in Vermont were trained to become educators on Lyme disease
  - VDH then supported Lyme Corps members as they educated members of the health care and general community
    - Lyme Corps members gave 17 presentations, wrote 15 newsletters/blogs/articles and engaged in 20 different discussions in health-related online forums about Lyme disease

**Vulnerability to Rapid Dissemination of HIV/HCV Infections Among Persons Who Inject Drugs: Ranked index using regression model coefficients**

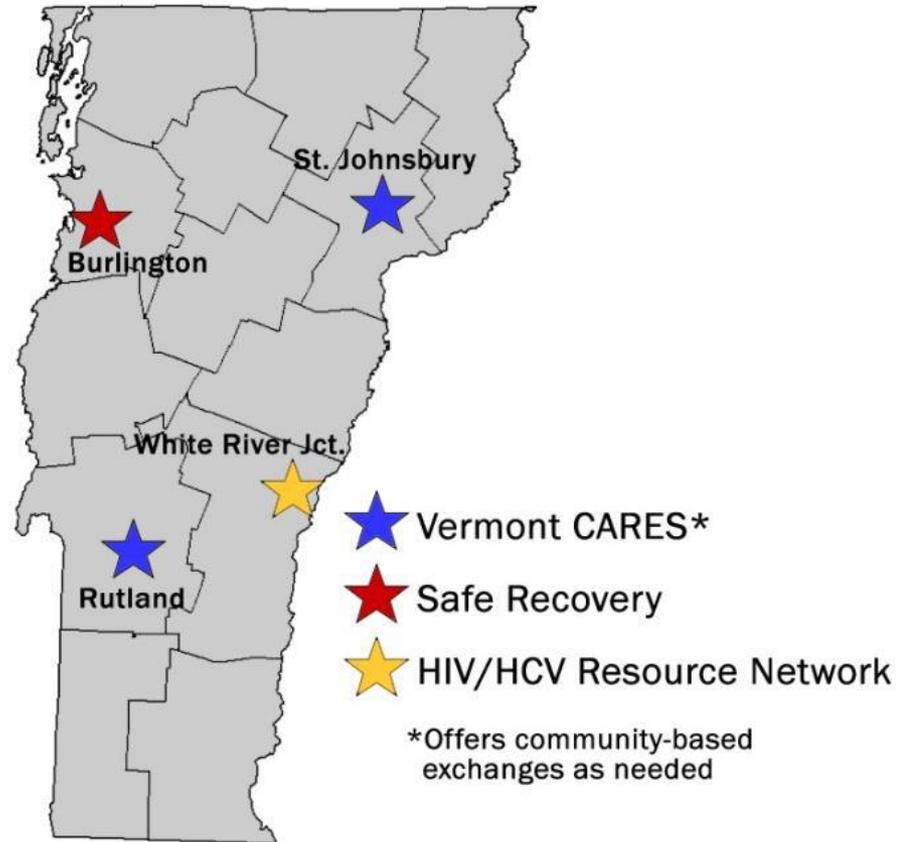
**26** States with 1 or more vulnerable counties



Creation Date: August 27, 2015

# Syringe Exchange Programs

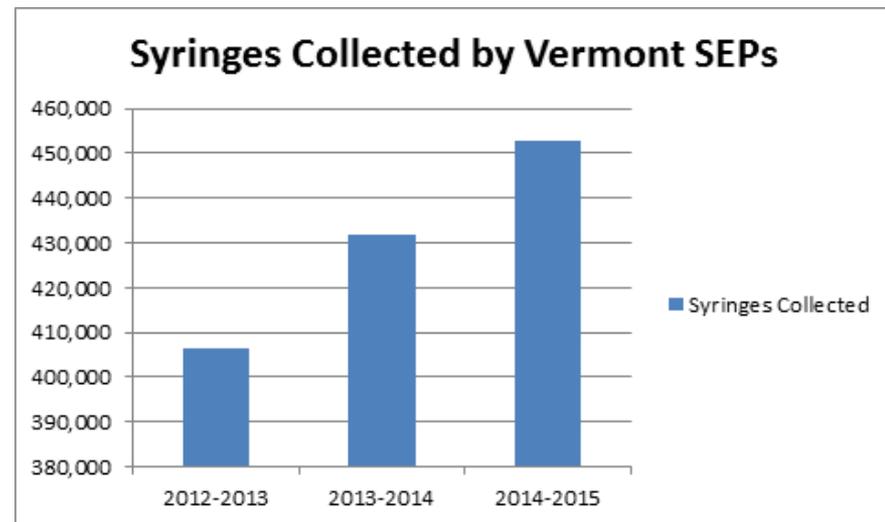
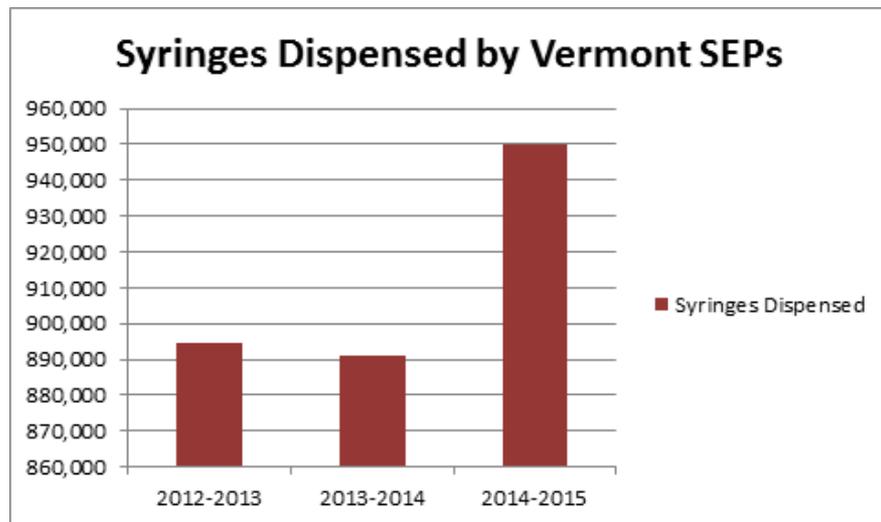
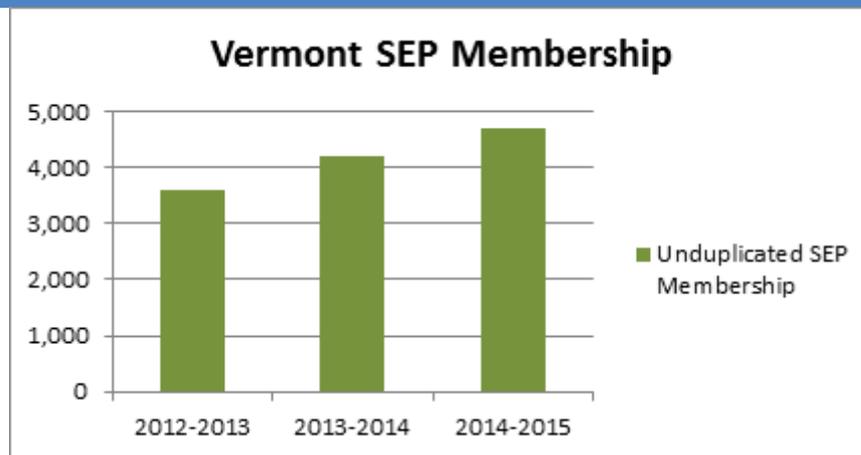
## Vermont Syringe Exchange Programs



# Vermont Syringe Exchange Programs

- Provision of sterile syringes and other injection supplies
- Safe disposal of used syringes (removal of used syringes from the community)
- Safer sex supplies and education
- Overdose prevention education and resources
- Referrals for substance abuse treatment
- Provision of harm reduction options while injection drug users prepare for or wait for treatment
- HIV and hepatitis C testing and referrals for follow up medical care if needed
- Referrals for recommended vaccines

# Syringe Exchange Programs



# Environmental Health

- Climate Change
- Cyanobacteria (blue green algae)

# Climate Change and Public Health

## Extreme Heat Events

- Our analysis suggests that, when temperatures reach 87°F:
  - ▣ Emergency department visits for heat illness are 8x more frequent than on cooler days.
  - ▣ On average, one excess death among individuals 65 and older (~8% mortality increase)
- Vulnerable groups for heat-related illness
  - ▣ Senior citizens, especially those 75+
  - ▣ Teenagers and younger adults (age 15-34)
  - ▣ Those with pre-existing conditions (e.g. cardiovascular issues)
  - ▣ Outdoor workers
  - ▣ Outdoor athletes

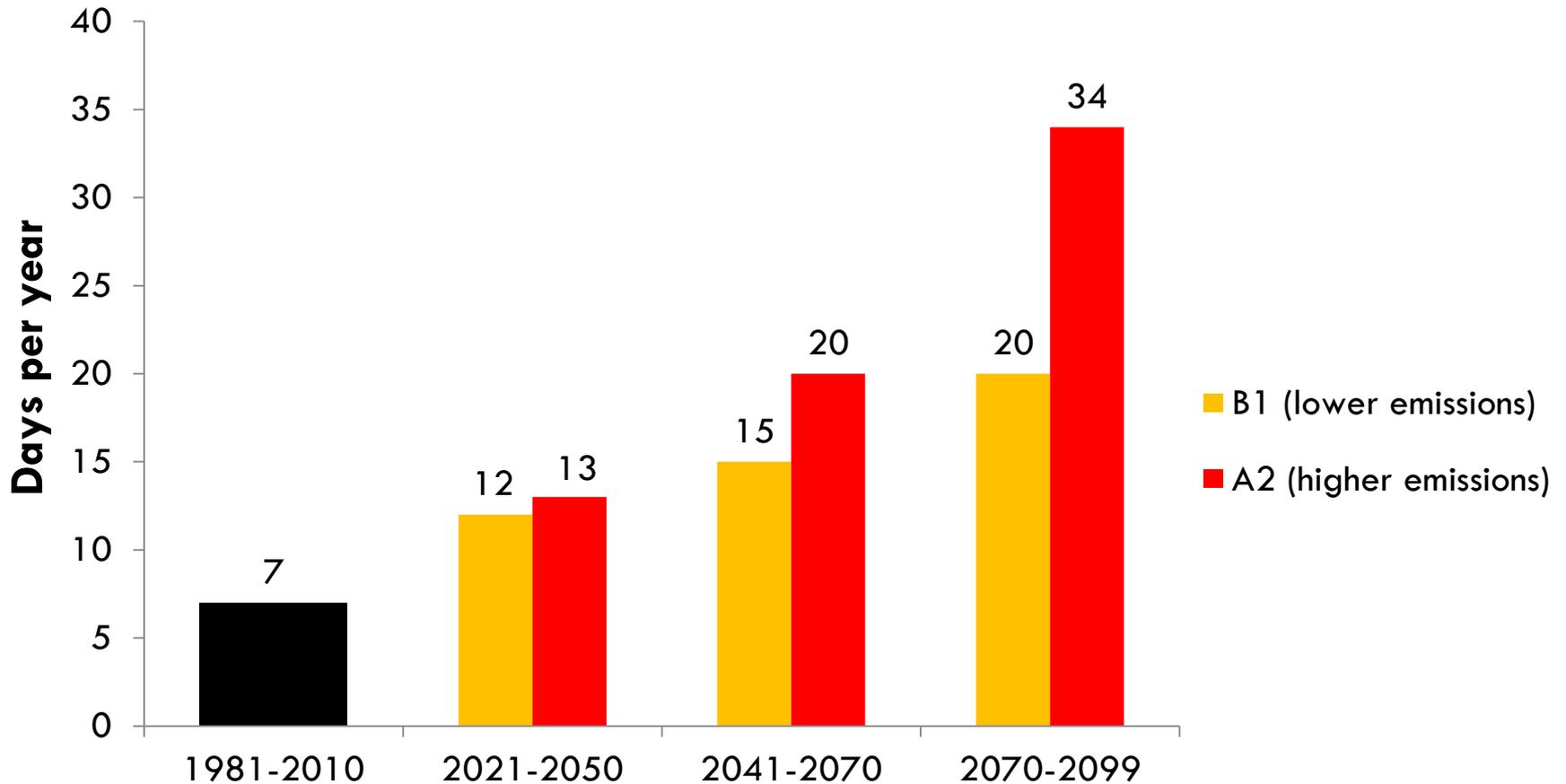


**WATER.  
REST.  
SHADE.**

*The work can't get done  
without them.*

# More hot days are expected...

## Current and projected days/year reaching at least 87°F



# 2015 Cyanobacteria Monitoring on Lake Champlain and Inland Lakes

## Visual Assessments by Health, DEC, volunteer monitors

1,795 visual reports collected (160 locations)

- 89% No visible cyanobacteria
- 11% Cyanobacteria present (Beaches advised to close)

## Toxin testing in public drinking water

All 22 water systems tested weekly

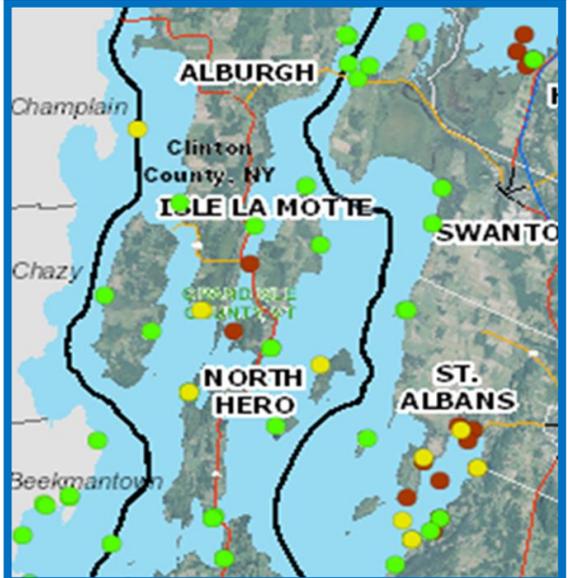
- No cyanobacteria toxins in public drinking water



## Toxin testing in open water or recreational sites

Over 200 samples analyzed

- No cyanobacteria toxins above recreational values



## Media

CDC success story of the year  
Blue Legacy video with Alexandra Cousteau

# Environmental Health – Blue green algae

Available online at:

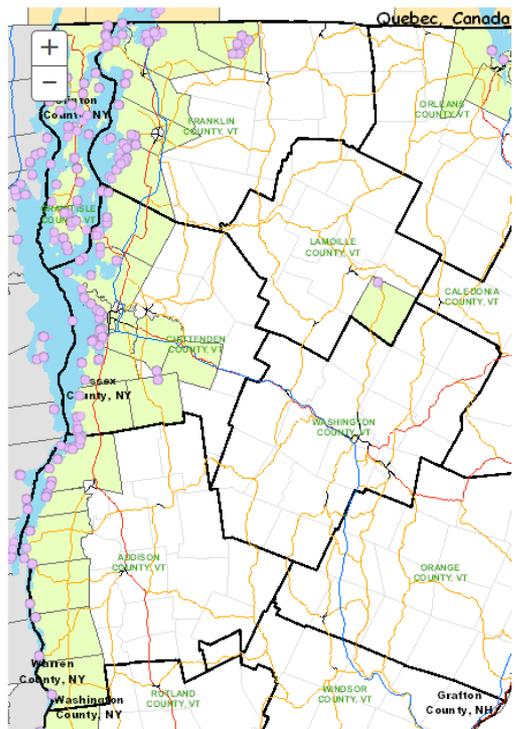
Healthy Vermonters 2020 Scorecard - <http://healthvermont.gov/hv2020/dashboard/environmental.aspx>

Cyanobacteria Tracker - <https://apps.health.vermont.gov/gis/vtracking/BlueGreenAlgae/2015Summary/>

### Vermont Blue Green Algae (Cyanobacteria) Tracker

(June-October 2015)

Select Lake/Region  Select Monitoring Town



Alert
40 LTM 40 10/14/2015 Tiered Alert <a href="#">Generally Safe</a>
166 Lake Carmi, Dewing Road 10/14/2015 Visual <a href="#">Generally Safe</a>
212 Holbrook Bay 10/14/2015 Visual <a href="#">Generally Safe</a>
166 Lake Carmi, Dewing Road 10/9/2015 Visual <a href="#">High Alert</a>
167 Lake Carmi, North 10/9/2015 Visual <a href="#">High Alert</a>

**Blue Green Algae (Cyanobacteria) 2015 Season Summary**  
The season summary status of Blue-green Algae shown on the map reflects conditions from early June thru mid October. Observations and samples were collected once each week. Each dot on the map represents a testing site. Test site labels identify how many tests were not "Generally Safe" (either "Low Alert" or "High Alert"). Click on a test site on the map to display that site's results.  
[Download 2015 summary data.](#)

**About Blue Green Algae and Blooms**  
Wind and waves can move algae around. Blooms can appear or disappear very rapidly so conditions around the lake are likely to change over the course of the week.  
- To check on the current status of your favorite beach or swimming area, contact whoever is responsible for maintaining the beach. This may be the town, Vermont State Parks, or a private association.  
- It is not possible to tell whether algae blooms are toxic by looking at them. Everyone should become familiar with the appearance of blue-green algae blooms and avoid them.  
- See examples of what Blue-green Algae does and does not look like [here](#).

**Be cautious and avoid blooms**  
- Children are at higher risk because they are more likely to play near the shoreline and drink water while swimming.  
- Pets will also drink the water and lick off algae that may be caught in their fur.  
- Avoid boating, jet-skiing and swimming through blooms

**If you become ill**  
If you or someone you know may have become ill because of exposure to Blue-green Algae, seek medical attention and then contact the Health Department at 1-800-439-8550.

[Department of Health Blue-green Algae \(Cyanobacteria\) website](#)  
[Environmental Public Health Tracking Portal](#)



## Program Performance Measures



## New Laboratory for Department of Health

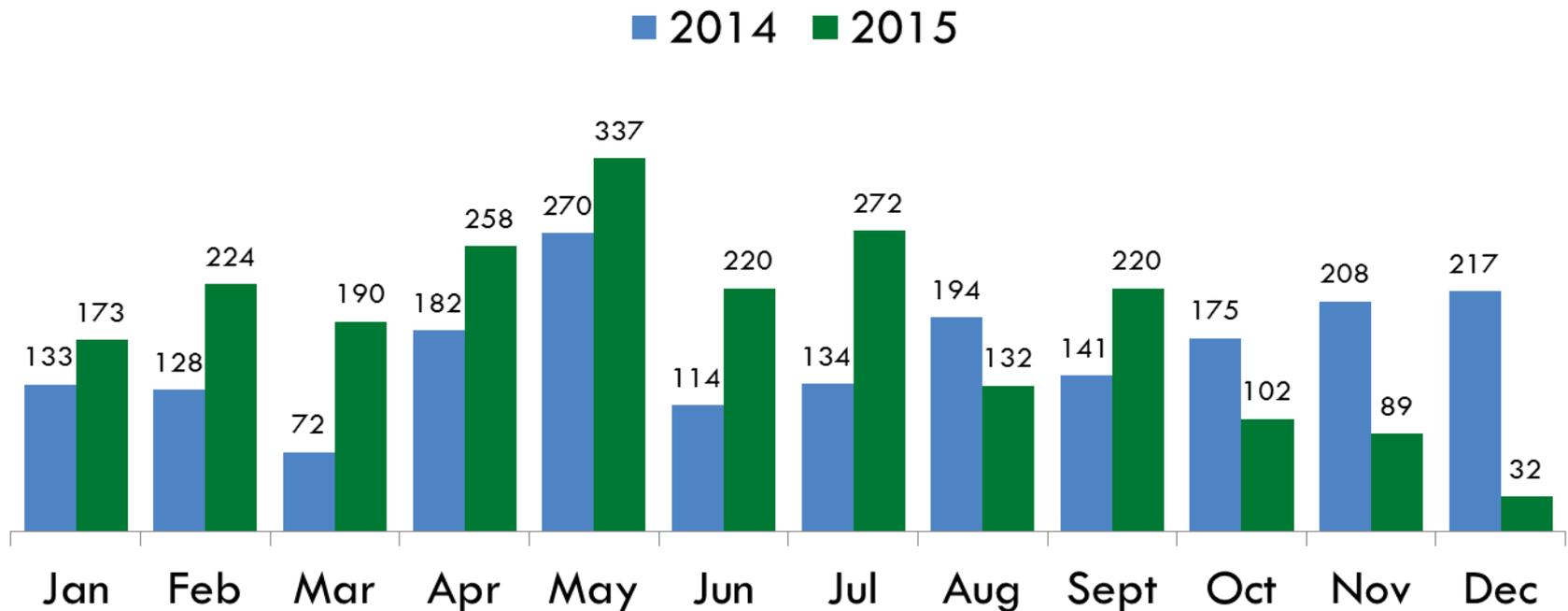


# Naloxone Pilot Data

- The Vermont Naloxone Pilot Program now has 10 sites throughout Vermont
- From December 2013 – January 5, 2016
  - 4,775 doses of naloxone distributed through pilot sites to new clients
  - 3,258 doses of naloxone distributed in the form of a refill to returning clients
  - Over 465 reported cases of naloxone being used in a perceived overdose incident

# Pilot sites have distributed 4,775 doses of naloxone to new clients since December 2013

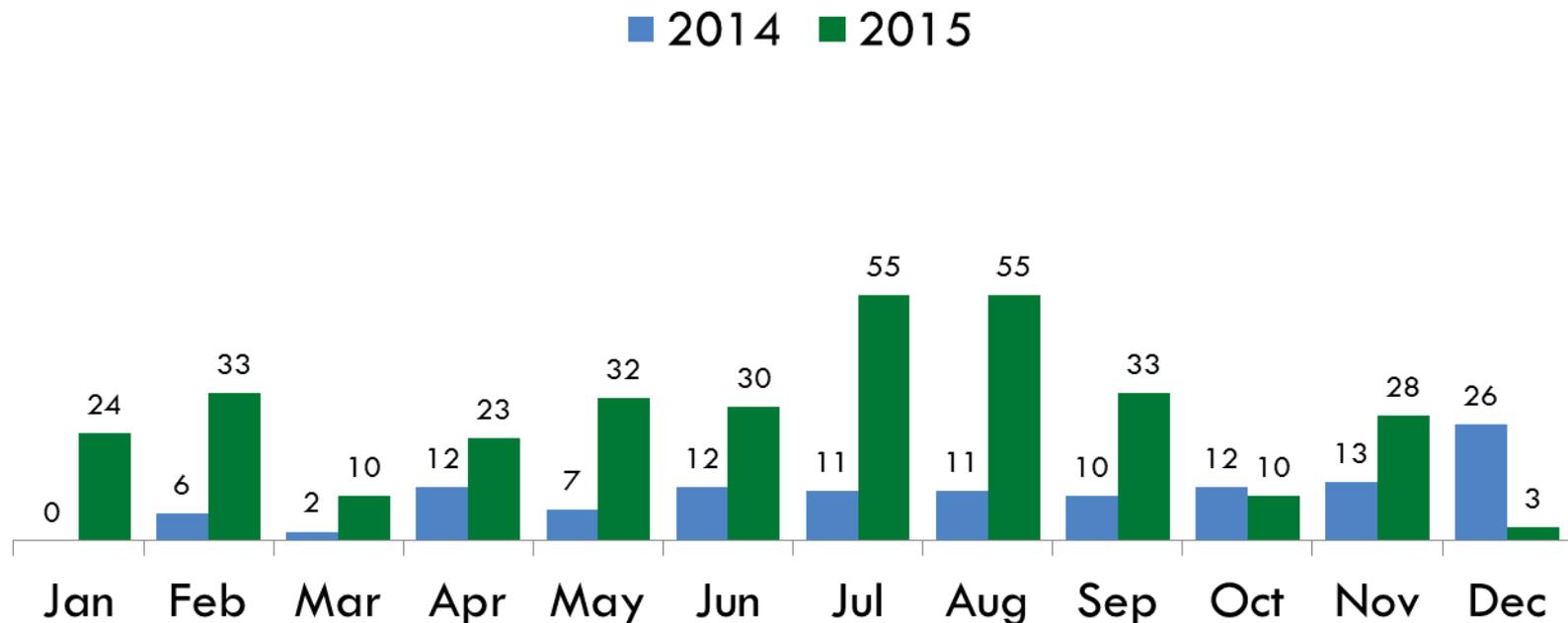
## Number of doses dispensed to new clients by month



NOTE: Data for September through December 2015 is incomplete due to one site not being able to enter the data due to staffing problems.

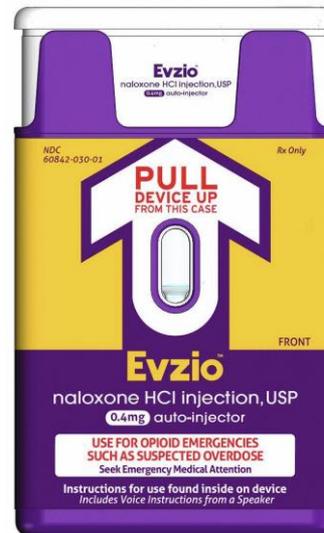
# In 2015, over 330 clients have reported using naloxone in a perceived overdose incident

## Number of reports of naloxone use in response to a perceived overdose incident



NOTE: Data for September through December 2015 is incomplete due to one site not being able to enter the data due to staffing problems.

# Administration of Naloxone



# Budget

## FY17 Department Request - Health Department

	GF	SF	Tob	IdptT	Ptrust	FF	Medicaid GCF	Invmnt GCF	TOTAL
<b>VDH Admin &amp; Support - As Passed FY16</b>	<b>2,579,027</b>	<b>1,022,719</b>				<b>5,668,282</b>	<b>932,789</b>	<b>2,743,459</b>	<b>12,946,276</b>
<b>Other Changes:</b>									
2015 Act 58 Section B. 1104	(71,167)	56,000						(56,115)	(71,282)
<b>Operating Expenses:</b>									
2015 Act 58 Sections B. 1103 and B. 1104	(52,949)	(13,201)					(11,235)		(77,385)
<b>Grants:</b>									
2015 Act 54 Area Health Education Centers (AHEC) funding								667,111	667,111
<b>FY16 after other changes</b>	<b>(124,116)</b>	<b>42,799</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(11,235)</b>	<b>610,996</b>	<b>518,444</b>
<b>Total after FY16 other changes</b>	<b>2,454,911</b>	<b>1,065,518</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,668,282</b>	<b>921,554</b>	<b>3,354,455</b>	<b>13,464,720</b>
<b>FY16 after other changes</b>									
<b>Personal Services:</b>									
Salary & Fringe Increase	(252,283)	161,942						552,283	461,942
Workers' Compensation Insurance	(17,429)					(63,011)	(53,627)		(134,067)
Retirement Incentive (BAA Item)	(23,253)							(20,347)	(43,600)
Other Contracted and Third Party Services		59,272							59,272
<b>Operating Expenses:</b>									
Internal Service Fund (ISF) DII	(1,512)					(5,465)		(4,651)	(11,628)
ISF DHR	(2,752)					(9,949)		(8,467)	(21,168)
ISF General Liability Insurance	(866)					(3,132)		(2,665)	(6,663)
ISF Auto Insurance	(362)					(1,309)		(1,114)	(2,785)
Property Insurance	43					153		130	326
ISF Commercial Policies	2					6		4	12
ISF VISION	(2,568)					(9,283)		(7,900)	(19,751)
ISF DII Demand	(2,882)					(8,647)		(7,686)	(19,215)
Property Management Surcharge	5,651					16,953	15,070		37,674
<b>Grants:</b>									
<b>FY17 Changes</b>	<b>(298,211)</b>	<b>221,214</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>(83,684)</b>	<b>(38,557)</b>	<b>499,587</b>	<b>300,349</b>
<b>FY17 Gov Recommended</b>	<b>2,156,700</b>	<b>1,286,732</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5,584,598</b>	<b>882,997</b>	<b>3,854,042</b>	<b>13,765,069</b>

# Budget

## FY17 Department Request - Health Department

	GF	SF	Tob	ldptT	Ptrust	FF	Medicaid GCF	Invmnt GCF	TOTAL
<b>VDH Public Health - As Passed FY16</b>	8,544,109	16,854,895	2,461,377	1,121,861	25,000	38,184,687	11,721,694	6,679,580	85,593,203
<b>Personal Services:</b>									
2015 Act 58 Section B. 1104	(238,742)						(179,671)	(270,434)	(688,847)
									0
<b>Operating Expenses:</b>									0
									0
<b>Grants:</b>									0
Tobacco Litigation Settlement Funding per 2015 Act 58			(51,863)						(51,863)
<b>FY16 after other changes</b>	(238,742)	0	(51,863)	0	0	0	(179,671)	(270,434)	(740,710)
<b>Total after FY16 other changes</b>	8,305,367	16,854,895	2,409,514	1,121,861	25,000	38,184,687	11,542,023	6,409,146	84,852,493
<b>FY16 after other changes</b>									
<b>Personal Services:</b>									
Salary & Fringe Increase	(840,943)							1,840,943	1,000,000
Retirement Incentive (BAA Item)	(26,562)							(55,994)	(82,556)
GF transfer to AHS CO for GC conversion (AHS net-neutral)	(2,055,600)							4,500,000	2,444,400
<b>Operating Expenses:</b>									
Opioid Antagonist		200,000							200,000
ISF Fee for Space	(35,710)					(129,105)		(109,876)	(274,691)
<b>Grants:</b>									
Syringe Exchange program - supplemental funding	150,000								150,000
<b>FY17 Changes</b>	(2,808,815)	200,000	0	0	0	(129,105)	0	6,175,073	3,437,153
<b>FY17 Gov Recommended</b>	5,496,552	17,054,895	2,409,514	1,121,861	25,000	38,055,582	11,542,023	12,584,219	88,289,646