

<https://youtu.be/Gps0LQq3uEo>

A scenic view of a forest with tall evergreen trees and a mountain range in the background. The text "How to Change the World" is overlaid in the center.

# How to Change the World



# The Opioid Epidemic in the U.S.

In 2015...



12.5 million

People misused prescription opioids<sup>1</sup>



2.1 million

People misused prescription opioids for the first time<sup>1</sup>



33,091

People died from overdosing on opioids<sup>2</sup>



2 million

People had prescription opioid use disorder<sup>1</sup>



15,281

Deaths attributed to overdosing on commonly prescribed opioids<sup>2,3</sup>



828,000

People used heroin<sup>1</sup>



9,580

Deaths attributed to overdosing on synthetic opioids<sup>2,4</sup>



135,000

People used heroin for the first time<sup>1</sup>



12,989

Deaths attributed to overdosing on heroin<sup>2,4</sup>



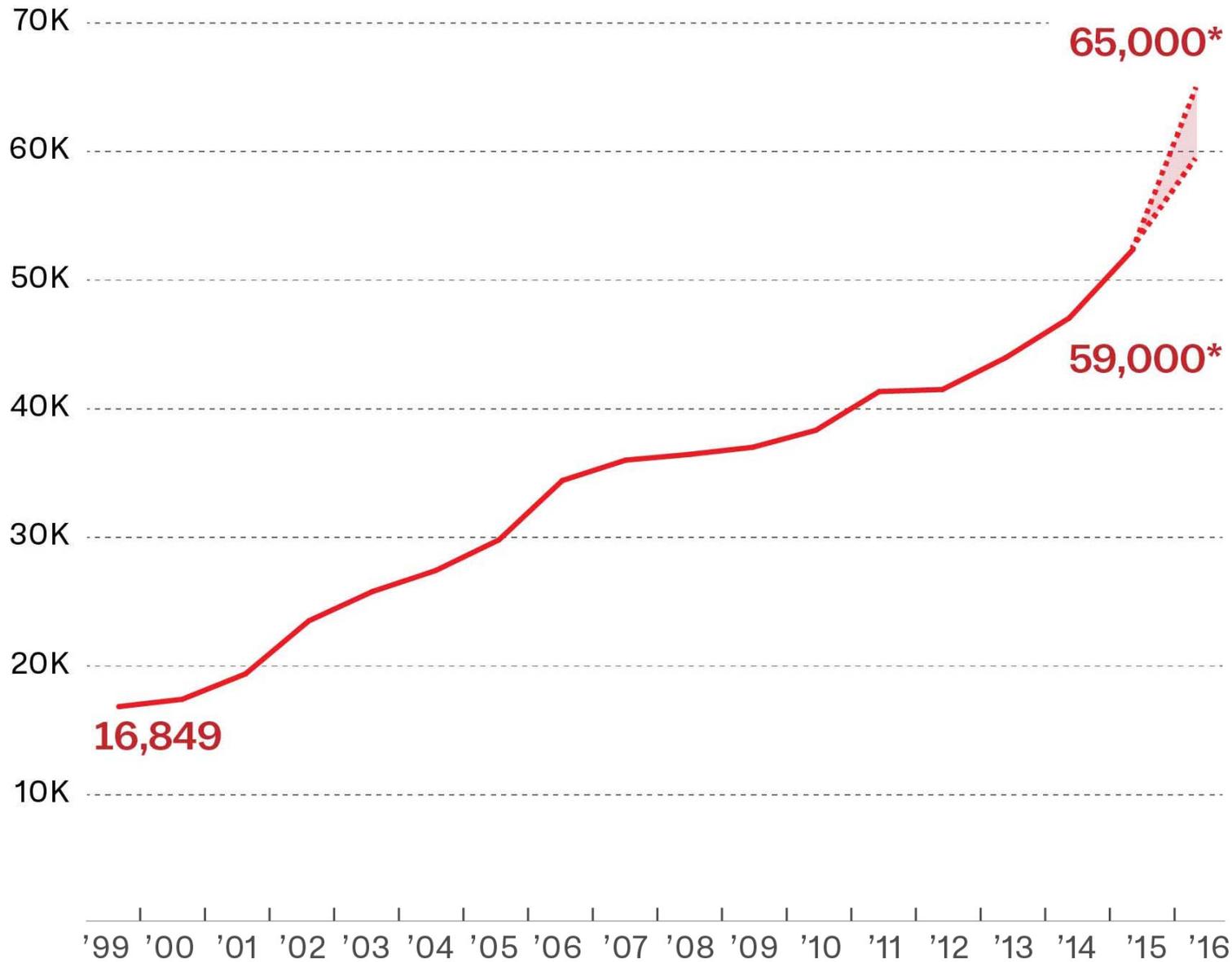
\$78.5 billion

In economic costs (2013 data)<sup>5</sup>

**Source:** <sup>1</sup> 2015 National Survey on Drug Use and Health (SAMHSA), <sup>2</sup> MMWR, 2016; 65(50-51):1445-1452 (CDC), <sup>3</sup> Prescription Overdose Data (CDC),

<sup>4</sup> Heroin Overdose Data (CDC), <sup>5</sup> Synthetic Opioid Data (CDC), <sup>6</sup> The Economic Burden of Prescription Opioid Overdose, Abuse, and Dependence in the United States, 2013. Florence CG, Zhou C, Luo F, Xu L. Med Care. 2016 Oct;54(10):901-6

# Drug overdose deaths



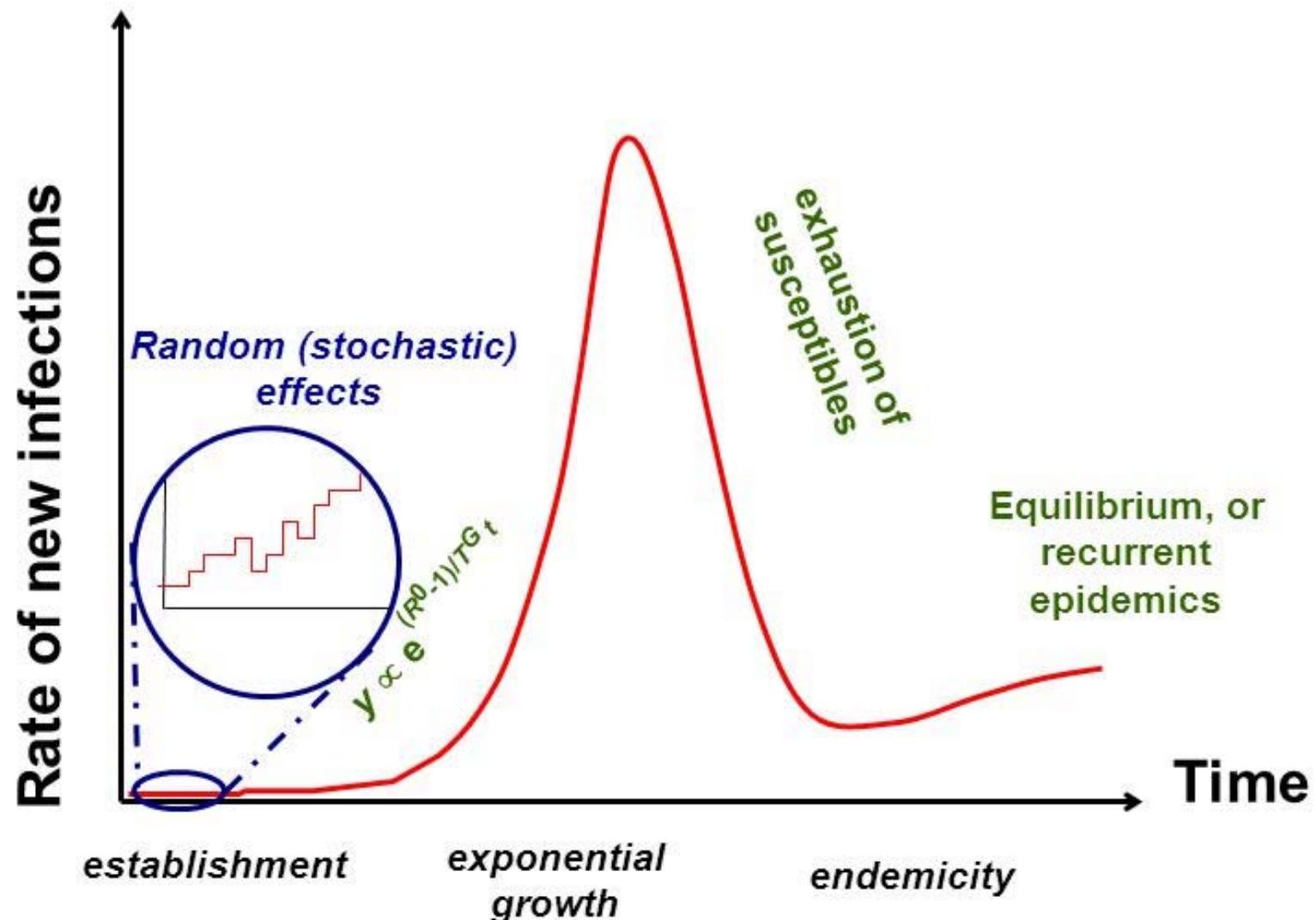
\*Estimate based on preliminary data

SOURCE: National Institute on Drug Abuse, The New York Times





# The epidemic curve



# The Life Cycles of an Epidemic



1: Susceptible

2: Infectious

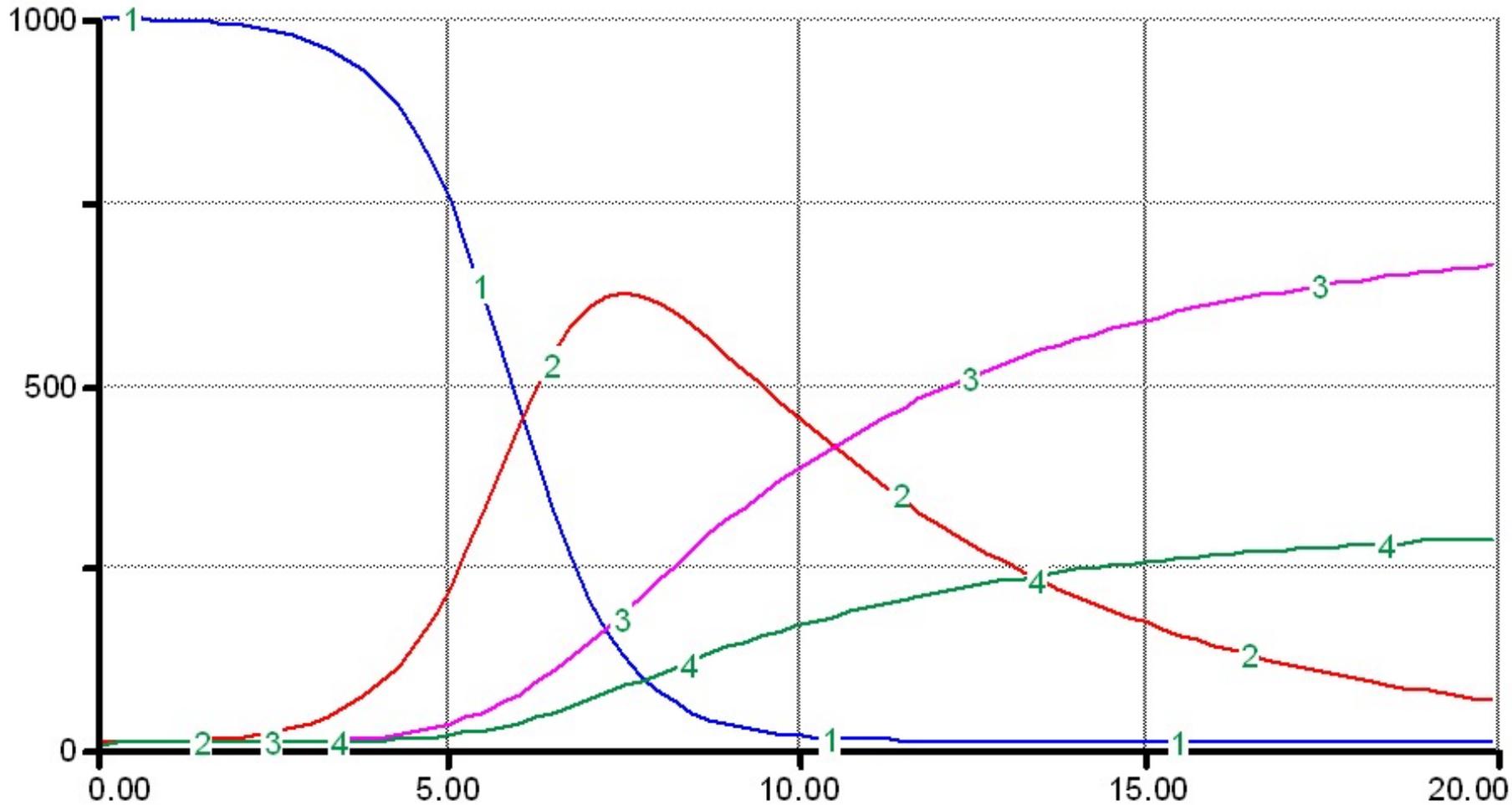
3: recovered

4: dead

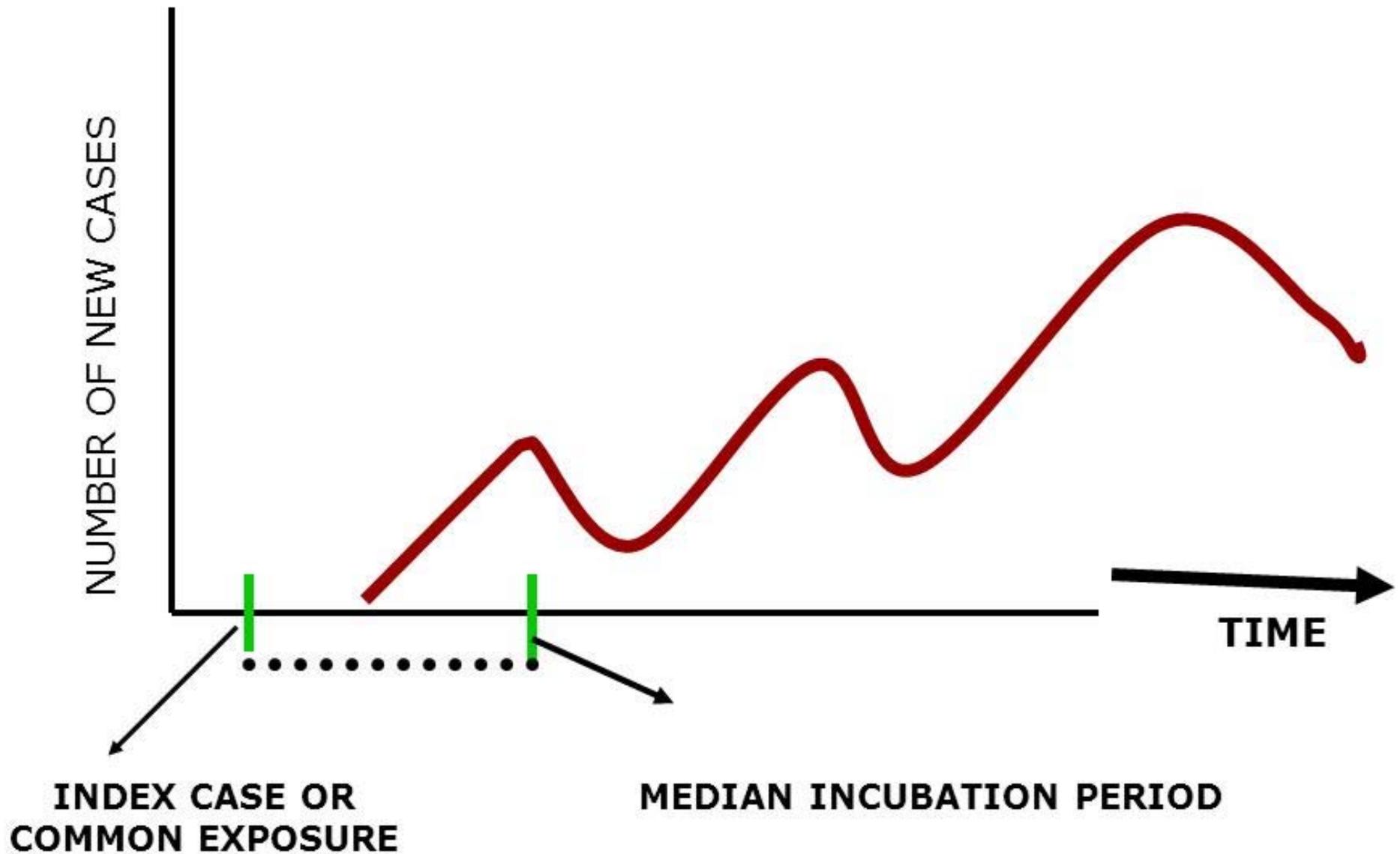
1:  
2:  
3:  
4:

1:  
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1:  
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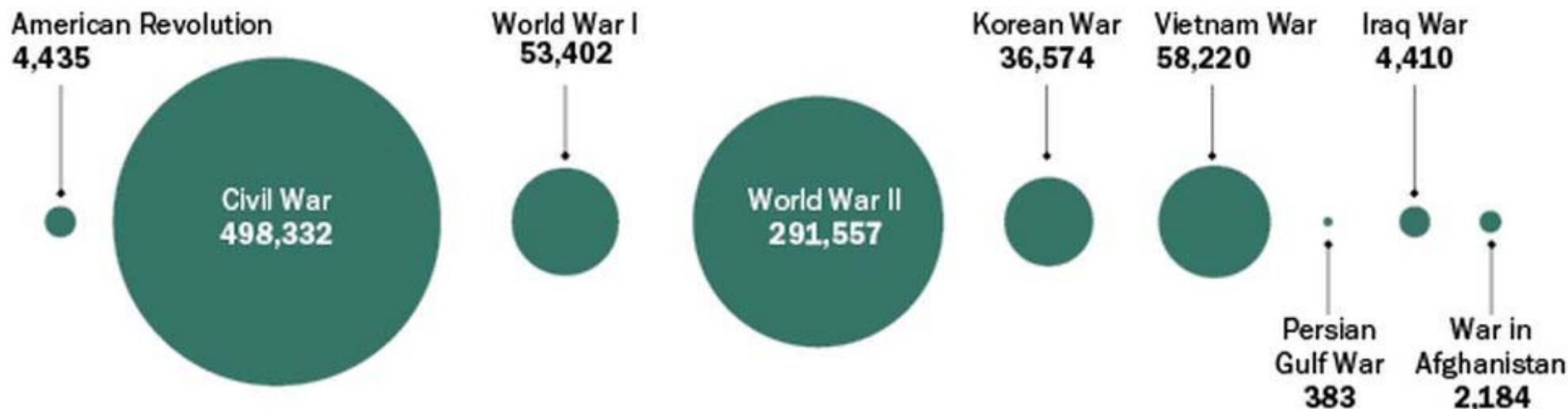


# EPIDEMIC CURVE – PROPAGATED EPIDEMIC



## Military Deaths in America's Major Wars

*Number of American soldiers who died while fighting in major conflicts...*



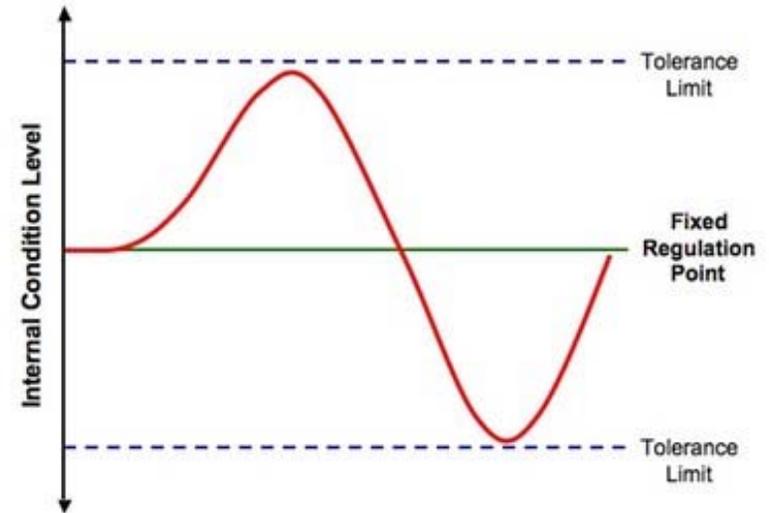
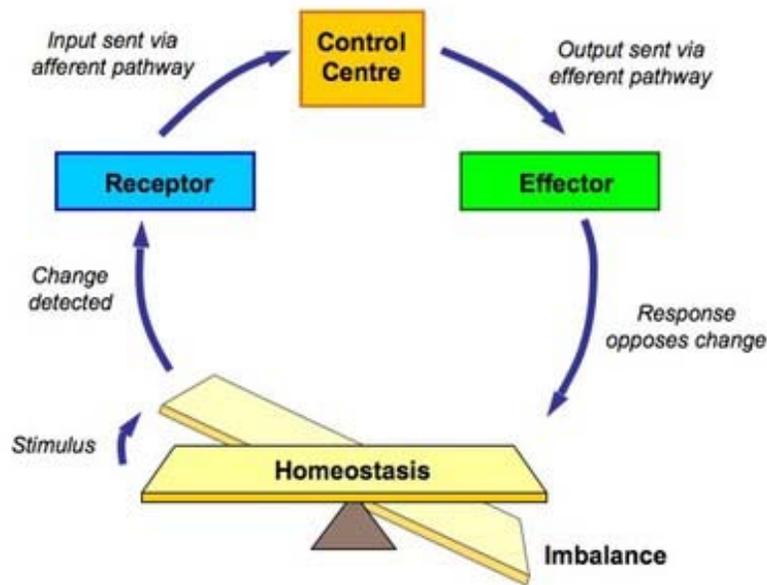
Note: Figures include 'battle deaths' and other deaths in theaters of conflict. Figures for American Revolution, World War I and World War II include 'battle deaths' only. All figures do not include deaths of those in service outside theaters of conflict. Civil War deaths include both Union and Confederate soldiers. Civil War deaths are based on incomplete returns.

Source: U.S. Department of Veterans Affairs; U.S. Department of Defense.

PEW RESEARCH CENTER

# Addiction

- Let's look at addiction as a homeostatic process in human life. In some way we are in a constant state of addiction - whether that potential is realized or unrealized.
- With that premise we can stipulate that there are two types of opioid addict:
  - 1 - The person that has had a predisposition to stimulate the physiological aspects of substance use or abuse as a source of pleasure that encounters opioids while navigating that landscape.
  - 2 - The person that has not, through the use of psychoactive substances, ever sought the “external” influence of pharmaceuticals or drugs for stimulus, and through “medically valid interactions” is exposed to that physiological influence rather innocently.



# Homeostasis is a Process

Addiction, for humans, is homeostatic and relational. Everyone has a baseline, though it may differ, and everyone has a tolerance limit - which can be altered - relative to the individual.

Why is this important to us?

Because at the point of addiction, regardless of predisposition, social or economic status, or even personal desire, addiction becomes the great equalizer - and that is not a good thing.

Why is this not a good thing?

Because that is when the treatment problems begin, and the search begins for someone to blame.

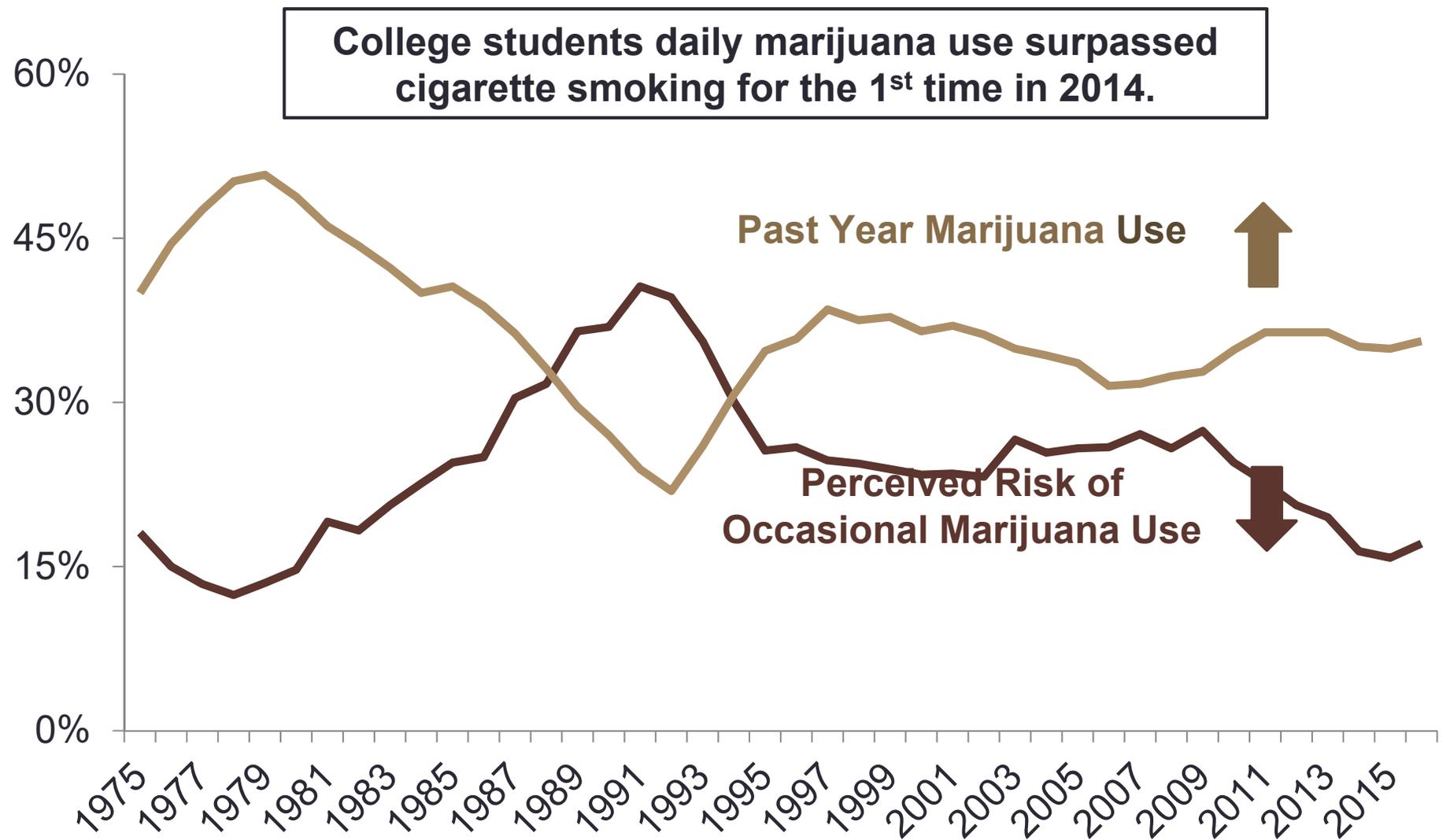
A stylized globe with a map of Southeast Asia and the word 'INTERVIEW' overlaid. The globe is rendered in a light tan color with a grid of latitude and longitude lines. A red line with a dot at its end points to the location of Vietnam on the map. The word 'INTERVIEW' is written in large, white, sans-serif capital letters across the center of the globe. Below the word is a thin white horizontal line. The background of the globe is a dark blue color. The map shows the outlines of Southeast Asian countries, including Vietnam, Laos, Cambodia, Thailand, Malaysia, and Indonesia. The Indian Ocean is labeled in the bottom left, and the Pacific Ocean is labeled in the top right. A compass rose is visible in the top left corner of the globe's frame.

# INTERVIEW

Vietnam

# Youth Marijuana Attitudes vs. Use

Among U.S. 12<sup>th</sup> Graders



“SMART PEOPLE LEARN FROM  
THEIR MISTAKES. BUT THE  
REAL SHARP ONES LEARN  
FROM THE MISTAKES OF OTHERS.”

- BRANDON MULL



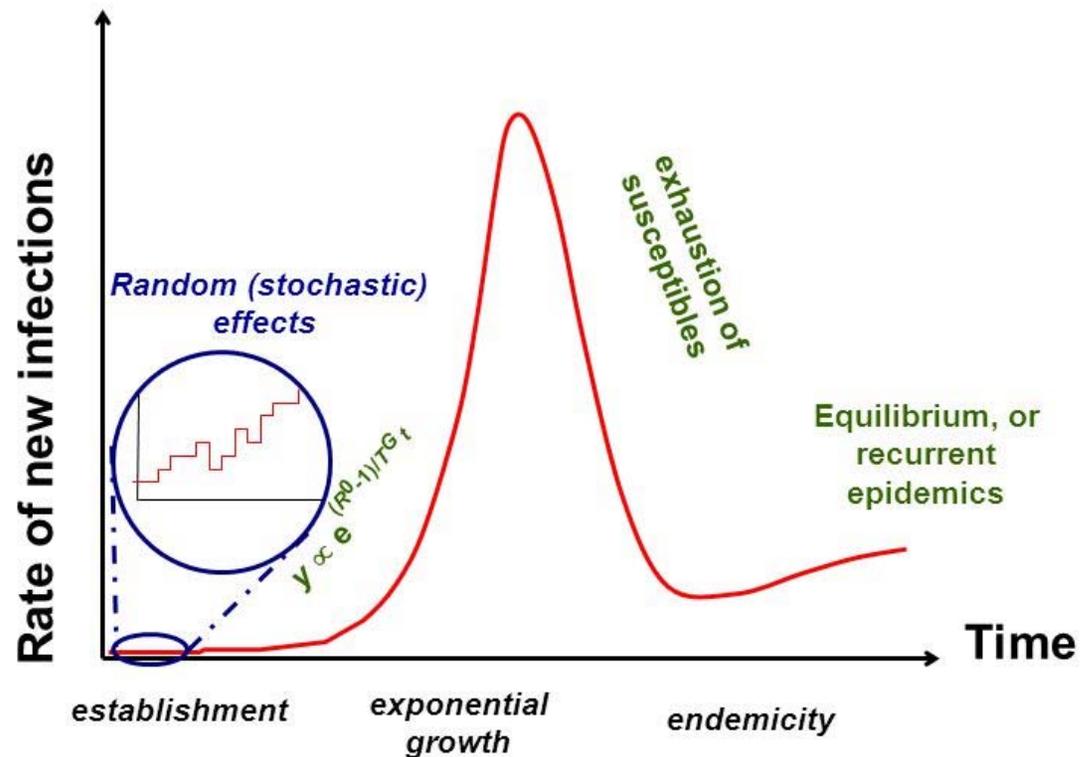
**“These should be teachable moments.”**

# What can you do?

- Use the same epidemiological models we use to understand the transmission of diseases to initiate the transmission of knowledge, understanding and hope into your practice - one patient at a time if necessary.
- Identify the best therapeutic and treatment models that minimize exposure to addictive pharmaceuticals.
- With over 12 million opioid users facing addiction, added to alcohol, nicotine, marijuana and other substances - legal and illegal - understand that you may be the last and first line of defense for not only the opioid epidemic, but what we may come to realize is an “addiction epidemic.”

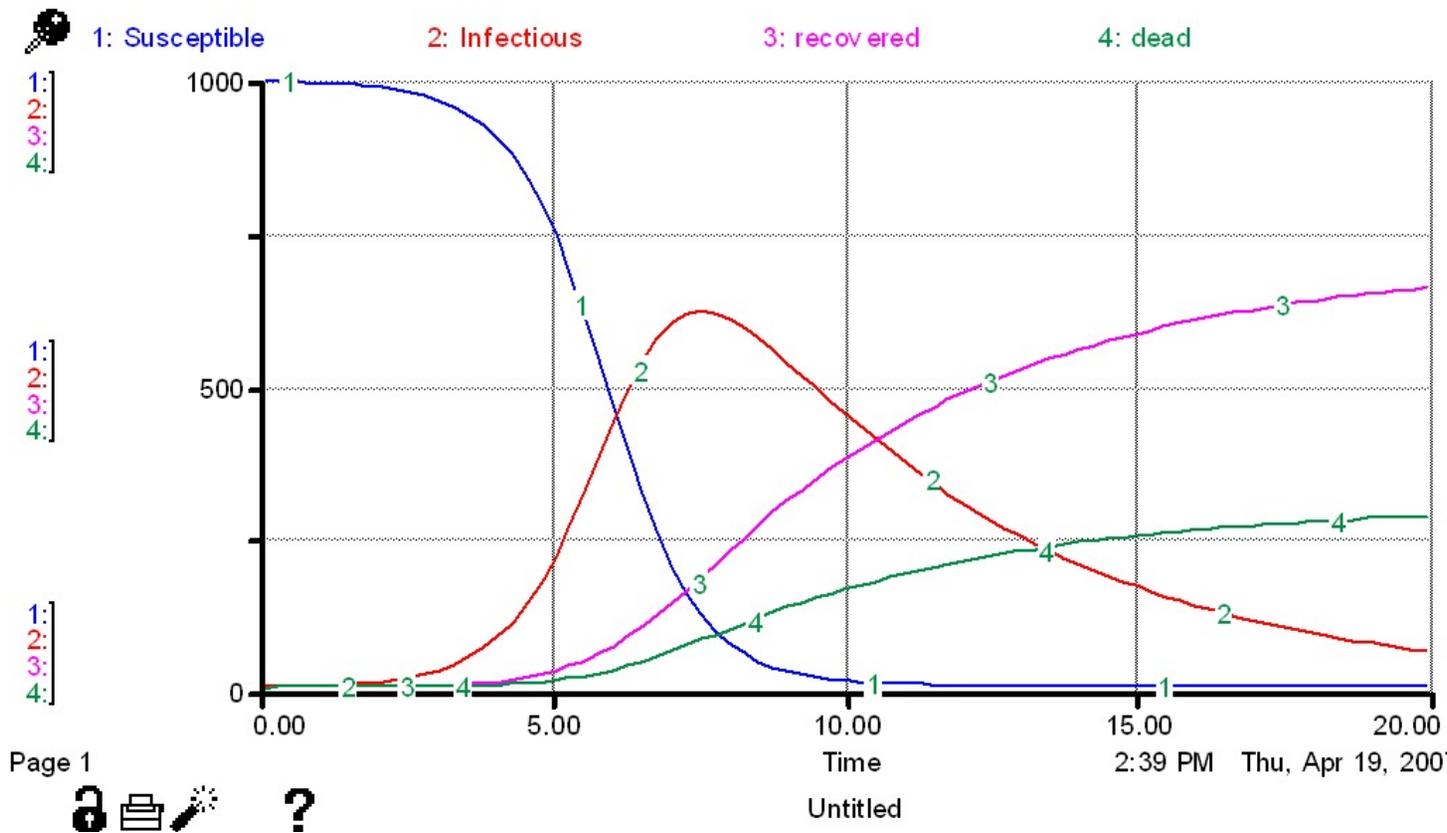


# The epidemic curve



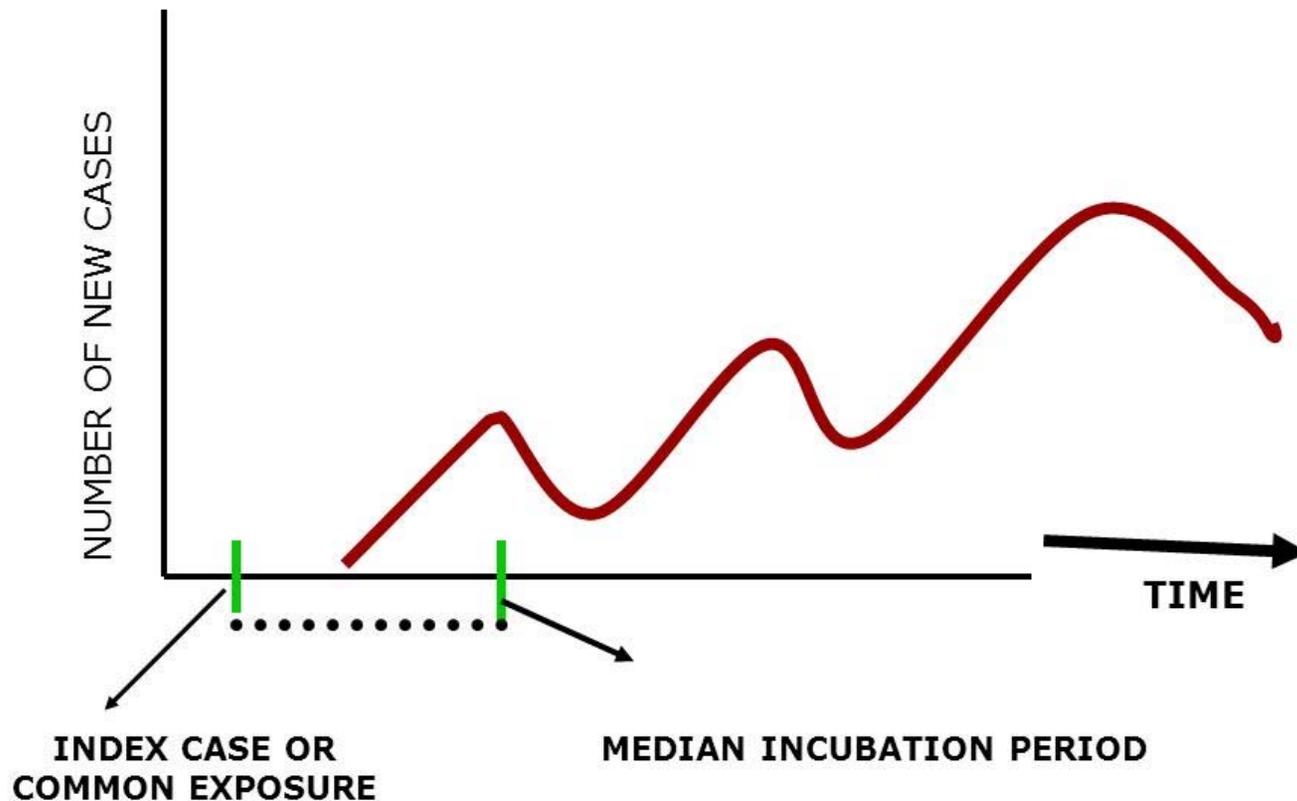
Realize that ideas and advice can spread in the same way as a disease.

# The Life Cycles of an Epidemic



Understand that changing a culture of blame into a climate of change can take time.

## EPIDEMIC CURVE – PROPAGATED EPIDEMIC



Recognize that as a whole, entire generations of medical practitioners, can keep propagating the ideas that will not only combat the disease of addiction but will contribute to the behaviors that prevent the disease.