



Vermont Child Health Improvement Program



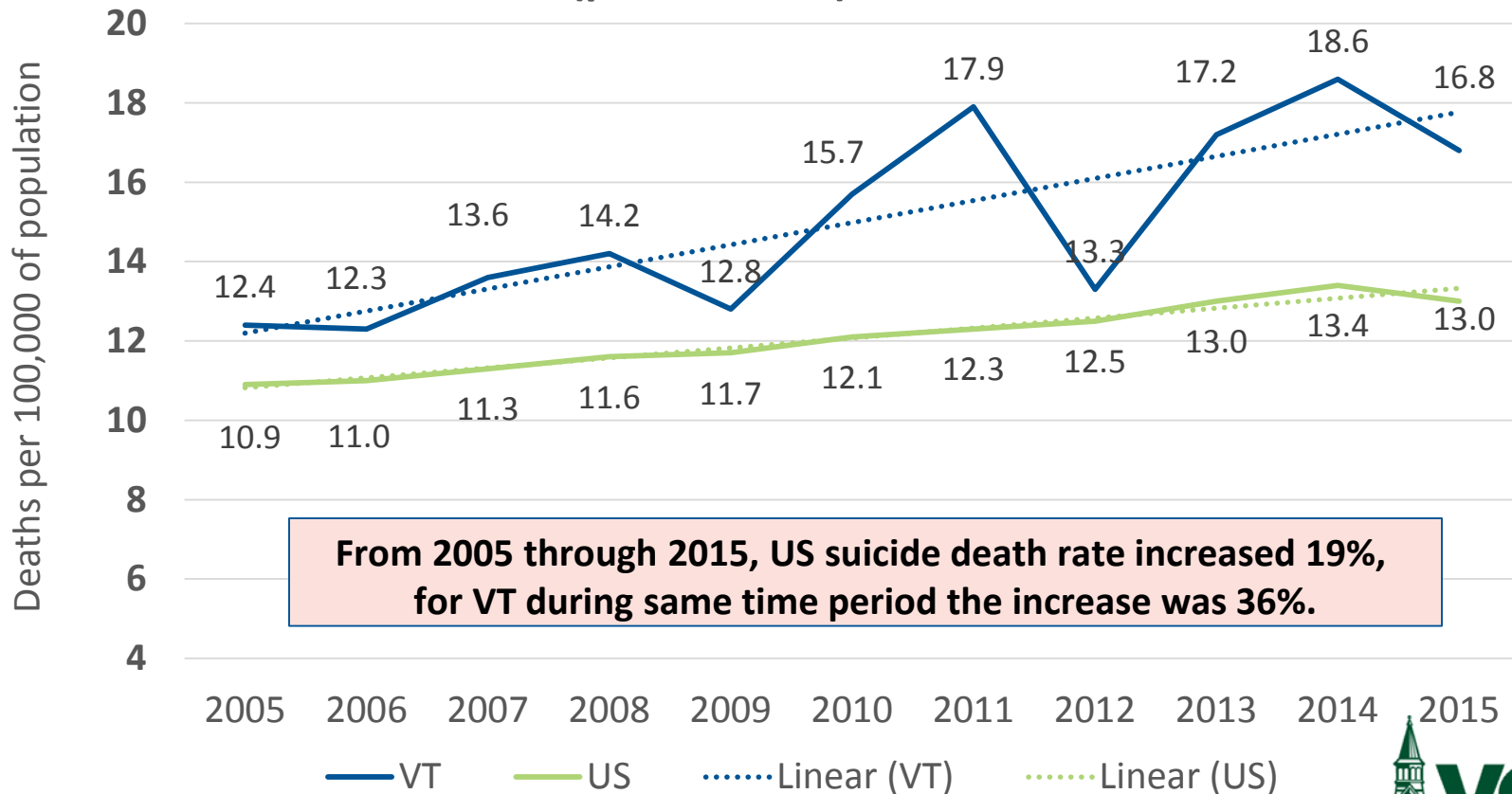
Data Retrospective - Suicide in Vermont

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Suicide Trends in Vermont and the US

Vermont and US Suicide Death Rates (per 100,000): 2005-2015



Population Correlates of High Vermont Suicide Rates

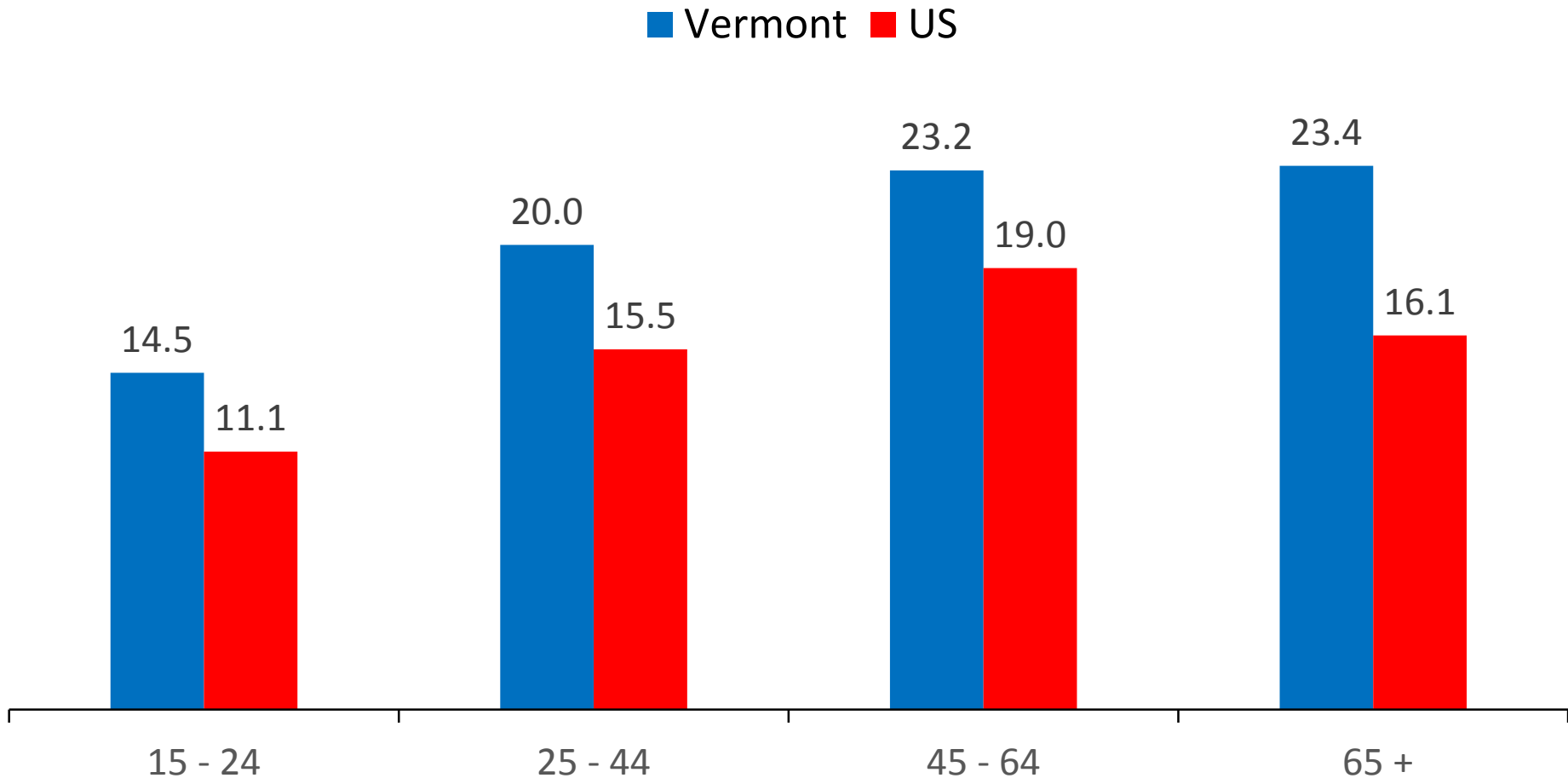
Consistently Ranked as 1st or 2nd healthiest US state, *BUT...*

- High rates of binge drinking – 17% in past month for adults
- High rates of firearm ownership & easy purchase of firearms (Kalesan et al., 2015)
- Rural population – 2nd most rural in Northeastern US
- Older population – 17.6% aged 65 and over (4th highest in US)

Age Groups

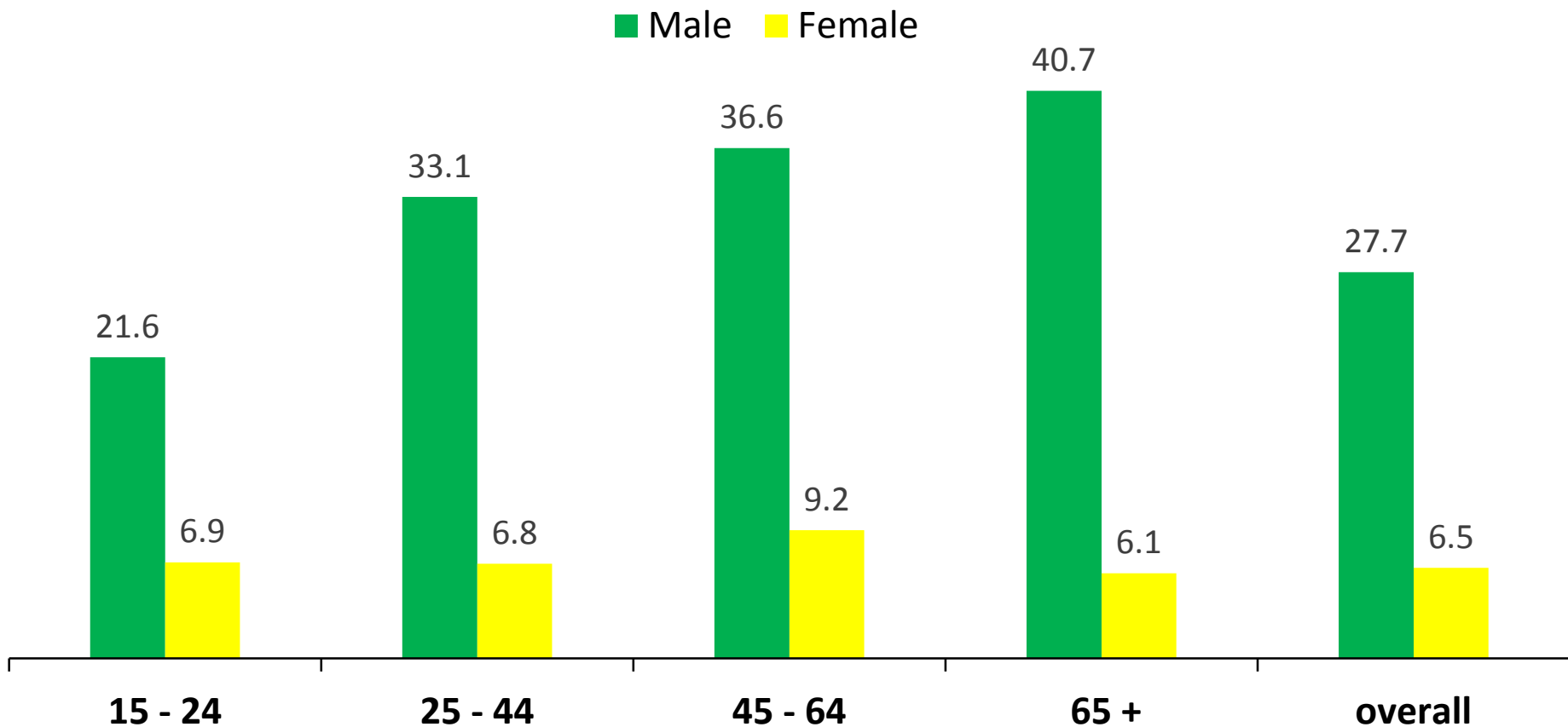
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Congenital Anomalies ---	Homicide ---		Suicide ---	Unintentional Injury 22	Unintentional Injury 31	Malignant Neoplasms 22	Malignant Neoplasms 98	Malignant Neoplasms 255	Heart Disease 1,101	Malignant Neoplasms 1,379
2	Short Gestation ---	Chronic Low. Respiratory Disease ---		Unintentional Injury ---	Suicide 19	Suicide 16	Unintentional Injury 19	Heart Disease 45	Heart Disease 142	Malignant Neoplasms 993	Heart Disease 1,311
3	Maternal Pregnancy Comp. ---			Congenital Anomalies ---	Malignant Neoplasms ---	Heart Disease ---	Suicide 17	Unintentional Injury 37	Liver Disease 32	Chronic Low. Respiratory Disease 282	Chronic Low. Respiratory Disease 333
4	Placenta Cord Membranes ---			Malignant Neoplasms ---	Congenital Anomalies ---	Malignant Neoplasms ---	Heart Disease 13	Suicide 23	Chronic Low. Respiratory Disease 30	Alzheimer's Disease 264	Unintentional Injury 322
5	Circulatory System Disease ---				Heart Disease ---	Chronic Low. Respiratory Disease ---	Chronic Low. Respiratory Disease ---	Liver Disease 14	Unintentional Injury 25	Cerebro-vascular 245	Alzheimer's Disease 266
6	Hydrops Fetalis ---				Homicide ---	Homicide ---	Homicide ---	Diabetes Mellitus 12	Suicide 19	Unintentional Injury 185	Cerebro-vascular 266
7	Influenza & Pneumonia ---				Anemias ---	Hypertension ---	Influenza & Pneumonia ---	Chronic Low. Respiratory Disease 11	Cerebro-vascular 18	Diabetes Mellitus 125	Diabetes Mellitus 154
8	Neonatal Hemorrhage ---				Influenza & Pneumonia ---	Congenital Anomalies ---	Meningitis ---	Congenital Anomalies ---	Diabetes Mellitus 15	Influenza & Pneumonia 66	Suicide 124
9	Short Stature, NEC ---				Liver Disease ---	Diabetes Mellitus ---	<u>Seven Tied</u> ---	Viral Hepatitis ---	Viral Hepatitis ---	Hypertension 56	Influenza & Pneumonia 74
10	Unintentional Injury ---					Meningitis ---	<u>Seven Tied</u> ---	<u>Two Tied</u> ---	Benign Neoplasms ---	Parkinson's Disease 54	Liver Disease 69

Suicide Death Rates per 100,000, by Age US and Vermont, 2013



Data source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online].

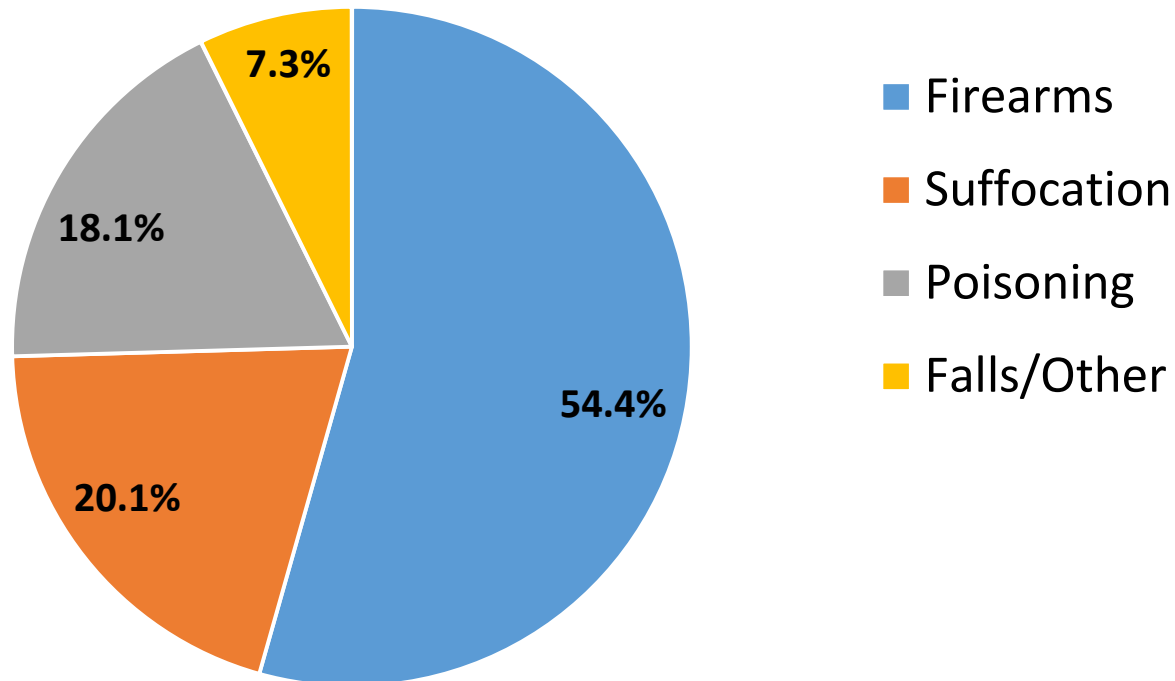
Suicide Death Rates per 100,000, by Gender and Age Vermont Residents, 2010-2013



Data source: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online].

Lethal Means in Vermont

All ages: Distribution of leading means of suicide
2011-2015



10 – 19 year olds: **59%** firearms deaths; 20 – 24 year olds: **50%** firearms deaths

Suicide Attempts

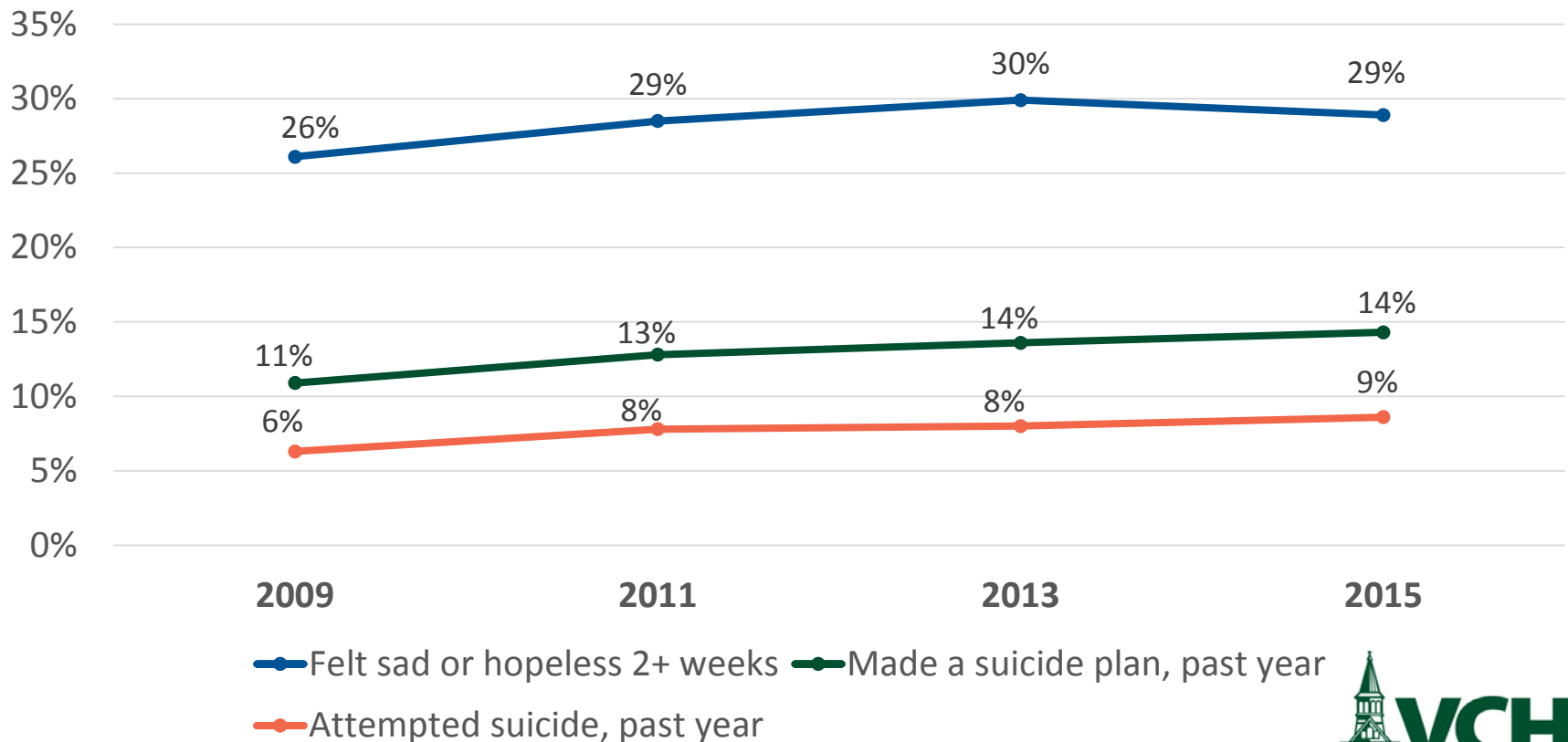
In 2014:

- 1509 hospitalizations and ED visits
 - Unknown number of attempts not seen in hospitals
- Rates of hospital visits for suicide attempt increased from 202 in 2005 to 258 in 2014.
- In 2013-2014, most common age groups seen were 25-44, followed by 15-24 and 45-64 years

Source: http://www.healthvermont.gov/sites/default/files/documents/2016/12/data_brief_suicide_morbidity.pdf

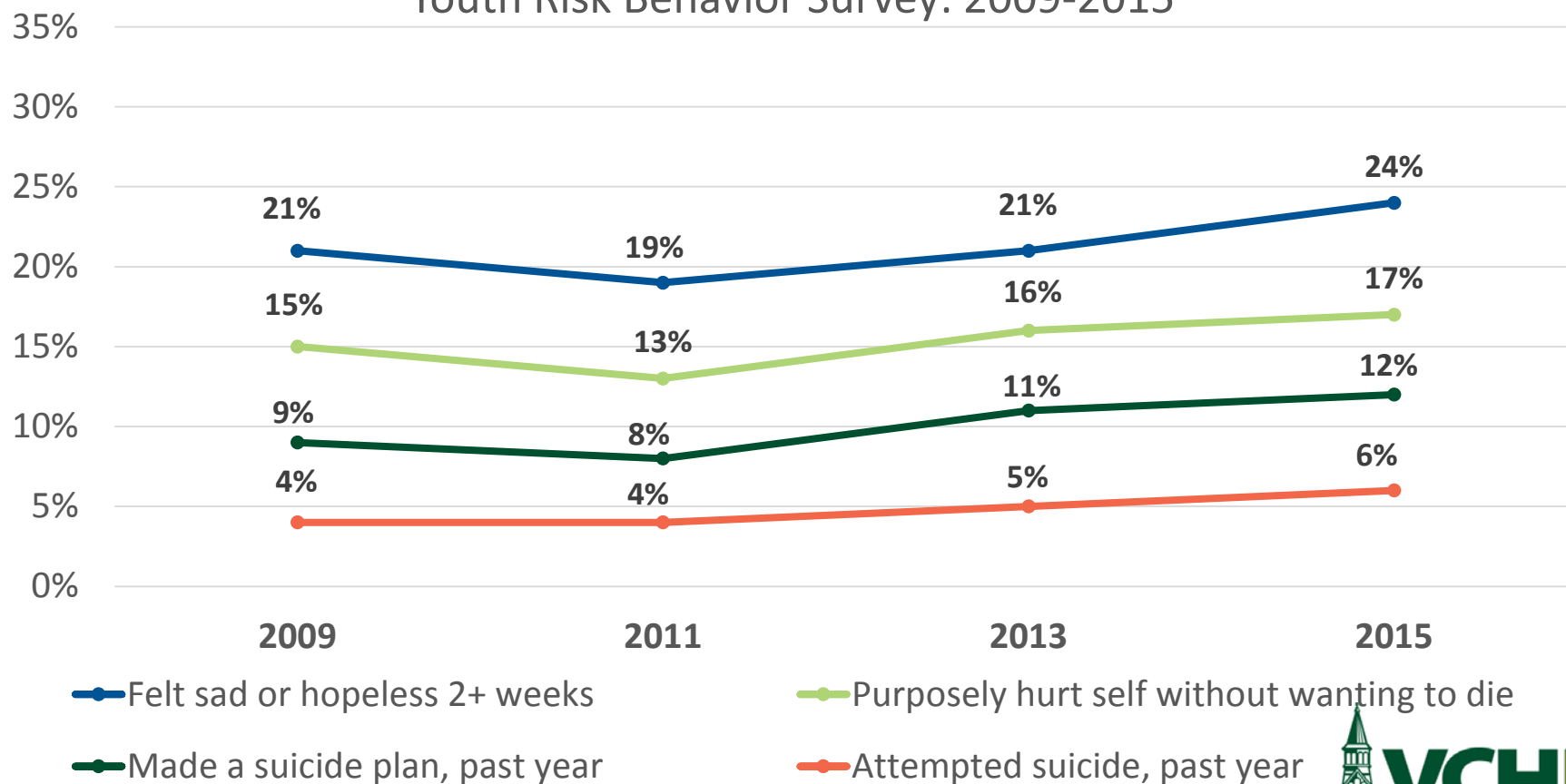
Trends in Risk Factors: National Youth Risk Behavior Survey

Percent of high school students reporting suicide measures, US Youth Risk Behavior Survey: 2009-2015



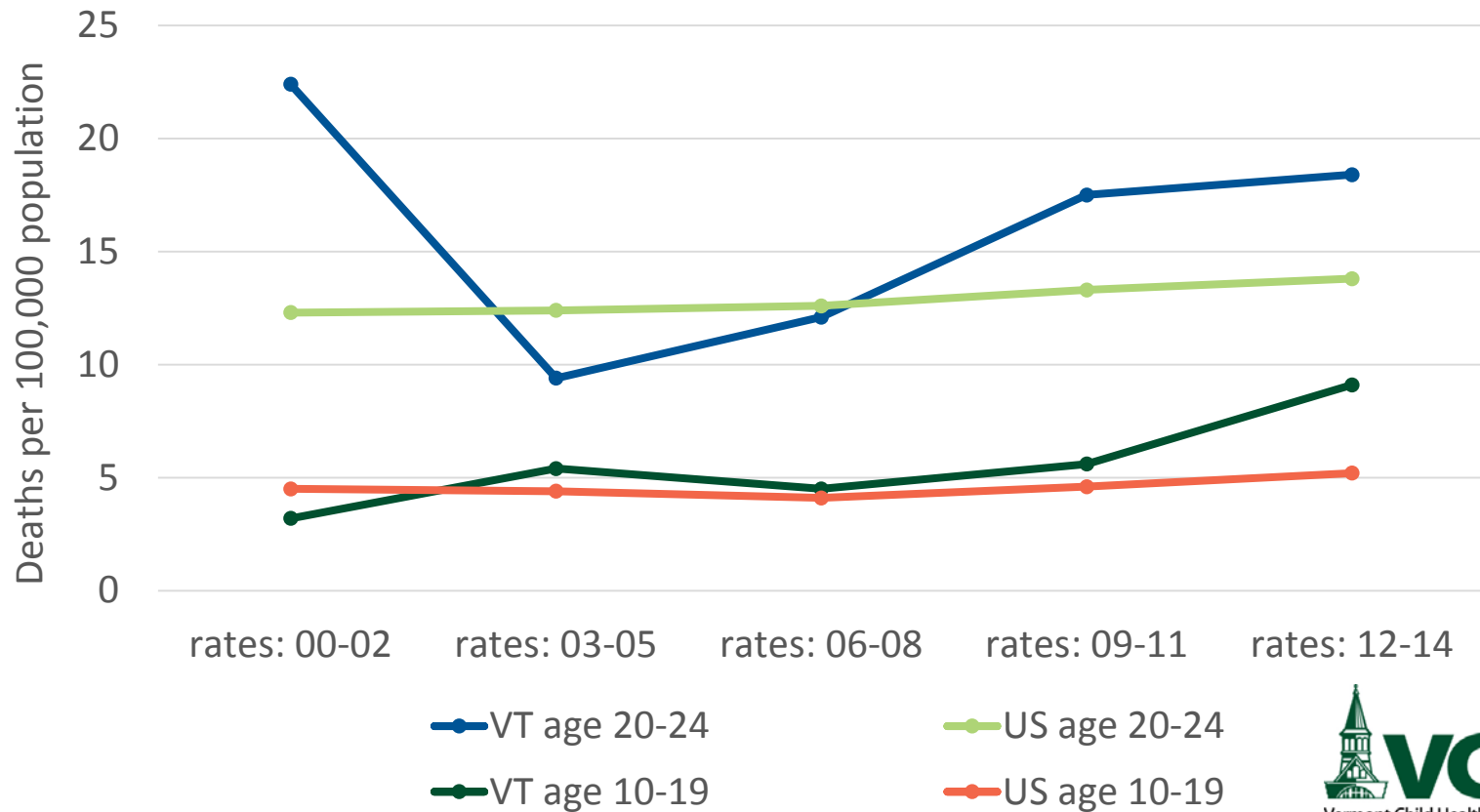
Trends in Risk Factors: Vermont Youth Risk Behavior Survey

Percent of high school students reporting suicide measures, VT
Youth Risk Behavior Survey: 2009-2015



Trends in Vermont and US Youth and Young Adult Suicide Deaths

VT and US Youth and Young Adult Suicide Death Rates
(3 Year Bins) 2000-2014



Suicide Attempts in Youth and Young Adults

- Nationally, CDC estimates 12 self-injury ED/hospital visits for every death by suicide.
 - 25 : 1 attempts to deaths in young people
 - 4 : 1 attempts to deaths in elderly
- Lack of good, longitudinal data on Vermont attempts
- Inconsistent coding (likely) across different settings and providers
- Estimate of medically serious youth and young adult attempts in Vermont: **375 annually.**

Summary

- Vermont suicide death rates higher than US rates
 - Increasing faster than US rates in recent years
 - Correlated with a variety of population risk factors
- Males, middle aged and elderly at highest risk
- Attempts more frequent (but mortality lower) among younger people
- Vermont youth showing increasing trends in suicide ideation and attempts in recent years
- Possible opportunities for improving / expanding:
 - Prevention efforts for working age and older adults
 - Care coordination across settings and provider types (e.g., Zero Suicide)
 - Broad adoption of gatekeeper, screening and use of EBPs
 - Surveillance of suicide attempts, for example in EDs...and many other things

THANK YOU!!!

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