



Opioid Harm Reduction Strategies for Age-Friendly Rural Communities

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Abstract

Background: Over 10,000 overdose deaths have been attributed to opioid misuse, with numbers increasing exponentially as the exposure to fentanyl increases. Urban centers and rural communities continue to feel the impact of the opioid crisis in our nation with these increases and community exposure to more lethal forms of synthetic opioids as well. The Rural Opioid Technical Assistance (ROTA) grants have been designed by the Substance (SAMHSA) to build upon the nation's efforts to stem the tide of fatalities related to opioid misuse and overdosing.

Purpose: Under the ROTA grant, administered by Florida Agricultural and Mechanical University (FAMU) Extension and Florida State University (FSU) between 2020-2022, ten age-friendly rural counties were identified to implement programming that assists with opioid use disorder (OUD) and provide high-quality training for the targeted communities [1]. Technical assistance trainings were conducted in these areas with county leaders, clergy, schools, and other child-serving agencies. The trainings and workshops were designed to meet the needs of the participating residents and to encourage county leaders to advocate for more services and resources to help reduce the harm of opioid overdose fatalities. This review is designed to provide an overview of the parameters and dynamics of age-friendly rural communities and to summarize the resource, service, and harm reduction information shared in the ROTA trainings.

Key words: Opioid use disorder (OUD); Rural Opioid Technical Assistance (ROTA) Grant

Introduction

Over the last several years, the Coronavirus has been the pandemic news across the world. Countries have had to shut down travel and gone indoors to stop the spread of this viral monster which has stolen the lives of countless human beings. Riding along that tidal wave of destruction is another pandemic, the opioid crisis [2].

A year before covid became relevant, almost 275 million people (or 5.5% of the global population aged 15-64 years) used drugs at least once all over the world. Since 2019, the drug of choice was opioids for nearly 62 million and a large majority used synthetic forms of heroin or similar [3].

The World Health Organization [3] has key facts related to opioids:

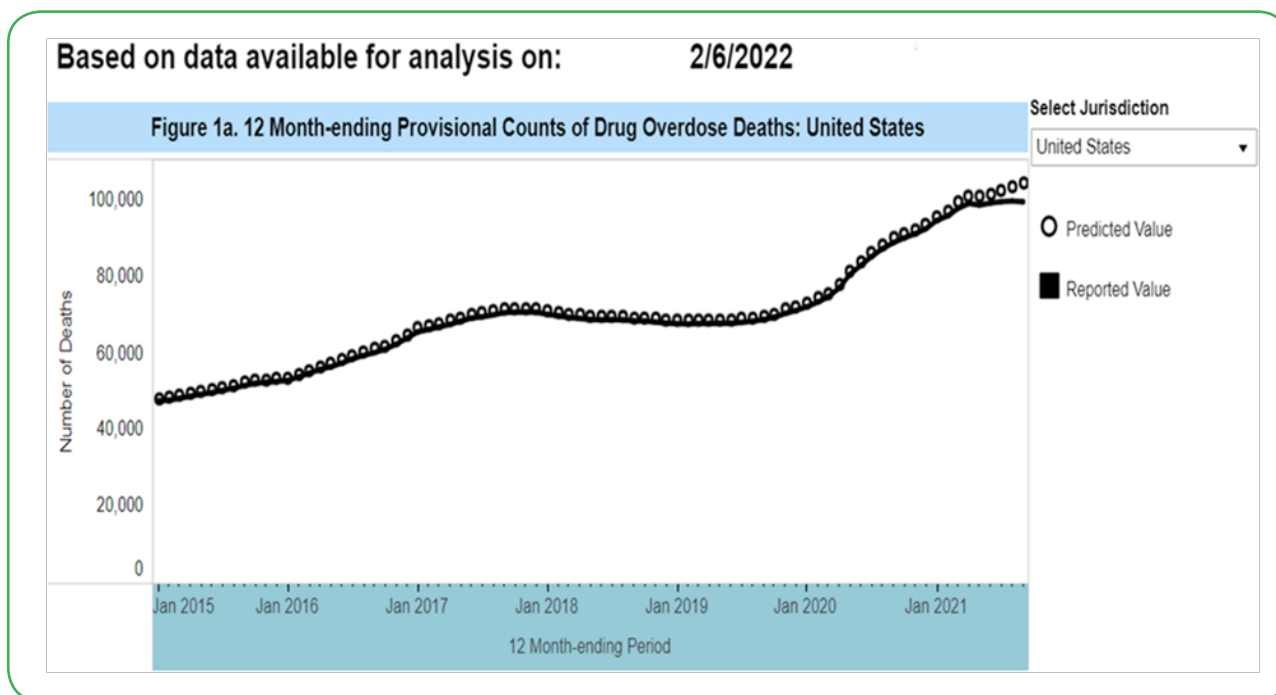
- The term “opioids” includes compounds that are extracted from the poppy seed as well as semisynthetic and synthetic compounds with similar properties that can interact with opioid receptors in the brain.
- Opioids are commonly used for the treatment of pain, and include medicines such as morphine, fentanyl and tramadol.
- Their non-medical use, prolonged use, misuse and use without medical supervision can lead to opioid dependence and other health problems.
- Due to their pharmacological effects, opioids can cause breathing difficulties, and opioid overdose can lead to death.
- Worldwide, about 0.5 million deaths are attributable to drug use. More than 70% of these deaths are related to opioids, with more than 30% of those deaths caused by overdose.
- There are effective treatment interventions for opioid dependence that can decrease the risk of overdose, yet less than 10% of people who need such treatment are receiving it.
- The medication naloxone can prevent death from an opioid overdose if administered in time.

The Center for Disease Control and Prevention [4] reports similar opioid outcomes. In 2020, about 92,000 deaths (75%) were attributed to opioid overdose fatalities. In the United States, drug overdoses have claimed over 932,000 lives over the past 21 years, and the drug overdose crisis continues to worsen. In 2020, the rate of drug overdose deaths accelerated and increased 31% from the year before. Synthetic opioids, such as illicitly manufactured fentanyl, continue to contribute to many opioid-involved overdose deaths. Fos et al., [5] note that over the past decade, young adults (aged 25-35) have the largest increase in opioid overdose deaths. Hedegaard, et al., [6] report that from 1999 to 2017, overdose death rates were higher for males than females. Although this indicates more concerns for men, the fatality rates are steadily rising for both genders and all adult age populations.

Cities across the nation are familiar with the deleterious effects caused by the onslaught of opioid misuse and fentanyl fatalities. This includes the more populous urban areas as well as rural communities. There is greater awareness all around but the numbers of those

detrimentally affected by substance misuse and overdosing are continuing to rise. Over 10,000 overdose deaths have been attributed to opioid misuse, with numbers increasing exponentially as the exposure to fentanyl increases. Figure 1a. indicates the steady rise in overdose deaths from 2015 to 2021 (based on data available for analysis in early 2022) 12-month ending provisional number of drug

overdose death. The 12-month ending provisional counts of drug overdose deaths in the United States demonstrates that the numbers continue to increase. Opioid fatalities have exceeded those of motor car crashes in this country for several years and urban centers as well as rural communities continue to feel the impact of the opioid crisis [1,7].



In all communities, several factors make use of illicit drugs by older adults more detrimental and the aging process more costly for the body and brain of seniors. Nearly one million seniors (ages 65 and up) have been diagnosed with a substance use disorder (SUD) since 2018 [7]. Furthermore, older adults may be more susceptible to drug effects due to the age of their bodies, challenges with chemical absorption in breaking down excessive amounts of substances, the unintentional overdosing due to memory lapses or other prescription drug mismanagement, and the use of substances as a coping mechanism for life stressors (chronic pain, grief & loss, retirement, etc.). Pre-existing conditions may also be exacerbated by substance use and in instances where seniors survive harm inflicted while using, there is a higher likelihood that recovery time may be prolonged or pre-injury health conditions will never be achieved [8-10]. Utilizing harm reduction strategies in age-friendly communities may facilitate changes that enhance the well-being of the population served.

Opioid harm reduction strategies are well-known throughout the world as well as here in the United States. Harm reduction strategies are:

- Proactive & include an evidence-based approach
- Strategies employed to reduce impacts of behaviors associated with opioid and other substance use
- Used for the implementation of prevention, treatment, and recovery strategies
- Empowering individuals who use substances to set their own goals
- Incorporated into a spectrum of strategies that meet people “where they are” on their own terms; but don't leave them there
- Used to promote the awareness of broader health and social issues through improved policies, programs, and practices

Harm reduction services can:

- Connect individuals to overdose education, counseling, and referral to treatment for infectious diseases and substance use disorders.

- Distribute opioid overdose reversal medications (e.g., naloxone) to individuals at risk of overdose, or to those who might respond to an overdose.
- Lessen harms associated with drug use and related behaviors that increase the risk of infectious diseases, including HIV, viral hepatitis, and bacterial and fungal infections.
- Reduce infectious disease transmission among people who use drugs, including those who inject drugs by equipping them with accurate information and facilitating referral to resources.
- Reduce overdose deaths, promote linkages to care, facilitate co-location of services as part of a comprehensive, integrated approach.
- Reduce stigma associated with substance use and co-occurring disorders
- Promote a philosophy of hope and healing by utilizing those with lived experience of recovery in the management of harm reduction services, and connecting those who have expressed interest to treatment, peer support workers and other recovery support services.

Examining community-wide alert to and access within programs and services that utilize harm reduction strategies is paramount to tackling this nation-wide problem. Enlisting the assistance of age-friendly rural communities can generate beneficial services, resources, tools, and technology that may be able to improve outcomes, especially in more remote locations [11]. Age-friendly communities have established a set of eight pillars, AARP [12] refers to them as eight “domains of livability”. The AARP Network of Age-Friendly States and Communities have banded together to make the well-being of older residents a top priority.

The 8 Domains of Livability framework (see Figure 1b.) is used by many of the towns, cities, counties and states enrolled in the AARP Network of Age-Friendly States and Communities to organize and prioritize their work to become more livable for both older residents and people of all ages [3,12]. These domains include transportation,

housing, social participation, respect and social inclusion, civic participation and employment, outdoor spaces and buildings, communication and information, and community support and health services. This last pillar is most imperative in determining a best fit for opioid harm reduction strategies that can promote longevity

and well-being of a rural communities most vulnerable citizens: the youth and seniors. Although substance use disorders, misuse and overdosing are not directly addressed within these domains, opioid harm reduction strategies may be employed within any of the aforementioned domains but appears to be most appropriately designed for the public health focus.

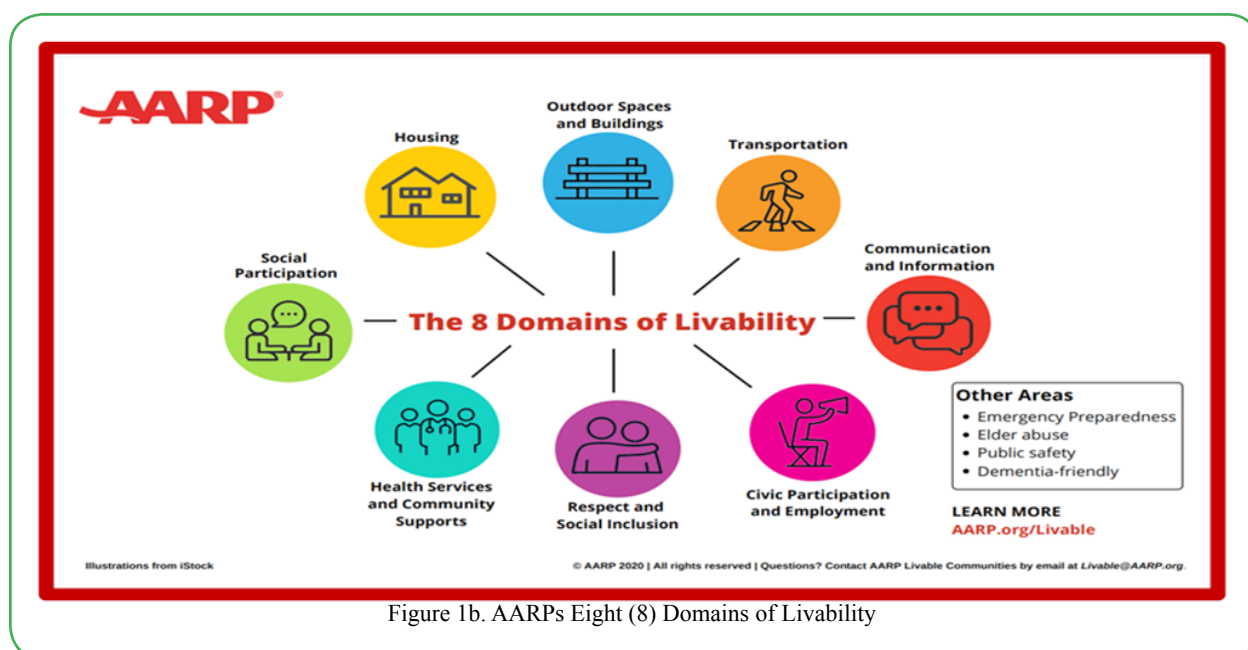


Figure 1b. AARPs Eight (8) Domains of Livability

This topic review will focus on opioid harm reduction strategies by addressing the benefits of mobilizing an age-friendly community framework for rural communities and will summarize the work being conducted in rural counties in Florida through SAMHSA's Rural Opioid Technical Assistance (ROTA) grant program. Florida A&M University's Office of Extension and Florida State University's Center for the Promotion of Children, Families, & Communities worked collaboratively to provide training and technical assistance to targeted counties in the North Florida region. A major objective of this review is to evaluate the impact of ROTA in age-friendly rural communities. Several pillars in age-friendly cities may be mobilized to elicit a life-sustaining programmatic thrust that can demonstrate best practices in reducing harmful effects of drug misuse and overdosing. Interventions such as those ROTA-funded programs use for harm reduction may assist in sustaining life and improving health outcomes in more rural settings.

Harm Reduction Strategies for Age-Friendly Communities: The ROTA Program

The Rural Opioid Technical Assistance Program (ROTA) is used to support training and technical assistance for rural communities to plan and distribute opioid harm reduction information more effectively. Funded programs are expected to identify model programs, develop updated materials related to prevention, treatment, and recovery activities for opioid use disorder (OUD), and provide high quality training. Existing USDA Cooperative Extension grantees are provided ROTA funds to develop and disseminate training and technical assistance (T/TA) for rural communities on addressing opioid/stimulant issues affecting these communities [1].

Under the ROTA grant, administered by Florida A&M University Office of Extension ten rural counties in North Florida have been identified to assist with ROTAs dissemination of information. These Florida counties include Columbia, Franklin, Gadsden, Gulf, Hamilton, Hernando, Jackson, Madison, Monticello – Jefferson, and Suwanee.

Required activities consist of building upon the current Cooperative

Extensions project to provide expanded evidence-based training on opioid/stimulant prevention, treatment, or recovery; identifying the SAMHSA State Opioid Response or Tribal Opioid Response providers in the jurisdiction and ensure these organizations are included in T/TA dissemination plans; providing up-to-date resources and information on the prevention and treatment of opioid/stimulant misuse such that individuals, families, communities, and practitioners can easily access them and understand the issues related to misuse; providing publicly available on-demand virtual training and up-to-date information on the prevention or treatment of opioid/stimulant misuse; and providing linkages to SAMHSA's State Targeted Response TA teams.

Trainings were completed at several of the designated counties and consisted of workshops, webinars, and community presentations which were conducted at county commissioner monthly meetings. Youth groups and K-12 schools, as well as other community events (meetings of pastoral clergy).

The Government Performance and Results Act (GPRA) was enacted in 1993 (see Figure). The survey used in obtaining information from each training is used to provide GPRA-specific information from participants. GPRA is required of grant recipients to report outcome measures. Figure describes GPRA used with clergy. This has been revised to accommodate GPRA data for surveys used with youth groups as well as other community organizations. The data is reported directly to the secure SAMHSA portal for ROTA programs and is currently beyond the scope of this topic review. GPRA surveys (see sample for Clergy) varied according to the targeted population. Demographic information was requested along with questions related to satisfaction with training components of workshops or webinars. Information is disseminated to include harm reduction strategies, services, resources, and toolkits that can be used in the designated rural counties.

ROTA Community Interactions:

Board of County (City) Commissioners: In several rural counties, the Board of County Commissioners allowed ROTA representatives

to share training information directly related to harm reduction strategies, services, and resources that would benefit their community. Several concerns arose as it relates to harm reduction strategies allowing the person who uses drugs to feel safe in continuing and even increasing risky behaviors that could become fatal. For example, Naloxone use may encourage the mentality that “even if I lose my pulse, or stop breathing, we could just use the inhaler to revive me”. ROTA is designed to share information, train stakeholders and educators, and provide the tools and technical assistance that could potentially save lives. It also has been shown to be more of a deterrent to future use. Overall, meetings with BOCC met with positive outcomes for the counties that participated and increase awareness of services and resources that can slow the overdose rates and save lives.

Clergy: Clergy and other leaders and administrators affiliated with the presbytery participated in a ROTA training which also included focus groups. The ROTA program was provided a forum at the conference in which the opioid harm reduction presentation was administered. The pastors and elders also participated in focus groups to brainstorm ways to share opioid harm reduction strategies in their separate congregations. These sessions resulted in numerous ideas to bring more services to faith-based congregations and the community-at-large.

Youth Groups: ROTA workshops with youth groups consisted of modified Several youth groups were included in the summer sessions. These ROTA presentations were uniquely designed to meet the needs of the target population of youth in rural counties. In each session, the medium-sized groups (between 40-50 children aged 7-17) were introduced to the ROTA program for teens (see Infographic below). Participants completed pencil-paper questionnaires at the conclusion of the sessions with information about student gender, race/ethnicity, school grade (5th-12th grades), along with counties and zip code.

Sample satisfaction questions from “GPRA for Middle and High Schoolers” with Likert-type choices included:

“How satisfied were you with the overall quality of this event?”

[Very satisfied, Satisfied, Neutral, Dissatisfied, & Very dissatisfied].

“I think this class will benefit my life by impacting my choices in life.”

[Strongly agree, Agree, Neutral, Disagree, & Strongly disagree].

“I will use the information gained from this class in my life.”

[Strongly agree, Agree, Neutral, Disagree, & Strongly disagree].

Opioid harm reduction strategies for age-friendly rural communities includes training, services, and resources to benefit the young and the older community residents. Harm reduction may be seen as a continuum of care. This begins with addressing the public health epidemic and taking action to prevent death and disease. Furthermore, these strategies help to avoid injury and alert the proper first responders to potential and real-time overdose situations. This is a continuum because these actions do not have to occur in any order but are used in an ongoing basis to deter substance misuse and alleviate the dangerous outcomes of substance use disorder.

“No one recovers from opioid addiction when they are dead” [13].

Harm reduction and prevention services such as administration of Naloxone/Narcan in cases of drug overdosing, syringe exchange programs to stop the spread of communicable diseases and decrease infections, and medication-assisted treatment have proven evidence of saving lives [13]. Although often controversial and politicized, these services show great benefits in building and maintaining a healthy community in areas where the programs have received the strongest advocacy support and have been implemented.

Sources:

- To identify evidence-informed and culturally appropriate mental illness and substance use prevention and treatment practices that can be implemented in your project, applicants are encouraged to visit

- SAMHSA’s Evidence-Based Practice Resource Center (<http://www.samhsa.gov/ebp-resource-center>),
- HHS’s Overdose Prevention Strategy (<https://www.hhs.gov/overdose-prevention/harm-reduction>)
- CDC’s Evidence-Based Strategies for Preventing Opioid Overdose (<https://www.cdc.gov/drugoverdose/pdf/pubs/2018-evidence-based-strategies.pdf>), and NIH’s Stigma and Discrimination Research Toolkit 10 (<https://www.nimh.nih.gov/about/organization/dar/stigma-and-discrimination-research-1-toolkit>).
- CDC’s Syringe Services Program Technical Package of Effective Strategies and Approaches for Planning, Design, and Implementation. <https://www.cdc.gov/ssp/docs/SSP-Technical-Package.pdf>
- National Harm Reduction Coalition (2023). Principles of harm reduction. <https://harmreduction.org/about-us/principles-of-harm-reduction/>
- Substance Abuse and Mental Health Services Administration. (2018). SAMHSA Opioid Overdose Prevention Toolkit. HHS Publication No. (SMA) 18-4742. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- The Rural Opioid Technical Assistance (ROTA) program delivers evidence-based training and related materials tailored to the needs of rural communities in the Florida Panhandle. <https://news.fsu.edu/multimedia/radio/2021/04/13/fsu-famu-collaborate-on-opioid-prevention-program-targeting-local-youth/>
- FAMU and FSU’s Rural Opioid Technical Assistance Program, an evidence-based wellness education intervention offered to teens in the community. More information about bringing this program to the area youth groups is available by email at extension@fam.u.edu or fsu-csw@fsu.edu.
- This program is a partnership created by the FSU Center for the Study and Promotion of Communities, Families and Children at the College of Social Work (grant administration by Florida A&M University Office of Extension). Learn more at <https://csw.fsu.edu/cfc>.
- <https://news.fsu.edu/multimedia/radio/2021/04/13/fsu-famu-collaborate-on-opioid-prevention-program-targeting-local-youth/#:~:text=The%20Rural%20Opioid%20Technical%20Assistance%20%28ROTA%29%20program%20delivers,Heroes%3A%20University%20Counseling%20Center%20supports%20student%20s%20via%20tele-therapy>

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