

Substance Use Attitudes, Beliefs, and Stigma in Lancaster County

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Lancaster County Joining Forces is a collection of organizations and individuals that came together in 2017 to reduce deaths from heroin and opioids in Lancaster County. Joining Forces unifies partners with a common goal, strengthens the work we are doing separately, and allows us to identify gaps in services and treatments so we can save more lives together. The group includes healthcare providers, county government, treatment providers, law enforcement, prevention and recovery organizations, and other partners.

In 2021, Joining Forces partnered with the Center for Opinion Research to conduct a county-wide survey on stigma related to substance use. This report provides an overview of the survey goals, methods, results, and a discussion about the importance of these results for preventing overdose deaths.



What is Stigma?

Stigma is the combination of negative attitudes, stereotypes, and discrimination towards a group of people with a shared characteristic. Researchers have identified different types of stigma¹:

- Self-stigma: negative attitudes that people have about themselves or people like them
- Social stigma: negative or discriminatory attitudes by a large group about another group
- Structural (or institutional) stigma: rules, policies and procedures of institutions that restrict the rights and opportunities for members of stigmatized groups

According to Link and Phelan, "when people are labelled, set apart, and linked to undesirable characteristics, a rationale is constructed for devaluing, rejecting, and excluding them."² Many research studies have shown that individuals with substance use disorder (SUD) experience stigma, which creates barriers to healthcare, housing, and work opportunities. In one focus group study, patients with opioid use disorder (OUD) felt stigmatized in the emergency department and reported that providers minimized their pain and medical issues.³ Individuals with OUD who had been pregnant reported that they experienced disrespectful care and overall negative interactions in multiple health care settings.⁴ Patients receiving medication assisted treatment describe feeling self-stigma and report that stigma is a barrier to receiving care.⁵

Lancaster County Stigma Survey



To gather information about stigma related to addiction in Lancaster County, Joining Forces partnered with the Center for Opinion Research to conduct a countywide survey. The goal of the survey was to

¹ Livingston JD, Milne T, Fang ML, Amari E. The effectiveness of interventions for reducing stigma related to substance use disorders: a systematic review. Addiction. 2012 Jan; 107(1):39-50.

 ² Link BG, Phelan JC, Stigma and its public health implications, The Lancet, Volume 367, Issue 9509, 2006, Pages 528-529.
³ Hawk K. et al. Perspectives About Emergency Department Care Encounters Among Adults With Opioid Use Disorder. JAMA Netw Open. 2022 Jan 4;5(1):e2144955.

⁴ Kim J et al. Health Care Experiences During Pregnancy and Parenting with an Opioid Use Disorder. MCN Am J Matern Child Nurs. 2022 Mar-Apr 01;47(2):100-106.

⁵ Anvari MS et al. "In their mind, they always felt less than": The role of peers in shifting stigma as a barrier to opioid use disorder treatment retention. J Subst Abuse Treat. 2022 Jan 16: 108721.

measure Lancaster County residents' knowledge, attitudes, beliefs, and behaviors related to addiction and recovery. The specific objectives for the survey were:

- To measure knowledge and beliefs about addiction and recovery
- To measure feelings of discrimination and stigma related to addiction
- To measure perceptions and experiences related to access to and use of treatment
- To measure willingness to help
- To determine the characteristics that best predict support for stigmatizing beliefs



This research gathered data using a telephone and online survey of 591 Lancaster County residents (397 via telephone and 194 via web). The survey interviewing took place from September 27 – October 9, 2021. The survey used an addressed-based sample to identify households located within Lancaster County. All sampled households were notified by mail about the survey. Interviews were completed over the phone or online, according to each respondent's preference. Survey results were weighted by age, education, gender, and race to reflect the known distribution of these characteristics in the County. The estimated population parameters for these characteristics are based on data from the 2018 5-Year American Community Survey data, US Bureau of the Census.

The sample error is +/- 5.6 percentage points. In addition to sampling error, this poll is also subject to two other main sources of non-sampling error. First, non-response bias is a type of error created when certain types of participants either choose not to participate in the survey or are unavailable for interviewing. Second, response errors may occur in surveys that rely on self-reported behaviors and attitudes.

The primary purpose of this research is to understand Lancaster County residents' beliefs about addiction and recovery with an emphasis on stigma. To help provide context for these beliefs, the survey respondents were randomized to receive questions about "mental illness" or "drug addiction". The results show how attitudes compare between these two types of conditions. There are no notable differences in demographics between respondents who were asked about mental illness and those asked about drug addiction.

The demographics of the survey participants are shown in Figure 1.

Drug Addiction Stigma Scale

To identify predictors of stigmatizing beliefs, we developed a drug addiction stigma scale with four items from the survey ($\alpha = .65$). Respondents were asked how much they agreed with each statement:

- 1. Do you think that employers should be allowed to deny employment to a person with a drug addiction?
- 2. Do you think that landlords should be able to deny housing to a person with a drug addiction?
- 3. Do you think that drug and alcohol addiction is a medical illness like diabetes, arthritis, or heart disease?
- 4. Do you think a lack of moral strength plays a large part in drug and alcohol addiction?

A "yes, definitely" response received 2 points and a "yes, probably" response received 1 point for items 1, 2, and 4. Item 3 is reverse scored, meaning a "no, definitely not" response received 2 points and a "no, probably not" response received 1 point. Responses to the four items were summed. The mean score for the scale was 2.7 (SD = 2.2). Respondents who scored a 4 or higher were designated as displaying more stigmatizing attitudes toward people with addiction. Since items 1 and 2 included wording that randomly asked about drug addiction or mental illness, only respondents who were asked about drug addiction are included in this analysis (n=307).

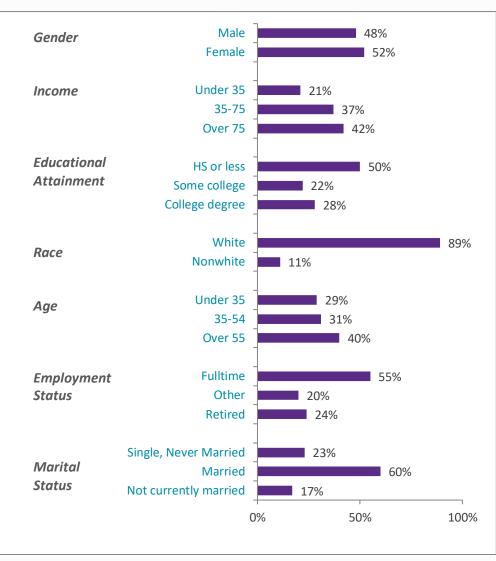
We hypothesized that a respondent's demographic attributes, attitudes, and personal experiences would predict stigmatizing attitudes. We analyzed our data with a logistic regression model that included attitudes about the seriousness of discrimination, personal exposure to someone with an addiction, personal experiences with addiction, as well as gender, political ideology, veteran status, age, educational attainment, and race. Items that were not significant in the original model were removed to arrive at the final model.



Knowledge and Beliefs about Addiction and Recovery

According to health experts, "addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences."⁶ There are many types of treatment that are successful in treating drug addiction, including counseling, medication, treatment for co-occurring mental health issues or other medical needs, and long-term recovery support services to prevent relapse.⁷ Joining Forces has a goal to communicate these key messages about addiction to the public.

Figure 1. Demographics of Survey Participants



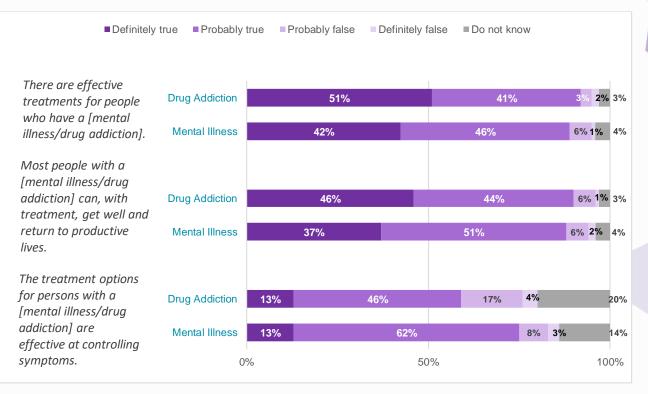
⁶ American Society of Addiction Medicine. https://www.asam.org/quality-care/definition-of-addiction

⁷ NIDA. Treatment Approaches for Drug Addiction. Retrieved from https://nida.nih.gov/publications/drugfacts/treatmentapproaches-drug-addiction. January 17, 2019.

The survey found that most (92%) Lancaster County residents believe addiction can be a problem for anyone. More than half (56%) feel addiction is a medical illness similar to conditions like diabetes, arthritis, and heart disease. Still, more than half (56%) believe that a lack of moral strength plays a role in drug and alcohol addiction.

Lancaster County residents' feelings about the efficacy of treatments for mental health and drug addiction are similar. Most people believe there are effective treatments for both conditions (92% drug addiction and 88% mental illness) and that those with mental illness and drug addiction can have productive lives (90% and 88%, respectively). Significantly fewer people (59%) believe symptom control is possible for those with an addiction, compared with mental illness (75%). The differences in attitudes and beliefs about treatment options between mental illness and drug addiction are shown in Figure 2.

Figure 2. Beliefs about Treatment and Recovery for Mental Illness and Drug Addiction



Discrimination

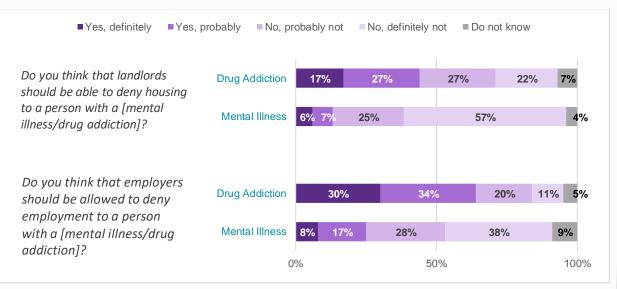
Three in five residents feel discrimination against people with mental illness (58%) and drug addiction (61%) is a serious problem in the county. The proportion of residents who say discrimination against people with drug addiction is a "very serious" problem (24%) is significantly higher than the number of residents who say discrimination against people with mental illness is a "very serious" problem (14%).

Residents of Lancaster County feel very differently about housing and employment protections for those with mental illness and those with a drug addiction. More than two in five (44%) residents say landlords should have the right to deny housing to a person with a drug addiction, but only one in seven (13%) say

the same for someone suffering from mental illness. Nearly two in three (64%) residents feel a person should be able to be denied employment if they have a drug addiction, compared to only one in four (25%) who believe a person with a mental illness should be denied employment. These results are shown in Figure 3.

In general, residents are more accepting of people with a mental illness than people with addiction. Eighty-five percent of residents are willing to work closely with a person who has a mental illness, four in five (78%) are willing to live with a person who has a mental illness, and three in four (74%) are willing to have a person with mental illness marry into their family. In comparison, only two in five (44%) County residents are willing to work closely with someone with addiction, three in ten (30%) are willing to live with someone who has a drug addiction, and three in ten (29%) would want someone with a drug addiction to marry into their family.

Figure 3. Discrimination Against People with Mental Illnesses and Drug Addiction



Access to Treatment and Use of Services

Lancaster County residents do not believe that behavioral health treatment services are always easily accessible for people who need them. Only one in three residents believes a person with a mental illness (36%) or drug addiction (39%) can get treatment no matter where they live in Lancaster County.

The survey also gathered data about participants' personal experiences with substance use and treatment services. While 13% of residents reported that they have had a problem with drug addiction or substance use disorder, only 5% of residents have sought treatment for it. Similarly, three in four residents (73%) report knowing someone with drug addiction or substance use disorder, but only half (53%) know someone who has received treatment. When asked if they personally were interested in getting naloxone, a medication that can quickly help a person experiencing a life-threatening drug overdose, 66% were not very interested, not at all interested, or did not know.

Predictors of Stigmatizing Attitudes

The set of variables included in the initial model is included in Figure 4.

Figure 4.

	Less Stigmatizing Attitudes (n=205)	Stigmatizing Attitudes (n=103)
(D1) How much of a problem is discrimination against people w	ith a drug addiction in Lancaster Co	ountv?(%)**
very serious	55 (26.7)	19 (18.8
somewhat serious	84 (41.0)	29 (29.4
not much	17 (8.2)	32 (32.2
not at all	4 (1.7)	2 (1.9
Do not know	46 (22.3)	18 (17.7
(SA9) How often do you have contact with someone who has sti	ruggled with drug and alcohol addi	ction? (%)
Daily	50 (24.8)	24 (23.0
once a week	42 (20.8)	20 (19.3
once a month	21 (10.3)	22 (21.0
less often	59 (29.3)	33 (32.:
Do not know	30 (14.8)	4 (4.
(P1) Have you, yourself, ever had a problem with drug addiction	n, substance dependency or substa	nce use disorde
Yes	29 (14.4)	11 (10.
No	171 (84.5)	92 (89.
Do not know	2 (1.1)	0 (0.
/P3) Have you ever had a family member or close friend who ha dependency, or substance use disorder including alcohol or opic		n, substance
Yes	159 (77.6)	70 (68.:
No	45 (22.0)	33 (31.9
Do not know	1 (0.4)	0 (0.
(Ideo) Politically speaking, do you consider yourself to be a liber	al, a moderate, or a conservative?	(%)***
liberal	62 (32.5)	11 (11.
moderate	61 (32.4)	11 (11.
conservative	55 (29.1)	71 (74.
Do not know	11 (5.9)	2 (2
'Vet) Are you a military veteran? No (%)	192 (94.7)	95 (92.
'Gender) How do you describe yourself? Female (%)	112 (54.8)	45 (43.
'Age) What was your age on your last birthday (%)*		
Under 35	81 (39.4)	23 (21.
35-54	61 (29.9)	28 (27.

8

Figure 4. (continued)

(Educ) What is the highest level of schooling you have completed? (%)***

Some college 55 (26.7) 14 (1	3.8)
College degree 74 (36.0) 15 (1	4.5)
(Race) Which of the following categories best describes your racial background? Non-white (%)20 (9.8)13 (1	3.0)
(Work) Which best describes your current employment status? (%)	
Fulltime 127 (62.6) 49 (4	7.8)
Other 35 (17.3) 27 (2	6.4)
Retired 41 (20.1) 27 (2	5.8)

Figure 5 presents logistic regression coefficients for holding stigmatizing attitudes about addiction. The odds of expressing stigmatizing attitudes are higher for those who feel that discrimination is not much of a problem, those who have more frequent contact with those with an addiction, ideological conservatives, those over 55 years of age, those with a high school degree or less, and non-white respondents. Ratings of the seriousness of discrimination against those with an addiction produce the largest coefficients associated with holding stigmatizing attitudes.⁸

⁸ The model accurately classified 80% of respondents with model chi-square (13) = 77.628, p. < .001. Model specificity was 89% and model sensitivity was 58%. The ROC value is .875. The model had a pseudo-R squared of .34.

	Probability of holding stigmatizing attitudes (standard error)	
(D1) somewhat serious	0.886	
	(-0.217, 1.989)	
(D1) not much	2.558***	
	(1.170, 3.946)	
<i>(D1)</i> not at all	3.545***	
	(1.220, 5.869)	
<i>SA9)</i> once a week	-0.948	
	(-2.147, 0.251)	
<i>(SA9)</i> once a month	-0.133	
	(-1.452, 1.186)	
<i>(SA9)</i> less often	-0.986*	
	(-2.107, 0.134)	
<i>(Ideo)</i> moderate	-0.699	
	(-1.986, 0.587)	
(Ideo) conservative	1.693***	
	(0.644, 2.742)	
(Age) 35-54	0.640	
	(-0.799, 2.079)	
<i>(Age)</i> Over 55	1.502**	
	(0.130, 2.874)	
(Educ) Some college	-1.788***	
	(-3.023 <i>,</i> -0.552)	
(Educ) College degree	-1.624***	
	(-2.689, -0.560)	
<i>(Race)</i> Non-white	1.778***	
	(0.533, 3.023)	
Constant	-2.056**	
	(-3.896, -0.216)	
bservations	188	
og Likelihood	-74.817	
kaike Inf. Crit.	177.635	
lote:	*p<0.1; **p<0.05; ***p<0.01	

Figure 5. Logistic Regression for Stigmatizing Attitudes

Discussion

These survey results provide important insight for community organizations and individuals in Lancaster County working to reduce deaths from drug overdoses. It is important to address stigma because it creates barriers to treatment, makes the recovery process more difficult, reduces the effectiveness of public health interventions, and increases the risk of overdose deaths.

In our survey, we found that 56% of people believe that moral strength plays an important role in drug and alcohol addiction, and many people reported that they were not willing to have social interactions with people who have an addiction. These attitudes are harmful for people currently using drugs or working towards recovery. When a person internalizes these harmful beliefs, it lowers their belief in their ability to do things necessary to achieve their goals ("self-efficacy"). Researchers refer to this finding as the "why try" effect.⁹ The experience of stigma makes it more difficult to achieve goals, including treatment and recovery goals. Even after one year of treatment and recovery, men with dual diagnoses of mental health and substance use disorders experienced a strong negative effect of stigma on their well-being.¹⁰ Some research has found that Acceptance and Commitment Therapy may be an effective approach to reducing shame and internalized stigma for people with addiction.¹¹ This intervention helps people develop an accepting, mindful approach to their thoughts and emotions, and teaches them to avoid letting these thoughts and emotions lead to behaviors that are harmful for their recovery. Evidence also suggests that having a peer recovery specialist with a shared lived experience helps to reduce stigma-related barriers.¹²

This survey found that many people in Lancaster County support discrimination against people with addiction in housing and employment. According to the Substance Abuse and Mental Health Services Administration (SAMHSA), the four major dimensions of recovery are: 1) managing one's health and disease symptoms; 2) a stable and safe place to live, 3) participating in meaningful daily activities such as a job, and 4) having relationships and social networks that provide support.¹³ Stigma and discrimination interfere with all of these important dimensions of recovery. Several researchers have successfully reduced stigmatized attitudes among targeted groups of professionals (e.g., medical students, healthcare providers, police) through skills training, educational programs with positive depictions of

⁹ Corrigan P, Larson JE & Rüsch N. (2009). Self-stigma and the "why try" effect: impact on life goals and evidence-based practices. World psychiatry: official journal of the World Psychiatric Association (WPA), 8(2), 75–81.

¹⁰ Link, B. G., Struening, E. L., Rahav, M., Phelan, J. C., & Nuttbrock, L. (1997). On stigma and its consequences: Evidence from a longitudinal study of men with dual diagnoses of mental illness and substance abuse. Journal of Health and Social Behavior, 38(2), 177–190.

¹¹ Luoma JB, Kohlenberg BS, Hayes SC, Bunting K, Rye AK. Reducing self-stigma in substance abuse through acceptance and commitment therapy: model, manual development, and pilot outcomes. Addict Res Theory. 2008;16:149–65. ¹² Anvari et al., 2022.

¹³ Substance Abuse and Mental Health Services Administration. Recovery and Recovery Support. https://www.samhsa.gov/find-help/recovery

recovery, and contact with people who have addiction.¹⁴ These types of interventions may also be effective for housing providers and employers.

Most survey participants did not express interest in getting naloxone, a life-saving medication that can reverse an opioid overdose. Reducing stigma can increase the use of naloxone because bystanders are more likely to help others in danger when they empathize with the person needing help.¹⁵ When people were trained to use naloxone in an environment with non-judgmental attitudes, respect for people who use drugs, and a mission to protect health, this environment promotes feelings of acceptance among people who use drugs and increases their willingness to help others like them in an emergency situation.¹⁶ In contrast, when people heard negative attitudes about people who use drugs and naloxone use from police, probation officers, or medical professionals, they felt stigmatized, expressed fear of negative consequences from using naloxone, and were less willing to intervene as a bystander.^{17,18}

Nearly 4 in 10 survey participants did not believe that addiction is a medical illness similar to conditions like diabetes, arthritis, and heart disease. In addition, only about one in three participants believed that treatment was accessible for people everywhere in Lancaster County. Over the past several years, treatment for opioid addiction has become more accessible throughout Lancaster County. The number of providers offering medication assisted treatment (MAT) for opioid addiction in the county has increased from 62 in 2016 to 243 in 2021. Increasing the belief that addiction is a medical condition with effective and available treatment may help increase acceptance of medication assisted treatment and encourage people to seek help from medical providers.

Our analysis found that the odds of holding stigmatizing attitudes are higher for those who feel that discrimination is not much of a problem, older adults, people with lower levels of education, ideological conservatives, and non-white respondents. Mendoza and colleagues have argued that medical and public health responses to the opioid crisis have been more available to White communities, while non-White communities have experienced more punitive criminal justice responses, which contributes to differences between race groups in stigma about drug addiction.¹⁹ Our survey findings are also consistent with national surveys showing that older adults and people with conservative political views are more likely to support stricter drug policies.

In a surprising finding, people who have daily contact with people with addiction were also more likely to have stigmatizing attitudes. Our survey did not measure whether these people have experience with addiction in their personal lives or in a professional role, such as healthcare or social service providers. Research has shown that health professionals generally hold negative attitudes towards patients with substance use disorders, and that they do not have adequate education, training, and support in

¹⁴ Livingston JD, Milne T, Fang ML, Amari E. The effectiveness of interventions for reducing stigma related to substance use disorders: a systematic review. Addiction. 2012 Jan; 107(1): 39-50.

¹⁵ Levine M, Cassidy C. Groups, identities, and bystander behavior. In: Stürmer S, Snyder M, editors. The psychology of prosocial behavior group processes, intergroup relations, and helping. Oxford: Blackwell Publishing; 2009. p. 209–22.

¹⁶ Wagner KD, Valente TW, Casanova M, et al. Evaluation of an overdose prevention and response training programme for injection drug users in the Skid Row area of Los Angeles, CA. Int J Drug Policy. 2010; 21:186–93.

¹⁷ Banjo O et al. A quantitative and qualitative evaluation of the British Columbia Take Home Naloxone program. CMAJ Open. 2014; 2:E153–61.

¹⁸ Miller NM et al. How do naloxone-based interventions work to reduce overdose deaths: a realist review. Harm Reduct J. 2022 Feb 23; 19(1):18.

¹⁹ Mendoza, S., Hatcher, A.E., Hansen, H. (2019). Race, Stigma, and Addiction. In: Avery, J., Avery, J. (eds) The Stigma of Addiction. Springer.

working with this patient group.²⁰ As mentioned above, interventions have been successful in reducing stigma among trained groups of professionals. For our community, it may be an important opportunity to implement these interventions among groups of professionals who have regular contact with people experiencing drug addiction.

Next Steps to Address the Overdose Crisis

Addressing stigma is essential because drug-related overdoses are a serious national public health concern and a leading cause of death in the United States. In 2021, 136 people died from overdoses in Lancaster County. Opioids are the main driver of overdose deaths, especially synthetic opioids such as fentanyl. Overdose deaths involving stimulants such as methamphetamine are also increasing. In 2020, the death rates from drug overdoses were 29.2 per 100,000 people for the United States, 41.3 per 100,000 for Pennsylvania, and 27.5 per 100,000 for Lancaster County.²¹ The increase in overdose deaths in Lancaster County from 2012 to 2021 is shown in Figure 6.

The Hispanic/Latino and Black communities in Lancaster County are disproportionately affected by the overdose crisis. The Hispanic/Latino population experienced a death rate of 27.4 per 100,000 for 2016-2020. This is higher than the overall death rate in Lancaster County, and more than double the national drug-induced death rate for Hispanic/Latino individuals over the same time period (12.6 per 100,000). For Black individuals in Lancaster County, the 2020 death rate was 51 per 100,000 compared with the death rate for White individuals at 24 per 100,000.²²

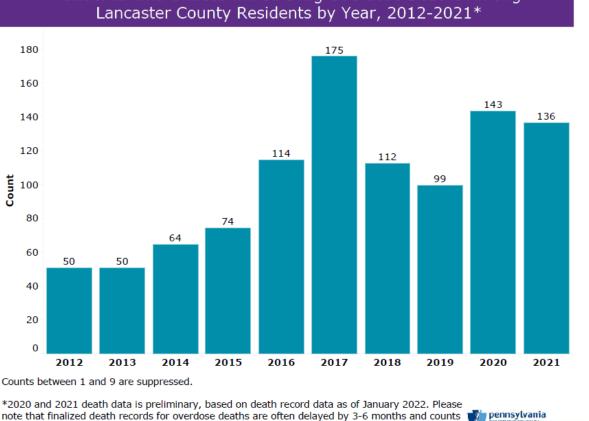
Joining Forces will continue a targeted and coordinated approach to the overdose crisis, including efforts to address stigma identified in this survey. Recently, Joining Forces released a Strategic Plan for 2022-2025. The plan includes research-based strategies that will improve our ability to prevent substance use, treat substance use disorders, and decrease overdose deaths.

²⁰ van Boekel LC et al. Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. Drug and Alcohol Dependence, Volume 131, Issues 1–2, 2013, 23-35.

²¹ Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2020 on CDC WONDER Online Database, released in 2021.

²² Centers for Disease Control and Prevention, National Center for Health Statistics. Underlying Cause of Death 1999-2020 on CDC WONDER Online Database, 2021, and Pennsylvania Department of Health Office of Drug Surveillance. Quarterly County Reports, March 2022.

Figure 6. Drug Overdose Deaths in Lancaster County²³



Accidental and Undetermined Drug Overdose Deaths Among

Command Center's Strategic Plan.

Administration (SAMHSA) the Centers for Disease Control and Prevention (CDC), the U.S. Department of

Joining Forces uses strategies supported by the Substance Abuse and Mental Health Services

Health and Human Services (HHS) Overdose Prevention Strategy, and the Pennsylvania Opioid

Joining Forces' new strategic plan includes eight strategies to reduce overdose deaths in Lancaster:

- Strengthen evidence-based prevention and intervention initiatives.
- Continue to share common messages and provide educational information throughout the community.
- Create lasting changes in the medical community that improve patient safety.
- Increase access to evidence-based treatment services.
- Promote recovery by providing trainings and sharing positive stories about the recovery process.
- Advance Trauma Informed Lancaster County.
- Pilot an overdose fatality review process.

may increase.

• Advocate for evidence-based strategies that promote public safety and healthy communities.

²³ Pennsylvania Department of Health Office of Drug Surveillance. Quarterly County Reports, March 2022.

Joining Forces hosts community forums biannually. These forums are open to all individuals and organizations interested in learning about or supporting efforts to reduce deaths from drug overdoses in Lancaster County. The spring 2022 forum will be dedicated to discussing the issue of stigma, including these survey results, evidence-based practices to address stigma, and next steps for our community to reduce stigma.

Conclusion



Stigma about drug addiction is harmful for people currently using drugs, people in treatment for addiction, and people in recovery. Our survey of Lancaster County residents revealed some encouraging attitudes about addiction, including the recognition that anyone can become addicted to drugs or alcohol and that effective treatments exist. However, there are also concerning findings, including a belief that addiction is related to moral strength, a lack of willingness to engage socially with people who have addiction, and acceptance of discrimination in housing and employment. Using research-based strategies to address negative attitudes and stigma is an important component of the community's goal to reduce overdose deaths.