NATIONAL SHATTERPROOF ADDICTION STIGMA INDEX COMPARISON ANALYSIS, 2021 OVERALL SAMPLE (N=7,826) & 2024 10-VIGNETTE SAMPLE (N=6,737)

Shatterproof Addiction Stigma Index (SASI) Methodology

Shatterproof developed the Shatterproof Addiction Stigma Index (SASI) survey instrument, alongside Dr. Brea Perry and Dr. Anne Krendl from Indiana University, by incorporating validated and unique stigma questions into one comprehensive survey. Data derived from the questionnaire provide information on the landscape of addiction stigma within the U.S. which can be used to inform establishment of addiction-related policies and priorities, as well as assess strategies to reduce addiction stigma.

Questionnaire

The 2021 SASI leverages a 5x2 vignette strategy targeting four substances: prescription opioid, heroin, methamphetamine, and alcohol, and describes an individual (referred to as "John") as being in active use, or in active recovery. Respondents are randomly assigned one of the ten vignettes, then proceed to the 91-item questionnaire containing Likert response options ranging from 1 (lowest level of stigma) to 4 (highest level of stigma).

The 2024 SASI utilizes a 6x2 vignette design targeting five substances: prescription opioid, heroin, methamphetamine, alcohol, and marijuana and describes an individual as being in active use, or in active recovery (See the SASI Questionnaire document for vignette narratives). Therefore, 4 additional unique items were added to address self-reported marijuana use and treatment for a total of 95 items.

Sampling Design & Survey Administration

The SASI is conducted periodically by Ipsos Public Affairs on behalf of Shatterproof. It's a cross-sectional online panel survey comprised of non-institutionalized adults (18 and older) residing in the United States. Ipsos utilizes KnowledgePanel® (KP) for recruitment, which is the largest online panel relying on probability-based sampling techniques. KP's recruitment process is based on an Address-Based Sample (ABS) recruitment methodology via the U.S. Postal Service's Delivery Sequence File (DSF) to select address-based samples that are nationally representative of all households. Stratified random sampling is used to ensure the geodemographic composition of panel members accurately represents the U.S. adult population.

Panel members receive an email containing a link to the SASI questionnaire, which can also be accessed through a personalized member portal. Individuals are allotted approximately two weeks to complete the survey. Frequent reminders are sent to all non-responding panel members. Ipsos operates an incentive program to encourage panel participation.

Data Collection & Weighting

Data is collected by Ipsos, who formats the dataset with appropriate variable and value labels and calculates post-stratification statistical weights to ensure the sample reflects geodemographic distributions by gender, age, race/ethnicity, education, census region, household income, home ownership, household size, metropolitan area, Hispanic origin, and language dominance. Ipsos delivers the fully formatted dataset to Shatterproof for analysis.

National Samples

The 2021 SASI was fielded in English and Spanish from July 13, 2020 to July 27, 2020 to a probability-based sample of U.S. adults aged 18 and over. A total of 18,811 U.S. residents were invited to complete the survey, with 11,501 responding to it (completion rate=61%) and 7,917 qualifying as completions (qualification rate=69%). The total sample was reduced by 91 (or 1.1%) due to complete missingness on all items in the public stigma scale, structural stigma scale, or MOUD stigma scale, leaving an analytic sample size of 7,826 respondents. A demographic breakdown can be found in Appendix I.

The 2024 SASI was fielded in English and Spanish from March 27, 2024 to April 8, 2024 to a probability-based sample of U.S. adults aged 18 and over. A total of 15,706 U.S. residents were invited to complete the survey, with 10,064 responding to it (completion rate=67%) and 8,202 qualifying as completions (qualification rate=81%). The total sample was reduced by 112 (or 1.4%) due to complete missingness on all items in the public stigma scale, structural stigma scale, or MOUD stigma scale, leaving an analytic sample size of 8,090 respondents. A demographic breakdown can be found in Appendix I.

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Survey Analysis

A cross-sectional analysis is conducted to examine addiction stigma changes over time (from the 2021 SASI survey to the 2024 SASI survey). Survey results are presented as univariate descriptive statistics - weighted stigma mean scores and stigma item weighted proportions. For each stigma item, Likert responses, ranging from 1 (lowest level of stigma) to 4 (highest level of stigma), are dichotomized into "positive/yes" and "negative/no." Certain stigma items are reverse coded to ensure "1" indicates the lowest level of stigma and "4" indicates the highest level of stigma. Stigma scales and subscales are calculated as the mean for all non-missing values of the composite stigma items. Stigma scales include public stigma (14 items), structural stigma (5 items), and MOUD stigma (4 items) (See Appendix II). Public stigma can be deconstructed into three subscales:

traditional prejudice (5 items), home life social distancing (5 items), and workplace social distancing (4 items). Mean scores are calculated by summing the responses for all scale items and dividing by the number of items comprising the scale. Respondents answering zero of the composite scale items are excluded from analysis, while respondents answering at least one of the items are included. Additional missing responses are dropped on a model-by-model basis. Adjusted Wald tests are utilized to compare stigma means and item proportions, and the F-statistic is considered significant at the $p<0.05$ level.

This report specifically details cross-sectional analyses examining changes in U.S. addiction stigma from 2021 to 2024. The analysis only includes comparisons of stigma scales and sub-scales, as well as items related to harm reduction.

Analysis Limitations

In 2024, two additional vignettes highlighting active and recovery marijuana use were added to the SASI; therefore, the 2024 SASI 12-Vignette sample cannot be compared to the 2021 SASI 10-vignette sample. Instead, comparisons can be made by pulling a 2024 SASI 10-Vignette sample (excluding individuals responding to the active/recovery marijuana use vignettes). In addition to adding new vignettes, the 2024 SASI vignettes highlight the substance type in red text, whereas there was no text color distinction for the substance type in the 2021 SASI vignettes. Highlighting the substance type in red text could inadvertently create respondent bias affecting their item responses. Therefore, comparisons of the 2021 SASI 10-Vignette sample with the 2024 SASI 10-vignette should be interpreted with caution with a noted methodological limitation.

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Table 1. Stigma Scales Change Over Time: Mean Scores, 2021 National SASI Overall Sample (N=7,826) & 2024 National SASI 10-Vignette Sample (N=6,737)

	2021 (N=7,826)	2024 (N=6,737)	Difference (p<0.05)
Public Stigma Scale	**2.54 (0.01)**	**2.59 (0.01)**	**2021 < 2024 *** **
Structural Stigma Scale	**1.81 (0.01)**	**1.84 (0.01)**	**2021 < 2024 *** **
MOUD Stigma Scale	2.28 (0.01)	2.28 (0.01)	2021 = 2024

MOUD- Medication for Opioid Use Disorder
Data Source: National SASI Survey, July 2021 ; National SASI Survey, March 2024
Note: Weighted mean (standard error); 2021 analytic sample, N=7,826, 91 cases dropped from total sample (N=7,917) due to complete missingness; 2024 analytic sample, N=6,737 (no marijuana vignettes), 92 cases dropped from total sample (N=6,829) due to complete missingness; Adjusted Wald Test *p<0.05, **p<0.01, ***p<0.001

Table 2. Public Stigma Subscales Change Over Time: Mean Scores, 2021 National SASI Overall Sample (N=7,826) & 2024 National SASI 10-Vignette Sample (N=6,737)

	2021 (N=7,826)	2024 (N=6,737)	Difference (p<0.05)
Traditional Prejudice Subscale	**2.53 (0.01)**	**2.573 (0.01)**	**2021 < 2024 *** **
Home Life Social Distance Subscale	**2.56 (0.01)**	**2.612 (0.01)**	**2021 < 2024 *** **
Workplace Social Distance Subscale	2.52 (0.01)	2.592 (0.01)	2021 = 2024

Data Source: National SASI Survey, July 2021 & National SASI Survey, March 2024
Note: Weighted mean (adjusted standard error); 2021 analytic sample, N=7,826, 91 cases dropped from total sample (N=7,917) due to complete missingness; 2024 analytic sample, N=6,737 (no marijuana vignettes), 92 cases dropped from total sample (N=6,829) due to complete missingness; Adjusted Wald Test *p<0.05, **p<0.01, ***p<0.001

Table 3. Harm Reduction Change Over Time: Positive/Agree Response Rates, 2021 National SASI Overall Sample (N=7,826) & 2024 National SASI 10-Vignette Sample (N=6,737)

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	2021 (N=7,826)	2024 (N=6,737)	Difference (p<0.05)
Willing to purchase or obtain Naloxone, a medication that can quickly help a person experiencing a life-threatening drug overdose.	**5,049 (65.1%)**	**4,686 (71.0%)**	**2021 < 2024 *****
There should be a safe injection site in your community	3,205 (42.7%)	2,825 (43.7%)	2021 = 2024
Fentanyl testing strips should be free and available to people who use drugs.	**5,008 (64.8%)**	**4,836 (72.7%)**	**2021 < 2024 *****

Data Source: National SASI Survey, July 2021 & National SASI Survey, March 2024
Note: Unweighted frequency (weighted %); 2021 analytic sample, N=7,826, 91 cases dropped from total sample (N=7,917) due to complete missingness; 2024 analytic sample, N=6,737 (no marijuana vignettes), 92 cases dropped from total sample (N=6,829) due to complete missingness; Adjusted Wald Test *p<0.05, **p<0.01, ***p<0.001

APPENDIX I: DEMOGRAPHIC CHARACTERISTICS

Table 1. Demographic Characteristics, 2021 National SASI Overall Sample (N=7,826)

	(N=7,826)
Gender	
Male	3,740 (46.5%)
Female	4,086 (53.5%)
Age	
18-29	820 (17.5%)
30-44	1,771 (28.1%)
45-59	2,125 (24.9%)
60+	3,110 (29.5%)
Race/Ethnicity	
White, non-Hispanic	5,741 (63.5%)
Black, non-Hispanic	688 (11.6%)
Hispanic	853 (16.4%)
Other/2+ Race, non-Hispanic	544 (8.5%)
Marital Status	
Married	4,902 (57.8%)
Widowed/Divorced/Separated	1,323 (14.7%)
Never Married	1,601 (27.5%)
Education	
No high school diploma or GED	471 (10.3%)
High school graduate (high school diploma or the equivalent GED)	1,852 (26.3%)
Some college or Associate's degree	2,375 (30.3%)
Bachelor's degree or higher	3,128 (33.1%)

Employment Status	
Unemployed	3,275 (39.3%)
Employed	4,550 (60.7%)
Household Income	
Less than $50,000	2,099 (30.0%)
$50,000 to $99,999	2,581 (31.3%)
$100,000 or more	3,146 (38.7%)
Residents by Region	
Northeast	1,538 (19.2%)
Midwest	1,680 (20.6%)
South	2,834 (37.0%)
West	1,774 (23.2%)

GED - General Education Degree
Data Source: National SASI Survey, July 2021
Note: Unweighted frequency (weighted %); Analytic sample, N=7,826, 91 cases dropped from total sample (N=7,917) due to complete missingness
Northeast region states: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.
Midwest region states: Indiana, Illinois, Iowa, Kansas, Michigan, Minnesota, Montana, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.
South region states: Alabama, Arkansas, DC, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
West region states: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming.

Table 2. Demographic Characteristics, 2024 National SASI 10-Vignette Sample (N=6,737)

	(N=6,737)
Gender	
Male	3,214 (46.8%)
Female	3,523 (53.2%)
Age	
18-29	799 (18.6%)
30-44	1,599 (26.5%)
45-59	1,739 (24.6%)
60+	2,600 (30.2%)
Race/Ethnicity	
White, non-Hispanic	4,720 (60.9%)
Black, non-Hispanic	675 (11.2%)
Hispanic	805 (17.0%)
Other/2+ Race, non-Hispanic	537 (10.9%)
Marital Status	
Married	3,924 (54.0%)
Widowed/Divorced/Separated	1,216 (15.8%)
Never Married	1,597 (30.2%)
Education	

No high school diploma or GED	381 (9.6%)
High school graduate (high school diploma or the equivalent GED)	1,571 (25.3%)
Some college or Associate's degree	1,844 (29.3%)
Bachelor's degree or higher	2,941 (35.8%)
Employment Status	
Unemployed	2,741 (39.2%)
Employed	3,994 (60.8%)
Household Income	
Less than $50,000	1,644 (25.1%)
$50,000 to $99,999	1,895 (29.4%)
$100,000 or more	3,198 (45.5%)
Residents by Region	
Northeast	1,214 (17.5%)
Midwest	1,432 (19.9%)
South	2,445 (37.4%)
West	1,646 (25.2%)

Data Source: National SASI Survey, March 2024
Note: Unweighted frequency (weighted %); Analytic sample, N=6,737 (no marijuana vignettes), 92 cases dropped from total sample (N=6,829) due to complete missingness
Northeast region states: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.
Midwest region states: Indiana, Illinois, Iowa, Kansas, Michigan, Minnesota, Montana, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.
South region states: Alabama, Arkansas, DC, Delaware, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.
West region states: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming.

APPENDIX II: STIGMA SCALES AND ASSOCIATED ITEMS, SHATTERPROOF ADDICTION STIGMA INDEX

Scale	Description	Subscale/s	Item/s
Public Stigma	Measures stigmatizing attitudes and beliefs about people with substance use disorders, including indicators of traditional prejudice and preference for social exclusion.	Home Life Social Exclusion	How willing would you be to move next door to John?
			How willing would you be to spend an evening socializing with John?
			How willing would you be to have a group home for people like John opened in your neighborhood?
			How willing would you be to have John marry into your family?
			How willing would you be to have John as a close personal friend?
		Workplace Social Exclusion	How willing would you be to have John start working closely with you on a job?
			How willing would you be to hire John to do work for you?
			How willing would you be to have John as your supervisor at work?
			How willing would you be to have John as your co-worker?

		Traditional Prejudice	In your opinion, how able is John to make his own decisions about managing his own money?
			People like John are unpredictable.
			In your opinion, how likely is it John would do something violent toward other people?
			In your opinion, how likely is John to be trustworthy?
			In your opinion, how likely is John to be competent?
Scale	**Description**		**Item/s**
Structural Stigma	Measures support for discrimination against people with substance use disorders in major social institutions.		Employers should provide opportunities for John to seek treatment and stay employed.
			If John wanted to go to treatment, his health insurance should be required to cover it in the same way they would cover any other chronic illness.
			Healthcare providers should care for someone like John just as they would treat anyone else with a chronic illness.
			Schools should be allowed to expel someone like John if they found out about his problems.
			People who are addicted to drugs should receive treatment instead of being sentenced to prison for drug-related, non-violent crimes.
Scale	**Description**		**Item/s**
MOUD Stigma	Measures prejudicial attitudes toward medication-assisted treatment for OUD and people who use MOUD in their recovery		MOUD just substitutes one drug for another.
			More healthcare providers should offer MOUD so it is easily accessible to people who want it.
			MOUD is an effective treatment for OUD.
			I would be willing to have a clinic that provided MOUD to people with OUD in my neighborhood.

MOUD – Medications for Opioid Use Disorder