

The image shows the exterior of Potomac Valley Hospital at dusk. The building features a prominent gabled roof with a large sign that reads "WVU Medicine" in white and gold, with "POTOMAC VALLEY HOSPITAL" in white below it. The sky is a deep blue, and the building's brickwork is visible in the foreground. A large, semi-transparent white circle is overlaid on the image, framing the central text.

**WVU Medicine**  
POTOMAC VALLEY HOSPITAL

# Holistic Pain Management Of Potomac Valley Hospital

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## DISCLOSURES

I have no financial relationships with any commercial interest related to the content of this activity.

I will NOT discuss any off-label use during my presentation.

## BACKGROUND

### Excelsa Health School of Anesthesia:

- Master of Health Science: 2010-2012
- Doctorate of Nurse Anesthesia Practice: 2017-2019

### University of South Florida:

- Simulation Based-Academic Fellowship in Advanced Pain Management: 2018-2019

### Middle Tennessee School of Anesthesia:

- Acute Surgical Pain Management Fellowship: 2019-Present

- Obtained board certification in non-surgical pain management in 2019: NSPM-C
- Currently, 60 CRNAs have this board certification nationally
  - Only 1 CRNA in West Virginia with NSPM certification
- West Virginia Association of Nurse Anesthetists Pain Management Committee Chair
- West Virginia Association of Nurse Anesthetists Government Relations Committee Chair



## NSPM Certification

- The National Board of Certification and Recertification for Nurse Anesthetists (NBCRNA) Non-surgical Pain Management (NSPM-C) credential program is accredited by both the National Commission for Certifying Agencies (NCCA) and the Accreditation Board for Specialty Nursing Certification (ABSNC).

- Unrestricted licensure as a RN and/or APRN, as applicable
- Current full recertification as a nurse anesthetist
- Two years of nurse anesthesia clinical experience by the time of NSPM application
- Attestation to being actively engaged in nurse anesthesia clinical practice
- Evidence of completion of education activity in each of the following areas within the immediate four years prior to the date of application:
  - Physiology and pathophysiology of pain
  - Imaging safety
  - Assessment/diagnosis/integration/referral
  - Pharmacological treatment
  - Interventional pain strategies
  - Professional aspects
- Three (3) letters of support from professional colleagues who have observed the practitioner's NSPM technique and/or outcomes describing:
  - Evidence of competence in patient evaluation and findings
  - NSPM technique
  - Safe needle placement
  - Post-care assessment
- Successful completion of an assessed NSPM cadaver or an assessed NSPM simulation course
- Successful completion of the NSPM subspecialty certification examination



**West Virginia  
should be known  
for this....**

**And not for its opioid problem.**

# PREVELANCE

## Opioid-Involved Overdose Deaths

### West Virginia

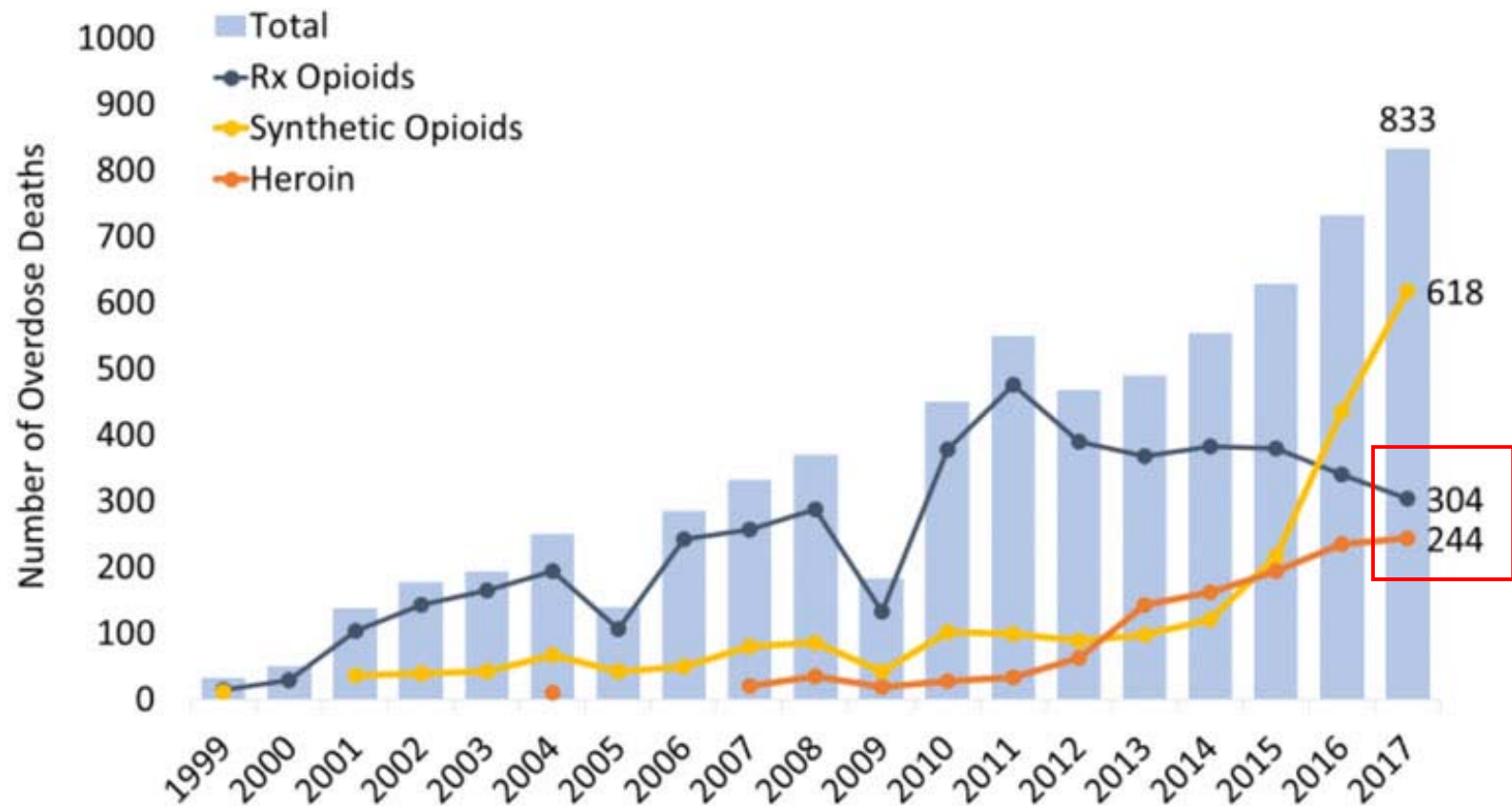
WV has the highest age-adjusted rate of drug overdose deaths involving opioids. In 2017, there were 833 drug overdose deaths involving opioids in West Virginia.

### Mortality Rate

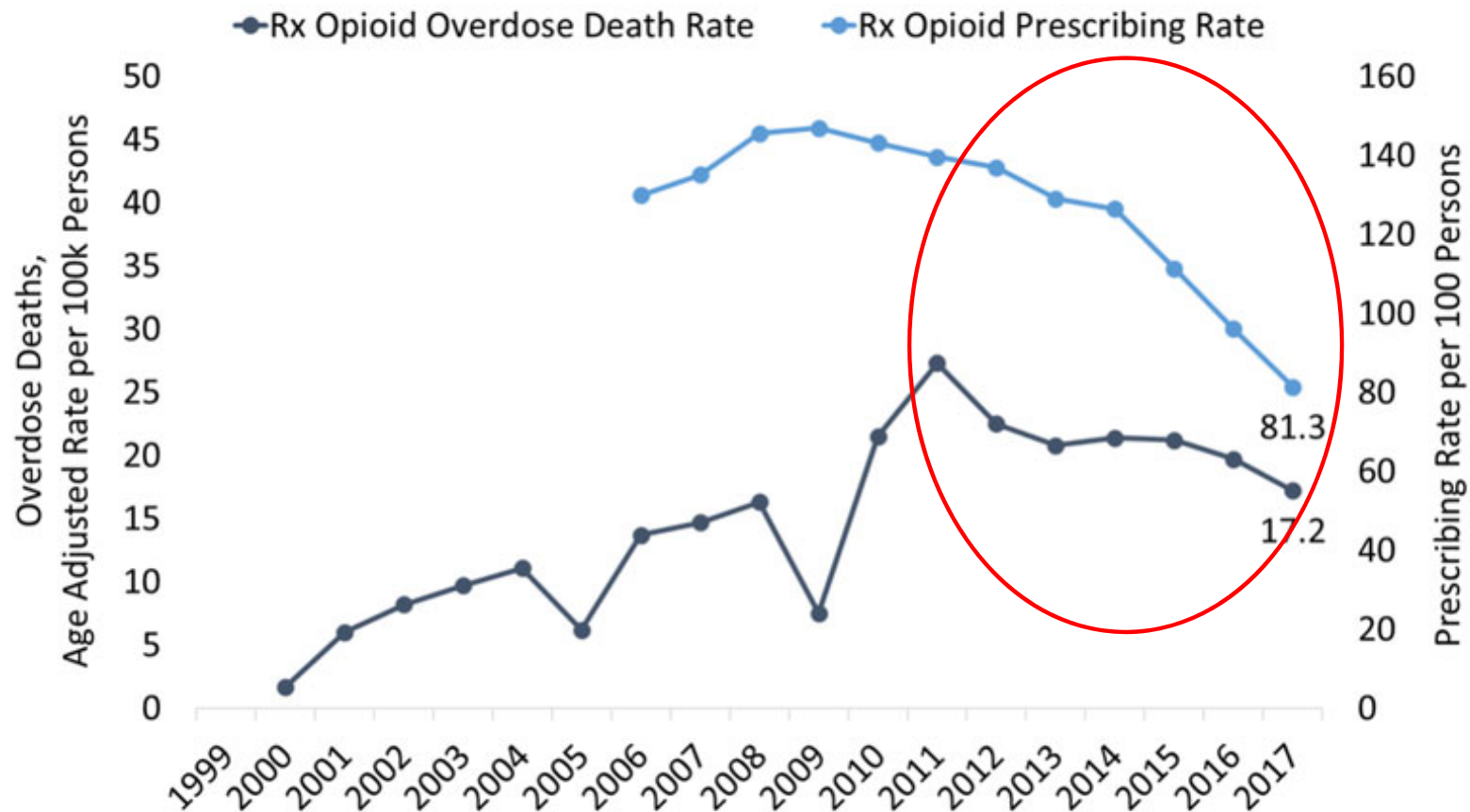
West Virginia death rate in 2017 was 49.6 deaths per 100,000 persons. This is double the rate in 2010 and **THREEFOLD** higher than the national rate of 14.6 deaths per 100,000 persons.

**304 prescription opioid-involved deaths occurred in 2017**

<https://www.drugabuse.gov/opioid-summaries-by-state/west-Virginia-opioid-summary>



Number of overdose deaths involving opioids in West Virginia, by opioid category



West Virginia age-adjusted rate of overdose deaths involving prescription opioids and the opioid prescribing rate



## Life Cycle

**The opioid crisis is not only affecting patients in the present, but also in the future as many of the cascading events occur later on in life.**

**Infants are being born into the opioid crisis, creating a lifelong issue, requiring extensive treatment and management, even before taking their first step.**

### Neonatal Abstinence Syndrome (NAS)

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NAS or neonatal opioid withdrawal (NOWS) may occur when a pregnant woman uses drugs such as opioids during pregnancy.

### Incidence of NAS/NOWS

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A recent national study revealed a **FIVEFOLD** increase in the incidence of NAS/NOWS between 2004 and 2014, rising from 1.5 cases per 1,000 births to 8.0 cases per 1,000 births.

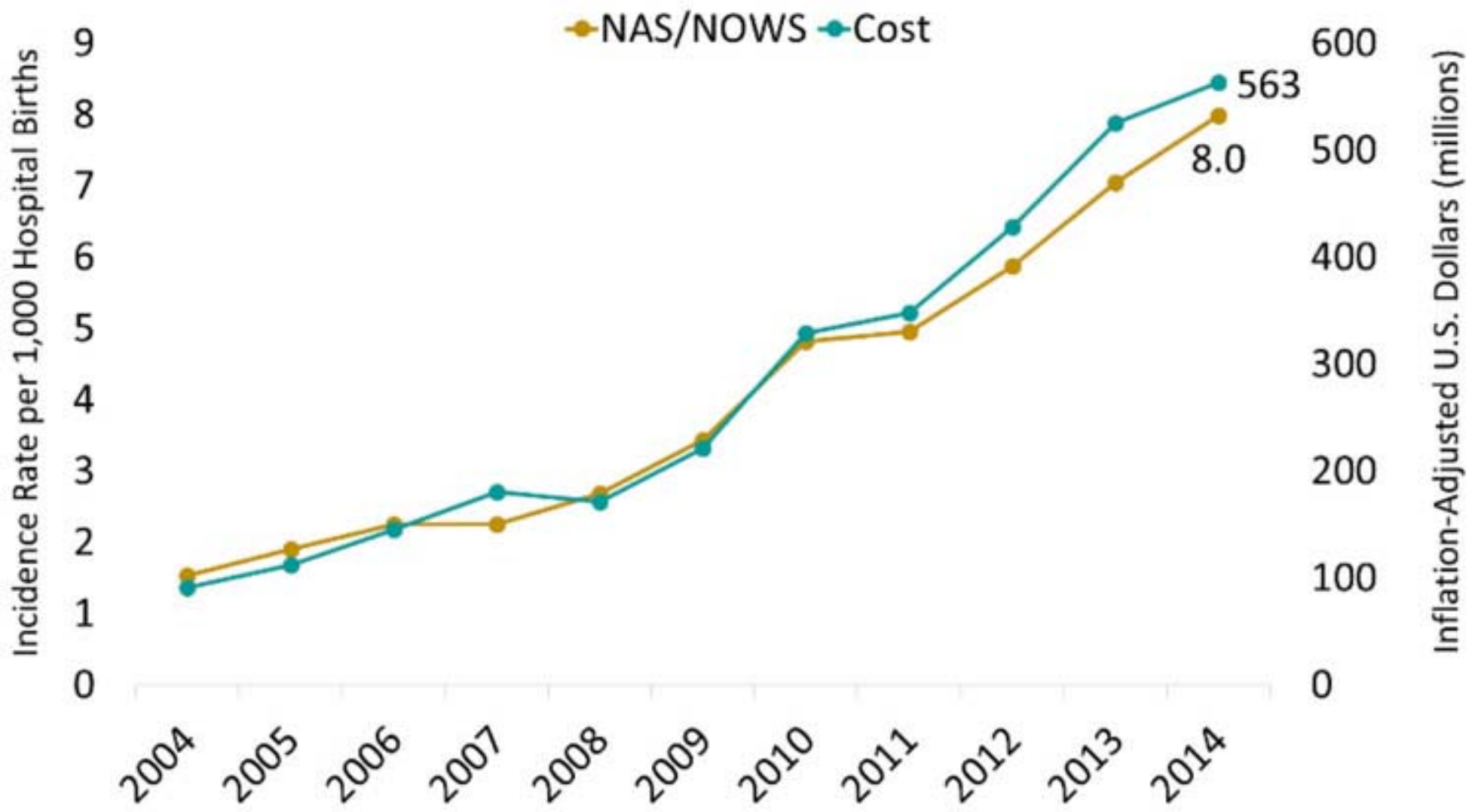
### Financial Burden

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During the same time period (2004-2014), hospital costs for NAS/NOWS births increased from \$91 million to **\$563 million**.



This is the equivalent of one baby born with symptoms of NAS/NOWS **every 15 minutes** in the United States!!!



**How do we correct  
the problem?**

**BOTTOM LINE:  
WE NEED TO INCREASE ACCESS TO  
QUALITY CARE**

Many rural areas in West Virginia lack access to specialty care areas, such as pain management. Increasing the access and availability of these such services to the underserved rural areas, can effectively reduce the devastating effects of not having these services available.

Access to  
Care

Increasing access to quality care in rural areas is always a challenge. In West Virginia alone, there are many underserved areas without specialty care. This creates a burden to access to care and may add to the opioid epidemic.

# OPIOID CRISIS

IN WEST VIRGINIA



ONE OF FIVE STATES  
WITH LARGEST RATE INCREASE IN SYNTHETIC OPIOID DEATHS

ONE OF FOUR STATES  
WITH LARGEST RATE INCREASE IN HEROIN DEATHS

17% INCREASE IN OVERDOSE DEATH RATE  
41.5 PER HUNDRED THOUSAND PEOPLE FROM 2014-2015

NATIONAL AVERAGE  
OVERDOSE DEATHS INVOLVING OPIOIDS:  
**10 per 100,000**

**VS**

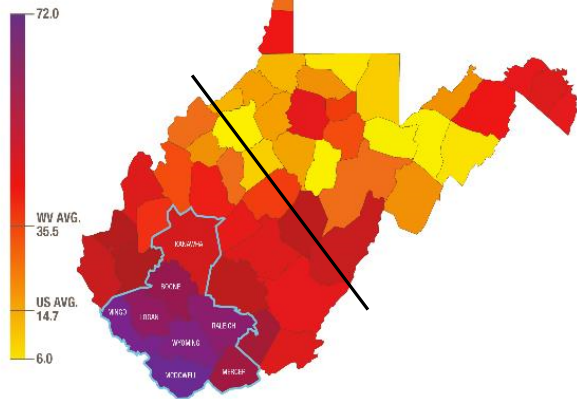
WEST VIRGINIA AVERAGE  
OVERDOSE DEATHS INVOLVING OPIOIDS:  
**41.5 per 100,000**

All stats from the Centers for Disease Control and Prevention  
Learn more at [usupulse.blogspot.com](http://usupulse.blogspot.com)

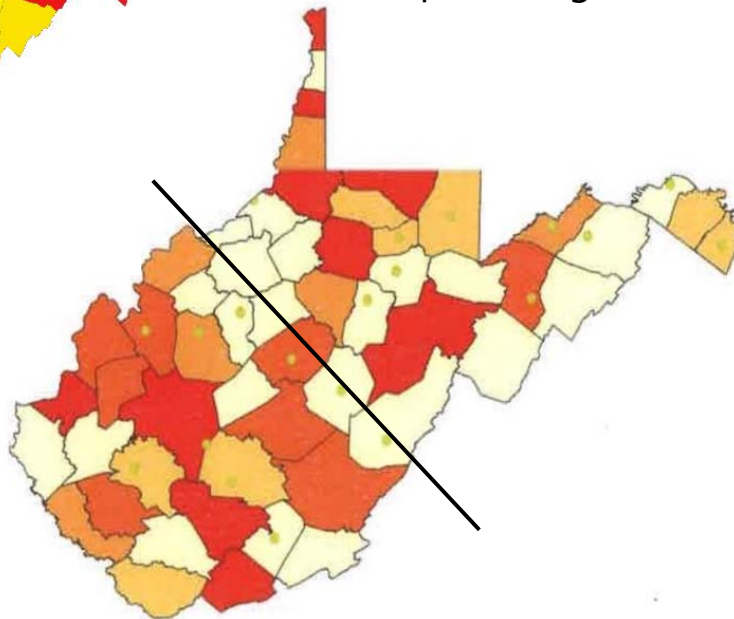
# Access to Care

## Access to care limitations in West Virginia

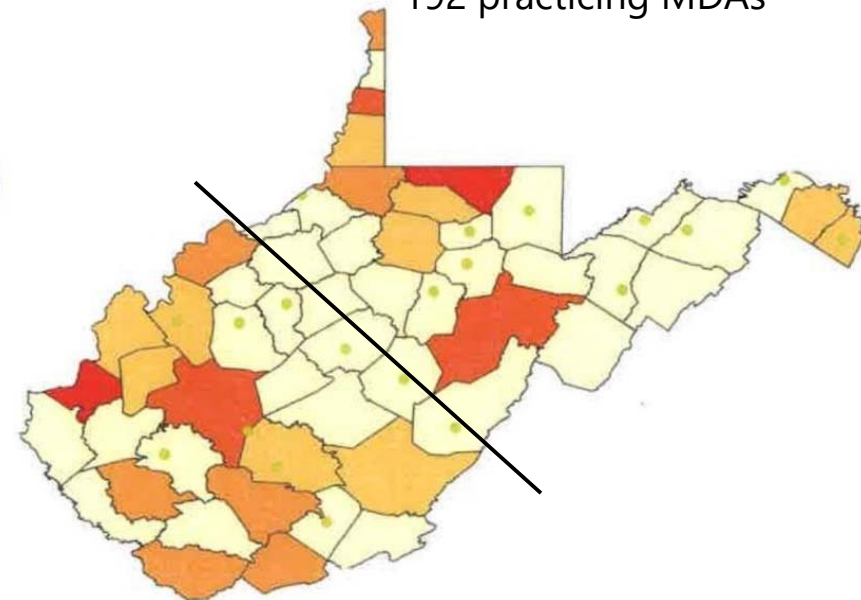
WEST VIRGINIA  
OVERDOSE DEATHS 2014  
(RATE / 100,000 POPULATION)



CRNAs  
572 practicing CRNAs



MDAs  
192 practicing MDAs



### Legend

● Critical Access Hospitals

Anesthesia Provider Density

- 0 None
- 1-10 per 100,000 pop
- 11-20 per 100,000 pop
- 21-30 per 100,000 pop
- 31+ per 100,000 pop

Source: 2018 Physician Compare

# Barriers to Health Services:

**1**

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High Cost of  
Care

**2**

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Inadequate or no  
insurance  
coverage

**3**

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Lack of  
availability of  
services

**4**

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Lack of culturally  
competent care

**5**

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Residential  
location

# FACT

## **Emerging Issues in Access to Health Services**

20 million adults have gained health insurance coverage as a result of the Patient Protection and Affordable Care Act of 2010. Even with the number of uninsured being significantly reduced, millions of Americans still lack coverage. Millions of Americans living in rural areas lack access to coverage.

**Holistic Pain  
Management of  
Potomac Valley  
Hospital**

# **Holistic Pain Management Model**

WVU Potomac Valley Hospital will be offering an integrative solution to the opioid epidemic sweeping through the state of West Virginia.

By utilizing several health care providers and specialties, each individual need of the members of our community and state will be met through this collaborative team.



# 1

## “Person in Environment”

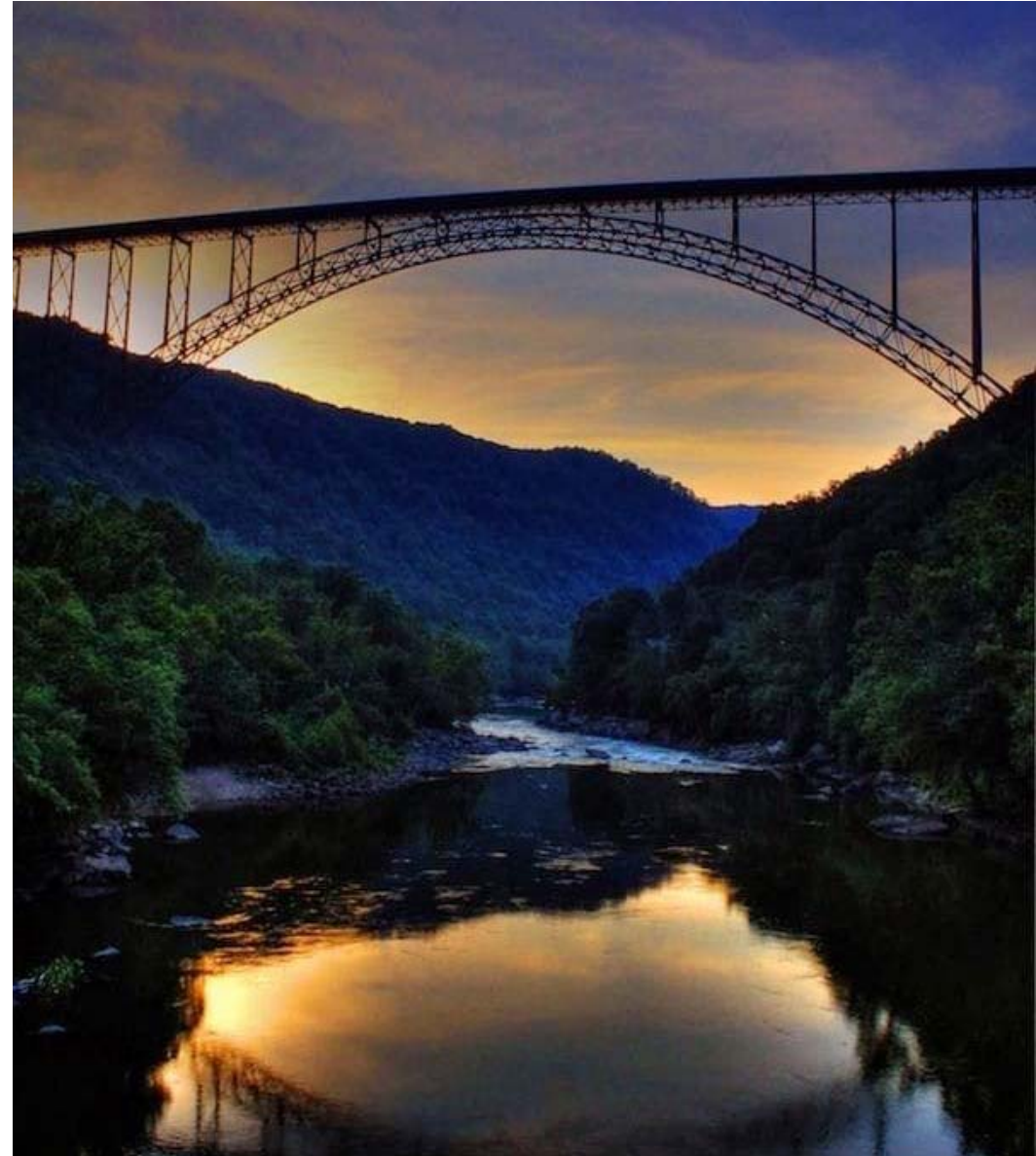
### Social Work

#### What is social workers role in pain management?

Social workers bring a worldview based on an appreciation of a “*person in environment*” perspective, and the engagement process “*starts where the client is.*” This treatment approach views pain as a multidimensional experience. This unique heritage of social work creates an expectation of holistic assessment and interventions, ranging from the practical to the clinical to policy aspects of the pain experience.

This includes: **psychodynamic therapy, problem solving, education, advocacy, resource finding, networking, discharge planning, public policy, and negotiation of systems**

Reference: [www.socialworktoday.com/archive/novdec2007p44.shtml](http://www.socialworktoday.com/archive/novdec2007p44.shtml)





# 2

## “Beyond Opioids”

### Physical Therapy

Current curricular guidelines for DPT programs call for a “mechanisms-based approach” to pain management. Pain mechanisms include nociceptive, central, neuropathic, psychosocial, and movement system processes.

Interventions can include: range of motion therapies, strengthening, vocational rehabilitation, desensitization/reactivation modalities, edema control, and dry needling for myofascial release.

Reference: [www.apta.org/PTinMotion/2019/5/Feature/ChronicPain/](http://www.apta.org/PTinMotion/2019/5/Feature/ChronicPain/)

# 3

## Modulation

### Interventional Pain Techniques

Pain modulation techniques, including invasive and noninvasive therapies. Through advanced training and board certification, many advanced pain therapies are available through a CRNA driven pain service. Pain control will be established through the use of neuromodulation, musculoskeletal injections, peripheral nerve injections, neuraxial injections, opioid free medication therapies, nutritional counseling, migraine/headache management, cranio-facial pain management, neuroablative techniques, and botox therapies. Non-invasive techniques will include biofeedback reconditioning, relaxation strategies, and behavioral modification therapies.



# 4

## Restoring Balance Acupuncture

Acupuncture involves the insertion of very fine needles along specific points of the human body, to restore energy, regain balance of health systems, and to alleviate painful conditions. Acupuncture is thought to restore the imbalance of life forces, known as "qi" through the complimentary extremes of "yin" and "yang". Qi is said to flow through meridians in the human body and these meridians are accessible through 350 acupuncture points in the body.





# 5

## Tissue Manipulation

### Massage Therapy

Massage therapy dates back thousands of years. Hippocrates included the “art of rubbing” in a definition of medicine. Massage therapy can be utilized for a variety of health-related purposes including pain alleviation, reduce stress, increase relaxation, address anxiety and depression, rehabilitate sports

Reference: [www.medicinenet.com/massage\\_therapy/article.htm#what\\_do\\_message\\_therpists\\_do\\_in\\_treating\\_patients](http://www.medicinenet.com/massage_therapy/article.htm#what_do_message_therpists_do_in_treating_patients)



# Opioid Sparing for Acute Pain

## Opioid Free Anesthesia Techniques

Choosing opioid free anesthetic (OFA) techniques include: providing superior post-operative pain control by protecting the patient from surgical and opioid induced hyperalgesia; minimizing respiratory depression associated with co-morbid conditions such as COPD, sleep apnea, or obesity. Opioid free anesthesia also minimizes the occurrence of post-operative cognitive dysfunction. Opioid sparing has shown to also decrease the incidence of cancer recurrence. Lastly, OFA techniques allow adequate care for those patients undergoing addictive treatments or are in recovery from post addiction.

Reference: <https://www.goopioidfree.com/about-us/>

- **Regional Anesthesia, including ultrasound guided peripheral nerve blocks**
- **Ketamine infusion therapies**
- **Lidocaine and Magnesium infusions**
- **Dexmedetomidine (Alpha-2 agonist) infusions**
- **Indwelling pain catheters**

**SOFA**  
The Society for Opioid Free Anesthesia



## GOAL

To increase access to care to the members of my community and to serve as a solution to the opioid epidemic sweeping through our country.

## INSPIRE

To inspire other CRNAs to venture into pain management and provide many of the same therapies to the members of their communities, statewide and even further.

## FUTURE

To serve as an adjunct training resource for the established CRNA fellowships furthering the education in pain management. With the ongoing issues surrounding opioids, we need to empower advanced practice professionals to cohesively serve as a solution to this problem in many underserved, rural areas.



“You treat a disease, you win, you lose. You treat a person, I guarantee you, you’ll win, no matter what the outcome.”

—Patch Adams