ARIZONA'S RURAL HEALTH TRANSFORMATION PROGRAM OPPORTUNITY

Rural Arizona Opioid Morbidity & Mortality, Prevention & Treatment Services

October 17, 2025
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KEY POINTS:

- H.R. 1 was signed into law 7/4/25 . Title VII, Sec. 71401 details the Rural Health Transformation Program (RHTP).[1]
- The Governor's Office will coordinate Arizona's response to the CMS RHTP opportunity.
- One RHTP activity for states is "Supporting access to opioid use disorder treatment services… other substance use disorder treatment services, and mental health services." This is not surprising given the rates of overdose over the past 10 years, particularly from synthetic opioids (Figure 1).
- Arizona can use RHTP funds to build on the existing substance use care continuum to transform the care for substance use and opioid use disorders (SUD/OUD) and mental health in rural areas.

THE NEED IN ARIZONA:

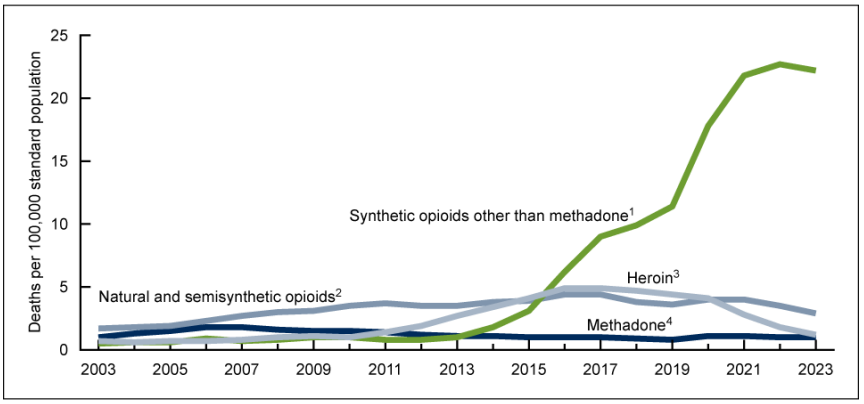
In Arizona more than five people a day die from an overdose primarily driven by prescription opioids and counterfeit pills laced with fentanyl.[2]

Arizona's rural pregnancy-associated deaths increased between 2018-19. SUD was a contributing factor in 48% among all pregnancy-associated deaths in Arizona.[3]

Shared priorities between the Arizona Department of Health Services and rural serving Critical Access Hospitals (CAHs) include mental, behavioral health, and substance use services.[4]

There is limited opportunity for education and training among healthcare students and professionals.

Figure 1. Age-adjusted rate of drug overdose deaths involving opioids, by type of opioid: United States, 2003-2023



[1]No significant trend from 2003 to 2013; significant increasing trend from 2013 to 2021, with different rates of change over time; no significant trend from 2021 to 2023 ($p < 0.05$). Rate in 2023 significantly lower than in 2022 ($p < 0.05$).
[2]Significant increasing trend from 2003 to 2010; no significant trend from 2010 to 2021; significant decreasing trend from 2021 to 2023 ($p < 0.05$).
[3]Significant increasing trend from 2003 to 2016, with different rates of change over time; significant decreasing trend from 2016 to 2023, with different rates of change over time ($p < 0.05$).
[4]Significant increasing trend from 2003 to 2006; significant decreasing trend from 2006 to 2017; no significant trend from 2017 to 2023 ($p < 0.05$).
NOTES: Drug overdose deaths are identified using the *International Classification of Diseases, 10th Revision* underlying cause-of-death codes X40–X44, X60–X64, X85, and Y10–Y14. Drug overdose deaths involving selected drug categories are identified by specific multiple cause-of-death codes: heroin, T40.1; natural and semisynthetic opioids, T40.2; methadone, T40.3; synthetic opioids other than methadone, T40.4. Deaths involving more than one opioid category (such as a death involving both methadone and a natural or semisynthetic opioid) are counted in both categories. The percentage of drug overdose deaths that identified the specific drugs involved varied by year, ranging from 75% to 79% from 2003 to 2013 and increasing from 81% in 2014 to 96% in 2023. Age-adjusted death rates were calculated using the direct method and the 2000 U.S. standard population.
SOURCE: National Center for Health Statistics, National Vital Statistics System, mortality data file.

Garnett MF, Miniño AM. Drug overdose deaths in the United States, 2003–2023. NCHS Data Brief, no 522. Hyattsville, MD: National Center for Health Statistics. 2024. DOI: https://dx.doi.org/10.15620/cdc/170565.

BACKGROUND:

The current rural crisis involves opioids, stimulants, and mental health disorders.[7] This affects families as 19% of the U.S. population reports having a family member or close friend who died from an overdose.[8] Rural communities are hard hit due to access to care, health workforce shortages, lack of technology and funding.[7]

Figures 2 and 3[9,10] show changes in drug overdose mortality rates from 2016 to 2023. The number of people who died in Arizona from a drug overdose death 2016 was 6.3 to <23.22 per 100,000 total population in 2016, the year prior to the June 5, 2017 declaration of emergency in Arizona.[11] In 2023, the rate increased to 23.22-<40.14 per 100,000.

KEY DEFINITIONS:

Substance Use Disorder (SUD): Occurs when the recurrent use of alcohol and/or drugs causes clinically and functionally significant impairment, such as health problems, disability, and failure to meet major responsibilities at work, school, or home. According to the DSM-5-TR, a diagnosis of SUD is based on evidence of impaired control, social impairment, risky use, and pharmacological criteria.[5]

Opioid Use Disorder (OUD): A disorder characterized by loss of control of opioid use, risky opioid use, impaired social functioning, tolerance, and withdrawal.[6]

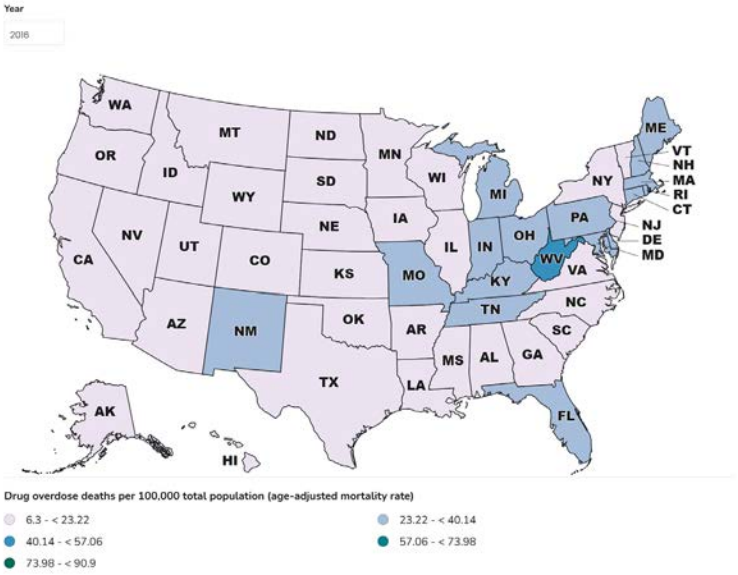


Figure 2: Drug overdose deaths in 2016 per 100,000

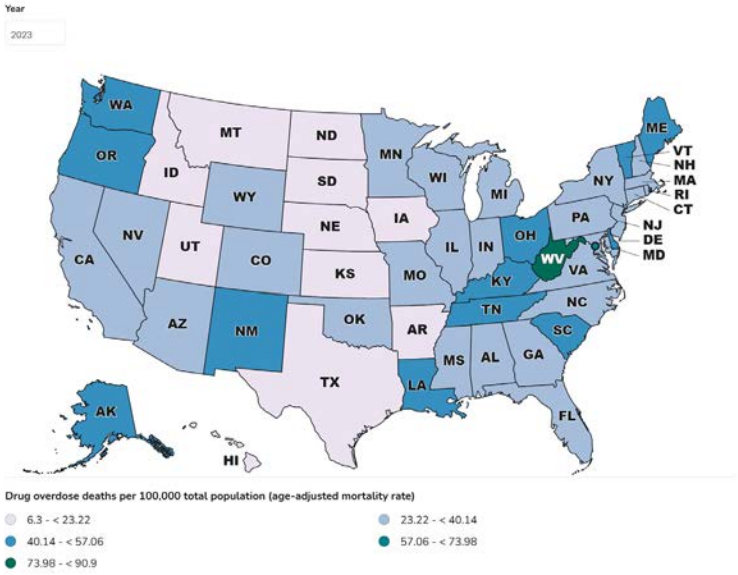


Figure 3: Drug overdose deaths in 2023 per 100,000

RELEVANCE TO RURAL ARIZONA:

Table 1 shows fatal, non-fatal overdoses and Emergency Department (ED)/Inpatient (IP) visits for a suspected drug overdose in Arizona since 2017. For this brief, we define rural areas as any county besides Maricopa or Pima. Two of the four counties with a fatal overdose rate higher than the state rate are rural. Four of the six counties with a non-fatal overdose rate higher than the state rate are rural. One rural county has an ED/IP visit rate higher than the state rate.

Since 2019, 7 of the 14 Arizona counties with data report naloxone administration at or above the state rate of 79%.[4] High mortality rates associated with SUD/OUD include people who survive an opioid overdose. People who survive an overdose are 100 times more likely to die by overdose in the following year, 18 times more likely to die by suicide than the general population, and up to 5.5% of such people treated in an ED die within a year.[12]

Table 1. Arizona Overdose Mortality, Morbidity, Emergency Department/Inpatient Visits, June 2017 - July 2025

	Fatal Overdose (per 100,000) (mortality)	Rank of 15 Counties Highest (worse) (1) to Lowest (15)	Non-fatal overdose (per 100,000) (morbidity)	Rank of 15 Counties Highest (worse) (1) to Lowest (15)	ED/IP (per 100,000)	Rank of 15 Counties Highest (worse) (1) to Lowest (15)
Arizona	**20.5**	**-**	**47.9**	**-**	**714.1**	**-**
Apache	19.2	5	16.6	13	670.5	6
Cochise	15.4	11	13.2	14	622.7	8
Coconino	14.9	12	20.9	12	608.6	9
Gila	22.1*	2	54.6*	1	638.5	7
Graham	16.4	9	52.6*	4	600.0	10
Greenlee	16.0	10	21.7	11	685.4	5
La Paz	21.1*	4	12.6	15	400.0	12
Maricopa	21.6*	3	51.3*	5	714.6*	3
Mohave	17.2	8	38.5	8	537.2	14
Navajo	17.5	7	43.4	7	582.1	12
Pima	23.6*	1	48.9*	6	852.0*	1
Pinal	13.9	14	52.9*	3	700.6	4
Santa Cruz	14.3	13	24.9	10	561.0	13
Yavapai	18.2	6	26.1	9	716.2*	2
Yuma	5.0	15	54.3*	2	585.0	11

Source: Arizona Department of Health Services, Opioid Dashboard, July 31, 2025.

Notes: ED = Emergency department. IP = Inpatient. * = Higher than the Arizona state per 100,000 rate. light blue shaded indicates one or measures above the state rate.

PREVENTION AND TREATMENT:

SUD and OUD are typically progressive disorders that worsen over time.[13] People may encounter services that provide an opportunity of prevention and referral to treatment For example, the percent of patients using emergency departments show mentions of alcohol (38.9%), polysubstance use (21.3%), cannabis (13.0%), opioids (11.2%), and methamphetamine (6.7%) use.[14] Its unclear how, if at all, these patients received a brief intervention, medications, or referral to specialty care. This is especially relevant given the high mortality rates after an emergency department visit and the high cost of emergency department care.

Not having access to care early and often leads to dissimilarities and disparities particularly for rural populations. For example, American Indian/Alaska Native and Black, Non-Hispanic populations had higher rates of overdose as compared to other racial/ethnic groups and comprise a sizable proportion of rural communities.

Many factors contribute to SUD/OUD risk. The younger a person first uses alcohol, nicotine or other drugs is a strong predictor for future problems.[13] Injury and chronic pain are a risk factors; 20% of the U.S. population reports chronic pain.[15] Patients who take opioids for pain, as prescribed, may not be identified as needing treatment.[16] Pain and OUD often co-occur with mental health issues such as depression, anxiety, suicidality and certain infectious diseases (e.g., HIV, HCV).[15,17]

Most people who use or misuse prescription or other drugs do not meet SUD/OUD diagnostic criteria. This means we have to opportunity to interrupt the progression of substance use disorders by transforming rural healthcare. (see Appendix: Substance Use Care Continuum).

Historically, SUD + MH services have been treated in specialty care typically when symptoms have progressively worsened. There are effective and reimbursable SUD health promotion, prevention, and early intervention treatments including integrated behavioral health models that aim to identify and treat symptoms early. Integrated behavioral health models combine general medical and behavioral health services. In practice, scholars have cited treatment complexity, financial constraints, regulatory burdens, and sociocultural challenges as barriers to scaling SUD services.[18,19]

It is equally important to address the inadequacy of learning and practice opportunities for health professionals. For example, 68% of medical schools included curriculum events (primarily lectures) about addiction medicine and opioids in academic year 2018-2019. This was an increase from 26% in 2013-2014.[20] This means the current medical workforce may not have adequate training in these areas. Arizona developed and implemented the pain and addiction curriculum in 15 schools. The evaluation indicated 10 schools implemented 10 of the 10 recommended curriculum components.[21] Building on and expanding this curriculum and evaluation can address learning and practice gaps.

TRANSFORMATION OPPORTUNITIES:

Arizona implemented effective SUD/OUD + MH policies, practices, and approaches that contributed to a modest but important decline in non-fatal and fatal overdoses from 2023 to 2024: non-fatal = 4,084 in 2023 decreased to 4,051 in 2024; fatal = 1,928 in 2023 decreased to 1,651 in 2024. Nationally 70 million adults perceive they have a substance use and/or mental health problem, of whom 72% (50 million) consider themselves in recovery or recovered.[19] Prevention and treatment work. Sustaining and expanding rural efforts include:

Supporting the Rural Infrastructure to:

- Enhance Workforce Development: Compared to national averages AzRHCs consistently report building on the existing infrastructure to allow coordination and collaboration across the substance use care continuum inclusive of people and families with lived experience, first responders, employers, educators, child welfare, justice, and faith communities.
- Train, retain, and provide practice opportunities for the rural health workforce on laws, policies and evidence-based services to address substance use and related issues.
- Expand naloxone availability and train first responders, healthcare providers, community health workers and representatives (CHW/Rs), peer and family support specialists, and bystanders (e.g., family members, students; educators, employers, and businesses).
- Use technology to enhance continuity of care across health systems on SUD/OUD + MH issues including telehealth, telepsychiatry, integrated electronic health records, controlled substance prescription monitoring program, and health information exchange.
- Amplify existing efforts that produce positive results through systematic evaluation.

Enhancing health services to:

- Expand multi-modal approaches to pain care using opioid stewardship programs.
- Prioritize addressing SUD/OUD + MH for young people, pregnant women, and people who are older.
- Educate providers and patients about medication safety and heat.
- Integrate CHW/Rs, peer and family support specialists into health delivery settings.
- Use developmentally appropriate approaches to enhance health throughout the lifespan.
- Promote individual, family, and community strengths, resilience, and growth.

Promoting prevention efforts to:

- Expand access to community coalitions to address county wide risk and protective factors.
- Implement evidence-based prevention and treatment using the screening, brief intervention, and referral (SBIRT) framework. SBIRT is scalable, reimbursable, and portable in a variety of settings.
- Engage employers and educators to support prevention efforts in the workplace and schools/universities.
- Support prevention strategies throughout the lifespan.

Supporting, enhancing treatment to:

- Educate first responders and healthcare providers about the safety and efficacy of pharmacological and behavioral treatments.
- Use mobile and street medicine approaches to provide access to SUD/OUD + MH treatment in remote locations.
- Increase use of medications and brief behavioral interventions for SUD/OUD + MH by starting them in the ED and acute care settings.
- Expand access to SUD/OUD , treatment and support services by coordinating care.
- Ensure continuity of care with community based primary care, pharmacies, and specialty care.

Support recovery efforts to:

- Provide employer incentives to hire people in recovery.
- Expand peer led models such as CHW/Rs, peer and family support specialists, navigators to provide regular checkups.
- Connect recovery communities and their loved ones through volunteer activities, social support, and civic engagement.

APPROACH:

Data in this AzCRH brief is an analysis of publicly available data from the:

Arizona Department of Health Services (ADHS) Opioid Prevention website retrieved on July 31, 2025.

Note: For the purposes of this policy brief, rural areas were defined as all counties except Maricopa and Pima. More precise rural definitions can be found on the AzCRH RHTP Toolkit at https://crh.arizona.edu/arizona-rural-health-transformation-program-toolkit

RESOURCES:

Contact the AzCRH Overdose Data to Action – State (OD2A-S) team at AzCRH-OD2A@arizona.edu with questions.

LAND ACKNOWLEDGEMENT:

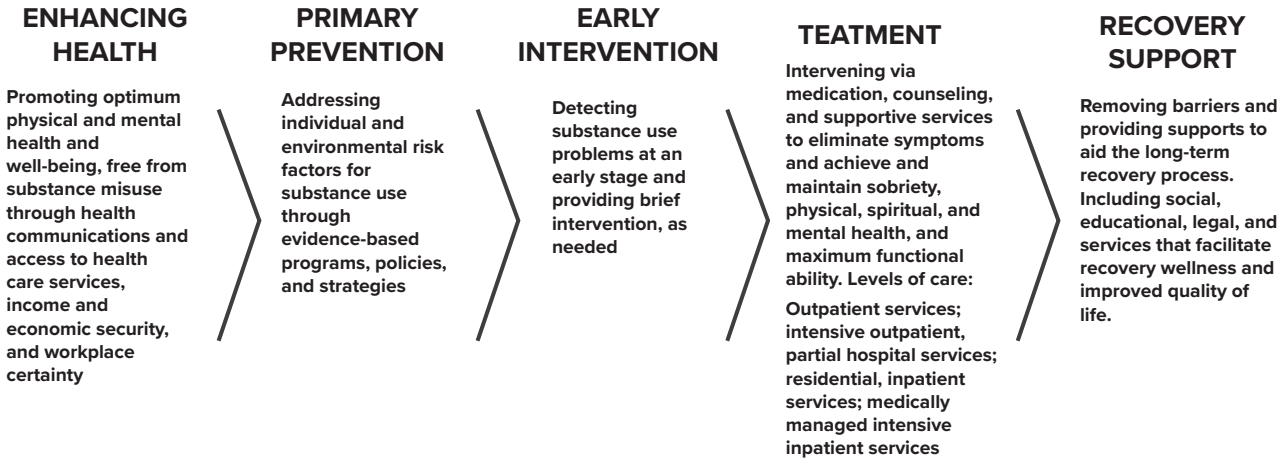
This work was primarily conducted on the lands of the O'odham, Yaqui Peoples.

DISCLAIMER:

This brief is intended for information purposes. It was made possible, in part, by funding support from the Arizona Department of Health Services (ADHS) through the Centers for Disease Control and Prevention's (CDC) Overdose Data to Action in States (OD2A-S) cooperative agreement grant number CDC-RFA-CE23-2301. It was also supported by a Career Development Award to B. Murphy funded by the University of Arizona Health Sciences and Mel & Enid Zuckerman College of Public Health. The content presented is solely the responsibility of the authors and does not necessarily reflect the views, opinions or policies of ADHS, CDC, or University of Arizona. This project has been reviewed by the University of Arizona, Human Subjects Participant Protection program and determined not to be human subjects' research.

APPENDIX:

Substance Use Care Continuum[5]



REFERENCES:

1. One Big Beautiful Bill Act. H.R.1 Title VII Sec. 71401 07/04/2025. Accessed September 14, 2025. https://www.congress.gov/bill/119th-congress/house-bill/1/text
2. Arizona Department of Health Services. Opioid prevention. Published online August 1, 2025. https://www.azdhs.gov/opioid/
3. Ramirez G, Davidson S, Perez A, et al. Maternal Mortality in Arizona, 2018-2019. Published online 2024. https://directorsblog.health.azdhs.gov/new-report-shows-need-for-action-to-prevent-pregnancy-related-deaths-as-numbers-increase/
4. Rooney B, Koch B, Hospodar J, Bullock J, Derksen D. Summary of Arizona critical access hospital's community health needs assessment. Published online 2023. Accessed August 20, 2025. https://crh.arizona.edu/publications/studies-assessments
5. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 5th ed. American Psychiatric Association; 2013.
6. U.S. Department of Health and Human Services (HHS), Office of the Surgeon General. Facing Addiction in America: The Surgeon General's spotlight on opioids. Published online 2018. Accessed August 6, 2025. https://www.hhs.gov/surgeongeneral/reports-and-publications/addiction-and-substance-misuse/index.html
7. Jenkins R. The fourth wave of the US opioid epidemic and its implications for the rural UA: A federal perspective. Prev Med. 152(Part 2):1-4. doi:https://doi.org/10.1016/j.ypmed.2021.106541
8. Kennedy-Hendricks A, Ettman CK, Gollust SE, et al. Experience of Personal Loss Due to Drug Overdose Among US Adults. JAMA Health Forum. 2024;5(5):e241262. doi:10.1001/jamahealthforum.2024.1262
9. Centers for Disease Control and Prevention. Drug overdose mortality - 2016. Published online August 20, 2025. https://www.cdc.gov/nchs/state-stats/deaths/drug-overdose.html

10. Centers for Disease Control and Prevention. Drug overdose mortality - 2023. Published online August 20, 2025. https://www.cdc.gov/nchs/state-stats/deaths/drug-overdose.html

11. Ward H. Governor Ducey Declares Statewide Health Emergency in Opioid Epidemic. Arizona Department of Health Services Public Information Office. https://www.azdhs.gov/director/public-information-office/index.php#news-release-060517. June 5, 2017.

12. Goldman-Mellor S, Olfson M, Lidon-Mayano C, Schoenbaum M. Mortality following nonfatal opioid and sedative/hypnotic drug overdose. AJPM. 2020;59(1):59-67. doi:10.1016/j.amepre.2020.02.012

13. U.S. Department of Health and Human Services (HHS), O of the SG. Facing addiction in America: The Surgeon General's report on alcohol, drugs, and health. Published online 2016. https://addiction.surgeongeneral.gov/

14. Substance Abuse and Mental Health Services Administration. Drug Abuse Warning Network: National Estimates From Drug-Related Emergency Department Visits, 2024. Published online 2025. Accessed September 15, 2025. https://www.samhsa.gov/data/data-we-collect/dawn-drug-abuse-warning-network/annual-releases

15. Dowell D, Ragan K, Jones C, Baldwin G, Chou R. CDC clinical practice guideline for prescribing opioids for Pain — United States, 2022. MMWR Recomm Rep. 2022;2022(71(No. RR-3)):1-95. doi:http://dx.doi.org/10.15585/mmwr.rr7103a1

16. Dowell D, Brown S, Gyawali S, et al. Treatment for opioid use disorder: Population estimates — United States, 2022. MMWR Morb Mortal Wkly Rep. 2024;73:567-574. doi:http://dx.doi.org/10.15585/mmwr.mm7325a1

17. De La Rosa J, Brady B, Ibrahim M, et al. Co-occurrence of chronic pain and anxiety/depression symptoms in U.S. adults: prevalence, functional impacts, and opportunities. Pain. 2024;165(3):666-673. doi:10.1097/j.pain.0000000000003056

18. Saloner B, Lagisetty P. The Opioid Crisis: Scaling Up Treatment And Harm Reduction Programs To Reach More People Who Would Benefit: Article examines enhancing the opioid crisis response by scaling up treatment and harm reduction programs. Health Affairs. 2025;44(9):1034-1041. doi:10.1377/hlthaff.2025.00340

19. McGinty EE, Daumit GL. Integrating mental health and addiction treatment into general medical care: The role of policy. PS. 2020;71(11):1163-1169. doi:10.1176/appi.ps.202000183

20. Blood AD, Farnan JM, Fitz-William W. Curriculum Changes and Trends 2010–2020: A focused national review using the AAMC curriculum inventory and the LCME annual medical school questionnaire part II. Academic Medicine. 2020;95(9S):S5-S14. doi:10.1097/ACM.0000000000003484

21. Villarroel L, Mardian A, Timme E, Rehman S, Christ C. Implementation of the Arizona Pain and Addiction Curriculum: Findings and implications from a statewide evaluation. Fron Public Health. 2021;19(9):731016. doi:10.3389/fpubh.2021.731016

22. Substance Abuse and Mental Health Services Administration. Recovery from Substance Use and Mental Health Problems Among Adults in the United States. Published online 2023. Accessed September 15, 2025. https://library.samhsa.gov/product/recovery-substance-use-and-mental-health-problems-among-adults-united-states/pep23-10-00