

Outline



- Introduction
- Spectrum of Prevention
- VDH Prevention Activities
 - Infectious Disease: HIV and HCV Programs
 - Healthy Families
 - Chronic Disease: 3-4-50
 - Alcohol and other Drugs

What is Public Health?

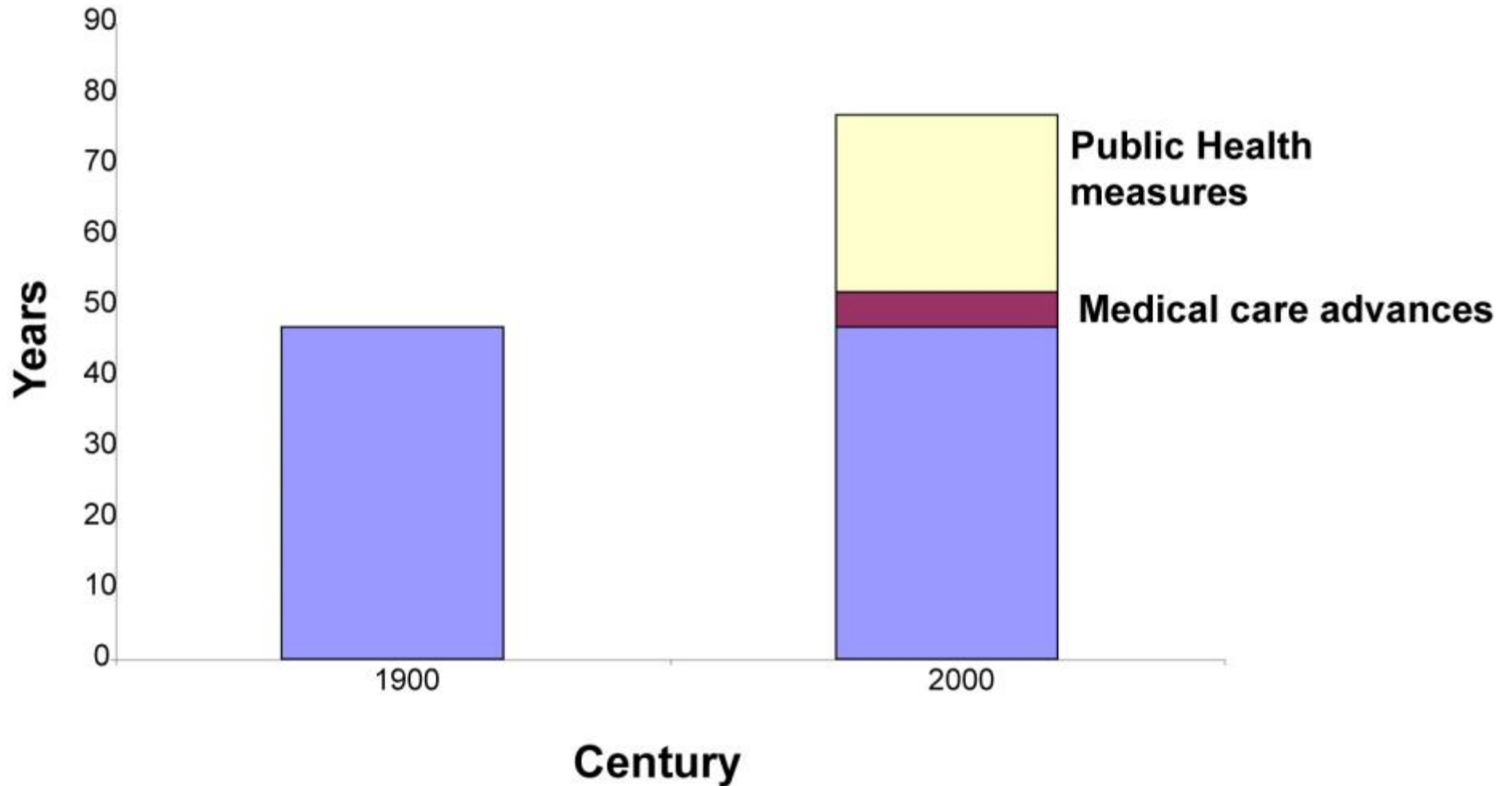
What we, as a society do to collectively assure the conditions in which people can be healthy

– Institute of Medicine, 1988

Public Health = Healthy Populations

Improvements in Longevity

100 years of Progress



Ten Greatest Public Health Achievements



- ❑ Vaccination
- ❑ Motor-vehicle safety
- ❑ Safer workplaces
- ❑ Control of infectious diseases
- ❑ Decline in deaths from coronary heart disease and stroke
- ❑ Safer and healthier foods
- ❑ Healthier mothers and babies
- ❑ Family planning
- ❑ Fluoridation of drinking water
- ❑ Recognition of tobacco use as a health hazard

Public health keeps kids healthy and communities strong

Public health and prevention programs in your community:



We all benefit

http://action.apha.org/site/PageNavigator/Infographic_Page_2012_10_04_Round_2.html

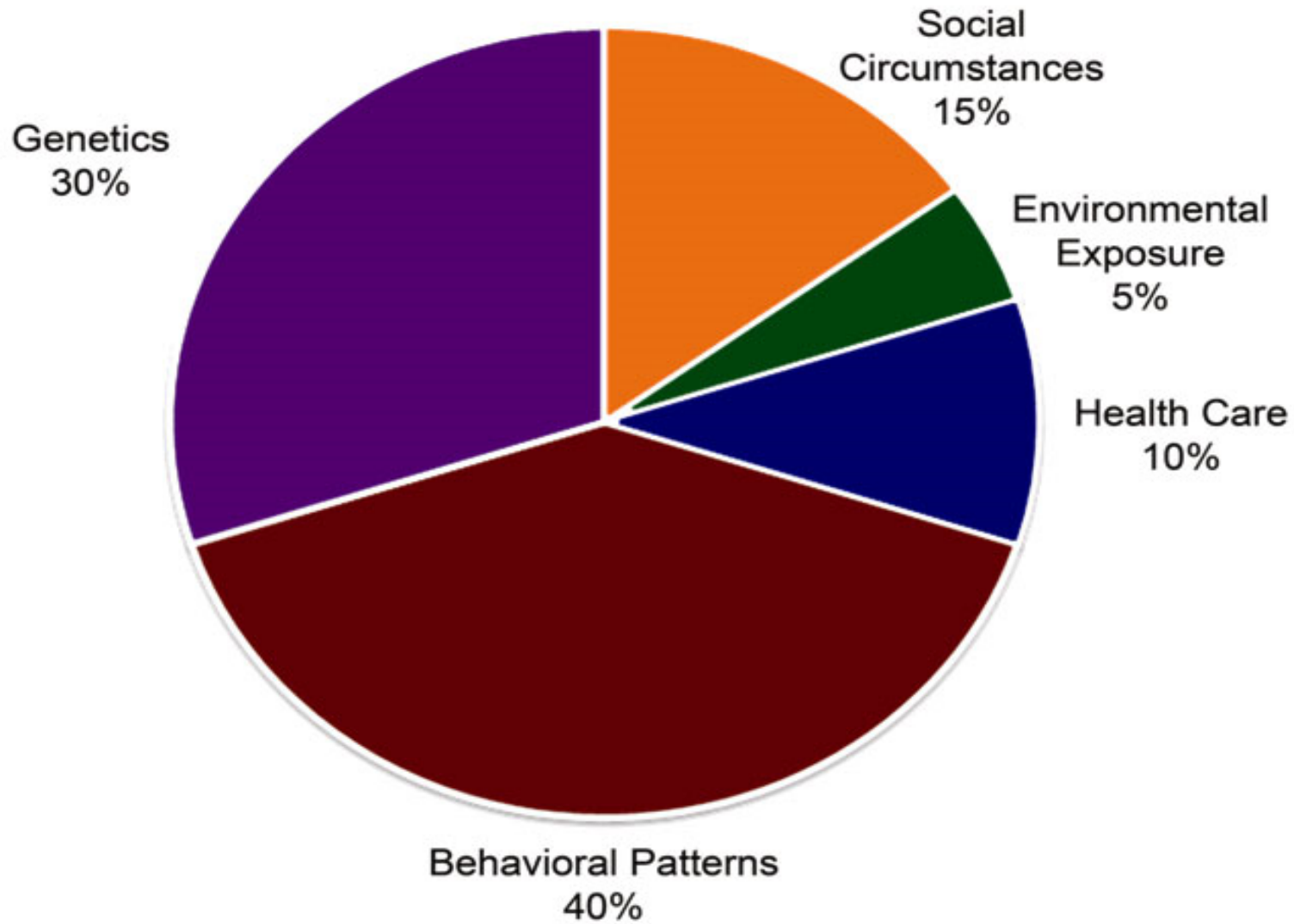
Public Health Practice



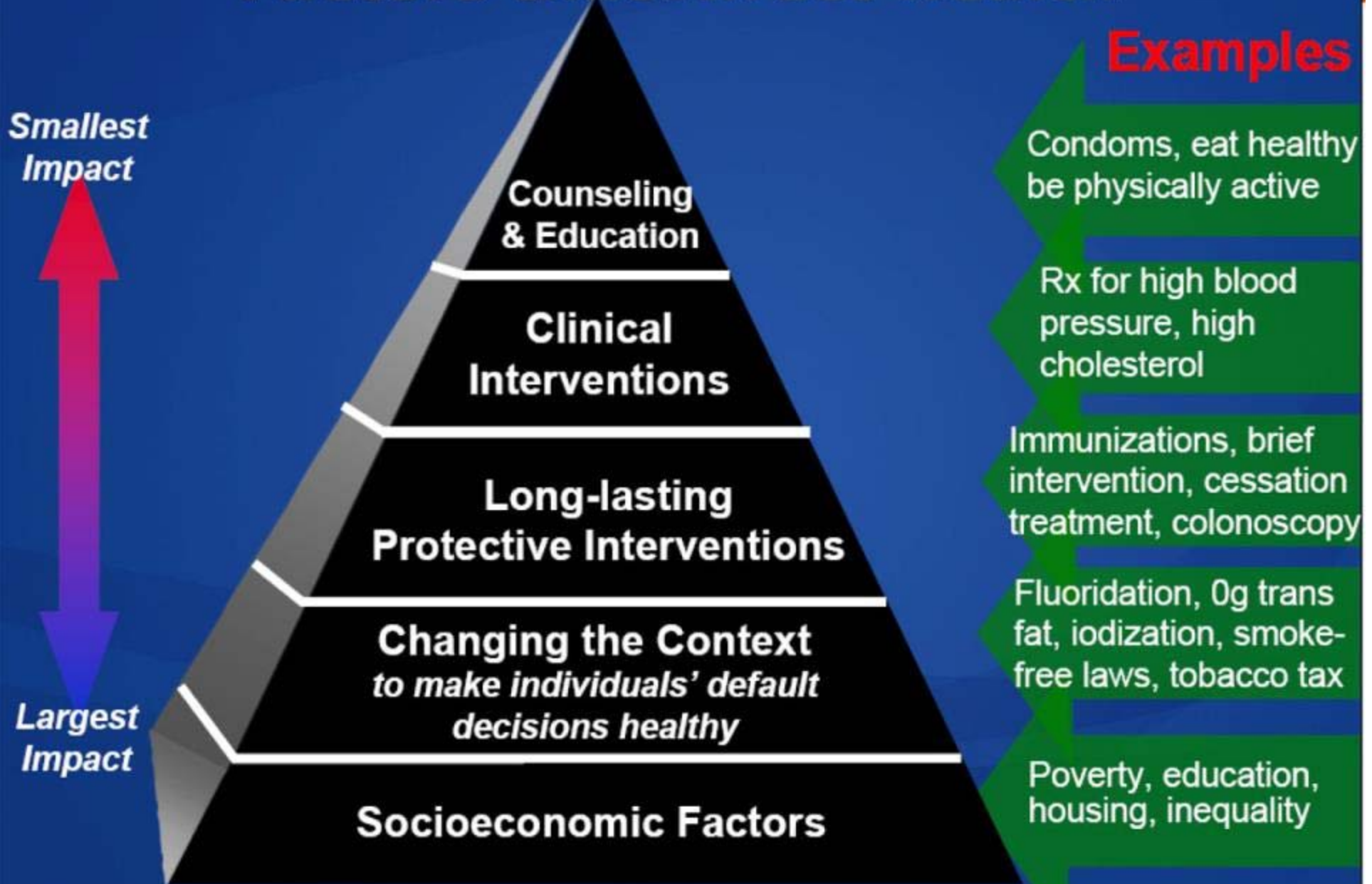
- **Data Driven** – What we know about the distribution of disease and disability
- **Evidence Based** – What we know works to improve health and well-being
- **Strategic Prevention** – Where we focus our action to address preventable disease and disability

Determinants of Health

Factors influencing Health Status



Factors that Affect Health





Spectrum of Prevention

Public Health Continuum



Harm Reduction Principles



Risk Happens - Accepts that risk taking is part of our world. Work to minimize risk's harmful effects.

Continuum of Risk - Understands risk taking is complex and multi-faceted. There are a spectrum from risk adverse to extreme risk-taking.

Takes Risk Seriously - Does not attempt to ignore the harm and danger associated with some risk taking.

Improved Well-being is the Goal – not necessarily stopping all risk taking

Applying Harm Reduction



Reducing harm from driving a car

- ❑ Don't drive under the influence
- ❑ Don't talk on cell or text while driving
- ❑ Use your seatbelt

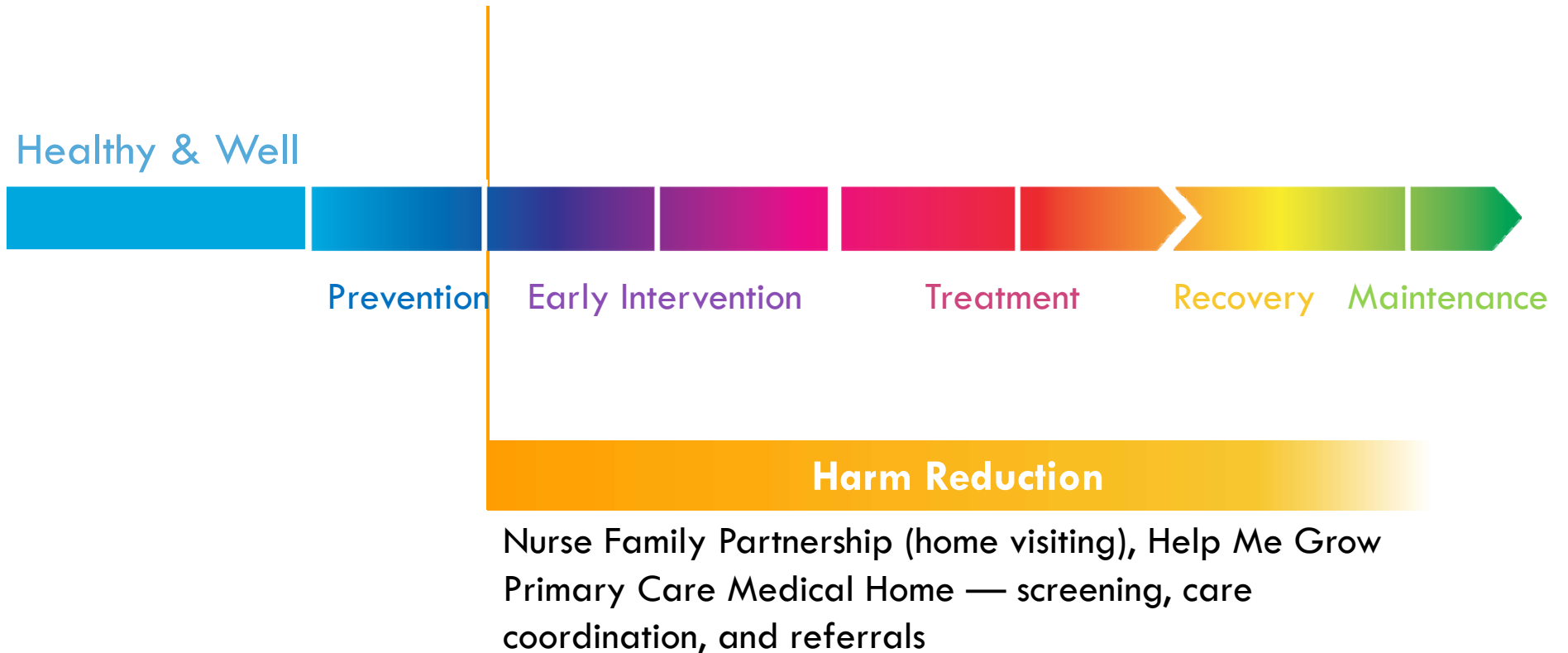
Reducing harm from smoking

- ❑ Utilize nicotine replacement therapies
- ❑ Smoke fewer cigarettes each day
- ❑ Stop tobacco use



Strategic Prevention

Public Health Continuum: Healthy Families



Home Visiting: Prevention + Harm Reduction

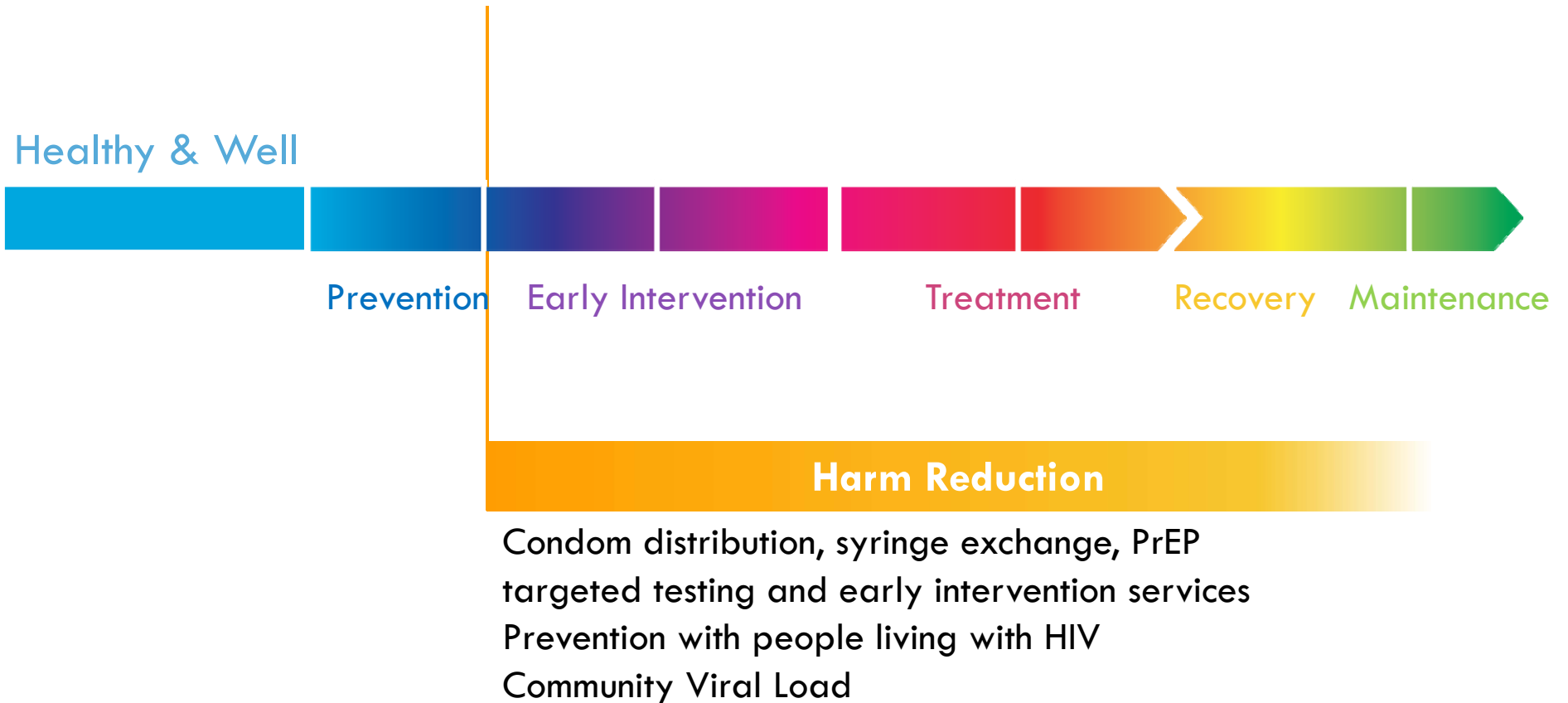


- Improve parenting skills and use of positive approaches
- Reduce child neglect and abuse
- Increase family economic stability

Plus

- Improve child health and development
- Improve maternal health
- Strengthen linkages and referrals to mental health and other services

Public Health Continuum: Infectious Disease

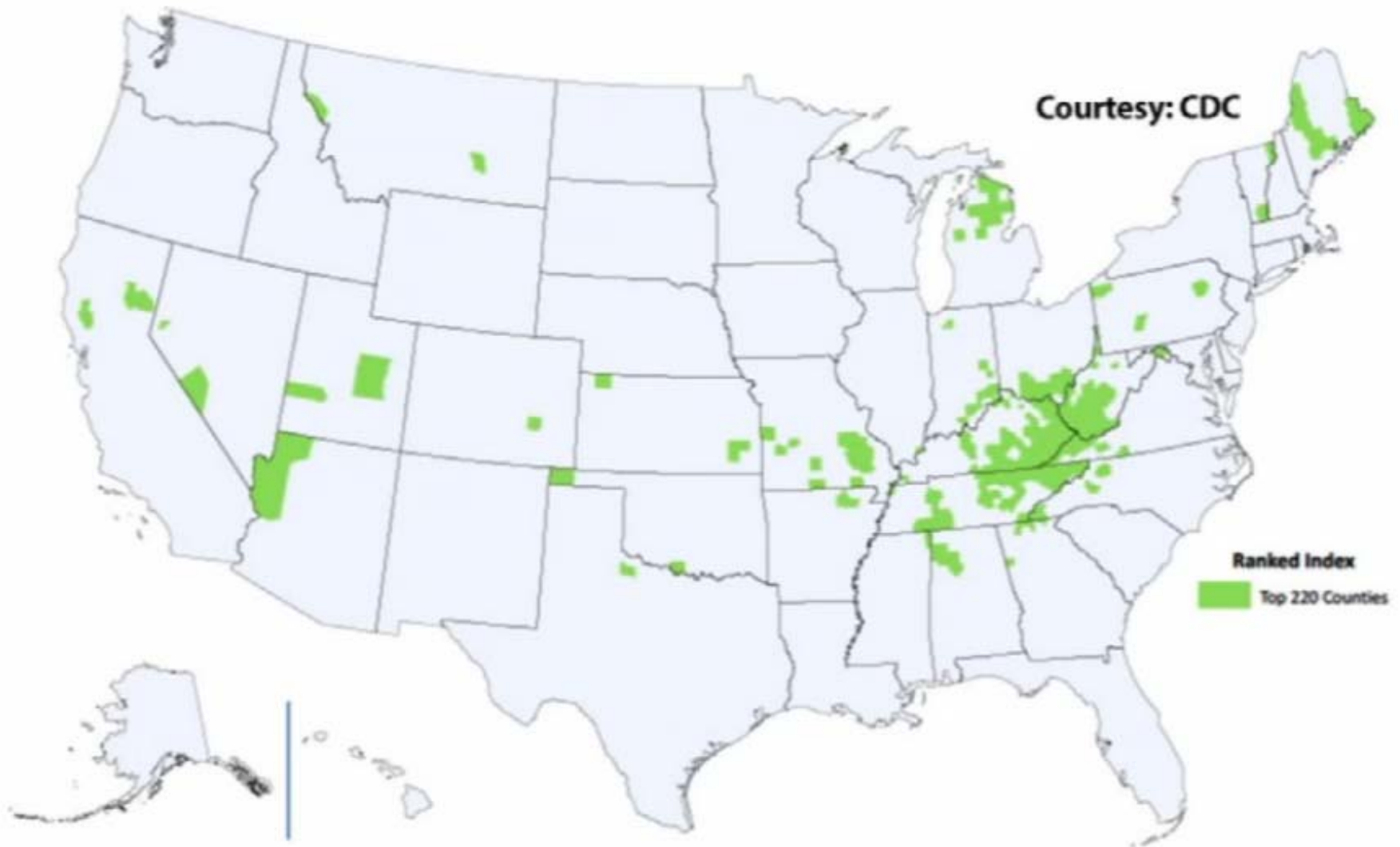


Injection Drug Use Risk and Harm Reduction

Higher Risk			Lower Risk			No Risk
Share syringes	Clean shared syringes between uses with bleach and water	Keep a Narcan kit handy, particularly when injecting street drugs	Inject only pharmaceutical drugs and never use street drugs	Inject using clean, sterile syringes most of the time and almost never share with others	Inject always using only clean sterile syringes and never share works or syringes	Don't inject drugs Stop injecting drugs

Needle Exchange Programs aim at infectious disease and overdose prevention through multiple services for individuals using IV drugs.

County-Level Vulnerability Assessment for Rapid Dissemination of HIV or HCV Infections Among Persons Who Inject Drugs



CROI Data on People who Inject Drugs 2017

- Since the peak in 1993, annual AIDS diagnoses among people who inject drugs have decreased approximately 90%
- Overall, annual HIV infections declined 18 percent from 2008 to 2014, from an estimated 45,700 to 37,600. Declines were seen in a number of populations and geographic areas: in particular people who inject drugs (56%)

The declines are due in part to progress in diagnosing infections among people living with HIV and ensuring they have access to early, ongoing treatment.

Sexual Risk and Harm Reduction

Higher Risk			Lower Risk			No Risk
Unprotected anal or vaginal sex with multiple partners (without condoms or pre-exposure prophylaxis)	<p>Have sex while high or drunk;</p> <p>Find multiple sex partners who have multiple sex partners (as can happen on hook-up apps)</p>	<p>Use condoms some of the time;</p> <p>Engage in less receptive anal or vaginal sex</p>	<p>Engage in unprotected oral sex rather than anal or vaginal sex;</p> <p>Reduce your number of sex partners</p>	<p>Get appropriately and routinely tested and know your STD/HIV/HCV status and that of your sex partner(s);</p> <p>Use condoms much/most of the time</p>	<p>Take HIV pre-exposure prophylaxis if appropriate;</p> <p>Adhere to HIV treatment and lower viral load to undetectable</p>	<p>Avoid intercourse</p> <p>Engage in mutual masturbation</p> <p>Limit to one or a few sex partners over a lifetime</p>

Condom Distribution and Sexual Activity

Condom Availability Programs Do Not Promote Sexual Activity

- A study of New York City's school condom availability program found a significant increase in condom use among sexually active students but **no** increase in sexual activity.¹
- A World Health Organization review of studies on sexuality education found that access to counseling and contraceptive services did not encourage earlier or increased sexual activity.³
- In Europe and Canada where comprehensive sexuality education and convenient, confidential access to condoms are more common, the rates of adolescent sexual intercourse are no higher than in the United States.⁴

Condom Availability and Student Use in MA.

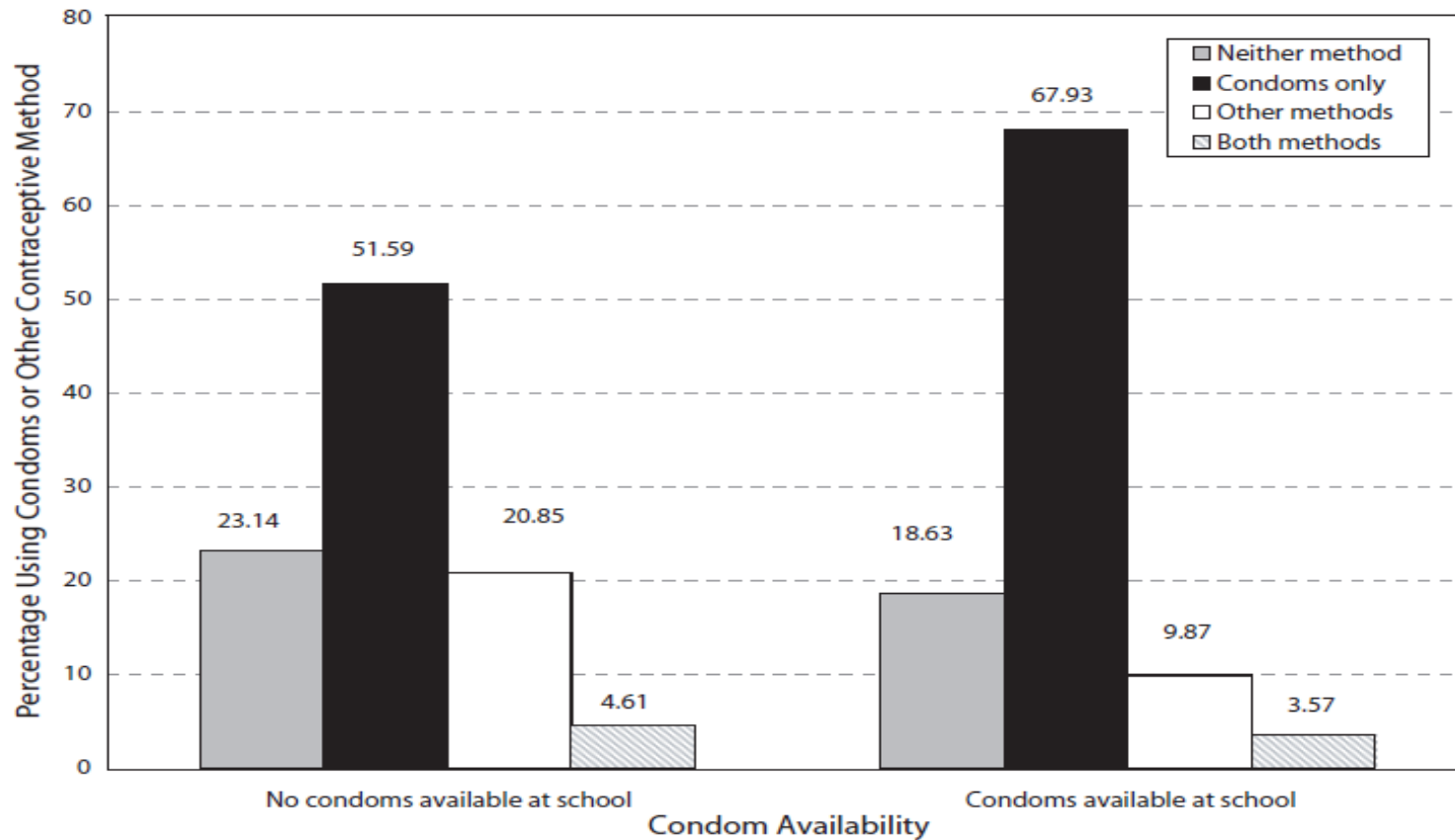
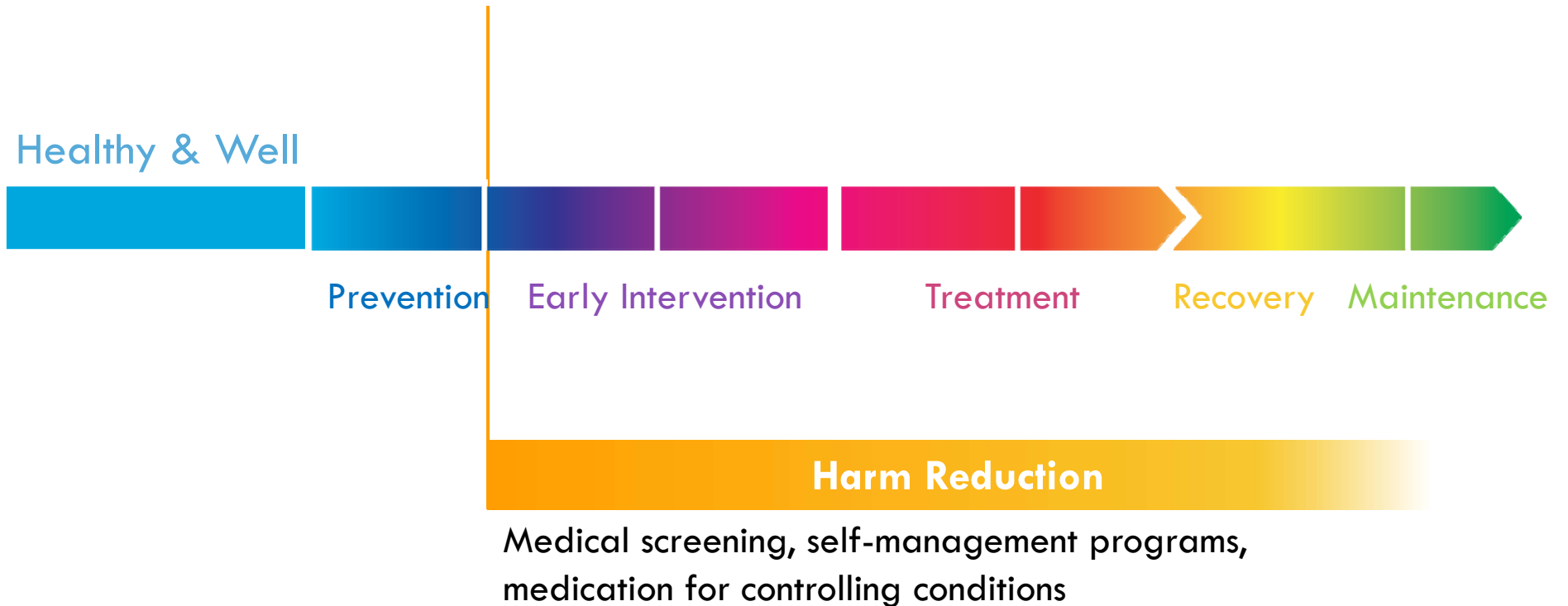


FIGURE 1—Sexually active adolescents reporting condom use, other contraceptive use, or both during their most recent sexual encounter, by condom availability.

Public Health Continuum: Chronic Disease



3 › 4 › 50

VERMONT

3

BEHAVIORS

- No Physical Activity
- Poor Diet
- Tobacco Use

LEAD TO

4

DISEASES

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

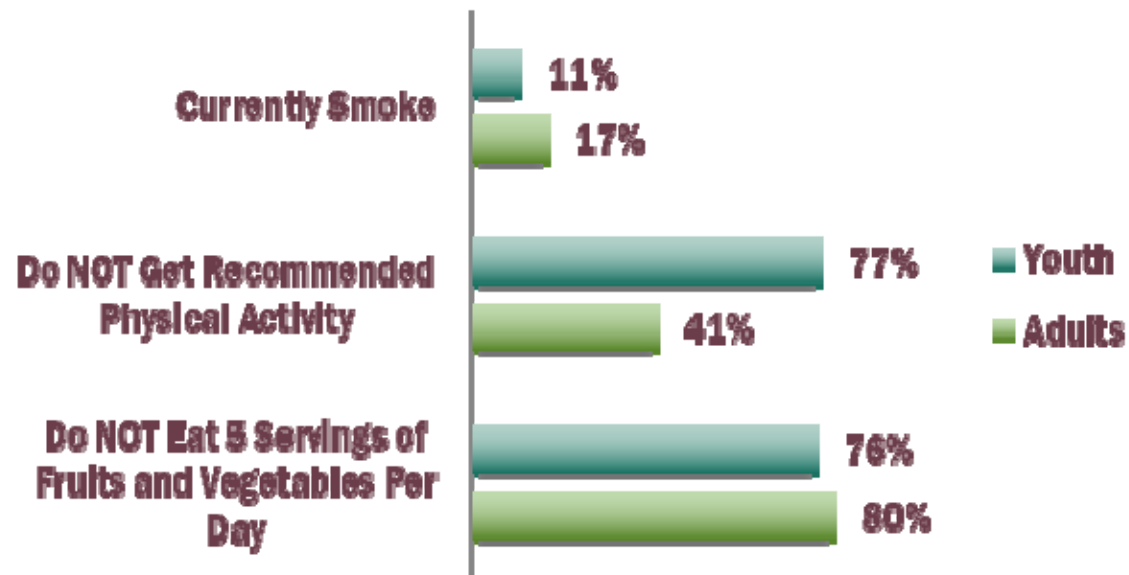
RESULT IN

MORE THAN

50

PERCENT
OF DEATHS
IN VERMONT

Health Behaviors that Contribute to Chronic Disease

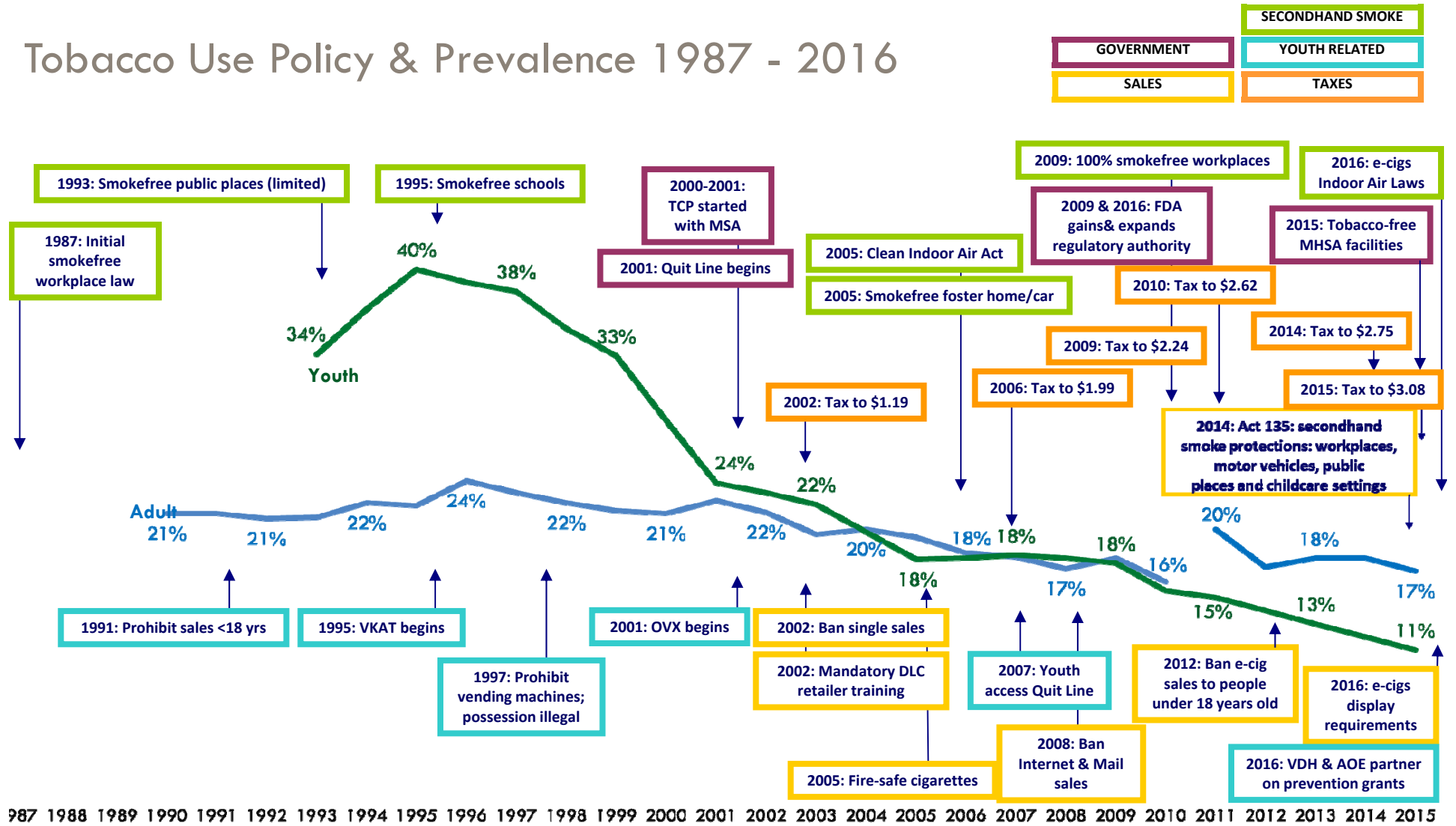


Data Source: 2015 BRFSS and YRBS

Tobacco

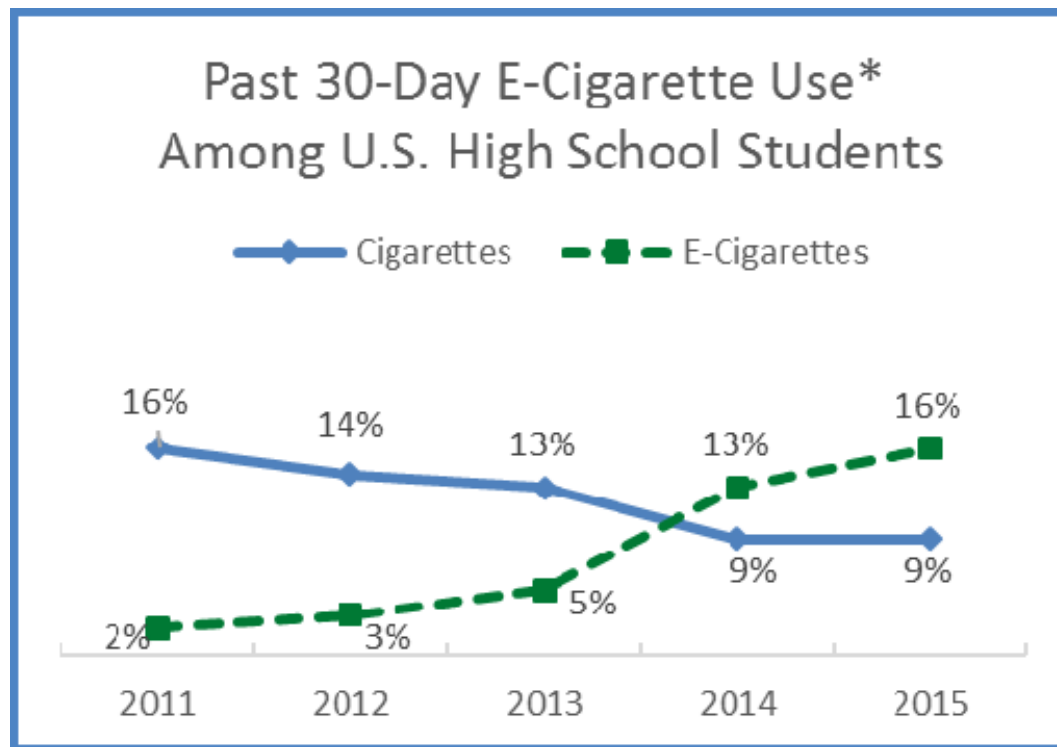
- Tobacco excise taxes are proven to prevent initiation among young people
- Comprehensive tobacco control and prevention programs
- Smoke-free policies to reduce harm from secondhand smoke exposure
- Flavor restriction on all tobacco products or restrict sales to adult only retailers
- Implement restrictions on sales to reduce youth access, promotion and density in communities
- Tobacco cessation services and nicotine replacement therapy
- Monitor evidence regarding safety of non-combustible products

Tobacco Use Policy & Prevalence 1987 - 2016



**Population
Accountability**

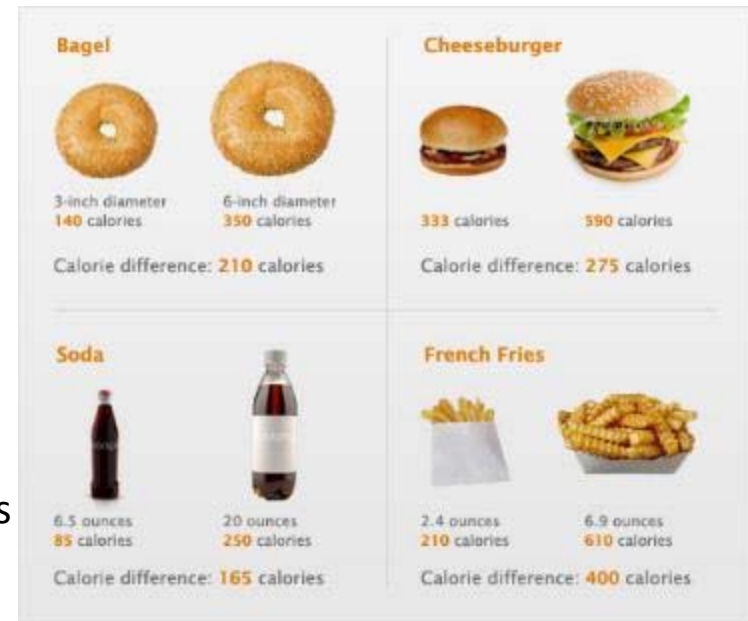
E-cigarettes as harm reduction



- Defined as e-cigarette use on at least 1 day in the past 30 days
- Source: National Youth Tobacco Survey 2011-2015

Poor Nutrition

- Switch from soda to unsweetened drinks or water
- School nutrition requirements
- Healthy children's meal requirements at restaurants
- Healthy Retailers
- Water filling stations in schools, workplaces and public places
- Make at least 30% of items in vending machines healthy choices: (low fat, low sodium, low sugar)
- Reduced serving sizes



Physical Inactivity

- Integrated physical activity during the school day, including before and after school
- Point of decision prompts encourage physical activity
- Complete streets municipal design to encourage walking and biking and reduce risk of auto vs pedestrian/bicyclist accidents
- Standing work stations, walking meetings and other worksite interventions to increase physical activity and reduce chair time
- Centrally locate printers, copiers, trash and other resources in worksites to facilitate more movement
- Substituting sedentary video games with “active” ones for kids

Chronic Diseases: cancer, heart disease, diabetes, lung disease

- Prevent the behaviors that that cause chronic disease
- Awareness of genetic factors and minimizing environmental factors
- Support and promote early screening for chronic diseases
- Support early intervention such as Y-DPP, smoking cessation, self-management programs
- Appropriately treat chronic diseases – may include lifestyle changes to medication to surgery or more invasive treatment
- Monitor health and management of chronic disease

Healthy tips for municipalities

- Add health-supporting language to the town plan.
- Design “complete” streets and roadways.
- Build and maintain places where people can be active and benefit from smoke-free areas.
- Make it easier for people to find healthy foods.



Healthy tips for businesses

- Get rid of sugary drinks.
- Go tobacco-free.
- Provide refrigerators, microwaves and break areas.
- Encourage and support employees to get 30 minutes of physical activity a day.
- Establish supportive breastfeeding policies.



Healthy tips for schools and childcare settings

- Ensure schools and childcare facilities meet Nutrition Standards & state standards for tobacco free campuses and school events.
- Get rid of sugary drinks in favor of water that kids can have whenever they want it.
- Teach kids how to be healthy through Phys Ed
- Give kids a chance to run and play for at least 30 minutes every day.



Public Health Continuum: Alcohol

Healthy & Well



Harm Reduction

Specialized education campaigns, family support programs, treatment centers

Working together to eliminate substance abuse in Vermont



Division of
Alcohol & Drug Abuse Programs
108 Cherry Street • Burlington, VT 05401
800-464-4343 • 802-651-1550

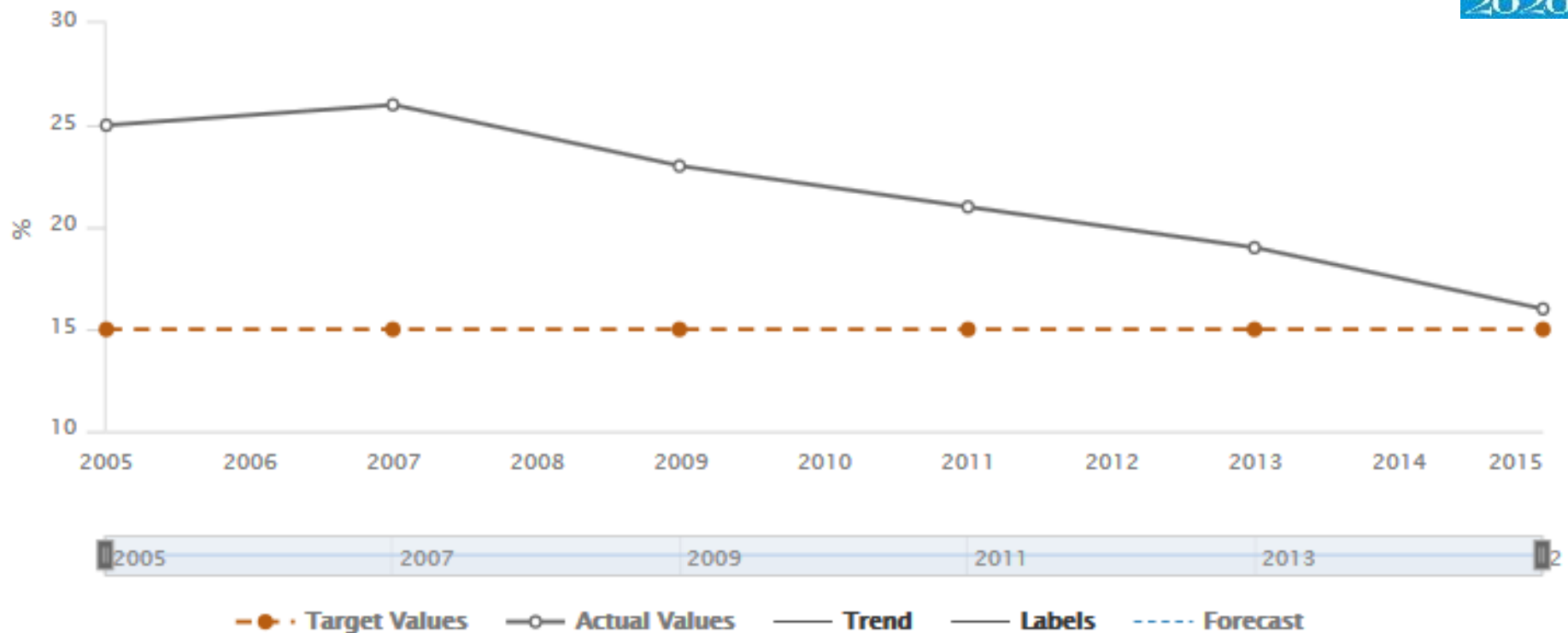


8-year downward trend in binge drinking students



% of adolescents in grades 9-12 binge drinking in the past 30 days

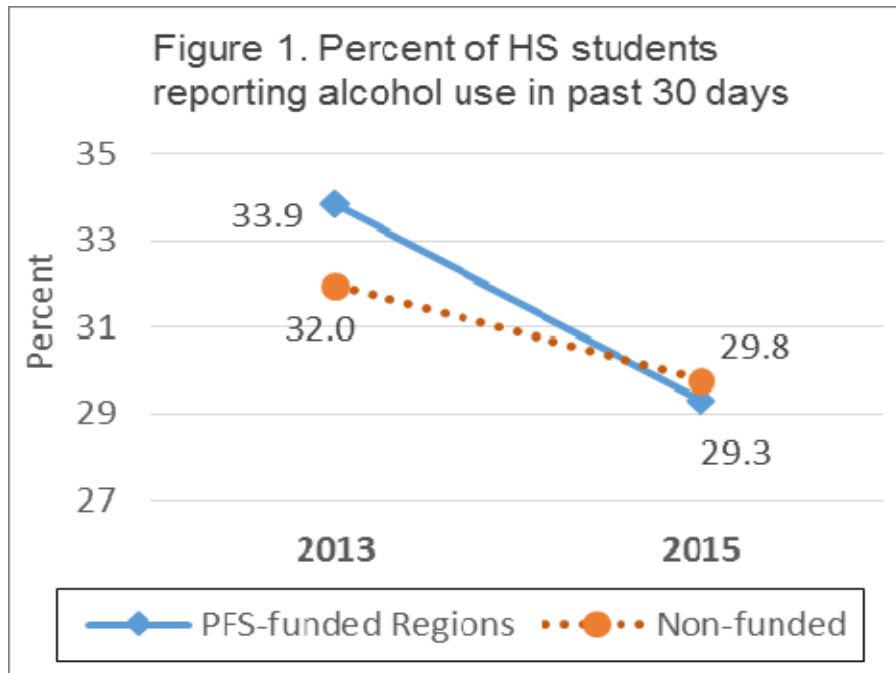
Data Source: Youth Risk Behavior Survey



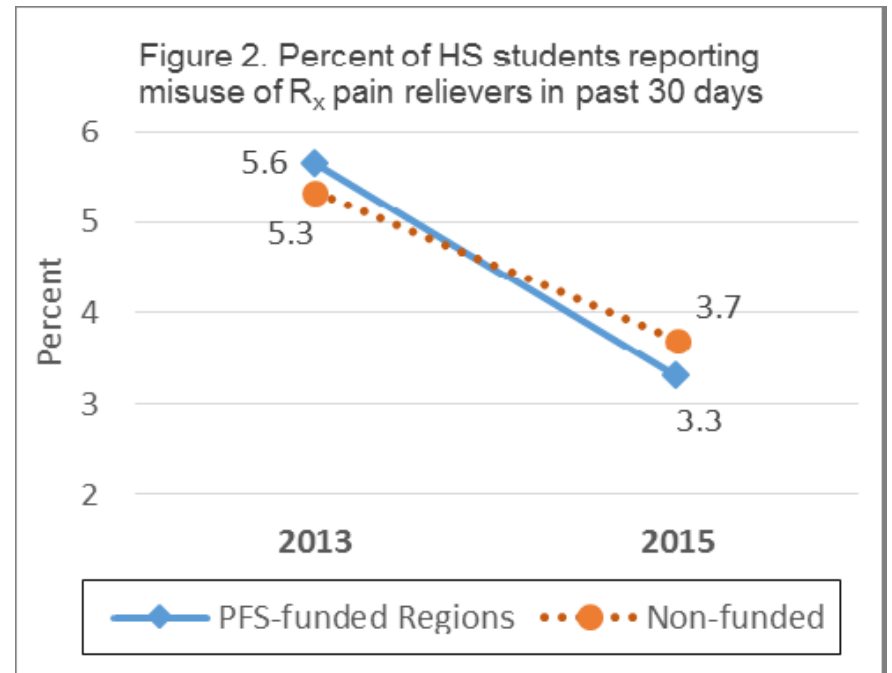
**Population
Accountability**

Partnership for Success Strategy - Evaluation

Partnership for Success (PFS) regions saw less alcohol and prescription drug misuse after the PFS interventions than non-PFS regions.



PFS effect was significant at $p < .05$



PFS effect was significant at $p < .10$

Binge Drinking Prevention

- Regional Prevention Partnerships
 - Educate communities on policies that reduce youth access to alcohol
 - Family education and support
 - Coordinate partners – schools, community agencies, law enforcement
- School-based grants in selected SU's support educational programs and screening
- ParentUpVT.org social media and website
 - Prevention tools and resources
 - “Tips from Parents Like You: How to Ask”
 - more than 104,550 views since May 2016



Check Yourself Campaign

Check Yourself is an online health communications campaign aimed at reducing high-risk drinking behaviors in Vermont.



Overall Campaign Objective

- Reduce the rate of high-risk drinking among 21-25 year old Vermonters.

Key Messages

- High-risk drinking facts and tips on how to avoid going overboard.
- Information is delivered in a culturally relevant and memorable way.

Check Yourself Campaign

**-CHECK-
YOURSELF**

HYDRATE / EAT / GO EASY / MORE TIPS

CHECK YOURSELF WITH MORE TIPS

CHECK YOURSELF AND SKIP THAT LAST DRINK

YOUR BODY IS PROBABLY STILL PROCESSING THE DRINKS YOU'VE ALREADY HAD, SO THAT LAST DRINK WILL MAKE YOU DRUNKER THAN YOU WANNA BE.



**-CHECK-
YOURSELF**

SHARE 

CHECK YOURSELF TO REACH THAT PERFECT MOOD

THE FIRST COUPLE DRINKS TEND TO ENHANCE MOOD, BUT AFTER 3, 4 OR MORE DRINKS YOUR MOOD WILL BEGIN TO DETERIORATE. AND IF YOU WERE DOWN BEFORE YOU STARTED DRINKING YOU WILL JUST END UP FEELING WORSE.



**-CHECK-
YOURSELF**

SHARE 

CHECK YOURSELF AND THOSE LIQUID CALORIES

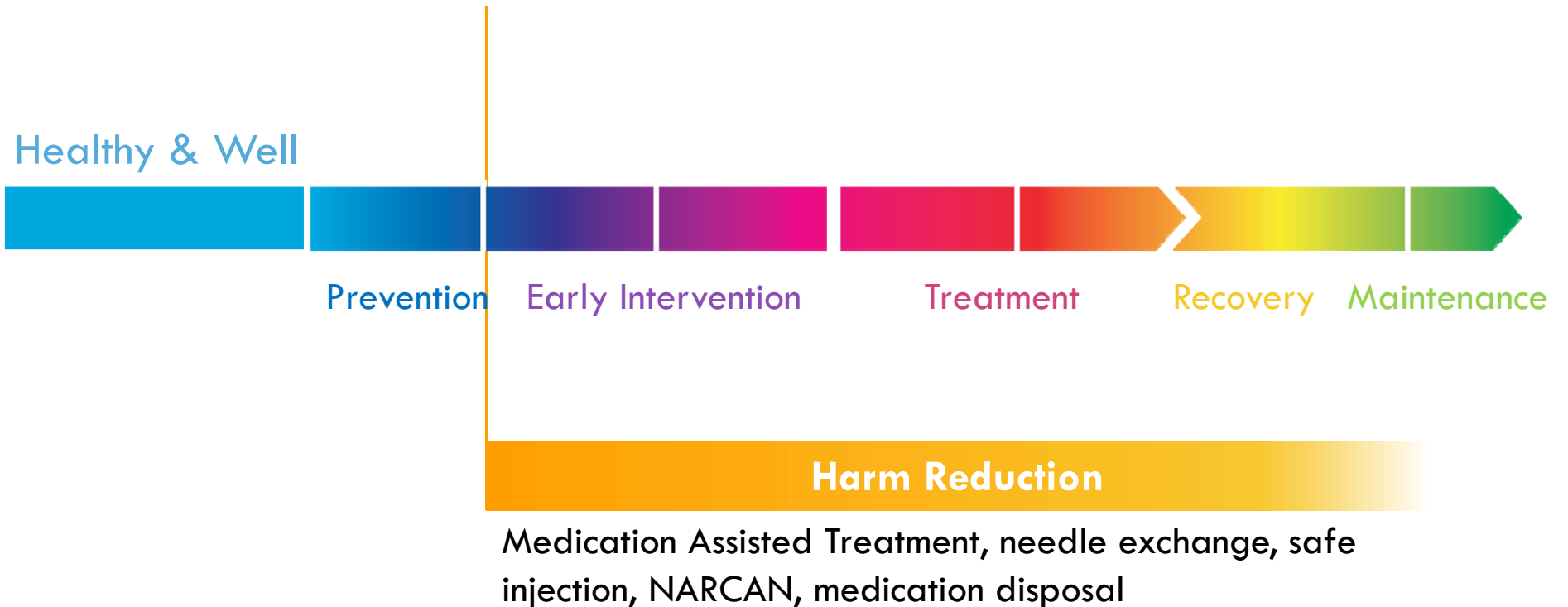
ALL ALCOHOL IS FATTENING. A GLASS OF WINE HAS ABOUT AS MANY CALORIES AS A SLICE OF CAKE AND A PINT OF BEER CONTAINS AS MANY CALORIES AS A SLICE OF PIZZA.



**-CHECK-
YOURSELF**

SHARE 

Public Health Continuum: Opioids



Actions to Address Opioid Drug Abuse

Education

- Prescriber education
- Community education
- Naloxone distribution

Tracking and Monitoring

- Vermont Prescription Drug Monitoring System (VPMS)

Regulation/Enforcement

- Identification verification at pharmacies
- Law enforcement training on prescription drug misuse and diversion
- Unified Pain Management Regulation

Proper Medication Disposal

- Keeping medications safe at home
- Proper medication disposal guidelines consistent with FDA standards
- Community take-back programs
- “Most Dangerous Leftovers” Campaign

Treatment Options

- Care Alliance for Opioid Addiction Regional Treatment Centers
- Outpatient and residential treatment at state-funded treatment providers
- Harm Reduction

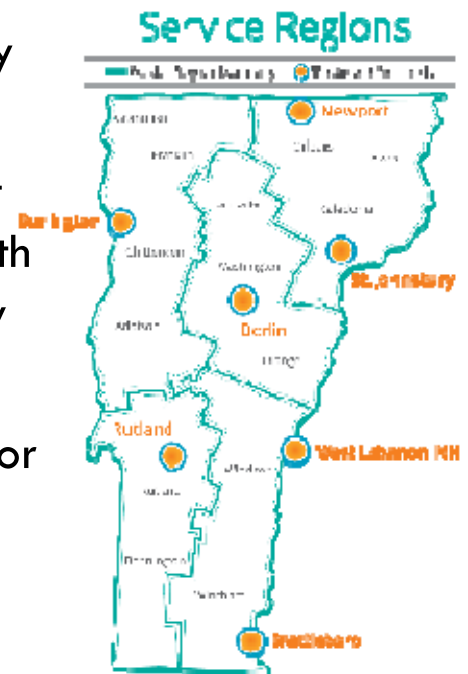
The Care Alliance for Opioid Addiction

A regional approach for delivering Medication Assisted Therapy to Vermonters who suffer from opioid drug addiction.

The Care Alliance is designed to coordinate addiction treatment with medical care and counseling, supported by community health teams and services, to effectively treat the whole person as they make their way along the path to recovery.


Medication Assisted Therapy (MAT) is an effective treatment for opioid addiction that involves prescribing medication — methadone, buprenorphine or naltrexone — in combination with counseling. Outcomes from this approach include:

- reduced drug use
- retention in treatment
- better social functioning
- better health
- reduced criminal activity
- reduced disease transmission
- reduced drug overdoses



Overdose Rescue Kit

How to give nasal naloxone for suspected opioid overdose



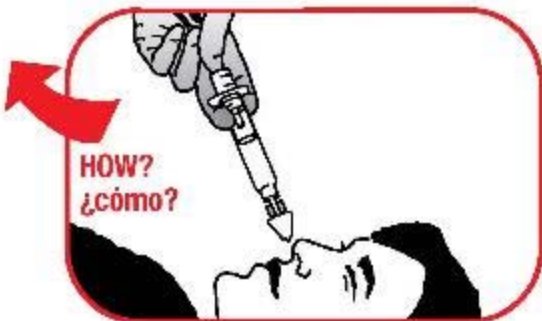
VERMONT
DEPARTMENT OF HEALTH



1. CALL 911
Llame al 911

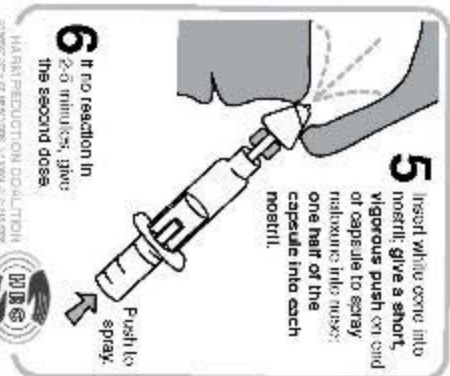
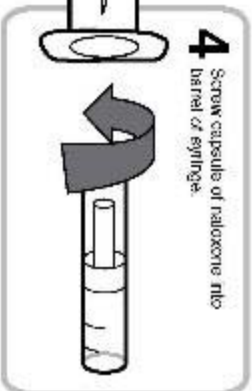
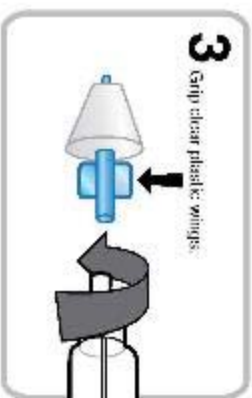
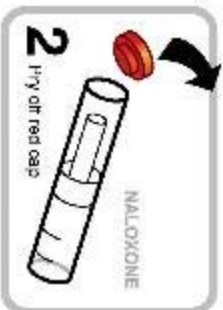
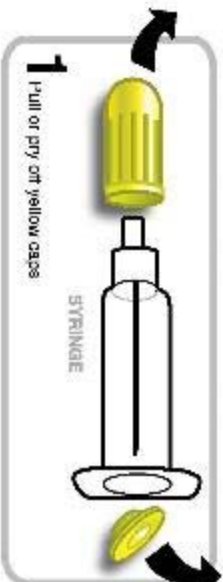


2. RESCUE BREATHING
Respiración de Boca a Boca



3. GIVE NALOXONE
Administra Naloxone

HOW TO GIVE NASAL SPRAY NALOXONE



6 If no reaction in 2-3 minutes, give the second dose.

HARVARD PREVENTION COALITION



Vermont Naloxone Pilot

How does the program work?

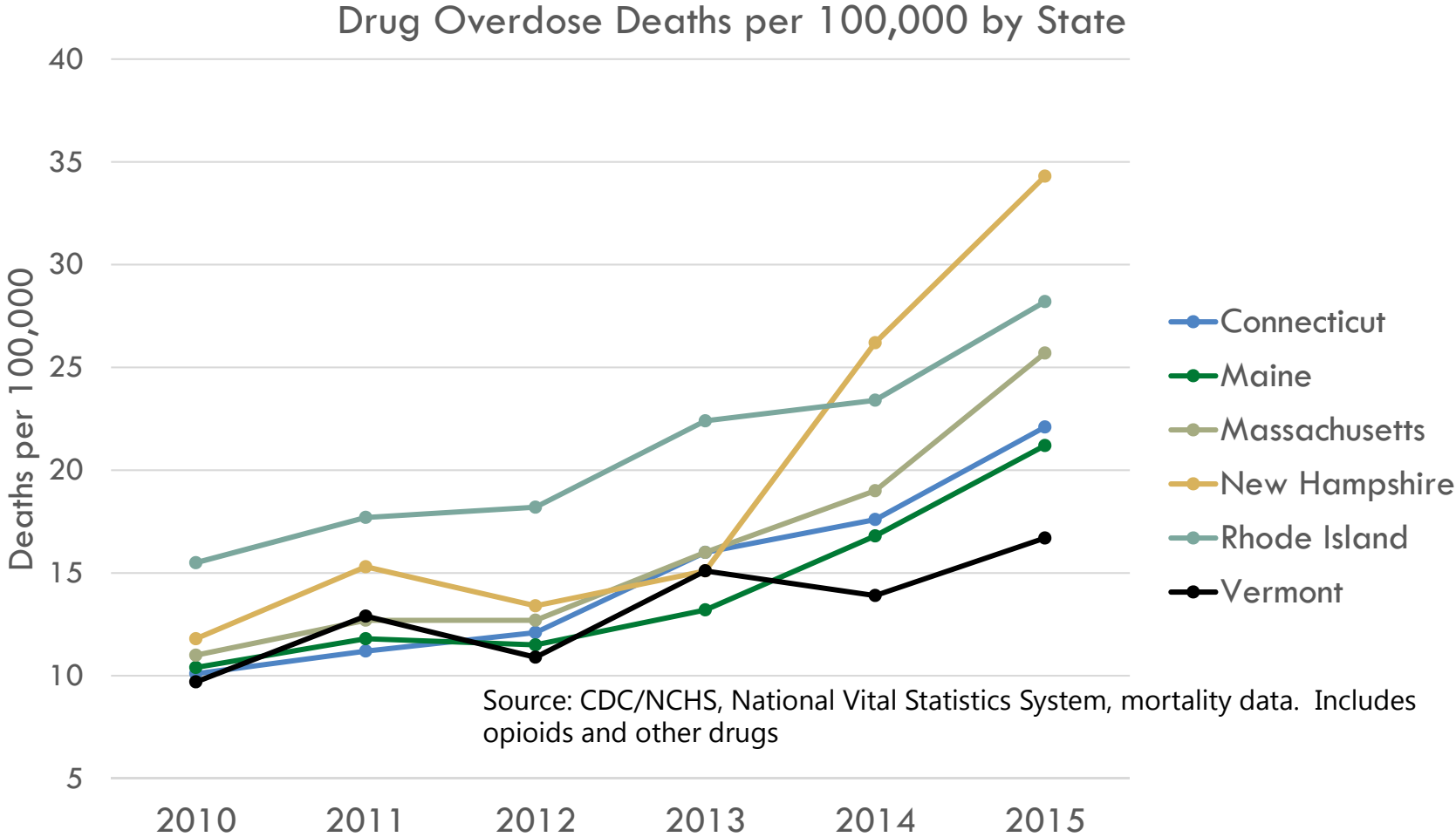
- The Health Department distributed the first Overdose Rescue Kits via two sites in December of 2013. As of February 2017, approximately 16,000 kits were dispensed in just over two years. There are now 20 sites around Vermont where a kit can be obtained.
 - ▣ The types of sites include treatment hubs, syringe exchanges and recovery centers.
- Based on data gathered at the time individuals sought a refill, **950 kits were reportedly used** by individuals who believed an overdose was occurring.
 - ▣ Most of the time, the drug involved in the overdose was thought to be heroin (91%)

Vermont Naloxone and Emergency Responders



- All 177 licensed EMS agencies in Vermont carry naloxone
- VSP and many local law enforcement agencies now carry naloxone
- Since 2016, both EMS and law enforcement receive naloxone at no cost from the Department

New England Drug Overdose Deaths



DVHA/Blueprint Cost Analysis

- “Impact of Medication-Assisted Treatment for Opioid Addiction on Medicaid Expenditures and Health Services Utilization Rates in Vermont” published in the Journal of Substance Abuse Treatment (August 2016)
 - ▣ Highlights:
 - Higher MAT treatment costs offset by lower non-opioid medical costs
 - MAT associated with lower utilization of non-opioid medical services
 - MAT suggested to be cost-effective service for individuals addicted to opioids
 - ▣ <https://www.ncbi.nlm.nih.gov/pubmed/27296656>